COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs And Riders; And (4) An Order Approving Accounting Practices To Establish Regulatory Assets And Liabilities; And (5) An Order Granting All Other Required Approvals And Relief	)))))))))	Case No. 2017-00179

REBUTTAL TESTIMONY OF

JOHN M. MCMANUS

ON BEHALF OF KENTUCKY POWER COMPANY

VERIFICATION

The undersigned, John M. McManus being duly sworn, deposes and says he is the Vice President of Environmental Services for American Electric Power that he has personal knowledge of the matters set forth in the forgoing testimony and the information contained therein is true and correct to the best of his information, knowledge, and belief.

John M McManus

John M McManus

STATE OF OHIO	)	
	)	CASE NO. 2017-00179
COUNTY OF FRANKLIN	)	

Subscribed and sworn to before me, a Notary Public in and before said County and State, by John M. McManus, this the 2 day of November 2017.

Patrick R. Ott

Notary Public

My Commission Expires: December 31, 2019

NOTARIAL SEAL
STATE OF OHIO

PATRICK R OTT
Notary Public
In and for the State of Ohio
My Commission Expires
December 31, 2019

REBUTTAL TESTIMONY OF
JOHN M. MCMANUS, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

CASE NO. 2017-00179

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JOHN M. MCMANUS, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is John M. McManus. I am employed by American Electric Power Service Corporation as Vice President - Environmental Services. American Electric Power Service Corporation ("AEPSC") is a wholly owned subsidiary of American Electric Power Company, Inc. ("AEP"), the parent of Kentucky Power Company ("Kentucky Power" or the "Company"). My business address is 1 Riverside Plaza, Columbus, Ohio 43215.

Q. ARE YOU THE SAME JOHN M. MCMANUS WHO OFFERED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to inaccurate allegations made by Attorney General Witness Smith that, but for AEP entering into the New Source Review Consent Decree ("Consent Decree"), the Company would not have decided to retire Big Sandy Unit 2 and begun remediation of that plant's fly ash pond, refueled Big Sandy unit 1 to natural gas and acquired a 50% ownership interest in the Mitchell Plant. Prior to addressing Mr. Smith's specific allegations, I provide a history of the Consent Decree and its pertinent modifications, for reference throughout my rebuttal testimony.

II. HISTORY OF THE CONSENT DECREE

Q. CAN YOU PROVIDE THE HISTORY OF THE CONSENT DECREE?

A. Yes. To fully understand the decisions made with respect to the Consent Decree and its impact on Kentucky Power's generating assets, one must examine the history of the Consent Decree. The impetus for the Consent Decree was an enforcement action initiated by the US Environmental Protection Agency ("EPA") in 1999. As part of this enforcement action, EPA and the US Department of Justice ("DOJ") simultaneously filed complaints against several utility companies and the Tennessee Valley Authority. The complaints alleged that repairs to and replacements of components at numerous coal-fired generating units over an approximate 20-year period were not routine maintenance, repair and replacement, but instead were major modifications that caused significant net increases in emissions, and triggered permitting requirements and obligations to install the best available control technology ("BACT") to minimize emissions of sulfur dioxide ("SO_2") and nitrogen oxides ("NO_x") from those units. BACT would require flue gas desulfurization technology for SO2 and selective catalytic reduction technology for NOx with stringent unit-specific emission limits.

Q. WHAT WAS THE NATURE OF THE COMPLAINT FILED AGAINST THE AEP OPERATING COMPANIES?

A. The complaint filed against certain AEP companies named units at five coal-fired power plants in Ohio, West Virginia, and Indiana. Separate complaints containing similar allegations were filed by eight northeastern states and fourteen citizen advocacy groups, and the cases were consolidated in the federal district court in Columbus, Ohio.

Q. DID THE EPA TAKE ACTIONS PRIOR TO THE COMPLAINT BEING FILED?

A. Yes. Prior to filing its complaint the EPA had issued information requests and/or conducted inspections at these facilities, seeking information regarding specific equipment repairs and replacements made at each unit. Those investigations continued after the initial complaint was filed, and expanded to include additional plants and units not named in the original complaint. EPA and the other parties also sought information in discovery regarding similar units at other plants. By the time a liability trial was scheduled in 2005, the amended complaints in the consolidated cases included alleged violations at units at nine plants in Indiana, Ohio, Virginia, and West Virginia. No determination on liability was ever entered by the Court, and AEP denied that any violations occurred. Although EPA had not yet commenced an investigation at either the Big Sandy or Rockport Plants, the alleged violations at the named plants in the filed complaints were based on common maintenance activities that had been undertaken at nearly all of AEP's plants.

Q. HOW WERE THE COMPLAINTS RESOLVED?

A. Parties to the complaints engaged in settlement negotiations several different times. In 2007, the parties were nearing agreement on a comprehensive settlement that would resolve all claims at all coal-fired units in the AEP Eastern

System, whether or not they were specifically asserted in the complaints. While only nine plants had been named in the filed complaints, the settlement included coal-fired units at seven additional plants in the AEP Eastern System. This comprehensive agreement gave AEP and its customers assurance that all potential claims, asserted or unasserted, that arose from actions occurring prior to the settlement were released by all parties. In addition, EPA provided a forward covenant not to sue that protected all of the units from any future claims during the period over which the settlement was being implemented. It therefore removed the risk of additional litigation, and provided certainty regarding the timing of additional control installations across the AEP fleet.

Q. CAN YOU DESCRIBE THE STRUCTURE OF THE AEP CONSENT DECREE?

A. Yes. Many other cases in the utility "enforcement initiative" had already been settled, and the typical framework for such a settlement included unit-specific control equipment installations and emission rates for each unit. In contrast, the AEP settlement was based on a schedule of control equipment installations at specific large units without specified emission rates and system-wide caps on tons of SO_2 and NOx emissions, creating a more flexible compliance framework for the system as a whole. The control equipment installations included many units where controls had already been installed in order to comply with other Clean Air Act requirements, like the SCR on Big Sandy Unit 2, which was necessary in order to comply with the Clean Air Interstate Rule ("CAIR"). The settlement also anticipated future control requirements during a period of increasingly stringent regulation of coal-fired power plants. New controls were phased in over a long period of time, and the last units to be equipped with controls were the newest coal-fired units in the AEP Eastern System – the Rockport Units. The deadlines for control installations on these units were a decade or more in the future - 2017 and 2019.

Q. CAN YOU DESCRIBE THE SYSTEM USED BY AEP TO MEET ITS CAPACITY, ENERGY, AND EMISSIONS REQUIREMENTS, AT THE TIME OF THE SETTLEMENT?

A. Yes. At the time the Consent Decree was entered, the AEP system was operated under the terms of a pooling agreement approved by the Federal Energy Regulatory Commission ("FERC"), which provided customers with greater reliability and lower overall costs. In addition, EPA had developed emission trading programs like CAIR that allowed utility units to demonstrate compliance by holding, banking, and trading allowances, and making emission reductions where they could be made most cost-effectively. The Consent Decree accommodated that pooling agreement, and its structure incorporated the flexibility and cost-effectiveness of these emission allowance trading programs. At the end of 2013, more than six years after the Consent Decree was entered by the Court, Ohio Power Company was required to divest its generating assets, and the FERC-approved pooling agreement ("Pooling Agreement") was terminated.

Q. HAVE THERE BEEN NEGOTIATED MODIFICATIONS TO THE ORIGINAL CONSENT DECREE?

A. Yes. As I discuss in Section V of my direct testimony, there have been four modifications to the initial Consent Decree, but only the Third Joint Modification is relevant to Kentucky Power. On February 22, 2013, AEP, along with the DOJ, EPA, and other parties, filed the proposed Third Joint Modified Consent Decree ("Third Modification") in the United States District Court for the Southern District of Ohio, Eastern Division. The Third Modification was approved by the Court on May 14, 2013.

Q. PLEASE EXPLAIN THE THIRD MODIFICATION AND ITS RELEVANCE TO KENTUCKY POWER.

A. The Third Modification provided for the deferral of a high efficiency flue gas desulfurization system ("FGD") until December 31, 2025 on one of the Rockport Units and until December 31, 2028 for the other Rockport Unit. In the interim, the Third Joint Modified Consent Decree required the installation of dry sorbent injection ("DSI") control technology on Rockport Units 1 and 2 by April 16, 2015. Additionally, the Third Modification replaced the requirement for installation of an FGD at Big Sandy 2 by December 31, 2015, by adding the options of retire, repower, and refuel to the option of retrofitting the unit by December 31, 2015. For reference, Table 1 below shows the applicable dates established by the original Consent Decree and those under the Third Modification.

Table 1 – Summary of the Consent Decree and Third Modification Environmental Commitment Dates

		Consent Decree [October 2007]	Third Modification [May 2013]
Big Sandy 2	SCR	January 1, 2009	*already installed*
	FGD	December 31, 2015	*no longer specified*
	Retire/Retrofit/Repower/Refuel	n/a	December 31, 2015
Mitchell 1	SCR	January 1, 2009	*already installed*
	FGD	December 31, 2007	*already installed*
Mitchell 2	SCR	January 1, 2009	*already installed*
	FGD	December 31, 2007	*already installed*
Rockport 1	SCR	December 31, 2017	*no change*
	FGD	December 31, 2017	*no longer specified*
	Retire/Retrofit/Repower/Refuel	n/a	1st unit 12/31/25; 2nd unit 12/31/28
	DSI	n/a	April 16, 2015
Rockport 2	SCR	December 31, 2019	*no change*
	FGD	December 31, 2019	*no longer specified*
	Retire/Retrofit/Repower/Refuel	n/a	1st unit 12/31/25; 2nd unit 12/31/28
	DSI	n/a	April 16, 2015

III. RESPONSE TO MR. SMITH'S TESTIMONY

Q. ON PAGE 61 OF HIS TESTIMONY, MR. SMITH CLAIMS THAT AEP INCLUDED BIG SANDY AND ROCKPORT PLANT UNITS IN THE CONSENT DECREE TO FINANCIALLY BENEFIT NON-KENTUCKY JURISDICTIONAL PLANTS. DO YOU AGREE?

A. No, I do not.

Q. PLEASE EXPLAIN THE REASONS AEP INCLUDED BIG SANDY AND ROCKPORT UNITS IN THE CONSENT DECREE.

A. As I previously discuss in Section IV, AEP included all of the coal fired units in its Eastern system, including Big Sandy and Rockport plants, in the Consent Decree settlement as a means of removing the significant risk of additional litigation at those units not named in any pending complaints. Based on similar already settled cases, it was expected that litigating each unit (including those at Big Sandy and Rockport plants) individually would lead to a less favorable outcome than the one negotiated in the settlement. The settlement also provided certainty regarding the timing of additional control installations across the AEP fleet. At the time of the settlement, AEP was still participating in the FERC Pooling Agreement, which meant that the outcome of litigation involving all units across the AEP fleet contributing to the pool was in the best interest of Kentucky Power and its customers.

Q. DOES MR. SMITH ACCURATELY REPRESENT THE IMPACT TO BIG SANDY 2 AND ROCKPORT PLANT IN THE THIRD MODIFICATION?

A. No. On page 61 of his testimony, Mr. Smith implies that the Third Modification somehow altered the fate of Big Sandy 2 and postponed the compliance date for Rockport.

As shown in Table 1 above, the Third Modification replaced the original Consent Decree requirement that Big Sandy 2 be retrofitted with an FGD by December 31, 2015 with the requirement that it be “Retrofit[ted], Retire[d], Re-power[ed], or Refuel[ed]”, by December 31, 2015. As you can see, the Third Modification only provided more options for Big Sandy 2, without changing the date of compliance.

The changes related to Rockport did not just “extend the date of compliance”, as Mr. Smith states. The Third Modification allowed for installation of lower cost DSI systems on both units by April 16, 2015, in exchange for extending the date of further, more expensive retrofit installations to 2025 and 2028. Additionally, the options of retire, repower, and refuel were added to retrofitting in 2025 and 2028.

Q. DO YOU AGREE WITH MR. SMITH'S CLAIM THAT THE CONSENT DECREE RESULTED IN THE RETIREMENT OF BIG SANDY 2, THE REFUELING OF BIG SANDY UNIT 1 AND THE REMEDIATION OF THE BIG SANDY FLY ASH POND?

A. No, I do not. The fate of Big Sandy Plant was ultimately determined by the requirements of EPA's Mercury and Air Toxics Standards (MATS) Rule. The MATS rule required coal-fired units to comply with stringent emission limits for mercury and other pollutants by April 16, 2015. In order to meet the MATS Rule requirements, both units would have had to install additional control technology or convert to natural gas firing. The Consent Decree didn't require FGD technology on Unit 2 until December 31, 2015 and did not require retrofit technology for Unit 1. While the Company filed for a certificate to install FGD on Unit 2, it was ultimately decided that the most economical approach to complying with the MATS rule was to retire Unit 2 and refuel unit 1. Once these units stopped using coal, it was necessary to begin the process of remediating the ash pond. So while the Consent Decree played a role in decisions for Big Sandy Plant, it was the MATS Rule that ultimately drove the resource decisions.

Q. **DO YOU AGREE WITH MR. SMITH'S CLAIM THAT THE MITCHELL ASSET TRANSFER WAS DRIVEN BY THE CONSENT DECREE?**

A. No, I do not. As confirmed by this Commission in its order in Case No. 2012-00578, the transfer of an undivided 50% interest in the Mitchell plant was by far more economical than installing an FGD on Big Sandy Unit 2, which would have been required to meet the MATS Rule requirements.

Q. ON PAGE 63 OF HIS TESTIMONY, MR. SMITH IMPLIES THAT THE ROCKPORT UNIT 1 SCR IS A NEW INVESTMENT THAT HAS NOT BEEN PREVIOUSLY BROUGHT BEFORE THIS COMMISSION. DO YOU AGREE?

A. No, I do not. The Company has identified to this Commission on a number of occasions that this requirement existed. Installation of SCR technology at Rockport Unit 1 was a requirement of the Consent Decree from the beginning. Kentucky Power previously identified this requirement to the Commission, including Case Nos. 2011-00401, 2012-000578, 2013-00475, and 2016-00413.

In Case No. 2011-0401, a comprehensive discussion of the Consent Decree, including the Rockport Unit 1 SCR installation, was brought before this Commission in the direct testimony of Company Witness McManus. As an exhibit to his testimony, Mr. McManus provided the Consent Decree in its entirety. In Case No. 2012-00578, Company Witness Weaver included the Rockport Unit 1 SCR installation in his resource disposition analyses. In Case No. 2013-00475, the Consent Decree requirement to install SCRs on both Rockport units was identified. Additionally, estimated costs for the Rockport

SCRs were provided in Company's response to Sierra Club discovery question #13. As a final example, Case Number 2016-00413 describes the Consent Decree requirement to install SCRs on both Rockport units, and confirms this requirement is unchanged under the Third Modification.

Q. DOES THE INSTALLATION OF AN SCR ON ROCKPORT UNIT 1 PROVIDE BENEFITS OTHER THAN COMPLIANCE WITH THE CONSENT DECREE?

A. Yes, it does. As I noted above, the structure of the Consent Decree that AEP entered into provides considerable flexibility in meeting system-wide caps along with a schedule for installation of specific controls, and reflected controls already installed and anticipated future requirements from more stringent environmental regulations. The primary regulatory driver for NOx emissions reductions over the past 13 years has been regional emission programs to address interstate transport of pollution. The specific programs are the NO_x SIP Call, CAIR, the Cross-State Air Pollution Rule ("CSAPR"), and the CSAPR Update Rule. These programs were all based on state specific emissions budget allocations. As each of these programs was put in place, the budgets were reduced and the requirements became more stringent. The CSAPR Update Rule went into effect this year and significantly reduced the NOx allowance budget for Indiana and for Rockport Plant during the ozone season. The installation of SCR on Rockport Unit 1 will provide significant benefit in meeting this more stringent program.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power Company	**)**	
For: (1) A General Adjustment Of Its Rates For	**)**	
Electric Service; (2) An Order Approving Its 2017	**)**	
Environmental Compliance Plan; (3) An Order	**)**	
Approving Its Tariffs And Riders; (4) An Order	**)**	**Case No. 2017-00179**
Approving Accounting Practices To Establish	**)**	
Regulatory Assets And Liabilities; And (5) An	**)**	
Order Granting All Other Required Approvals	**)**	
And Relief	**)**	

REBUTTAL TESTIMONY OF

DEBRA L. OSBORNE

ON BEHALF OF KENTUCKY POWER COMPANY

VERIFICATION

The undersigned, Debra L Osborne, being duly sworn, deposes and says she is Vice President Generating Assets APCO/KY, that he has personal knowledge of the matters set forth in the testimony for which he is the identified witness and that the information contained therein is true and correct to the best of her information, knowledge, and belief

Debra L. Osborne

Debra L. Osborne

STATE OF WEST VIRGINIA)
) Case No. 2017-00179
COUNTY OF KANAWHA)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Debra L. Osborne, this the 3 day of November 2017.

