COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter Of:

AN EXAMINATION OF THE APPLICATION OF THE FUEL ADJUSTMENT CLAUSE OF KENTUCKY POWER COMPANY FROM NOVEMBER 1, 2016 THROUGH OCTOBER 31, 2018	)))))	Case No. 2019-00002

DIRECT TESTIMONY OF

CLINTON M. STUTLER

ON BEHALF OF KENTUCKY POWER COMPANY

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I. INTRODUCTION

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

A. My name is Clinton M. Stutler, and I am employed by American Electric Power Service Corporation ("AEPSC"), a subsidiary of American Electric Power Company, Inc. ("AEP") in the regulated Commercial Operations organization as the Natural Gas and Fuel Oil Manager. My business address is 1 Riverside Plaza, Columbus, Ohio 43215.

II. BACKGROUND

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I earned a Master's degree in Business Administration from Bowling Green State University in 2007, and a Bachelor of Science in Business Administration degree, with a major in Transportation & Logistics and Marketing, from Ohio State University in 2002.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.

A. I have over sixteen years of energy–industry experience in fuel procurement, logistics, marketing, scheduling, and transportation. My professional background began in 2002 as a Scheduler with Marathon Petroleum Company. In 2008, I

joined AEP in the Fuel, Emissions, and Logistics organization as a Coal Buyer, with responsibilities for the procurement of coal for Ohio Power Company. In 2014, I joined AEP Generation Resources, with responsibilities for purchasing natural gas, coal, urea, and fuel oil, in addition to marketing fly ash and flue gas desulfurization gypsum. In 2016, I accepted a position in the regulated Commercial Operations organization as a Coal Buyer and became responsible for the procurement of coal for Kentucky Power Company ("Kentucky Power" or "Company"), Appalachian Power Company ("APCo"), and Southwestern Electric Power Company ("SWEPCO"). On May 4, 2018, I was promoted to my current position and became responsible for the procurement and delivery of natural gas and fuel oil to AEP's regulated generating fleet.

Q. WHAT ARE YOUR PRINCIPAL AREAS OF RESPONSIBILITY AS THE NATURAL GAS AND FUEL OIL MANAGER FOR AEP?

A. I am responsible for the natural gas and fuel oil procurement and contract management of AEP's regulated operating companies, including Kentucky Power, SWEPCO, Public Service Company of Oklahoma ("PSO"), Indiana & Michigan Power Company ("I&M"), and APCo.

Q. HAVE YOU TESTIFIED BEFORE ANY REGULATORY AGENCIES?

A. Yes. I have testified before the Kentucky Public Service Commission on behalf of Kentucky Power. Furthermore, I have provided rebuttal testimony on behalf of APCo and Wheeling Power Company ("WPCo") before the Public Service Commission of West Virginia.

III. PURPOSE

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

A. The purpose of my testimony is to address the following areas for the review period from November 2016 through October 2018 ("the review period"):

a) Natural Gas suppliers' adherence to contract delivery schedules during the review period;

b) Kentucky Power's efforts to ensure natural gas suppliers' adherence to contract delivery schedules during the review period;

c) Kentucky Power's efforts to maintain the adequacy of its natural gas supplies in light of any suppliers' inability or unwillingness to make contract natural gas deliveries;

d) Any changes in natural gas market conditions that occurred during the review period or that the Company expects to occur within the next two years that have significantly affected or will significantly affect Kentucky Power's natural gas costs or natural gas procurement practices; and

e) The reasonableness of Kentucky Power's natural gas procurement practices during the review period.

IV. CONTRACT DELIVERIES

Q. WOULD YOU PLEASE SUMMARIZE KENTUCKY POWER'S NATURAL GAS SUPPLIERS' ADHERENCE TO CONTRACT DELIVERY SCHEDULES DURING THE REVIEW PERIOD?

A. Kentucky Power received all purchased natural gas supply during the review period. All suppliers adhered to contract delivery schedules.