Maisha T. Staples

Notary Public

My Commission Expires: November 23, 2021

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Maisha T. Staples
Appalachian Power
500 Lee St. E. Laidley Tower, Suite 800
Charleston, WV 25301
My Commission Expires November 23, 2021

REBUTTAL TESTIMONY OF
DEBRA L. OSBORNE, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

CASE NO. 2017-00179

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REBUTTAL TESTIMONY OF
DEBRA L. OSBORNE, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

I. INTRODUCTION AND BACKGROUND

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Debra L. Osborne. My business address is 500 Lee Street East, Charleston, WV, 25301. I am Vice President of Generating Assets for Appalachian Power Company ("Appalachian Power" or "APCo") and Kentucky Power Company ("Kentucky Power" or "Company"). Appalachian Power and Kentucky Power are wholly-owned subsidiaries of American Electric Power Company, Inc. ("AEP")

Q. ARE YOU THE SAME DEBRA L. OSBORNE WHO FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

II. PURPOSE OF REBUTTAL TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to respond to the direct testimony of Kentucky Industrial Utility Customers Witness Lane Kollen with respect to his recommendation of a 30 year remaining service life for Big Sandy Unit 1. I also respond to Attorney General Witness Ralph Smith's concern about Mitchell ash pond closure liability.

III. FIFTEEN YEARS IS A REASONABLE REMAINING USEFUL LIFE FOR BIG SANDY UNIT 1 POST-CONVERSION

Q. WHAT IS WITNESS KOLLEN'S POSITION ON THE REMAINING USEFUL LIFE OF BIG SANDY UNIT 1?

A. Mr. Kollen challenges the 15-year remaining service life (2031) for Big Sandy Unit 1 that Kentucky Power used in establishing the proposed depreciation rates for the unit.

Q. WHY DOES HE DISAGREE WITH THE 15-YEAR REMAINING SERVICE LIFE?

A. On page 29, line 6 of his direct testimony, Mr. Kollen announces that the "Company has no plans to retire Big Sandy 1 in mid-2031," and points to the lack of a study pinpointing that date as evidence of his claim. He further argues that the 2031 date is a "carryover of a prior assumption for the plant when it was coal-fired" (at p. 29, line 8); that it was based on avoidance of costs necessary to comply with numerous environmental requirements" (at p. 29, line 12); and that the Company will continue to invest in, operate, and maintain Big Sandy 1 indefinitely" (at p. 29, line 15).

Q. DO THE SERVICE LIVES OF PLANTS REPRESENT A COMMITMENT TO RETIRE THE UNITS AS OF A DATE CERTAIN?

A. No. They reflect Kentucky Power's best current assessment. The Company uses expected service lives to manage the operations and budgeting for each unit. For example, when a piece of equipment fails, the remaining service life of the unit plays a role in determining whether to replace or repair the part.

Q. ARE SERVICE LIVES SOMETIMES ADJUSTED?

A. Yes. Service lives may be adjusted as known operational and/or economic conditions change.

Q. WHY IS THE REMAINING LIFE OF BIG SANDY UNIT 1 STILL THE SAME AS WHEN IT WAS A COAL-FIRED GENERATING UNIT?

A. The 2031 date is not a "carryover" from Big Sandy's coal-life, but a combination of previously approved depreciation timeframe and the mechanical reality that the life of the plant is limited by the lives of its critical components such as its turbines, steam drum, generator, and generator step-up transformer (GSU), none of which were replaced as part of the conversion. The conversion to natural gas kept the plant in operation longer than it could have achieved as a coal plant without modifications, but it did not replace or otherwise extend the life of the components most critical to producing power.

Q. WAS THE 2031 DATE SET TO AVOID ENVIRONMENTAL COMPLIANCE COSTS?

A. No. Mr. Kollen's reasoning is not clear on why he thinks the established service life related to avoidance of compliance costs, especially when the conversion to natural gas was a cost that allowed the unit to continue to operate in light of environmental requirements.

Q. WHAT IS MR. KOLLEN'S RECOMMENDATION ABOUT THE REMAINING SERVICE LIFE OF BIG SANDY UNIT 1?

A. Mr. Kollen recommends a 30-year remaining service life.

Q. WHAT EVIDENCE DOES MR. KOLLEN PROVIDE TO SUPPORT A 30-YEAR REMAINING SERVICE LIFE?

A. None. Mr. Kollen provides no studies of his own nor appropriately analogous plant examples to support his 30-year recommendation. Instead, he relies on an assertion about the Company's retirement "intentions"; a proposal as to the Commission's ability to make changes to depreciation rates in Integrated Resource Plan (IRP) and future rate proceedings; and the misinformed assumption that repowering a unit to burn natural gas is the same as constructing a new gas unit.

This last point is evident in his response to question 3 of Commission Staff's First Request for Information to KIUC. Mr. Kollen cites the Company's response to a Staff data request (KPCO_KPSC_2_21)as his only documentation that the useful life should be longer than 15 years. That Company response provided depreciation lives of some gas-fired units in the AEP system. However, the data request asked for projects representing AEP experience in completing projects "that include similar gas delivery activities" to that of Big Sandy Unit 1. The gas delivery system does not establish the useful life of a unit. Mr. Kollen failed to recognize that all of the units in the Company's response with depreciation lives in the 35-48 year timeframe were newly constructed as gas-fired units and were not gas conversions. A more appropriate comparison would be to APCo's Clinch River Units 1 and 2, which were conversions of coal-fired units. Converted in 2016, those units have an remaining useful life date of 2026. Placed in service in 1958, those units were 58 years old when converted and would be 68 in 2026.

Q. IS 2046, AS PROPOSED BY MR. KOLLEN, A REASONABLE RETIREMENT DATE FOR BIG SANDY UNIT 1?

A. No. Big Sandy was placed in service in 1963 and still operates with the original turbines, steam drum, generator, and GSU. By 2031, these components will be 68 years old. Even with maintenance and overhauls, the unit cannot be expected to operate an additional 15 years beyond that to an age of 83 years as Mr. Kollen suggests. Nor can investment continue indefinitely as Mr. Kollen suggests. Kentucky Power will continue to maintain and make prudent investments in Big Sandy for the benefit of its Kentucky customers. At this time, there are no known unit conditions that would prevent Big Sandy from operating until 2031.

IV. RESPONSIBILITY FOR MITCHELL ASH POND CLOSURE COSTS

Q. WHAT IS MR. SMITH'S CONCERN REGARDING THE "MITCHELL ASH PONDS"?

A. It appears to be two-fold. First, Mr. Smith suggests there is uncertainty regarding cleanup obligations related to the "Mitchell Ash Ponds." Second, despite the Commission's October 7, 2013 Order that clearly approved Kentucky Power's assumption of a 50% undivided interest in the liabilities associated with the Mitchell generating station, which included of asset retirement obligation (ARO) liabilities related to Mitchell Plant, Mr. Smith argues that Kentucky Power's liability for remediation costs of Mitchell Plant ARO obligations should be limited to the costs incurred beginning December 31, 2013 when Kentucky Power acquired a 50% undivided interest in the Mitchell Plant.

Q. ARE YOU ADDRESSING BOTH TOPICS?

A. No. In his rebuttal testimony, Company Witness Wohnhas discusses the Commission's Order in Case No. 2012-00578 approving Kentucky Power's acquisition of a 50% undivided interest in the Mitchell Plant and assumption of 50% of liabilities related to Mitchell Plant that existed as of December 31, 2013.

Q. WHICH ASH PONDS DOES MR. SMITH INCLUDE WITHIN THE TERM "MITCHELL ASH PONDS"?

A. It is unclear. He most frequently refers to the Mitchell Bottom Ash Pond and the Conner Run Impoundment. He also refers to the two ponds located at the plant but fails to name them. They are the Kammer Plant Bottom Ash Pond and the Mitchell (formerly Kammer) Plant Wastewater Pond.

Q. HAS THE OWNERSHIP AND RESPONSIBILITY FOR REMEDIATION COSTS RELATED TO THE PONDS BEEN ESTABLISHED?

A. Yes. See the table below summarizing the clean-up liabilities of each ash pond/impoundment:

Pond	Kentucky Power	Wheeling Power	AEP Generation Resources	Murray Energy (formerly Consolidated Coal Co.)
Mitchell Bottom Ash Pond	50%	50%	N/A	N/A
Conner Run Impoundment	See (a) below			
Mitchell Wastewater Pond	50%	50%	N/A	N/A
Kammer Bottom Ash Pond	N/A	N/A	100%	N/A

(a) Kentucky Power's obligation for Conner Run Impoundment is dependent on the timing of the closure of the impoundment and decreases each year until June 1, 2027 when the maximum contribution for AEP's obligation would be $5 million. The $5 million total AEP obligation would be shared as follows:

Kammer Plant - 13.5% (8% Kammer of the 59% Total Kammer&Mitchell) = $675,000
Mitchell Plant - 86.5% - Kentucky Power's 50% share = $2,162,500
Mitchell Plant - 86.5% - AEP Generation Resources' 50% share = $2,162,500

Q. IS KENTUCKY POWER RESPONSIBLE FOR THE ENTIRE AEP CONTRIBUTION PERCENTAGE OF THE CONNER RUN IMPOUNDMENT?

A. No, as summarized in the table and footnote above. For a more detailed explanation of the ARO obligations related to the Mitchell Plant ponds, please refer to the Company's response to the Attorney General's First Set of Data Requests question 1-236 and Second Set of Supplemental Data Requests questions 9 and 10.

Q. WHAT IS MR. SMITH'S RECOMMENDATION REGARDING CONNER RUN?

A. He recommends that Kentucky Power be required to clarify responsibilities for pond remediation costs at Mitchell Plant.

Q. WHAT IS YOUR RESPONSE TO HIS RECOMMENDATION?

A. I believe the Company has adequately provided a comprehensive discussion, including supporting information on the ARO responsibilities for all ash ponds/landfills related to Mitchell Plant in the Company's responses to discovery.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes it does.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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Electronic Application Of Kentucky Power Company For: (1) A General Adjustment Of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs And Riders; (4) An Order Approving Accounting Practices To Establish Regulatory Assets And Liabilities; And (5) An Order Granting All Other Required Approvals And Relief	**)**	**Case No. 2017-00179**

REBUTTAL TESTIMONY OF

MARK A. PYLE

ON BEHALF OF KENTUCKY POWER COMPANY

VERIFICATION

The undersigned, Mark A Pyle, being duly sworn, deposes and says he is the Tax Administrator for American Electric Power that he has personal knowledge of the matters set forth in the forgoing responses and the information contained therein is true and correct to the best of his information, knowledge and belief

Mark A Pyle

Mark A Pyle

STATE OF OHIO)
) 2017-00179
COUNTY OF FRANKLIN)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Mark A. Pyle, this the 3rd day of November 2017.

Pauline A Lutz

Notary Public

NOTARIAL SEAL STATE OF OHIO

My Commission Expires: ~~PAULINE A LUTZ~~
NOTARY PUBLIC - OHIO
MY COMM. EXP. 9-12-21

REBUTTAL TESTIMONY OF
MARK A. PYLE, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

CASE NO. 2017-00179

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REBUTTAL TESTIMONY OF
MARK A. PYLE, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

I. INTRODUCTION AND BACKGROUND

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Mark A. Pyle. My business address is 1 Riverside Plaza, Columbus, Ohio 43215. I am Vice President-Tax for American Electric Power Service Corporation ("AEPSC") a wholly-owned subsidiary of American Electric Power Company, Inc. ("AEP"). AEP is the parent of Kentucky Power Company ("Kentucky Power" or "Company").

Q. ARE YOU THE SAME MARK A. PYLE WHO ADOPTED THE FILED DIRECT TESTIMONY OF JEFFREY B. BARTSCH IN THIS PROCEEDING?

A. Yes, I am.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A. I earned a Bachelor of Science Degree with a major in accounting from the University of Dayton in 1983 and a Masters in Business Administration from Franklin University in 1995. I am a Certified Public Accountant licensed in the State of Ohio since 1985.

I joined the AEPSC Tax Department in 1987 as a tax accountant. Since 1987 I have served in the AEPSC Tax Department as Senior Tax Accountant, Supervisor-State Tax Compliance, Manager-State & Local Taxes, and Director-

State & Local Taxes. In my present position I am responsible for directing the tax affairs of AEP and its subsidiaries, including Kentucky Power. My oversight responsibilities include; federal state and local tax compliance, tax accounting, tax planning, tax controversy and legislative analysis. I am also responsible for coordinating the development of tax data to be provided by the AEPSC Tax Department in regulatory proceedings. Prior to joining AEPSC I worked for Ernst & Young. LLP (Ernst & Whinney) from 1983 to 1987 in various tax positions.

II. PURPOSE OF REBUTTAL TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to respond to the direct testimony of Kentucky Industrial Utility Customers Witness Lane Kollen with respect to his recommendation that the Company's gross revenue conversion factor should reflect the §199 deduction for the purpose of grossing up the operating income deficiency.

III. GROSS REVENUE CONVERSION FACTOR AND §199 DEDUCTION

Q. WHAT IS WITNESS KOLLEN'S POSITION ON INCLUDING THE §199 DEDUCTION IN THE GROSS REVENUE CONVERSION FACTOR (GRCF)?

A. On page 38, line 6 Mr. Kollen's recommends that the Commission reflect the §199 deduction in the GRCF.

Q. WHY DOES HE RECOMMEND THAT THE COMPANY'S GRCF SHOULD REFLECT THE §199 DEDUCTION FOR THE PURPOSE OF GROSSING UP THE OPERATING INCOME DEFICIENCY?

A. On page 36, line 9 of his direct testimony, Mr. Kollen asserts that "if the Company has positive taxable income from all sources then it is able to take a §199 deduction, all else equal." Mr. Kollen then continues on page 36, line 17 of his direct testimony to conclude that "if the Company is able to take a §199 deduction, then any increase in taxable income necessarily increases the §199 deduction, after allocation to the production function, all else equal. Consequently, any incremental taxable income due to the rate increases that are authorized in this proceeding and that is allocable to the production function qualifies for the §199 deduction."

Q. DO YOU AGREE WITH MR. KOLLEN'S CLAIM THAT THE COMPANY'S GRCF SHOULD REFLECT THE §199 DEDUCTION FOR THE PURPOSE OF GROSSING UP THE OPERATING INCOME DEFICIENCY?

A. No. Mr. Kollen begins with the general assertion that if a company has taxable income from all sources then the company is able to take a §199 deduction, which is not accurate in every instance. Mr. Kollen ignores a key first step in determining whether a company is eligible for a §199 deduction and that is the determination of Qualified Production Act ivies Income ("QPAI"). As I described in my direct testimony, QPAI provides the basis for applying the 9% rate to derive the §199 deduction and it is a measure of generation taxable income unique in the tax code only to the §199 deduction. As a result a company can have taxable income from all sources and still not have sufficient QPAI to claim a §199 deduction. Refer to the Exhibit MAP-R1 that provides specific instances in 2005, 2007, 2008, 2013 and 2014 where the Company had stand alone taxable income from all sources and yet did not have QPAI to derive a §199 deduction.

Q. DID KENTUCKY POWER HAVE SUFFICIENT QPAI TO CLAIM A §199 DEDUCTION IN ITS 2013, 2014, 2015 OR 2016 TAX RETURNS?

A. No. As indicated in Exhibit MAP-R1, the Company did not have sufficient QPAI in the years 2013, 2014, 2015 or 2016. Even if there were suffient QPAI in those years, stand alone federal net operating losses in 2015 and 2016 would not have permitted a §199 deduction.

Q. PLEASE RESPOD TO MR. KOLLEN'S STATEMENT THAT THERE WAS A CHANGE IN COMPANY FILING POSITION FROM PRIOR PROCEEDINGS.

A. On page 36, line 1 Mr. Kollen incorrectly asserts that "The Company also assumed that there would be no §199 deduction in the calculation of the gross revenue conversion factor ("GRCF") used to determine the income tax expense due to the rate increases. In part, this represents a change from the prior proceeding wherein the Company used a three year historic average of the §199 deduction in the calculation of income tax expense for the adjusted test year before any rate increases."

Mr. Kollen's inference is incorrect. While Kentucky Power used a three year historic average as a deduction in computing the Federal income tax liability in the prior proceeding, this was appropriate since in that case there was evidence of a §199 deduction in the historic period. Mr Kollen ignores the fact that as explained in my direct testimony, in connection with the prior proceeding the Company also looked to recent rate proceedings where the Commission did not require companies to include the §199 deduction in their calculation of the GRCF, particularly where the companies had a history of losses that did not allow them to claim a §199 deduction. Kentucky Power applied the same methodology in this proceeding. Based on this evaluation, and given that the Company is not allowed to claim this deduction, Kentucky Power did not include a §199 deduction in the calculation of GRCF.

Q. WOULD USE OF THE THREE YEAR AVERAGE FILING POSTION EMPLOYED IN THE PRIOR PROCEEDING PROVIDE A DIFFERENT RESULT IN THIS PROCEEDING?

A. No. Kentucky Power has not historically been able to claim this deduction on most of its stand-alone Federal income tax returns. This fact is evidenced by the filing of AEP's 2016 Federal income tax return, which included Kentucky Power who on a stand-alone basis was not able to claim the §199 once again. When including the results of the completed 2016 Federal income tax return, the Company's three-year historic average of the §199 deduction is zero as anticipated and therefore further supports excluding a §199 deduction in the calculation of GRCF.

Q. WHAT DO YOU RECOMMEND WITH RESPECT TO THE GRCF AND §199 IN THIS PROCEEDING?

A. I recommend the Commission adopt the Company's supported position with respect to excluding the §199 deduction in this proceeding and reject the reduction in the Company's base revenue and ES revenue requirements proposed by Mr. Kollen in his direct testimony beginning on page 39, line 16.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs And Riders; (4) An Order Approving Accounting Practices To Establish Regulatory Assets And Liabilities; And (5) An Order Granting All Other Required Approvals And Relief	)	Case No. 2017-00179

REBUTTAL TESTIMONY OF

STEPHEN L. SHARP JR.

ON BEHALF OF KENTUCKY POWER COMPANY

VERIFICATION

The undersigned, Stephen L. Sharp, being duly sworn, deposes and says he is a Regulatory Consultant, for Kentucky Power Company and that he has personal knowledge of the matters set forth in the forgoing testimony and the information contained therein is true and correct to the best of his information, knowledge and belief

Stephen L. Sharp

COMMONWEALTH OF KENTUCKY)
) 2017-00179
COUNTY OF FRANKLIN)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Stephen L Sharp, this the 3rd day of November 2017.

Judy K Rosquist
Notary Public

Notary ID Number: 571144

My Commission Expires: January 23, 2021

REBUTTAL TESTIMONY OF
STEPHEN L. SHARP JR., ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

CASE NO. 2017-00179

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**REBUTTAL TESTIMONY OF
STEPHEN L. SHARP JR., ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY**

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Stephen L. Sharp, Jr., and I am a Regulatory Consultant for Kentucky Power Company ("Kentucky Power" or "Company"). My business address is 101 A Enterprise Drive, Frankfort, Kentucky 40601.

Q. ARE YOU THE SAME STEPHEN L. SHARP JR. WHO OFFERED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is two-fold. First, I respond to the testimony of Kentucky Cable Telecommunications Association ("KCTA") Witness Kratvin regarding the Company's proposed update to the pole attachment rates in Tariff CATV. Second, I respond to the testimony of Kentucky League of Cities ("KLC") Witness Cooper regarding the Company's proposed updates to its street and outdoor lighting tariffs.

II. PROPOSED CATV POLE ATTACHMENT RATE

Q. ON PAGES 11 THROUGH 14 OF HER TESTIMONY, MS. KRAVTIN ASSERTS THAT KENTUCKY POWER DID NOT COMPLY WITH THE COMMISSION'S POLE ATTACHMENT RATE CALCULATION

METHODOLOGY. DOES THE COMPANY AGREE WITH THIS ASSERTION?

A. No. Ms. Kravtin argues that Kentucky Power's pole attachment rate calculation does not utilize weighted average per unit costs for 35, 40, and 45 foot poles as the Commission set forth in Administrative Case No. 251. Ms. Kravtin's criticism omits two important points supporting the Company's calculation.

First, in its order in Administrative Case No. 251, the Commission ruled that it would allow deviations from the calculation methodology set forth in the order when a major discrepancy exists between the contested element of the calculation and average characteristics of the utility.[1] In Case No. 2005-00341, Kentucky Power calculated pole attachment rates utilizing an average cost of all poles instead of using the per unit costs of 35, 40 and 45 foot poles. The Company made this change because in 2002, consistent with the fact that FERC does not require that investment in poles be maintained by height, it elected not to track poles by height in its property records. The Commission approved a settlement amount for CATV pole attachment rates that were calculated based on the Company's deviation from Administrative Case No. 251 in Case No. 2005-00341.[2]

Second, in that same proceeding, KCTA Witness Freeman recommended in his testimony that, because the Company no longer tracked poles by height, the

[1] *In the Matter of the Adoption of a Standard Methodology for Establishing Rates for CATV Pole Attachments*, Administrative Case No. 251, Amended Order (Admin. Case No. 251), Kentucky Public Service Commission, September 17, 1982, page 19.
[2] *In the Matter of General Adjustments of Electric Rates of Kentucky Power Company*, Case No. 2005-00341, Kentucky Public Service Commission, March 14th, 2006.

Commission accept the Company's use of the average cost of all poles in its calculation.[3]

In this case, Kentucky Power used the same methodology in calculating its proposed pole attachment that it used in Case No. 2005-00341. This methodology was approved by the Commission and agreed to by the KCTA when the Company last changed CATV Pole Attachment rates 12 years ago.

Q. MS. KRAVTIN HAS CALCULATED A PROPOSED UNIFIED POLE ATTACHMENT RATE OF $7.42 PER ATTACHMENT. DOES THE COMPANY AGREE WITH MS. KRAVITN'S CALCULATION METHODOLOGY?

A. No. As shown below, Ms. Kravtin utilizes the exact same methodology that the Company used in calculating its proposed pole attachment rates. The only difference between the Company's calculation and Ms. Kravtin's, besides the use of unified rate, is the fact she used a space factor percentage of 7.59% for a two-user CATV pole attachment instead of the Commission's prescribed 12.24%.[4] Besides a glancing reference to the "widely-applied FCC Cable Formula," Ms. Kravtin provides no basis for the use of the lower two-user space factor percentage.

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[3] *In the Matter of General Adjustments of Electric Rates of Kentucky Power Company*, Case No. 2005-00341, KCTA Witness James W. Freeman, January 9th, 2006, page 6.

[4] *In the Matter of the Adoption of a Standard Methodology for Establishing Rates for CATV Pole Attachments*, Administrative Case No. 251, Amended Order (Admin. Case No. 251), Kentucky Public Service Commission, September 17, 1982, page 15.

Kentucky Power - KCTA Rate Comparison		Kentucky Power Two-User	Kentucky Power Three-User	KCTA - Witness Kravtin Two-User	KCTA - Witness Kravtin Three-User
		(A)	(B)		
Ln 1	Average Net Bare Pole Cost	$ 270.90	$ 270.90	$ 270.90	$ 270.90
Ln 2	Carrying Charges	36.10%	36.10%	36.10%	36.10%
Ln 3	Space Factor	12.24%	7.59%	7.59%	7.59%
Ln 4	**Rate (Ln 1 * Ln 2 * Ln 3)**	**$ 11.97**	**$ 7.42**	**$ 7.42**	**$ 7.42**

Q. DOES THE COMPANY OBJECT TO UNIFIED CATV POLE ATTACHMENT RATE?

A. No. The Company is open to utilizing a unified pole attachment provided the rate is sufficient to allow the Company to recover its costs in providing CATV pole attachments. The rate proposed by Ms. Kravtin does not do so.

Q. HOW WOULD THE COMPANY CALCULATE A UNIFIED POLE ATTACHMENT RATE?

A. The Company would use a calculation methodology similar to the one Ms. Kravtin proposed in her testimony in Case No. 2014-00371.[5] Under this methodology, the Company would calculate two-user and three-user pole attachment rates as it proposed in this case. Next, the Company would multiply each calculated rate by the percentage of two-user and three-user pole attachments. At the end of the Company's test year, the Company had 141,921 pole attachments – 44.26% of the attachments were two-user attachments and 55.74% of the attachments were three-user attachments. Finally, the Company would add the user percentage calculated two- and three-user rates to determine the unified rate that would fully recover the Company's costs. The following table illustrates the Company's calculation:

[5] *In the Matter of: Application of Kentucky Utilities Company For An Adjustment of Its Electric And Gas Base Rates,* Case No. 2014-00371, Direct Testimony of Patricia D. Kravtin, March 6, 2015.

Kentucky Power - KCTA Rate Comparison		Kentucky Power Two-User	Kentucky Power Three-User
		(A)	(B)
Ln 1	Average Net Bare Pole Cost	$ 270.90	$ 270.90
Ln 2	Carrying Charges	36.10%	36.10%
Ln 3	Space Factor	12.24%	7.59%
Ln 4	**Rate (Ln 1 * Ln 2 * Ln 3)**	**$ 11.97**	**$ 7.42**
Ln 5	No. of Pole Attachments	62,819	79,102
Ln 6	% of Pole Attachments	44.26%	55.74%
Ln 7	Rate * % of Pole Attachments	$ 5.30	$ 4.14
Ln 8	**Unified Rate (Ln 7A + Ln 7B)**	**$**	**9.44**

III. CHANGES TO THE COMPANY'S STREET LIGHTING RATE STRUCTURE

Q. ON PAGE 2 OF HIS TESTIMONY, KLC WITNESS COOPER DESCRIBES A FLUCTUATING STREET LIGHTING RATE. IS MR. COOPER'S DESCRIPTION OF THE PROPOSED CHANGES TO THE STREET LIGHTING RATE ACCURATE?

A. No. As discussed in detail on pages 23 and 24 of my direct testimony, the Company is proposing, for issues relating to its billing software, to separate the base fuel rate portion of the street lighting rate from the remainder of the street lighting charges. This change will allow the Company to more efficiently update rates when the base fuel rate is changed. While this change will produce monthly variability in street lighting charges, the total annual amount charged will be the same as if it were calculated using the prior method.

Q. ARE THERE OTHER FACTORS THAT COULD RESULT IN VARIATIONS IN STREET LIGHTING BILLS?

A. Yes. Street lighting bills have and will continue to be subject to adjustment factors that will adjust monthly (Fuel Adjustment Clause, Environmental Surcharge) or annually (Capacity Charge, Decommissioning (formerly Big Sandy Retirement) Rider, System

Sales Clause, Purchase Power Adjustment). These adjustments will cause variations when applied to street lighting bills.

Q. MR. COOPER ALSO IDENTIFIED, ON PAGES 3 AND 4 OF HIS TESTIMONY, CONCERNS ABOUT MUNICIPALITIES BEING CONFUSED ABOUT THEIR ELECTRIC BILLS. DOES THE COMPANY PROVIDE SERVICES THAT ITS MUNICIPAL CUSTOMERS CAN UTILIZE TO ALLEVIATE ANY BILL CONFUSION?

A. Absolutely. The Company's local Customer Service Representatives are available to assist any customers, including municipal customers, with billing questions. It has been the Company's experience that many city officials have taken advantage of this service.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power	)	
Company For (1) A General Adjustment Of Its	)	
Rates For Electric Service; (2) An Order	)	
Approving Its 2017 Environmental Compliance	)	Case No. 2017-00179
Plan; (3) An Order Approving Its Tariffs And	)	
Riders; And (4) An Order Approving Accounting	)	
Practices To Establish Regulatory Assets And	)	
Liabilities; And (5) An Order Granting All Other	)	
Required Approvals And Relief	)	

REBUTTAL TESTIMONY OF

ALEX E. VAUGHAN

ON BEHALF OF KENTUCKY POWER COMPANY

VERIFICATION

The undersigned, Alex E. Vaughan, being duly sworn, deposes and says he is the Manager, Regulatory Pricing and Analysis that he has personal knowledge of the matters set forth in the forgoing testimony and the information contained therein is true and correct to the best of his information, knowledge and belief.

Alex E. Vaughan

STATE OF OHIO	)	
	)	Case No. 2017-00179
COUNTY OF FRANKLIN	)	

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Alex E. Vaughan, this the 3rd day of November 2017.

NOTARIAL SEAL ★ STATE OF OHIO ★

Princess M. Brown
Notary Public, State of Ohio
My Commission Expires 04-19-2020

Notary Public

Notary ID Number :

My Commission Expires: 4/19/2020

REBUTTAL TESTIMONY OF
ALEX E. VAUGHAN
ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

CASE NO. 2017-00179

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REBUTTAL TESTIMONY OF
ALEX E. VAUGHAN ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND PRESENT POSITION.

A. My name is Alex E. Vaughan, and I am employed by American Electric Power Service Corporation ("AEPSC") as Manager, Regulated Pricing and Analysis. My business address is 1 Riverside Plaza, Columbus, Ohio 43215. AEPSC is a wholly-owned subsidiary of American Electric Power Company, Inc. ("AEP"), the parent Company of Kentucky Power Company (the "Company" or "Kentucky Power").

Q. ARE YOU THE SAME ALEX E. VAUGHAN WHO OFFERED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to intervenor testimony regarding cost allocation, rate design, cost of service, and the Company's proposed tariffs. In particular, I am responding to intervenor testimony on the following subjects:

- The Company's proposed changes to Tariff P.P.A;
- The Company's proposed revenue allocation;
- The Company's proposed residential basic service charge;
- The Company's proposal to eliminate Pilot Tariff K-12 Schools; and

- The Company's provision of maintenance and backup service.

Q. ARE YOU SPONSORING ANY REBUTTAL EXHIBITS OR SCHEDULES?

A. Yes, I am sponsoring the following exhibits:

- **<u>Exhibit AEV-R1</u> –** Copy of December 14, 2016 Presentation to the Commission on PJM LSE OATT charges.
- **<u>Exhibit AEV-R2</u> –** Summary of Kentucky Residential Service Charges.
- **<u>Exhibit AEV-R3</u> –** Company's Response to AG 2-39.

II. <u>PROPOSED CHANGES TO TARIFF P.P.A.</u>

Q. WHICH INTERVENOR WITNESSES PROVIDED TESTIMONY REGARDING THE COMPANY'S PROPOSED CHANGES TO TARIFF P.P.A.?

A. KIUC Witness Baron and Attorney General Witness Smith provided testimony regarding the Company's proposed changes to Tariff P.P.A.

Q. PLEASE SUMMARIZE THE TESTIMONY PRESENTED BY ATTORNEY GENERAL WITNESS SMITH REGARDING THE COMPANY'S PROPOSED CHANGES TO TARIFF P.P.A.

A. In his direct testimony, Mr. Smith provides no reason for his opposition to the Company's proposed changes to Tariff P.P.A. other than that he was advised by Counsel to do so:

> ***"I am advised by counsel that the OAG's position on the Company's proposal is that these cost of service items should continue to be collected through base rates as KPCo has not demonstrated a compelling reason to have these cost of service items tracked and recovered through Tariff PPA"***

In response to discovery, Mr. Smith appears to have adopted the same bases for objecting to the Company's proposed changes to Tariff P.P.A. as KIUC Witness Baron.[1]

Q. PLEASE SUMMARIZE KIUC WITNESS BARON'S POSITION ON THE COMPANY'S PROPOSED CHANGES TO TARIFF P.P.A.

A. On page 33 of his testimony, KIUC Witness Baron offers two reasons for opposing the Company's proposed changes to Tariff P.P.A. They relate exclusively to the portion of the changes relating to the Company's PJM LSE OATT expenses.

First, Mr. Baron alleges that the Company's proposal will significantly limit this Commission's jurisdiction and ratemaking authority over retail Kentucky Power transmission charges. Second, he argues that the Company's proposal will likely substantially increase costs to Kentucky customers in future years. At bottom, Mr. Baron's proposal is for customers to not pay their full cost of transmission service and would deprive the Company of an opportunity to earn its allowed return as determined by this Commission

Q. DOES KENTUCKY POWER'S PROPOSAL TO TRACK AND RECOVER ITS PJM LSE OATT EXPENSE THROUGH TARIFF P.P.A. DEPRIVE THE COMMISSION OF JURISDICTION OVER KENTUCKY POWER'S TRANSMISSION CHARGES?

A. No. The Company has proposed to include the adjusted test year amount of PJM LSE OATT expense in base rates and track the difference between that amount and actual expenses going forward using over/under deferral accounting. The

[1] Attorney General's response to KPCO 1-14.

proposed Tariff P.P.A. rate has been set to zero since the adjusted test year amount was included in base rates. The Company proposes to adjust the Tariff P.P.A. rate annually based on actual costs incurred. At the time of the annual Tariff P.P.A. adjustment, Commission Staff will be able to review the Company's calculations and the level of actual PJM LSE OATT expense incurred by the Company for serving its Kentucky retail customers. Furthermore, the Commission in this proceeding will determine the appropriate transmission cost of service for the Company's Kentucky retail jurisdictional transmission assets which have been included in the Company's proposed base rate cost of service. Under the Company's proposal, the Commission is in no way abdicating its jurisdiction and ratemaking authority over retail Kentucky Power transmission charges.

Q. DOES THE FACT THAT THE COMPANY'S PJM LSE OATT EXPENSE IS LIKELY TO INCREASE IN THE FUTURE MAKE THE COMPANY'S PROPOSED CHANGES TO TARIFF P.P.A. INAPPROPRIATE?

A. No. The Company does not deny that its PJM LSE OATT expense is expected to increase in the future; in fact, I discuss that in my direct testimony on page 27 and in response to discovery requests. These costs, however, are not within the Company's control. To the extent that the Company incurs costs for PJM LSE OATT expense that are higher than what is embedded in base rates, the Company's earned return will decrease due to non-recovery of FERC approved purchased transmission expense. This expense / recovery imbalance could force the Company into more frequent rate cases, as discussed by Company Witness Satterwhite.

In addition to allowing the Company an opportunity to earn its authorized rate of return, the Company's proposal to recover incremental PJM LSE OATT expense through Tariff P.P.A. avoids "lumpy" rate increases for customers that result from base rate cases.

Q. HOW ARE THE PJM LSE OATT CHARGES BEYOND THE COMPANY'S CONTROL?

A. The only PJM LSE OATT charges that are under the Company's control to some extent are those related to Kentucky Power's annual transmission revenue requirement it submits to PJM which are less than roughly 5%[2] of its total PJM LSE OATT charges.

The Company's PJM LSE OATT charges are a function of required transmission maintenance and capital investment across the PJM footprint, whether it is in the AEP transmission zone or not. The Company has no more control over transmission maintenance costs and investment decisions its affiliates make inside the AEP zone than it does over those made by other PJM transmission owners outside of the AEP zone. Ensuring the continued reliable operation of the transmission system is the obligation of every transmission owner within PJM. This obligation drives the significant transmission investment that has been occurring in PJM. The PJM LSE OATT charges for which the Company is

[2] The Company's annual transmission revenue requirement is allocated amongst all LSEs in the AEP transmission zone and is subject to the cost allocation methodology established in the FERC-approved AEP Transmission Agreement.

requesting recovery of in this proceeding represent the Company's share of the costs associated with this obligation.

Additional information about the derivation of the Company's PJM LSE OATT charges are included in **EXHIBIT AEV-R1**. **EXHIBIT AEV-R1** is a copy of a presentation made to the Commission by the Company on PJM LSE OATT charges on December 14, 2016.