Q. PLEASE SUMMARIZE KENTUCKY POWER'S NATURAL GAS PURCHASING METHODOLOGY FOR BIG SANDY UNIT 1.

A. Kentucky Power continually monitors the performance of its natural gas suppliers' deliveries compared to the contracted volumes. All natural gas purchases made on behalf of Big Sandy Unit 1 were spot purchases. Spot purchases normally take place the day before the flow period of the deal begins. The flow period is usually one day, but can be anywhere from two to five days if the period includes a weekend or a holiday, or both. After the flow period commences, Kentucky Power monitors reports made available by Columbia Gas Transmission (the interstate pipeline that delivers natural gas to Big Sandy Unit 1) which display actual volumes delivered to the agreed upon custody point during the most recent nomination cycle. Columbia Gas Transmission runs these reports for the five nomination cycles per flow day that are prescribed in its operational tariff.

Q. WHAT ACTION DOES KENTUCKY POWER TAKE IF THE SUPPLIER FAILS TO DELIVER THE CONTRACTED AMOUNT OF NATURAL GAS?

A. If Kentucky Power finds any supplier has not delivered 100% of the contracted volume for any cycle, the supplier is contacted for information as to why the contract flow was reduced and to obtain assurance that the error will be corrected for the subsequent cycle. This process is repeated for the remaining cycles if necessary. If the delivery reduction is not resolved for the final delivery cycle, Kentucky Power will contact the supplier and request deferred delivery of undelivered volumes for another gas day (if such deferred delivery benefits Kentucky Power and its customers).

Q. PLEASE DISCUSS KENTUCKY POWER'S EFFORTS IF IT WERE REQUIRED TO MAINTAIN THE ADEQUACY OF ITS NATURAL GAS SUPPLIES IF THE SUPPLIER FAILED TO MAKE CONTRACT DELIVERIES.

A. If delivery reductions occurred, and the remaining supply for the day needed to be supplemented, Kentucky Power would either seek new supply in the intraday market or rely on balancing services that may be available via Columbia Gas Transmission pipeline. The cost of balancing services, if available, would be compared to the cost of intraday supply. Balancing services, such as a loan service, may not be always available. In particular, because the services typically rely on storage owned by the pipeline, they may not be available on days of high system consumption that typically occur with extreme weather.

V. NATURAL GAS PROCUREMENT STRATEGY

Q. PLEASE DESCRIBE KENTUCKY POWER'S NATURAL GAS PROCUREMENT STRATEGY.

A. Due to the fluctuating natural gas requirements associated with the variable operation of natural gas-fired power plants such as Big Sandy Unit 1, the Company requires flexibility in its natural gas supply and transportation arrangements. In order to meet PJM dispatch requests, Kentucky Power needs instantaneous, hourly, and daily flexibility in the delivery flow of natural gas volumes. To meet these needs, Kentucky Power relies predominantly on daily spot market natural gas purchases. The natural gas arrangements utilized by Kentucky Power provide the required flexibility necessary to reliably operate Big Sandy Unit 1, while minimizing overall total fuel costs.

AEPSC, on behalf of the Company, pursues spot market purchase opportunities through a competitive bidding program. For daily market purchases, the natural gas buyer receives a forecast from AEPSC's Regional Transmission Organization Bid/Offer and Cost Development personnel each morning and discusses the expected operation and estimated natural gas requirements for the Company's power plants for the current and the following six days. Then, the natural gas buyer gathers market information from the various natural gas market areas and hubs accessible to the Company. The buyer also obtains pricing and volume information from numerous natural gas suppliers, as well as real-time natural gas market data from platforms, such as the

Intercontinental Exchange ("ICE"), to locate and optimize purchases in the spot natural gas market.

Once the buyer analyzes relevant information, purchases are made for the necessary spot natural gas supplies from the most economical and reliable sources available at the time. The natural gas buyer then makes the necessary nominations and scheduling arrangements with Columbia Gas Transmission to deliver the natural gas supplies to Big Sandy Unit 1, as appropriate, and monitors deliveries throughout the day. After PJM releases its Day Ahead awards for the next day, the natural gas buyer reviews the units that received an award and, depending on the results, makes adjustments through additional purchases or sales, as necessary.