Q. ON PAGE 34 OF HIS TESTIMONY MR. BARON STATES "ALSO, BECAUSE THE COMPANY IS NOT PROPOSING TO INCLUDE POTENTIAL INCREASES IN ITS SHARE OF AEP TRANSMISSION OWNER REVENUES THAT WOULD LIKELY INCREASE OVER TIME AS INVESTMENT INCREASES, THE COMPANY'S PROPOSAL MIGHT RESULT IN EXCESSIVE EARNINGS." DO YOU AGREE WITH MR. BARON'S CONCERNS?

A. No, and his statement reveals a fundamental misunderstanding of how PJM Transmission Owner OATT revenues are treated under the AEP Transmission Agreement. Under the Transmission Agreement, the Company is directly assigned its annual transmission revenue requirement as filed with PJM; it does not receive an allocation of the total AEP PJM annual transmission revenue requirement. If the Company were to include its PJM Transmission Owner revenues in the proposed Tariff P.P.A. tracking mechanism, it would lead to a situation where if the Company were to invest in its Kentucky transmission system between base rate cases its earnings would be reduced automatically through the monthly Tariff P.P.A. accounting. This is because a change in the transmission revenue requirement is a direct result of a change in Kentucky Power's transmission investment and O&M, which is also part of base rates and not tracked, and not its LSE OATT expense. This would be a strong disincentive for the Company to invest in its Kentucky transmission infrastructure.

III. THE COMPANY'S PROPOSED REVENUE ALLOCATION

Q. WHICH INTERVENOR WITNESSES PROVIDED TESTIMONY REGARDING THE ALLOCATION OF THE COMPANY'S PROPOSED REVENUE REQUIREMENT?

A. Testimony on revenue allocation was provided by the following intervenor witnesses: KIUC Witness Baron, KCUC Witness Higgins, KLC Witness Pollock, KSBA Witness Willhite, and Walmart Witness Tillman. Only the Attorney General and the Kentucky Cable Telecommunication Association elected not to file testimony on revenue allocation.

Q. ARE THERE ANY BACKGROUND ISSUES RELATING TO REVENUE ALLOCATION THAT MUST BE CLARIFIED BEFORE RESPONDING TO INTERVENOR TESTIMONY?

A. Many of the intervenors in this case have provided testimony regarding tariff class rates of return and subsidies as calculated by the Company's class cost of service study. It is important to clarify the definition of class rate of return. A class rate of return is meant to measure the percentage return the Company is earning on the amount of rate base used to serve said customer class as allocated to that class by the class cost of service study. If a class rate of return is less than the total rate of return (average for all classes), then that class is paying less of a return than they should be and the opposite is true if the class rate of return is greater than the total rate of return. A class rate of return has to be less than 0% for that class to not be covering the Company's basic cost of serving that particular class of customers, excluding both debt/interest costs and equity costs. At a 0% class rate of return, the class has covered its basic cost of service, but has not provided the Company with any of its required return on its investment. These clarifications are important to guide the discussion of class subsidies and revenue allocation between the classes.

Q. PLEASE SUMMARIZE THE VARIOUS REVENUE ALLOCATION PROPOSALS OFFERED IN INTERVENOR DIRECT TESTIMONY.

A. No party contests the Company's use of class rate base to apportion the requested revenue increase; however, there exists among the intervenors who filed testimony on the matter have differing opinions regarding how much the current inter-class subsidies should be reduced in this case. The following table provides a summary of the intervenors' proposals included in their direct testimonies:

Proposed Current Class Subsidy Reduction Proposals	
Party	**% of Subsidy Reduction**
Company	5%
KIUC	100% for IGS, 5% for all other classes
KLC	22%
KCUC	50%
AG	No recommendation
Walmart	Does not oppose Company's proposal

Q. PLEASE DISCUSS THE COMPANY'S PROPOSED REVENUE ALLOCATION IN LIGHT OF THE INTERVENOR PROPOSALS.

A. By allocating the requested rate increase on the basis of class rate base, each customer class will receive its fair share of the proposed revenue increase. This is a point that no party in this case has disputed. The point of contention is how much of the current inter-class subsidy should be reduced at this time. The Company has not changed its original position that the current inter-class subsidies should be reduced gradually over time. The Commission should adopt the Company's proposed 5% subsidy reduction rather than the more aggressive proposals advanced by the parties in this proceeding to avoid disproportionate rate impacts on the residential class, which is the primary recipient of current subsidies.

Q. DO YOU HAVE ADDITIONAL COMMENTS REGARDING THE REVENUE ALLOCATION IN THIS PROCEEDING?

A. Yes. Ultimately, revenue allocation is a policy decision. In addition to the magnitude of the current inter-class subsidies, the Commission may wish to consider factors such as price sensitivity and competitiveness. The Company's industrial class is by far the most price-sensitive of all the Company's classes since electricity costs generally represent a larger portion of these customers' total operational costs and these customers are generally competing nationally or globally with other producers. The competitiveness of the Company's industrial electric rates is also a key factor in the Company's economic development efforts that have been discussed by Company Witnesses Satterwhite and Hall.

IV. THE PROPOSED RESIDENTIAL BASIC SERVICE CHARGE

Q. WHICH INTERVENOR WITNESSES PROVIDED TESTIMONY ON THE RESIDENTIAL BASIC SERVICE CHARGE?

A. Attorney General Witness Dismukes provided testimony specifically addressing the Company's proposed update to the residential basic service charge.

Q. PLEASE SUMMARIZE MR. DISMUKES' TESTIMONY REGARDING THE RESIDENTIAL BASIC SERVICE CHARGE.

A. Mr. Dismukes argues that Kentucky Power's residential basic service charge should be calculated only using those costs identified as "Customer Charges" in the class cost of service study. As I will discuss further throughout this section of my rebuttal testimony, Mr. Dismukes's recommendations rely on economic theories that simply do not hold true in the Company's service territory and ignore the evidence that has been provided in this proceeding.

Q. DO YOU AGREE WITH PORTIONS OF MR. DISMUKES'S DISCUSSION ON RATE DESIGN AND CUSTOMER CHARGES?

A. Yes. I agree with Mr. Dismukes' discussion on page 17 of his testimony that costs can and should be instructive in establishing a baseline upon which prices may be set and that fixed charges do not need to strictly equal fixed costs. This is why the Company provided two different studies quantifying the full cost of customers' connection to the Company's distribution system and proposed a measured step towards that full cost in its proposed rate design. When the Company proposed the $17.50 residential basic service charge, it took into account the embedded cost of a customer's connection, the marginal cost of a customer connection during the test year, rate impacts, the percentage of residential bills that would remain tied to usage, and other factors to inform the proposed pricing decision.

Q. DO YOU AGREE WITH MR. DISMUKES'S CUSTOMER CHARGE ANALYSIS ON PAGE 24 OF HIS TESTIMONY?

A. No. Just as costs should be used to inform rate design, the same is true of cost classifications in the class cost of service study. However Mr. Dismukes has arbitrarily taken those costs classified as "customer" in the class cost of service study, divided by the number of customer bills in the test year, and declared that amount to be the reasonable level of basic service charge. This narrow view of pricing neglects the real cost of establishing and maintaining a residential customer's connection to the Company's distribution system. Arguing that there is no portion of primary and secondary distribution facilities cost associated with maintaining customers' connections simply ignores the realities of the Company's operations and how electric service is provided and maintained.

Q. WHY DID THE COMPANY PREPARE THE TWO PRICING STUDIES INCLUDED IN YOUR DIRECT TESTIMONY AS EXHIBITS AEV-2 AND AEV-3?

A. The fixed distribution cost study (Exhibit AEV-2) and the marginal customer connection study (Exhibit AEV-3) provide pricing guidance for the proposed residential basic service charge. The results of the studies guided the Company's decision to propose an increase in the residential basic service charge from $11 per customer per month to $17.50 per customer per month.

The marginal cost study uses the actual average accounting costs of establishing a residential customer connection during the test year and does not consider the cost of maintaining the connection. It represents simply what it costs to establish the next residential connection in the Company's service territory without a single kWh of energy flowing to that customer. The fixed distribution cost study is an embedded cost study focusing on the Company's actual distribution plant in service and approximates how much of that equipment is related to customer demands and how much is driven by just connecting customers to the system.

Q. ON PAGES 21 AND 22 OF HIS TESTIMONY, MR. DISMUKES TAKES ISSUE WITH THE FIXED DISTRIBUTION COST STUDY BY STATING "THE COMPANY MAKES THE SAME FALLACY BY ASSIGNING A PORTION OF ITS PRIMARY AND SECONDARY-VOLTAGE DISTRIBUTION SYSTEMS AS BEING FIXED RELATIVE TO THE NUMBER OF CUSTOMERS TAKING SERVICE OFF OF ITS SYSTEM." ARE MR. DISMUKES' CONCERNS WARRANTED?

A. No. It is nonsensical to argue that all costs of constructing and maintaining the radial distribution system are either based upon kWh of usage or kW demands. The number of customers, the geographic density of the customer base, and the topography of the area in which the customers have chosen to live are drivers in both the design and in the ultimate distribution cost of service. Mr. Dismukes admits that he did not even consider the impact that the mountainous terrain and low customer density within the Company's service territory may have on the costs of constructing and maintaining the distribution system.[3] The academic theory that no secondary or primary voltage level distribution costs are associated with establishing and maintaining customers' connections that is being advanced by Mr. Dismukes does not hold water in the real world.

Q. IS THE COMPANY'S PROPOSED RESIDENTIAL BASIC SERVICE CHARGE REASONABLE?

A. Yes. It is reasonable both from a cost of service perspective and by comparison to the other electric service providers in Kentucky. Mr. Dismukes compares the Company's proposed residential basic service charge to other investor-owned utilities ("IOUs") in the region in his exhibit DED-6. However a more relevant comparison is to the IOUs and electric cooperatives that operate within Kentucky. This comparison is provided in **EXHIBIT AEV-R2**. This comparison is more relevant when judging the reasonableness of the Company's proposal because of the comparison between what the Company's customers would be paying versus what other citizens of the Commonwealth pay for their electric service, particularly those with similar service territories to Kentucky Power. The average residential basic service charge in Kentucky is $15.51 per customer per month, with the lowest being $8.97 and the highest being $23.40. The Company's proposal is clearly within the range of reason when compared to its Kentucky peers.

Q. IS MR. DISMUKES' DISCUSSION OF LOW INCOME USAGE TRENDS ON PAGES 28-31 OF HIS TESTIMONY TRUE FOR THE COMPANY'S SERVICE TERRITORY?

[3] Attorney General's response to KPCO 1-15(b).

A. No. His discussion and conclusions regarding the usage trends of low income customers may be true elsewhere in the nation but are patently false for the Company's Kentucky service territory. During the historic test year the Company's lower income customers (those who receive assistance through the HEAP program) used 1,392 kWh per month on average while the entire residential population used 1,246 kWh per month on average. The same relationship is true for the previous five calendar years.[4] The relationship between income and average usage in the Company's Kentucky service territory is opposite from what is often observed elsewhere in the nation due to the high correlation of low income with electric heating. In my rate design and cost of service work for the Company's affiliate Appalachian Power Company, I have observed the same pattern of low income equating to higher average usage in its West Virginia and Virginia service territories. Mr. Dismukes ignores the evidence that is specific to the Company's service territory and rather relies on census data and general economic theory. To put a fine point on this, the rate design recommendation of the Office of the Attorney General, at any level of rate increase, will have a greater bill impact on the Company's low income customers than would the Company's proposed residential rate design.

V. ELIMINATION OF PILOT TARIFF K-12 SCHOOLS

Q. SHOULD THE PILOT TARIFF K-12 SCHOOLS BE CONTINUED AS SUGGESTED BY KSBA WITNESS WILLHITE?

[4] KPCO_R_2_39_Attachment1.xlsx included in the Company's response to AG discovery request 2-39 included as **EXHIBIT AEV – R3**.

A. No. The schools that have been taking service under this pilot tariff since the Company's last base rate case should be returned to the standard LGS tariff. In fact, based on the load research data collected during the pilot period, the Company's class cost of service study shows that if these school customers were to remain as a separate class from the rest of LGS, and the $500,000 subsidy provided to the schools class from the remainder of the LGS class were eliminated, more cost would be allocated to the schools and their rates would be higher than if they returned to the LGS class. Based upon the actual load research data for the schools, there is nothing about the schools from a cost of service standpoint that they should be separated from and given a discount relative to the other 100 kW to 1,000 kW general service customers.

VI. MAINTENANCE AND BACKUP SERVICE

Q. ON PAGES 20 THROUGH 27, KIUC WITNESS BARON ARGUES THAT THE COMPANY DOES NOT OFFER MAINTENANCE AND BACKUP SERVICE. DO YOU AGREE WITH THIS ASSERTION?

A. No. The Company offers maintenance and backup service under its existing Tariff I.G.S. If a customer has unique maintenance and backup requirements that they feel cannot be met under the terms of the Company's Tariff I.G.S., the customer can request a special contract from the Company to address these unique service needs, subject to approval by the Commission.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

PJM Transmission Service Costs

Kentucky Power Company

December 14, 2016

GOALS FOR THE PRESENTATION

- Provide background to assist the Commission in understanding Kentucky Power’s costs associated with PJM’s transmission system
- Specifically, develop an understanding of:
  - The types of PJM transmission service costs incurred by Kentucky Power
  - How Kentucky Power’s transmission costs are developed

PRESENTATION OUTLINE

- PJM Transmission Cost Context
- Kentucky Power’s Role in the PJM Transmission System
- Type and Derivation of Kentucky Power’s PJM Transmission Service Costs
  - Transmission Enhancement Charges
  - Network Integration Transmission Service (NITS)
- Recent Developments at FERC

PJM TRANSMISSION COST CONTEXT

- PJM is a market for energy, ancillary services, and transmission services
- PJM Costs fit into three broad categories:
  - Energy & Ancillary Services
  - Transmission Services
  - Administrative
- Monthly PJM bill includes multiple billing line items for all three categories

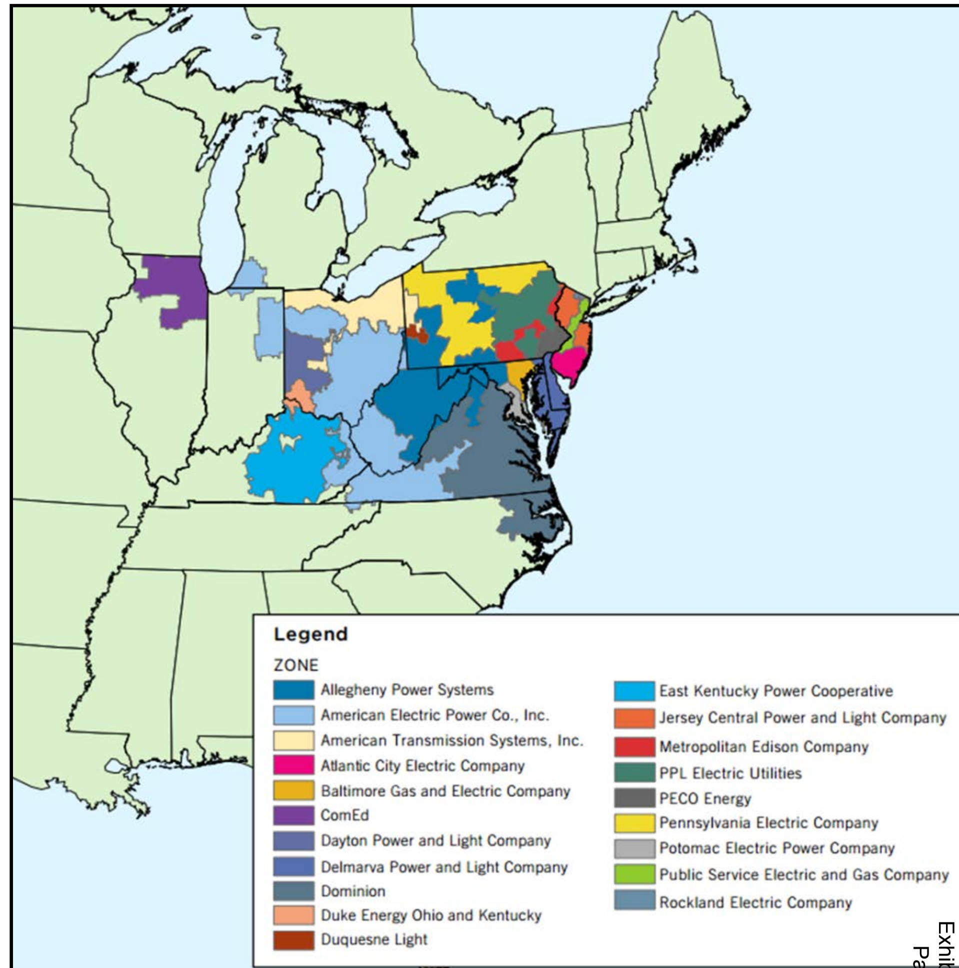


Exhibit AEV R1
Page 4 of 32

KENTUCKY POWER’S ROLE IN PJM

- Kentucky Power is a Transmission Owner
  - Kentucky Power receives revenues from PJM for its annual transmission cost of service
- Kentucky Power is a Load Serving Entity (LSE)
  - KPCo incurs PJM Open Access Transmission Tariff (OATT) LSE charges for the transmission service its retail customers use
- Kentucky Power is a Generation Owner

PJM TRANSMISSION SERVICE CHARGES

Planning and Project Types

PJM TRANSMISSION SERVICE CHARGES

- Two Major Categories of PJM Transmission Service Charges
  - Transmission Enhancement Charges
    - Charges associated with transmission facilities that provide regional benefits throughout PJM
  - Network Integration Transmission Service (NITS) Charges
    - Charges associated with AEP-owned facilities that provide benefits solely to the AEP Transmission Zone
- Kentucky Power incurs both types of charges
  - BUT, has little control over the costs incurred

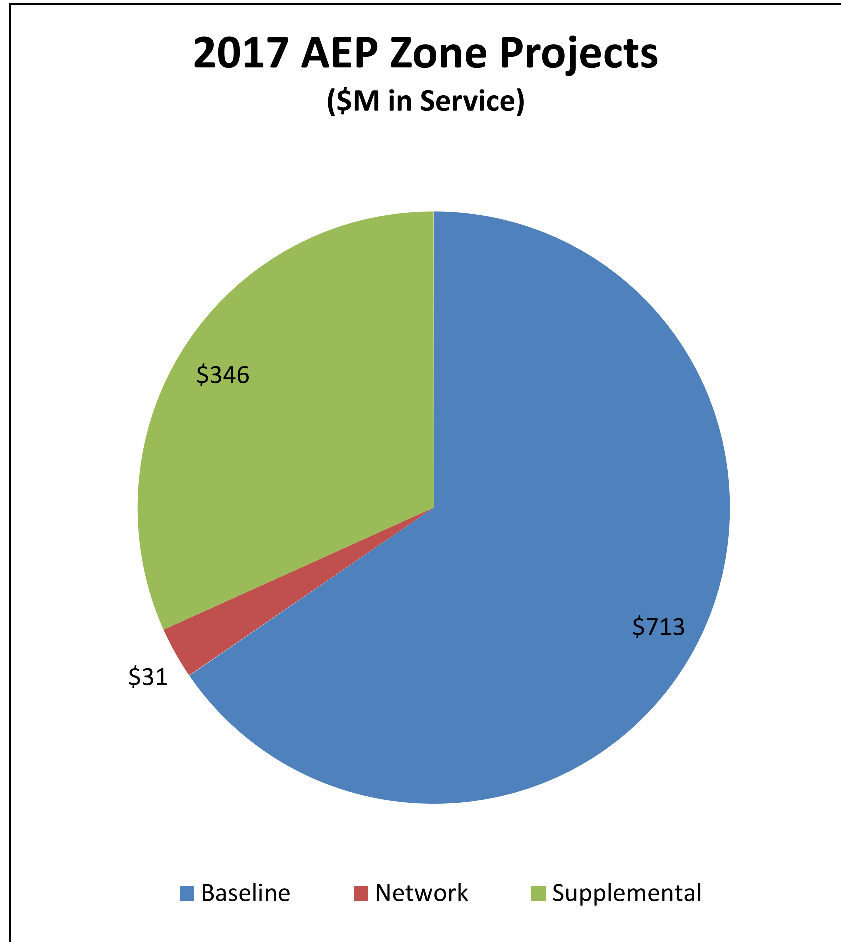
PJM TRANSMISSION PROJECTS

- PJM has three categories of projects:
  - Baseline Upgrades – Required to keep system compliant with regional reliability, market efficiency criteria, public policy and operational performance
  - Network Upgrades – Upgrades required for new service customers
  - Supplemental – Local Reliability Projects, Asset Replacements
- KPCo incurs cost associated with each category

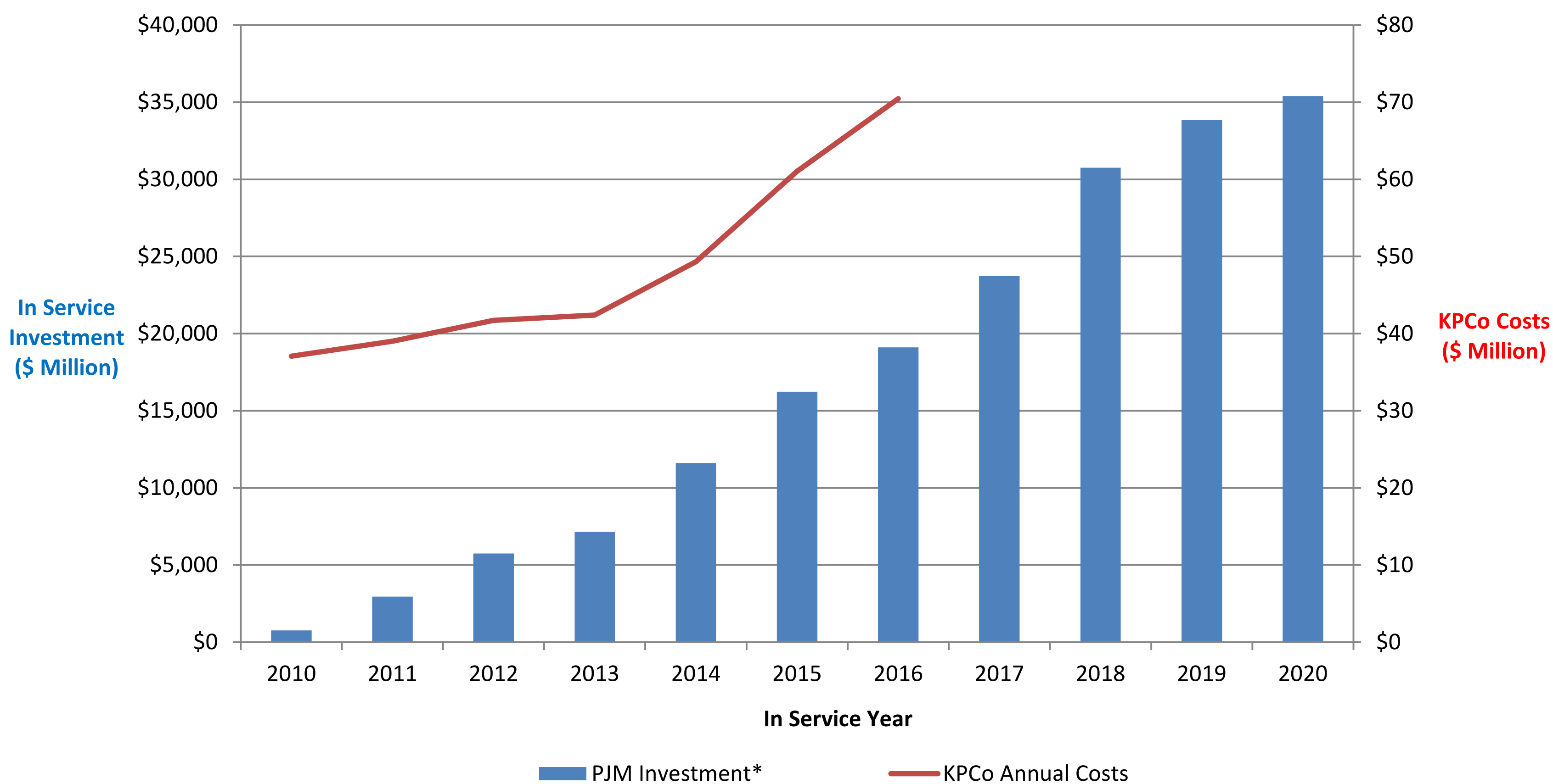
PJM TRANSMISSION PROJECTS

Cost Allocation

- Allocation of costs depends on category of project:
  - – Baseline Upgrades – assigned based on project type and beneficiary
    - Double-Circuit 345 kV and above
      - – 50% Socialized Across PJM
      - – 50% Assigned by Solution-Based DFAX
    - Other Baseline Upgrades
      - – 100% Solution-Based DFAX
  - – Network Upgrades – directly assigned to the customer requesting upgrade
  - – Supplemental – assigned to transmission zone in which the project is built



PJM INVESTMENT VS. KPCO COSTS



*Cumulative estimated cost of PJM upgrades by in-service year

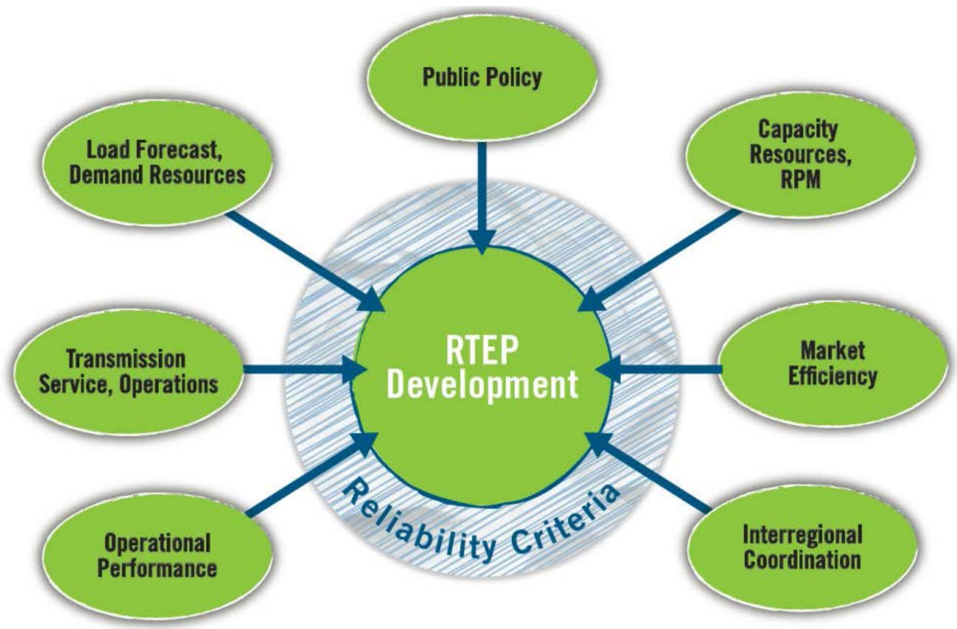
- Drivers of PJM Investment
  – Generation Retirements, Aging Infrastructure, Renewable Integration, etc

PJM TRANSMISSION PLANNING

- PJM’s Regional Transmission Expansion Plan (RTEP) identifies transmission system additions and improvements needed to keep electricity flowing to the millions of people throughout PJM’s region over a 15-year planning horizon
- PJM’s annual RTEP report describes transmission study input data, processes and results, as well as PJM Board-approved transmission upgrades and process changes
- PJM’s RTEP takes into account load forecasts, transmission operations, operational performance, generator retirements, interregional coordination, market efficiency, capacity resources and other considerations

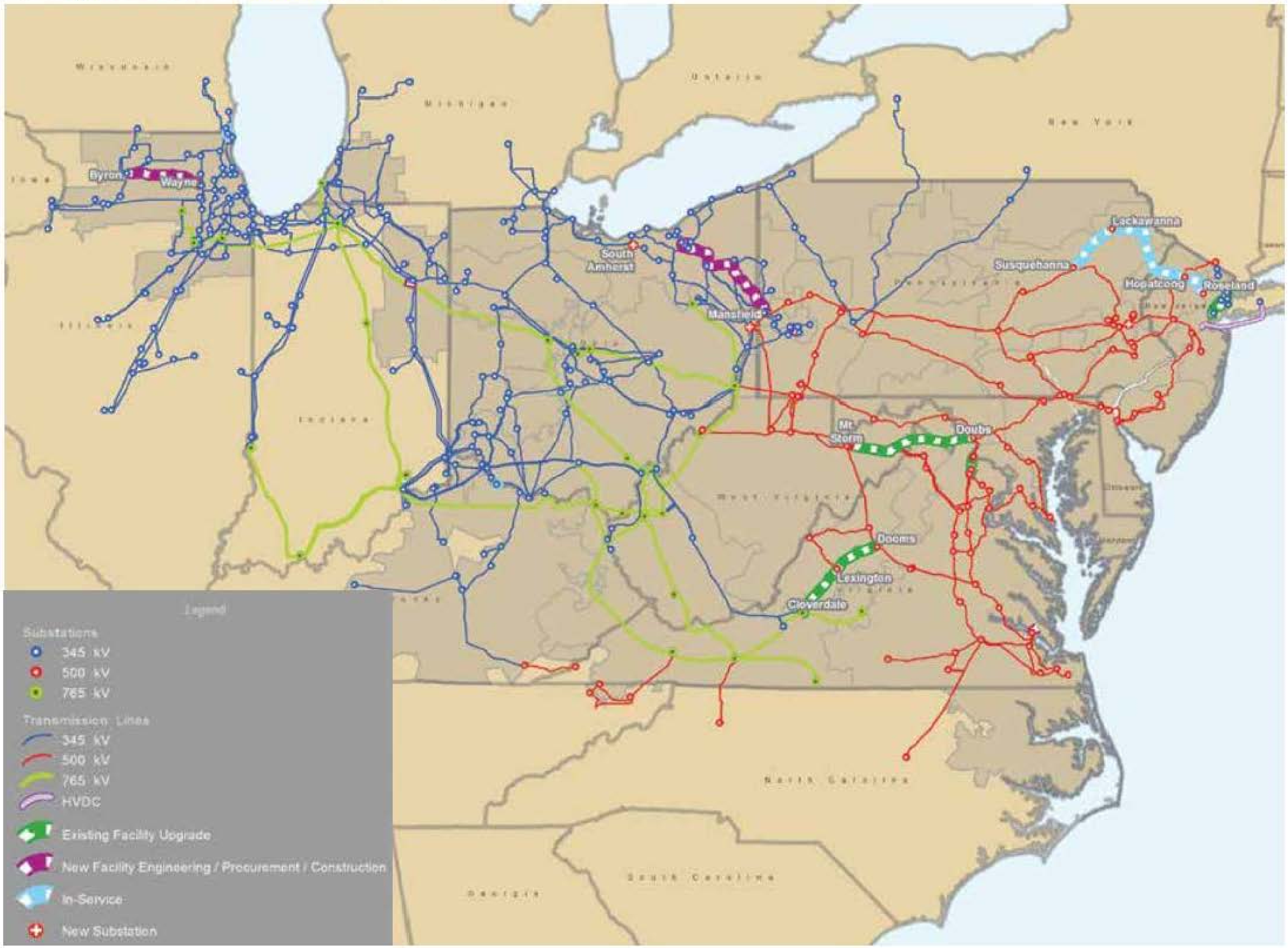
PJM RTEP – PROCESS & INVESTMENT

- FERC-Approved
  - Order 1000 Compliant
- 15 Year Planning Horizon
- Multi-Driver
  - Reliability
  - Market Efficiency
  - Public Policy
- Open, Transparent, collaborative stakeholder process



PJM RTEP – LARGE PROJECTS

Map 1.2: Approved PJM Backbone 765 and 500 kV Transmission Lines – 50 Miles or Greater

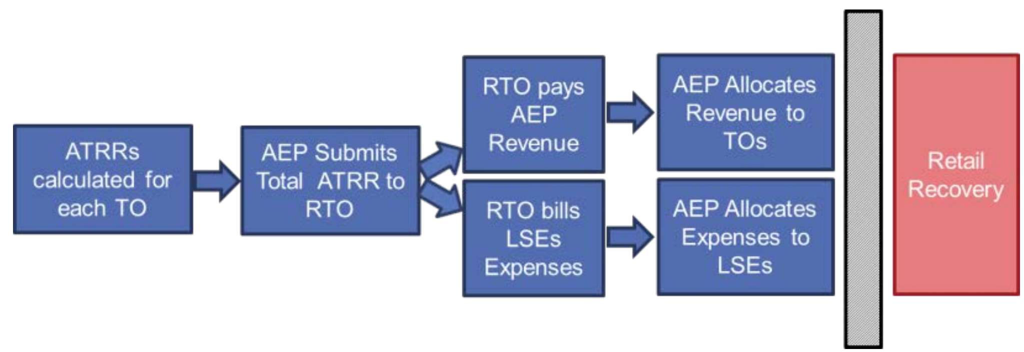


PJM TRANSMISSION SERVICE CHARGES

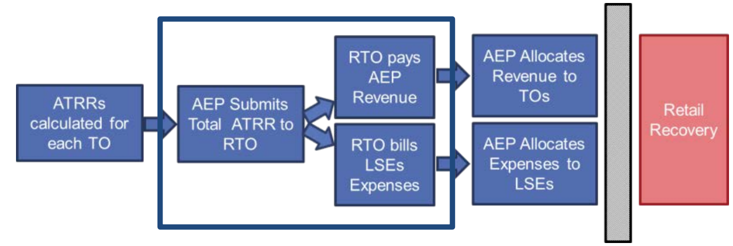
Types of Charges

PJM TRANSMISSION CHARGES

- Charges are based on the Annual Transmission Revenue Requirement (ATRR) for each transmission owner within a zone
- ATRR = owner's annual cost of providing transmission service
- The ATRR is generally calculated using FERC-Approved OATT Formula Rates
- ATRR is then collected from Load Serving Entities through transmission service charges