If Big Sandy Unit 1 economics continue to be on the margin in PJM, supply flexibility will continue to be vital for the plant. Having firm transportation with Columbia Gas Transmission helps ensure that the gas purchased after the PJM day ahead awards can be successfully delivered to Big Sandy Unit 1.

VI. MARKET OVERVIEW

Q. PLEASE EXPLAIN THE CHANGES IN THE NATURAL GAS MARKET THAT OCCURRED DURING THE REVIEW PERIOD OR THAT KENTUCKY POWER EXPECTS TO OCCUR WITHIN THE NEXT TWO YEARS THAT HAVE SIGNIFICANTLY AFFECTED OR WILL SIGNIFICANTLY AFFECT THE COMPANY'S NATURAL GAS PROCUREMENT PRACTICES.

A. The development of shale gas, as well as improvements in production technologies have contributed to continued record domestic natural gas production. Based on data published by the U.S. Energy Information Administration ("EIA"), natural gas production in the Appalachian Basin reached 30.4 billion cubic feet ("Bcf") per day in October 2018, which is up from 22.3 Bcf per day in November 2016. With the increased gas production, producers and marketers have been very active in the proliferation of various pipeline projects to enable the transport of natural gas to more lucrative markets.

In November 2016, domestic natural gas working storage reached a record level of 4.05 trillion cubic feet ("Tcf"). The month of December 2016 was seasonably cold, with periods of both moderate and much-below normal temperatures, which resulted in total U.S. natural gas consumption surpassing the previous five-year average by 17 percent, causing a draw of 700 Bcf by year-end. In 2017, the withdrawal season commenced with 3.79 Tcf in working storage. Again with colder temperatures in the second half of December 2017, more than 600 Bcf was pulled from storage by the end of the year.

The cold temperatures persisted into January 2018, with continued strong storage withdrawals. Extreme temperatures throughout the year defined 2018. Below normal winter temperatures quickly transitioned to above average summer temperatures. As such, natural gas injection season was exceptionally sluggish, but market prices did not respond due to sustained record production. Injection season turned into withdrawal season the third week of November 2018, and concerns over slow injection during previous quarters were realized when U.S.

gas in storage posted the largest initial withdrawal on record. As the U.S. was entering peak heating season, at the lowest gas inventory level since 2002, the market finally reacted. Specific to Big Sandy Unit 1, the Columbia Gas Transmission ("TCO") pool daily settle price increased from $2.47 per MMBtu (October 8, 2018) to $4.51 per MMBtu (November 21, 2018). However, the rally was short-lived, as a mild December 2018 eased supply fears and TCO pool settle pricing was below $3.00 per MMBtu to end the year. The mild weather continued into the first half of January, which has caused the gas storage position to strengthen and forward prices to remain relatively low.

There are no anticipated changes in the natural gas market expected within the next two years that will significantly affect the Company's natural gas procurement practices. As the demand for natural gas supply increases so will the demand for natural gas transportation capacity. Thus, having supply flexibility and firm pipeline transportation will be key to successfully procuring gas for Big Sandy Unit 1.

VII. CONCLUSION

Q. WERE KENTUCKY POWER'S NATURAL GAS PROCUREMENT PRACTICES REASONABLE DURING THE REVIEW PERIOD?

A. Yes. Kentucky Power procures and manages its natural gas supplies and transportation costs appropriately to provide a reliable supply at the lowest reasonable cost.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

VERIFICATION

The undersigned, Clinton M. Stutler, being duly sworn, deposes and says he is the Natural Gas & Fuel Oil Manager for American Electric Power, that he has personal knowledge of the matters set forth in the foregoing responses and the information contained therein is true and correct to the best of his information, knowledge, and belief.

Clinton M. Stutler

State of Ohio)
) Case No. 2019-00002
County of Franklin)

Subscribed and sworn before me, a Notary Public, by Clinton M. Stutler this 25 day of February, 2019.

Notary Public

My Commission Expires 7-1-2021

NOTARIAL SEAL
STATE OF OHIO

Gina L. Beyer
Notary Public, State of Ohio
My Commission Expires 07-01-2021