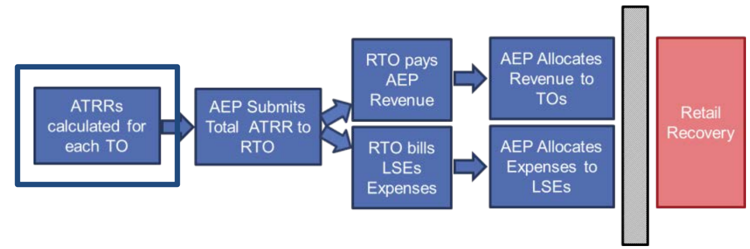


PJM SETTLEMENT PROCESS



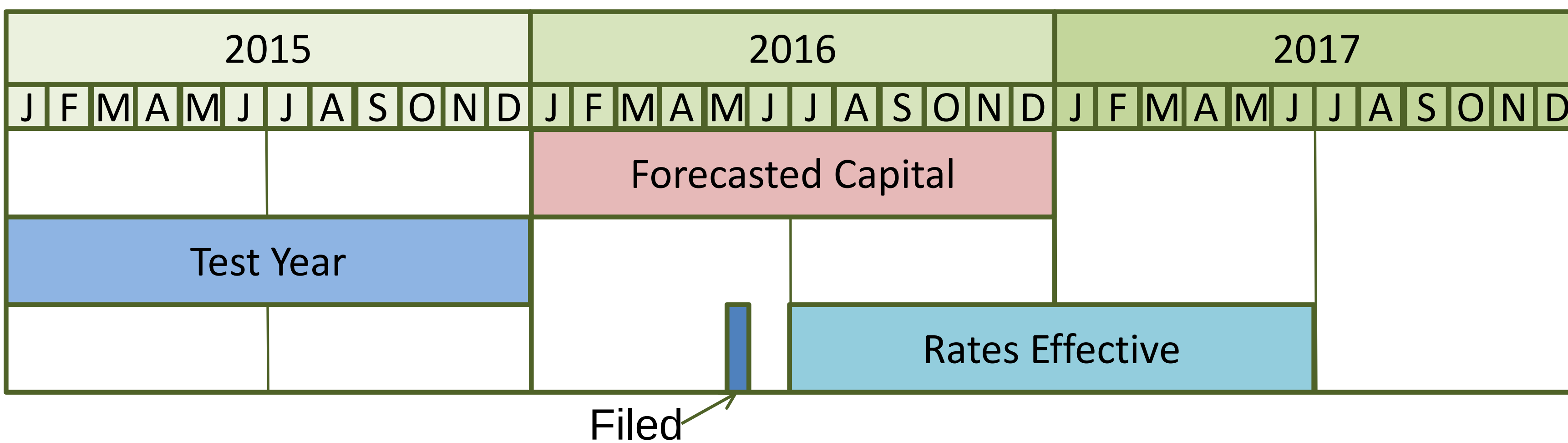
- Two major charges for Transmission Service
  - Network Integration Transmission Service (NITS)
    - Charges associated with AEP-owned facilities that provide benefits solely to the AEP Transmission Zone
    - KPCo pays its share of all NITS facilities (regardless of owner)
      - Example – KPCo only incurs about 6% of NITS costs associated with its facilities, but also incurs 6% of costs associated with APCo's facilities
  - Transmission Enhancement Charges
    - Charges associated with transmission facilities that provide regional benefits throughout PJM
    - Owned by AEP and Other Owners
    - KPCo incurs approximately 6% of Transmission Enhancement Charges billed to AEP

OATT FORMULA RATES



How They Work

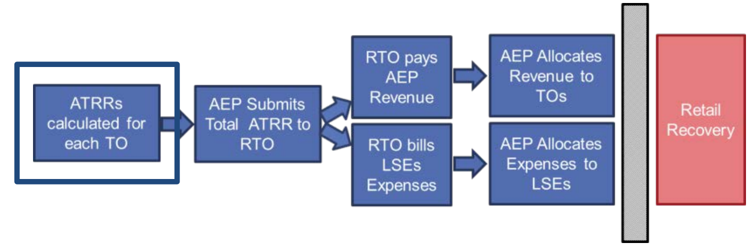
Timing* (2016 Formula Rate Update)



*Timing proposed to be changed in ongoing FERC 205 filing to be discussed later

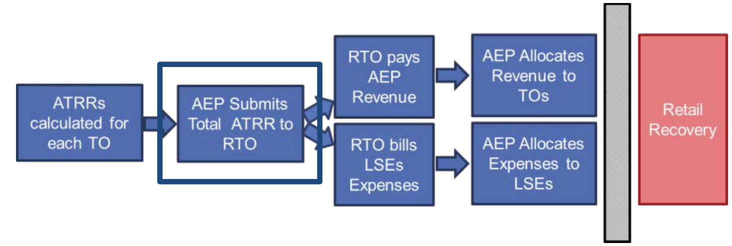
OATT FORMULA RATES

KPCo 2016/2017 Example



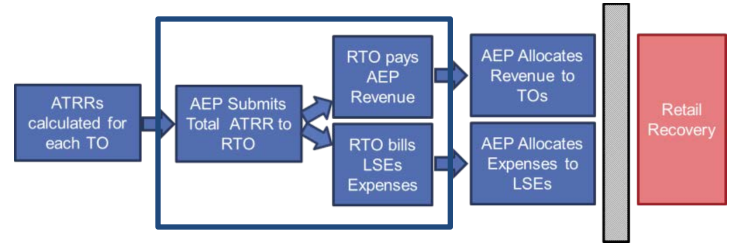
	Formula				KPCo		
	ROE	X	Equity % Cap Structure		11.49%	X	43.3%
+	Cost of Debt	X	Debt% Cap Structure	+	5.2%	X	56.7%
	WACC				7.9%		
X	Rate Base			X	$312 M		
	Return on Investment				$25 M		
+	O&M, Depreciation, Taxes, etc.			+	$ 34M		
	2016/2017 Transmission Revenue Requirement				**$59 M**		

OATT FORMULA RATES



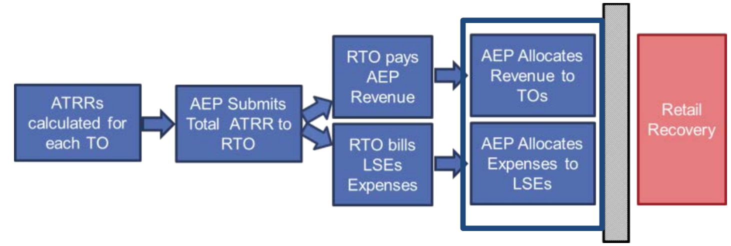
- AEP submits the ATRRs to PJM through Annual Formula Rate Filings
  - AEP East Operating Companies
  - AEP East Transmission Companies
- PJM includes the ATRR in the OATT rates for transmission service
- Stakeholder process ensues
  - Any updates found through the stakeholder process would be reflected in the next year's true-up filing, or through filing a correction

PJM SETTLEMENT PROCESS



- PJM Performs a Monthly Settlement Process
- Transmission Owners are paid their revenue requirement
- Transmission Users (LSEs) are billed for Transmission Service
  - PJM bills each transmission user based on that user's contribution to the peak load of the system
    - Network Customers pay based on a 1 CP
    - Point-to-point customers pay for reserved capacity at tariff rates ($/MWh, $/MWD, $/MWY, etc)

AEP ALLOCATION PROCESS



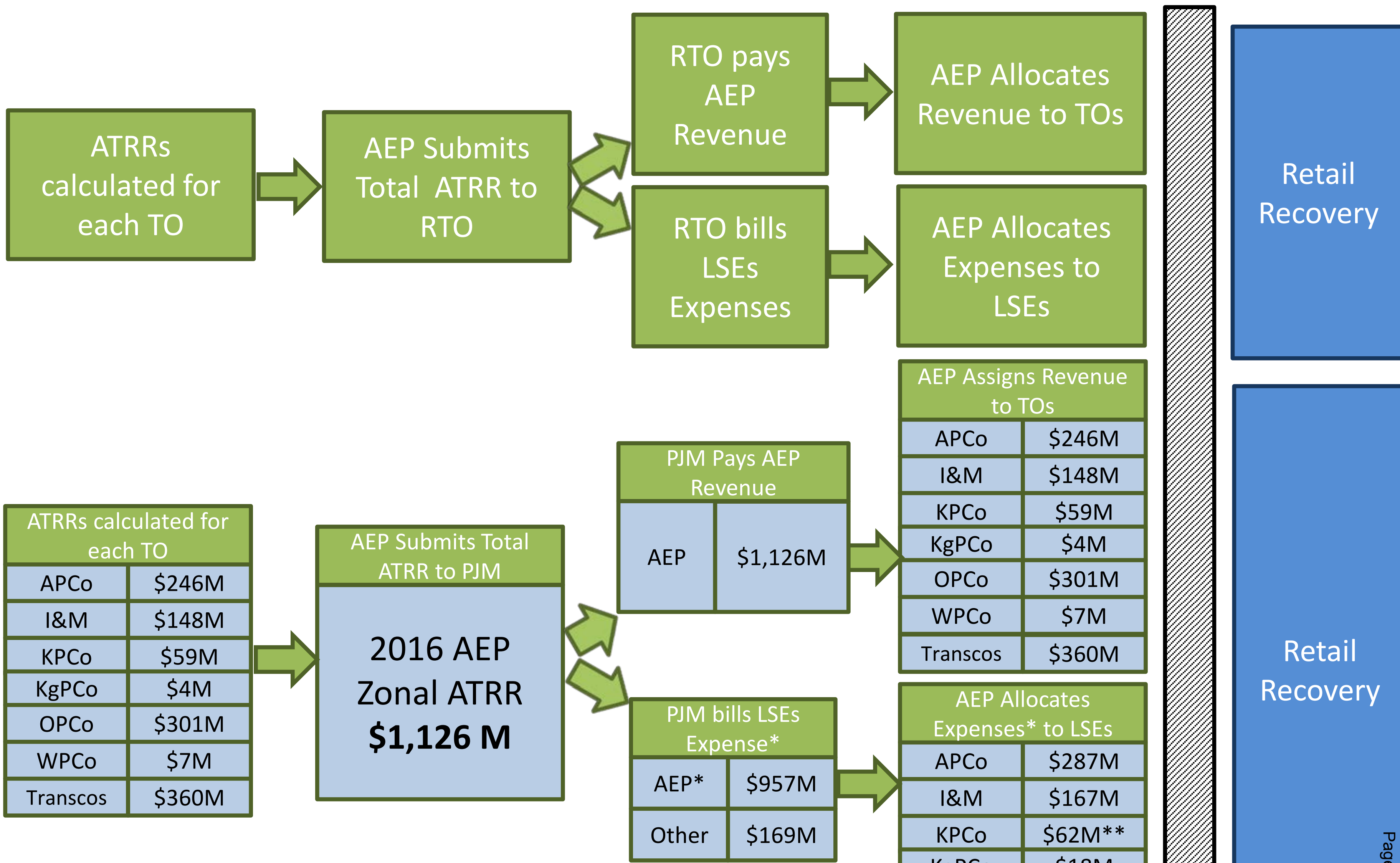
- AEP receives the PJM Bill
  - Includes both charges and credits
- AEP allocates transmission charges and credits to its companies based on the Transmission Agreement (TA)
  - Allocation factors are in Appendix I of the TA

AEP Transmission Agreement
Allocation of Transmission Related Costs and Revenues

#	Item	FERC Account*	PJM Billing Basis	AEP Allocation Basis
	AEP as Transmission Owner (Revenues)			
1	Transmission Owner Scheduling, System Control and Dispatch Service (PJM Schedule 1A)	456.1	NSPL	ARR S1A
2	NITS (AEP LSE)	456.1	NSPL	ATRR
3	NITS (Non-Affiliates)	456.1	NSPL	ATRR
4	Grandfathered PTP (CPL & NCEMC)	456.0	Contract	ATRR
5	PJM Expansion Cost Recovery Charge (ECRC)	456.1	NSPL	ARR EC
6	RTO Startup Cost Recovery Charge (SCRC)	456.1	NSPL	ARR SC
	AEP as LSE (Expenses)			
7	Transmission Owner Scheduling, System Control and Dispatch Service (PJM Schedule 1A)	456.1	MWh	MWh
8	NITS Charges (for AEP Retail Load)	456.1	NSPL	12CP
9	NITS Charges for AEP FR Customers	447.0	NSPL	DA
10	NITS Reimbursement from AEP FR Customers	447.0	NSPL	DA
11	Schedule 1A Charge for AEP FR Customers	447.0	NSPL	DA
12	Schedule 1A Reimbursement from AEP FR Customers	447.0	NSPL	DA
13	Firm Point-to-Point Credits (for AEP Retail Load)	456.1	NSPL	12CP
14	Non-Firm Point-to-Point Credits (AEP Retail Load)	456.1	NSPL	12CP
15	Transmission Enhancement (Schedule 12)	565.0	NSPL	12CP
16	PJM Expansion Cost Recovery Charge (ECRC)	456.1	NSPL	12CP
17	RTO Startup Cost Recovery Charge (SCRC)	456.1	NSPL	12CP

AEP East	
Company	**12 CP Load**
APCo	30.0%
I&M	16.7%
KPCo	6.5%
KgPCo	1.9%
OPCo	43.1%
WPCo	1.9%

PJM NITS EXAMPLE



*Does not include Transmission Enhancement (TE) Charges
**Does not include KPCo's TE Charges approximately $10M (2016)

RETAIL RECOVERY MECHANISMS

- Several retail recovery mechanisms across AEP's system
  - Full OATT Tracker
  - Base Case
  - In-between

RECENT FERC DEVELOPMENTS

- EL17-13 – AEP Transmission ROE Complaint
  - A coalition of wholesale customers has challenged the existing base ROE used in its PJM Transmission Formula Rates
- ER17-405 & 406 – AEP PJM Formula Rate Revisions
  - Modify rate from historic to projected
    - Should reduce true-up
  - Other revisions to bring rate up to date with recent IRS and FERC guidance, PJM Tariff Provisions, and new Tennessee Depreciation rates
- EL05-121 – PJM Cost Allocation Settlement
  - Changes cost allocation methodology associated with certain Transmission Enhancements approved prior to Feb 1, 2013
  - If approved, it should reduce the amount of expense allocated to KPCo associated with these projects
  - Filed June 15, 2016

SUMMARY

- Kentucky Power is both a Transmission Owner and a transmission user in PJM
- Kentucky Power receives its ATRR as a Transmission Owner
- Kentucky Power is charged for transmission services its uses through:
  - Transmission Enhancement Charges
  - NITS Charges
- Kentucky Power has little control over the transmission services charges it incurs
- Recent developments at FERC could prospectively impact the costs that Kentucky Power incurs for transmission services

QUESTIONS?

APPENDIX

TERMS & DEFINITIONS

- **Annual Transmission Revenue Requirement (ATRR)** - A Transmission Owner's annual cost of service associated with owning and operating transmission facilities
- **FERC Order 1000** – 2011 FERC order on Transmission Planning and Cost Allocation by Transmission Owning and Operating Utilities
- **Load Serving Entity (LSE)** – A PJM member that serves retail load in the PJM footprint
- **Network Integration Transmission Service (NITS)** – AEP's zonal cost of network transmission service
- **Network Service Peak Load (NSPL)** – An LSE's retail load in MW at the time of PJM's peak hour for the year (aka, the 1 CP)
- **Open Access Transmission Tariff (OATT)** – The FERC approved tariff that governs the charges and credits for various services in PJM

TERMS & DEFINITIONS (CONTINUED)

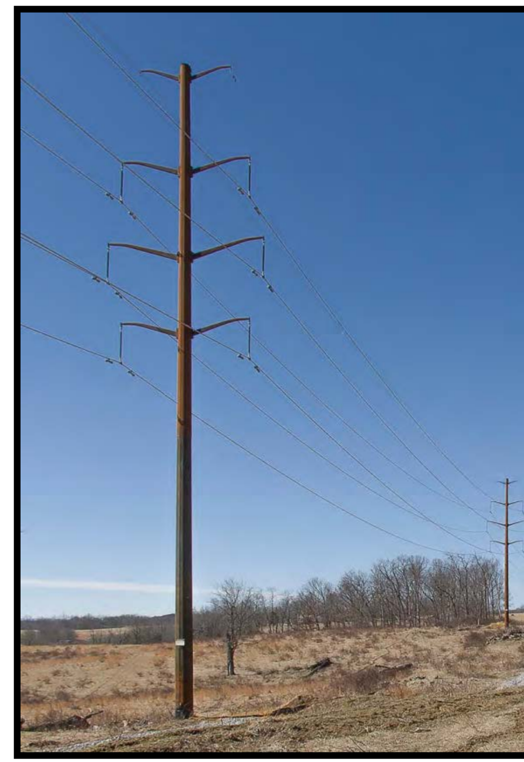
- **Regional Transmission Expansion Plan (RTEP)** – PJM's multi-year forward looking transmission infrastructure planning process
- **Solution Based DFAX** – Distribution Factor Cost Allocation Methodology (costs allocated to zones that benefit)
- **Transmission Enhancement** – Projects identified by PJM that provide regional benefits
- **Transmission Owner (TO)** – A PJM member that owns transmission assets in the PJM footprint
- **12 CP** – The average of the twelve coincident peaks of the AEP east operating companies

LINKS

- PJM Governing Documents
  - http://pjm.com/library/governing-documents.aspx
- PJM RTEP
  - http://pjm.com/library/reports-notices/rtep-documents.aspx
- RTEP Project Cost Allocation
  - http://pjm.com/planning/rtep-upgrades-status/cost-allocation-view.aspx
- PJM Guide to Billing
  - http://www.pjm.com/markets-and-operations/billing-settlements-and-credit/guide-to-billing.aspx
- AEP East Companies Transmission Agreement
  - http://www.aep.com/about/codeofconduct/RateSchedule/docs/CleanTEAModification.pdf

KPCO PJM TRANSMISSION COSTS EXAMPLE

- Wythe Area Improvements
  - 14-mile Double-Circuit 138 kV Transmission Line connecting Jackson Ferry and Wytheville Substations in Virginia
  - $100 Million APCo Investment
  - 7/1/2015 In-Service Date



WYTHE AREA IMPROVEMENTS

KPCO PJM TRANSMISSION COSTS - EXAMPLE

Step 1 – Wholesale Calculation

APCo – Formula Rate

	ROE	X	Equity %	
	11.5%		45.3%	
+	Debt Cost	X	Debt %	
	5.1%		54.6%	

	WACC	8.0%
+	Rate Base	$100,000,000
	Return	$8,000,000
+	Dep, O&M, Taxes, etc.	$10,000,000
	PJM ATRR	**$18,000,000**

PJM Settlement

PJM Pays AEP OATT Revenue

AEP	**$18,000,000**

PJM Charges LSE's OATT Expense

AEP	**85%**	**$15,300,000**
Whsle	**15%**	**$2,700,000**
Total		**$18,000,000**

AEP Allocation

AEP Allocates Revenue based on ATRR

APCo	**$18,000,000**

AEP Allocates Expense based on 12 CP

APCo	**30%**	**$4,590,000**
I&M	**17%**	**$2,601,000**
KPCo	**6%**	**$918,000**
KgPCo	**2%**	**$306,000**
OPCo	**43%**	**$6,579,000**
WPCo	**2%**	**$306,000**
Total		**$15,300,000**

Exhibit AEV R2

Comparison of KY Residential Basic Service Charges Rates in Effect as of 10/12/17	
Company	**Service Charge**
Grayson RECC	$ 15.00
Kenergy	$ 18.20
Jackson Purchase Energy Corporation	$ 12.45
Jackson Energy Cooperative	$ 16.44
Meade County RECC	$ 17.40
Inter-County Energy	$ 8.97
Licking Valley RECC	$ 14.00
Clark Energy	$ 12.43
Bluegrass Energy	$ 16.50
Big Sandy RECC	$ 15.00
Farmers RECC	$ 14.00
Shelby Energy Cooperative	$ 15.00
Owen Electric Cooperative	$ 20.00
Nolin RECC	$ 13.50
Kentucky Power Current	$ 11.00
Kentucky Power Proposed	$ 17.50
Cumberland Valley Electric	$ 12.00
South Kentucky RECC	$ 12.82
Fleming-Mason Energy	$ 15.00
Taylor County RECC	$ 9.82
Pennyrile RECC	$ 20.90
Warren RECC	$ 18.80
West Kentucky RECC	$ 23.40
Gibson EMC	$ 21.50
Tri-County EMC	$ 18.00
Kentucky Average	$ 15.51
Min	$ 8.97
Max	$ 23.40

AG 2-39 KPCO HEAP and All Residential Customer Avg Usage

Average Monthly kWh Usage

	2012	2013	2014	2015	2016
Low Income Assistance	1,498	1,612	1,553	1,496	1,418
All RES	1,308	1,368	1,401	1,331	1,260

	2012	2013	2014	2015	2016
	Average kWh Usage	Average kWh Usage	Average kWh Usage	Average kWh Usage	Average kWh Usage
Low Income Assistance	17,976	19,343	18,635	17,954	17,016
Total RES	15,699	16,420	16,817	15,972	15,124

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) An Order Approving Its 2017 Environmental Compliance Plan; (3) An Order Approving Its Tariffs And Riders; (4) An Order Approving Accounting Practices To Establish Regulatory Assets And Liabilities; And (5) An Order Granting All Other Required Approvals And Relief	)))))))))	Case No. 2017-00179

REBUTTAL TESTIMONY OF

RANIE K. WOHNHAS

ON BEHALF OF KENTUCKY POWER COMPANY

VERIFICATION

The undersigned, Ranie K. Wohnhas being duly sworn, deposes and says he is the Managing Director Regulatory and Finance for Kentucky Power Company, that he has personal knowledge of the matters set forth in the forgoing testimony and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Ranie K. Wohnhas

Ranie K. Wohnhas

COMMONWEALTH OF KENTUCKY)
) Case No. 2017-00179
COUNTY OF BOYD)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Ranie K. Wohnhas, this the 3rd day of November, 2017.

Trisha M. Young Blum

Notary Public

Notary ID Number: 530202

My Commission Expires: 3-18-19

TRISHA M. YOUNG
NOTARY ID 530202
COMMISSION EXPIRES 3-18-19

REBUTTAL TESTIMONY OF
RANIE K. WOHNHAS, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

CASE NO. 2017-00179

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REBUTTAL TESTIMONY OF
RANIE K. WOHNHAS, ON BEHALF OF
KENTUCKY POWER COMPANY
BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Ranie K. Wohnhas. My position is Managing Director, Regulatory and Finance, Kentucky Power Company ("Kentucky Power" or "Company"). My business address is 855 Central Ave., Ashland, Kentucky 41101.

Q. ARE YOU THE SAME RANIE K. WOHNHAS WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS PROCEEDING ON BEHALF OF KENTUCKY POWER COMPANY?

A. Yes, I am.

II. PURPOSE OF REBUTTAL TESTIMONY

Q. **WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?**

A. The purpose of my rebuttal testimony is to respond to the testimony of Attorney General Witness Smith and KIUC Witness Kollen. Specifically, I will respond to Intervenor testimony relating to (1) capitalization adjustments; (2) capital structure; (3) deferral of Rockport UPA expenses; (4) recommendation that the Commission write-down the Big Sandy Retirement regulatory asset; (5) the Mitchell ponds remediation liabilities; (6) recovery of expenses relating to the Company's life insurance policies; (7) recovery of aviation expenses; (8) recovery of storm damage expense; (9) recovery of the Company's relocation expense; (10)

treatment of the gain on the sale of non-utility property; (11) the Company's rate case expense; (12) the post-test year increase in the Company's employee complement; and (13) the Company's additional revenue requirement.

III. CAPITALIZATION ADJUSTMENTS

Q. ON PAGE 42 OF HIS TESTIMONY, KIUC WITNESS KOLLEN RECOMMENDS THE INCLUSION AND EXCLUSION OF CERTAIN ACCOUNTS FROM THE COMPANY'S CAPITALIZATION. DO YOU AGREE WITH HIS RECOMMENDATIONS?

A. No. It is entirely inappropriate to exclude the regulatory assets identified by Mr. Kollen (recorded in account 182.3xxx) from capitalization. The Company must finance these amounts that are owed but have not been paid. The one-sided nature of Mr. Kollen's position is evident by his focus only on regulatory assets and not on regulatory liabilities in account 254.xxxx.

Q. ARE THERE INSTANCES WHEN IT WOULD BE APPROPRIATE TO REMOVE REGULATORY ASSETS FROM CAPITALIZATION?

A. Yes. And the Company's proposed capitalization, unlike the selective adjustments proposed by Mr. Kollen, does so. It is appropriate to remove a specific regulatory asset from the Company's capitalization when the carrying cost associated with the asset is being recovered. For example, the Company appropriately removed from capitalization the amounts related to Big Sandy Decommissioning Rider as shown in Section V, Schedule 3, Column (5).

Q. DOES MR. KOLLEN PROPOSE ANY OTHER "HEADS I WIN; TAILS YOU LOSE" ADJUSTMENTS TO CAPITALIZATION?

A. Yes. A further example of Mr. Kollen's one-sided approach to adjustments is his selection of only the unrealized gains in account 175.xxxx and not also the unrealized losses in account 244.xxxx. Compounding Mr. Kollen's error is that Account 175.xxxx is a non-cash derivative balance sheet account that does not affect the Company's capitalization. For all of these reasons, Mr. Kollen's recommended adjustments to capitalization listed on page 42 of his testimony should be rejected.

Q. WHAT OTHER ADJUSTMENT TO CAPITALIZATION DOES MR. KOLLEN PROPOSE?

A. Mr. Kollen proposes to adjust capitalization by eliminating the coal inventory adjustment for low sulfur coal to reflect the target level for low sulfur coal at the Mitchell Plant.

Q. DO YOU AGREE WITH THIS RECOMMENDED REDUCTION TO CAPITALIZATION?

A. No. The Company's proposed capitalization adjustment to reflect target coal inventory level is consistent with Kentucky Power's treatment of the issue in all prior base rate cases, including most recently Case No. 2014-00396. Sometimes the adjustment requires, as is the case here, an increase in capitalization. Other times, capitalization is reduced. What is important is that the adjustments be made even-handedly and without regard to some hoped-for result. In addition, Kentucky Power recovers the cost of the coal it purchases only when it is burned. While it sits in the pile, an important benefit to customers to ensure adequate coal is available to meet the Company's generation needs, Kentucky Power incurs carrying costs. The Company is entitled to recover these carrying costs. Target coal levels serve as a reasonable proxy for the appropriate level of capitalization required to finance the Company's coal piles so as to provide reasonable and adequate service. Mr. Kollen's recommendation should be rejected.

IV. <u>CAPITAL STRUCTURE</u>

Q. WHAT IS MR. KOLLEN'S PROPOSED ADJUSTMENT TO THE SHORT-TERM DEBT COMPONENT OF THE COMPANY'S END OF TEST YEAR CAPITAL STRUCTURE?

A. Mr. Kollen recommends that Kentucky Power's actual end of test year capital structure be adjusted to increase the amount of short-term debt from approximately 0.06% ($1,022,872) (0.00% after the coal pile adjustment I discuss above) to 2.0%, and that long-term debt be reduced by an offsetting 200 basis points.

Q. DO YOU AGREE WITH MR. KOLLEN'S ADJUSTMENT TO CHANGE THE OVERALL CAPITAL STRUCTURE BY INCLUDING AN AMOUNT FOR SHORT TERM DEBT THAT IS NOT ON THE COMPANY'S BOOKS AS OF FEBRUARY 28, 2017?

A. No. The end of test year per books balance of short-term debt of $1,022,872 shown in Section V, Workpaper S-3, Column 3, Line 2 that the Company proposes as its level of short-term capitalization prior to the coal pile adjustment comports with the Commission's regulations.

Q. IS THIS THE ONLY REASON MR. KOLLEN'S ADJUSTMENT SHOULD BE REJECTED?

A. No. Mr. Kollen is correct that Kentucky Power's short-term debt level varied throughout the test year. What he omits from his discussion is that the amount of short-term debt varied on a daily basis through the Company's participation in the AEP Utility Money Pool ("Money Pool"). Some days the Company used short-term debt. Other days, it not only lacked short-term debt, but was in an "invested" short-term position. The Company's response to KIUC 1-50 provides its daily test-year short term debt position.

Q. HOW DOES KENTUCKY POWER ACCESS SHORT-TERM DEBT FINANCING?

A. The Money Pool is the only form of short-term debt available to the Company. The Money Pool is the portion of the Corporate Borrowing Program that is the short-term funding mechanism for all AEP's regulated utilities, including Kentucky Power. It is structured to meet the combined short-term cash management needs of those companies. The Money Pool meets the short-term cash needs of its participants by providing for short-term borrowings from the Money Pool by its participants and short-term investment of surplus funds by the same participants. The Money Pool is governed by the AEP System Amended and Restated Utility Money Pool Agreement dated as of December 9, 2004, a copy of which has been filed with FERC, and which was provided by the Company in response to KIUC 1-48.

Q. HOW DOES KENTUCKY POWER PARTICIPATE IN MONEY POOL?

A. American Electric Power Service Corporation ("AEPSC") acts as the administrative agent of the Corporate Borrowing Program, including the Money

Pool. Those members with surplus short-term funds pool their available short-term monies on a daily basis to fund the daily short-term borrowing needs of the other members. Those members requiring short-term debt to finance their operations on that day borrow from the Money Pool. The important point for the purposes of Mr. Kollen's adjustment is that the Company's invested/borrowed position changes daily. For example, during January 2017, Kentucky Power was in an invested position for 25 of the 31 days of the month. The remaining six days of January 2017 the Company was in a borrowed position. Other months, the balance was reversed, and Kentucky Power was principally in a borrowed position on a daily basis. To ascribe a 2.0% short-term capitalization to the Company is inconsistent with these facts.

Q. PUTTING ASIDE MR. KOLLEN'S FAILURE TO ADDRESS THE DAILY FLUCTUATION IN THE COMPANY'S SHORT-TERM DEBT POSITION, AND THAT ON MANY DAYS IT IS ACTUALLY INVESTED ON A DAILY SHORT-TERM BASIS, WHAT IS THE BASIS FOR MR. KOLLEN'S RECOMMENDATION THAT THE COMPANY'S ACTUAL END OF TEST YEAR LEVEL OF SHORT-TERM DEBT, PRIOR TO ADJUSTMENTS, BE REJECTED IN FAVOR OF A 2.0% LEVEL OF SHORT-TERM CAPITALIZATION?

A. He offers none in his testimony. Couching it only as a recommendation, the only evidence Mr. Kollen offers is that "at some dates" during the twelve months ended September 30, 2009, ***almost six and one-half years*** prior to the start of the test year in this case, the Company's "short-term debt was nearly 17% of capitalization." Mr. Kollen never explains, nor can he, how the Company's level of short-term on unspecified and cherry-picked dates years prior to the test year supports his recommendation. Nor does he explain why the Commission should not instead look to the Company's invested position on "some dates" during the same twelve months ended September 30, 2009 to "zero-out" the Company's short-term debt in this case.

Q. SINCE FILING HIS TESTIMONY HAS MR. KOLLEN PROVIDED AN EXPLANATION FOR HIS PROPOSED 2% SHORT-TERM DEBT LEVEL?

A. In discovery, the Company asked Mr. Kollen the basis for his recommendation of 2%. In response he stated that some month-end test year balances "were as much" as 1.1%, or slightly more than one-half of his recommended amount. He also ignores that fact that in other months the Company's level of short-term debt at month end was less than 1.1%, and that in at least one month (January 2017) the Company was in an invested position at month's end. Mr. Kollen's recommendation is without a test-year evidentiary basis, and Kentucky Power properly utilized the end-of-test year level of short-term debt, prior to adjustments, in its proposed capital structure.

V. <u>DEFERRAL OF ROCKPORT UPA EXPENSES</u>

Q. WHAT DOES MR. KOLLEN RECOMMEND WITH RESPECT TO ROCKPORT UNIT 2 UPA EXPENSES?

A. Mr. Kollen recommends deferring the non-fuel UPA costs from the effective date when rates are established in this proceeding through December 2022 when the

Rockport Unit 2 lease expires. The amount deferred would be established as a regulatory asset. He also recommends recovery of the regulatory asset starting in December 2022 over ten years on an annuitized basis. The recovery would include a carrying charge on the balance of the regulatory asset at the Company's weighted average cost of capital.

Q. DO YOU AGREE WITH MR. KOLLEN'S RECOMMENDATION?

A. No. The UPA expenses are incurred in connection with a FERC-approved agreement and Kentucky Power is entitled as a matter of law to their concurrent recovery. Although the WACC return that Mr. Kollen proposes would help to mitigate the financial impact on the Company, it does not fully address the impact. In particular, at the level of deferral that Mr. Kollen recommends, Kentucky Power's credit metrics would be negatively affected. The deterioration of the Company's credit metrics could potentially lead to higher financing costs for the Company.

Q. BEFORE EXPLAINING HOW KENTUCKY POWER'S CREDIT METRICS WOULD BE NEGATIVELY AFFECTED, WHAT ARE THE COMPANY'S CURRENT CREDIT RATINGS?

A. Kentucky Power currently has investment grade credit ratings of A- (Stable) and Baa2 (Stable) with S&P and Moody's, respectively.

Q. GENERALLY DESCRIBE THE METHODOLOGY USED BY EACH RATING AGENCY FOR ASSIGNING CREDIT RATINGS.

A. S&P evaluates the credit of each operating company utilizing a family approach, factoring in the ratings of all AEP system subsidiaries. S&P's family approach to bond ratings for individual operating companies stresses the inherent benefits and risks associated with having a diversified family of operating companies across AEP's eleven-state service territory.

Unlike S&P's family methodology, Moody's rates each individual operating company based on the merits of the underlying operations and credit profile of that individual operating company. Therefore, Moody's will be my primary focus when discussing Kentucky Power's credit rating.

Q. HOW DOES MOODY'S MEASURE FINANCIAL STRENGTH?

A. Financial strength accounts for 40% of Moody's rating methodology. Moody's financial measures and scores are based on ratios including interest coverage, cash flow to debt and debt to capitalization. All ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations published December 2013.

Q. WHAT IMPACT COULD THE DECREASED CASH FLOWS RESULTING FROM MR. KOLLEN'S PROPOSAL REGARDING A DEFERRAL OF ROCKPORT UPA EXPENSES HAVE ON KENTUCKY POWER'S CREDIT RATING?

A. Should further deterioration of Kentucky Power's cash flows continue, the Company could face ratings downgrade pressure and increased borrowing costs associated with future financing activity.

Cash flows from operations are a key component of the ratios utilized to score a company's financial strength. According to Moody's credit opinion published February 2017, Kentucky Power's stable rating outlook is primarily based on the expectation that Kentucky Power will maintain a constructive relationship with the KPSC and that the combination of rate actions and prudent financial policy will enable the utility to preserve financial credit metrics that support the rating. These metrics include a ratio of cash flow excluding working capital changes (CFO pre-WC) to debt in the mid-teens range. In addition, the opinion states a ratio of CFO pre-W/C to debt falling below 13% for a sustained period of time could lead to a downgrade. As of December 31, 2016, the CFO pre-WC to debt ratio for Kentucky Power was 11.8%.

Q. BRIEFLY SUMMARIZE THE IMPORTANCE OF KENTUCKY POWER'S INVESTMENT GRADE CREDIT RATINGS.

A. Timely and sufficient cost recovery is required to maintain the cash flows necessary to support a stable investment grade credit. Having investment grade credit assures the investment community the Company can service its current and future debt obligations and creates the ability to source capital at attractive rates for its customers.

Q. DOES THIS MEAN THAT THE IDEA OF A DEFERRAL AND THE ESTABLISHMENT OF A REGULATORY ASSET IS WITHOUT MERIT?

A. No. The deferral and creation of a regulatory asset at an appropriate level, and recovered over a reasonable period, if agreed to by Kentucky Power, could mitigate the impact on customer rates.

VI. BIG-SANDY REGULATORY ASSET WRITE-DOWN

Q. WHAT IS YOUR UNDERSTANDING OF MR. SMITH'S PROPOSAL REGARDING THE BIG SANDY REGULATORY ASSET.

A. Mr. Smith recommends at pages 64 and 65 of his testimony that the Commission examine a write down of some portion of the regulatory asset approved by the Commission in its October 7, 2013 Order in Case No. 2012-00578 ("Mitchell Transfer Case"). The regulatory asset currently is being recovered through the Decommissioning Rider (currently called the Big Sandy Retirement Rider). His recommendation, in which he seemingly argues both for disallowing expenses being recovered through the Big Sandy Retirement Rider and writing down some or all of the regulatory asset being recovered through the rider, is premised upon AEP's write down of approximately $2.3 billion in 2016 in connection with its subsidiaries' operations in the unregulated markets.

Q. DO YOU AGREE WITH MR. SMITH'S PROPOSAL?

A. No. The circumstances surrounding AEP's decision to record a write down in connection with unregulated operations have no bearing on Kentucky Power. Unregulated entities lack cost-based rates, and have different accounting requirements than Kentucky Power with respect to the impairment of long-lived assets. More fundamentally, Mr. Smith's premises his conclusion on the financial impact of such a write-down on "AEP" – an entity that is not regulated by this Commission, and not Kentucky Power.

Q. ARE THESE THE ONLY REASONS FOR REJECTING MR. SMITH'S SUGGESTION?

A. Far from it. Mr. Smith's recommendation is a reckless effort to rewrite history and tear up the regulatory compact that has guided the Commission's regulation of the Company, and the Company's investment of capital to provide electric service in the Commonwealth, for much of the last century.

Q. WHAT IS THE REGULATORY ASSET THAT MR. SMITH SUGGESTS THE COMMISSION CONSIDER WRITING DOWN?

A. The Commission's Order in the Mitchell Transfer Case approved, as the least cost alternative, the transfer of a fifty percent undivided interest in the Mitchell generating station to Kentucky Power and the retirement of Big Sandy Unit 2. At the time Big Sandy Unit 2 retired the following year, Kentucky Power had not recovered its investment in the unit, or the other coal-related assets at the Big Sandy Plant that were being retired, or that would be retired in connection with the Mitchell Transfer and subsequent conversion of Big Sandy Unit 1 to a gas-fired unit. Kentucky Power's investment in Big Sandy Unit 2, and the other coal-related assets at the Big Sandy generating station, were used by the Company to provide reliable and adequate electric service to the Company's customers for nearly 50 years (and more than 50 years in the case of the Big Sandy Unit 1 coal-related assets). Under well-recognized regulatory principles, as I understand them, Kentucky Power is entitled to recover the investment used to provide that service, as well as the reasonable costs associated with the demolition of the coal-related assets. The amount of this investment and the demolition costs, as well as the accompanying WACC-based carrying charge, comprise the regulatory asset being recovered through the Big Sandy Retirement Rider.

Q. WERE THE ESTABLISHMENT OF THE REGULATORY ASSET AND ITS RECOVERY MECHANISM THROUGH THE BIG SANDY RETIREMENT RIDER APPROVED BY THE COMMISSION?

A. Yes. The establishment of the regulatory asset and its recovery through a rider were presented to the Commission as part of the non-unanimous settlement agreement among all parties to the Mitchell Transfer Case other than the Attorney General. In its October 7, 2013 Order approving the Mitchell Transfer, the Commission also approved, with changes not relevant to the Big Sandy regulatory asset, the settlement agreement. In its June 22, 2015 Order in the Company's last rate case, the Commission approved the establishment of the Big Sandy Retirement Rider.

Q. DID THE ATTORNEY GENERAL APPEAL THE COMMISSION'S OCTOBER 7, 2013 ORDER IN THE MITCHELL TRANSFER CASE?

A. Yes, but on appeal the Attorney General did not challenge that portion of the October 7, 2013 Order creating the regulatory asset or providing for its recovery through a rider. In any event, the Franklin Circuit Court affirmed the Commission's October 7, 2013 Order. The Attorney General next appealed the Franklin Circuit Court's order, but he subsequently dismissed that appeal as part of an agreement with Kentucky Power and the Commission to dismiss their cross-appeals of certain procedural orders entered by the court.

Q. DID COMMISSION'S APPROVAL OF THE RECOVERY OF THE BIG SANDY REGULATORY ASSET THROUGH THE BIG SANDY

RETIREMENT RIDER PROVIDE IMPORTANT BENEFITS TO THE COMPANY'S CUSTOMERS?

A. Most certainly. The Big Sandy Retirement Rider spreads the recovery of the regulatory asset over a 25-year period. This helps spread the related expense over an extended period and mitigate the rate effect. In addition, as KIUC witness Kollen testified in explaining the rider mechanism in the Mitchell Transfer Case, the annual amount to be recovered each year is recalculated yearly based on the current year's balance. This provides a benefit that would not be available if the expense was established as part of base rates. In particular, customers automatically receive the benefits of a declining regulatory asset balance (when that occurs) instead of locking in the expense level based on the test year amount.

Q. WHAT WOULD BE THE EFFECT OF THE ADOPTION OF MR. SMITH'S SUGGESTION THAT THE COMPANY BE REQUIRED TO WRITE DOWN SOME OR ALL OF THE PREVIOUSLY-APPROVED BIG SANDY RETIREMENT RIDER?

A. I believe it would fundamentally upend the regulatory compact that exists between the Company, its customers, and the Commission. Kentucky Power is required to invest the capital necessary to provide reasonable and adequate service to its customers. In return, it is entitled to the opportunity to receive the return on and of that capital. Based upon that understanding, Kentucky Power has invested hundreds of millions of dollars of capital in its service territory, which has been used to bring electric service to tens of thousands of customers. Mr. Smith's proposal would tear up that understanding, and toss to the side a mutually beneficial arrangement that has benefitted Company and its customers since the beginning of the 20th century.

I can only speak for Kentucky Power, but in my opinion the retroactive rewriting of the regulatory compact to deny the Company the opportunity to recover its investment would cast a pall over the willingness of any regulated company to invest its capital in the Commonwealth.

Q. MESSRS. SMITH AND DISMUKES ARGUE THE WRITE-OFF IS REQUIRED TO FURTHER ECONOMIC DEVELOPMENT IN THE COMPANY'S SERVICE TERRITORY. ARE THEY CORRECT?

A. No. Economic development requires an infrastructure to support new and expanded business and an economic and regulatory climate that provides businesses – both regulated and unregulated – the opportunity to receive a return on and of their invested capital. Mr. Smith's proposal is a direct attack on the Company's ability to attract the capital to provide the required infrastructure, and the economic climate conductive to attracting new and expanded industry.

Kentucky Power has taken the lead in the promotion of new and expanded industry in its service territory. It, along the Governor's office and state and local economic development officials, coupled with actions by the General Assembly, was successful in attracting Braidy Industries to the Company's service territory. It has contributed its own funds, both in the form of grants and dollar-for-dollar matches of customer payments to the K-PEGG fund, to provide eastern Kentucky economic development officials the resources required to do their jobs. Messrs.

Smith and Dismukes would have the Commission undo these efforts, and to undermine their accomplishments.

VII. MITCHELL PONDS REMEDIATION LIABILITIES

Q. WHAT IS MR. SMITH'S CONCERN REGARDING THE LIABILITIES ASSOCIATED WITH THE REMEDIATION OF THE FOUR MITCHELL PONDS?

A. Mr. Smith suggests there is confusion regarding the ownership of the Mitchell generating station ponds and their accompanying environmental remediation liability. He also argues that the Company should not be liable for any environmental remediation liability associated with its proportionate ownership of the Mitchell generating station prior to December 31, 2013 when the Company acquired a 50% undivided interest in the station.

Q. IS THERE ANY REASONABLE BASIS FOR THAT ASSERTION?

A. No.

Q. HAS THE COMMISSION ADDRESSED KENTUCKY POWER'S LIABILITY AND REMEDIATION EXPENSE ASSOCIATED WITH THE OPERATION OF THE MITCHELL PLANT PRIOR TO ITS TRANSFER EFFECTIVE DECEMBER 31, 2013?

A. Yes. In connection with its October 7, 2013 approval of the Mitchell Transfer, the Commission also approved the Company's assumption of a 50% undivided share of the Mitchell generating station's existing liabilities. Those liabilities, which were net against the value of the transferred assets and used to determine the net book value at which the transfer was made, included a 50% share of environmental liabilities associated with past operation of the plant. Company Witness Osborne provides more detail on the Company's liability for the remediation costs associated with Mitchell generating station ponds.

VIII. CASH SURRENDER VALUE OF LIFE INSURANCE POLICIES

Q. DO YOU AGREE WITH MR. SMITH RECOMMENDATION (C-13) TO REMOVE $26,941 IN KENTUCKY JURISDICTIONAL EXPENSES ASSOCIATED WITH THE CASH SURRENDER VALUE OF LIFE INSURANCE POLICIES FOR FORMER EXECUTIVES?

A. No. Mr. Smith gives no explanation supporting his recommendation other than ratepayers should not be responsible for paying for expenses for former executives. But the expense is part of the total compensation/benefit package given to executives (current or former) and is a prudent expense and should be recovered. The issue of whether the executive is current or former has no bearing on whether the cost should be recovered.

IX. CORPORATE AVIATION

Q. WHAT SPECIFIC CORPORATE AVIATION EXPENSES DOES MR. SMITH RECOMMEND TO DISALLOW FROM THE COMPANY'S FILING?

A. Mr. Smith recommends a disallowance of all corporate aviation expenses charged from the service corporation AEPSC.

Q. WHAT REASONS DOES HE GIVE TO SUPPORT THIS DISALLOWANCE?

A. None. In his testimony he only states that affiliate charges require increased scrutiny. Commission Data Request 7(b) directs the Attorney General to explain the basis for rendering all aviation expense unallowable for ratemaking purposes. Mr. Smith was unable to do so other than to refer to the Commission back to his unsupported and insupportable testimony.

Q. SHOULD THESE CORPORATE AVIATION COST BE DISALLOWED?

A. No. These are prudently incurred and reasonable costs of doing business, and Kentucky Power Company has been allocated its appropriate share.

X. STORM DAMAGE EXPENSE

Q. DO YOU AGREE WITH MR. SMITH'S PROPOSAL TO ELIMINATE THE COMPANY'S ADJUSTMENT TO INCREASE STORM DAMAGE EXPENSE?

A. No. Again, Mr. Smith fails to provide any evidentiary basis for his recommendation. His only comment is "The Company has not demonstrated a compelling reason to increase test year storm damage expense." The uncertainty of when and for how much a major storm will impact the Company is the reason for using a three-year average. Using a three-year average creates a normalized level of costs for both the customer and the Company. Over the past eight years the Company has incurred incremental major storm costs of between $23.1M and

$0.8M. There were 23 storms during this 8-year period totaling $50.8M for an average of $6.4M per year. Using only the test year amount in any base rate filing can lead to major swings in adjustments that are neither helpful to the customers nor the Company. Mr. Smith's proposal to eliminate the adjustment to normalize storm damage expense should be rejected.

XI. RELOCATION EXPENSES

Q. DO YOU AGREE WITH MR. SMITH'S PROPOSAL TO AVERAGE RELOCATION EXPENSES OVER A THREE-YEAR PERIOD?

A. No. Kentucky Power properly included the full test year amount of relocation expense in its revenue requirement. Utilizing a three year average, as Mr. Smith recommends, is appropriate only where there exists significant yearly volatility and the financial impact of the expense is significant. For those expenses, a longer view of the expense is necessary to properly determine a going level amount. Unlike steam maintenance or storm damage expense, relocation expense is not significant and does not vary materially from year to year. Accordingly, a three-year average is not necessary for relocation expense.

Moreover, Mr. Smith's recommendations regarding when a three-year average should be used for expenses are inconsistent. He recommends that the Commission reject a three-year average for the significant and variable storm damage expense, but proposes a three-year average for relocation expenses which is much less volatile and results in a far lower financial impact.

XII. GAIN ON SALE OF NON-UTILITY PROPERTY

Q. DO YOU AGREE WITH MR. SMITH'S ADJUSTMENT TO AMORTIZE THE GAIN ON THE SALE OF THE CARRS SITE OVER THREE YEARS?

A. No. As indicated in the Company's response to AG_D_WP_7 e, for the last 33 years, the Company has not included the Carrs Site in rate base and therefore has not received a return on this property. With respect to property taxes on the Carrs Site, the Company removed $60,539 from Taxes Other than Income Taxes in the Cost of Service. See the Company's supplemental response to AG_D_WP_7 e. Therefore, there is no basis to assign any of the gain realized on the sale of the Carrs Site to ratepayers.

XIII. <u>RATE CASE EXPENSE</u>

Q. DO YOU AGREE WITH MR. SMITH'S EXCLUSION OF CERTAIN RATE CASE EXPENSE ITEMS?

A. No. Mr. Smith recommends rejecting the Company's expenses paid to the Communication Counsel of America, Inc. ("CCA"). The Company utilizes CCA for witness training and hearing preparation. Witness preparation is a necessary part of preparing and litigating a base rate case and regardless of who performs this function the cost should be recovered. Had the Company elected to use its legal team to perform this function, the estimated legal expense of $510,000 would have been higher. The expense is both prudently incurred and reasonable in amount.

Q. MR. SMITH ALSO ARGUES THAT THE COMMISSION SHOULD DISALLOW THE COMPANY'S RATE CASE EXPENSE IN THE

CURRENT PROCEEDING AND DIRECT KENTUCKY POWER NOT TO FILE ANOTHER KENTUCKY RATE CASE UNTIL THE COMPANY FILES AN ACTION TO REDUCE THE RETURN ON EQUITY COMPONENT OF THE CHARGES PAID IN CONNECTION WITH THE ROCKPORT UPA. DO YOU AGREE?

A. Absolutely not. This is another example of Mr. Smith's reckless approach to utility regulation and the law. Kentucky Power has a right under the Constitution of the United States, and Kentucky statutory law, to receive fair, just, and reasonable rates. Mr. Smith asks the Commission to strip the Company of both rights. In addition, the Rockport UPA is a FERC-approved agreement and the Company is entitled under law to the concurrent recovery of all expenses related to the agreement.

The determination of whether the ROE component of the rates and charges paid by Kentucky Power under the Rockport UPA is fair, just, and reasonable lies exclusively with FERC. Kentucky Power has explained in discovery requests that an action before FERC to re-open the ROE component of the Rockport UPA could lead to the re-opening other UPA provisions, and that on-balance the Company has concluded that risks of filing a FERC action outweigh any benefits. The Commission should not allow itself to be party to the Attorney General's invitation to employ unlawful and unconstitutional means to overturn this judgment.

XIV. POST-TEST YEAR INCREASE IN EMPLOYEE COMPLEMENT

Q. WHAT IS MR. KOLLEN'S RECOMMENDATION CONCERNING THE EXPENSE ASSOCIATED WITH THE KNOWN AND MEASURABLE CHANGES RESULTING FROM THE COMPANY'S ADDITION OF FIVE ADDITIONAL EMPLOYEES?

A. Mr. Kollen proposes that the Commission disallow the expense in its entirety. He contends that the staffing is contingent upon Commission approval and constitutes a selective post-year adjustment.

Q. DO YOU AGREE WITH MR. KOLLEN'S ASSESSMENT?

A. No. The five employees have been hired. In the Company's response to AG 1-069 it indicated that four of the five positions had been filled. Subsequent to that response, the Company hired the fifth person. Contrary to Mr. Kollen's understanding, the Company was not seeking Commission approval to increase its employee complement and the Commission likely would be extremely wary of managing the day-to-day operations of the Company. Witness Satterwhite in his direct testimony explains the additional staffing is both required and will improve safety, customer service, reliability, and revenue protection. The adjustment is known and reasonable and should be approved.

Q. DOES MR. SMITH PROPOSE TO DISALLOW THE PROPOSED ADJUSTMENT?

A. No. Mr. Smith instead proposes to increase the Company's operating revenues related to estimated energy theft recoveries by adding administrative associate for the revenue protection group. Mr. Kollen, in a somewhat similar fashion, argues the Company's proposed adjustment is selective because it does reflect anticipated revenues.

Q. ARE THESE POSITIONS SUPPORTABLE?

A. No. In my direct testimony, I state that the Company estimates it can increase its annual energy theft recoveries by up to 50%. It is just an estimate. Mr. Smith's adjustment of $166,698 assumes that the Company will have increased recoveries of 50%. The actual recoveries are not known and measurable at this time and as such Mr. Smith's adjustment should be rejected.

XV. THE COMPANY'S REVENUE REQUIREMENT

Q. KIUC AND THE ATTORNEY GENERAL HAVE RECOMMENDED ADDITIONAL REVENUE REQUIREMENTS FOR KENTUCKY POWER OF APPROXIMATELY $13.4 MILLION AND $40 MILLION RESPECTIVELY. HAVE THEY SUPPORTED THESE RECOMMENDATIONS?

A. No. The Company's evidence, including its direct and rebuttal testimony, as well as its responses to data requests, demonstrate that Kentucky Power is entitled under the law to additional annual revenues of $60.4 million. The adjustments and other recommendations relied upon by KIUC and the Attorney General to support their recommended additional revenue requirements do not bear scrutiny and would deny the Company the revenues required to permit it to provide reasonable, adequate, and efficient service.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.