COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Electronic Application Of Kentucky Power Comp	any)
For (1) A General Adjustment Of Its Rates For)
Electric Service; (2) Approval Of Tariffs And Rid	ers;)
(3) Approval Of Accounting Practices To Establis	sh)
Regulatory Assets And Liabilities; (4) Approval C	Of A)
Certificate Of Public Convenience And Necessity	,)
And (5) All Other Required Approvals And Relief	f)

Case No. 2020-00174

REBUTTAL TESTIMONY OF

KELLY D. PEARCE

ON BEHALF OF KENTUCKY POWER COMPANY

REBUTTAL TESTIMONY OF KELLY D. PEARCE ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

CASE NO. 2020-00174

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REBUTTAL TESTIMONY OF KELLY D. PEARCE ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

I. <u>INTRODUCTION</u>

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- 2 A. My name is Kelly D. Pearce, and my business address is 1 Riverside Plaza,
- 3 Columbus, Ohio, 43215.

4 Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am employed by American Electric Power Service Corporation ("AEPSC") as
Managing Director of Transmission Asset Strategy and Policy ("TASP"). AEPSC
supplies engineering, financing, accounting, planning, advisory, and other services to
the subsidiaries of the American Electric Power ("AEP") system, one of which is
Kentucky Power Company ("Kentucky Power" or the "Company").

10 Q. **PLEASE** BRIEFLY DESCRIBE THE TRANSMISSION ASSET 11 STRATEGY AND POLICY DEPARTMENT AND YOUR PRIMARY 12 AREAS OF RESPONSIBILITY AS MANAGING DIRECTOR,

13 TRANSMISSION ASSET STRATEGY AND POLICY.

A. The TASP department is part of the AEP Transmission business unit ("Transmission").
 Among its activities, TASP (a) works with AEP operating companies to develop and
 provide transmission strategy and policy positions, (b) oversees reporting needs for the
 AEP transmission assets for the AEP transmission-only companies and the AEP
 operating companies at the regional transmission organizations ("RTOs"), the Federal
 Energy Regulatory Commission ("FERC") and state regulatory commissions, and (c)

1 represents AEP in various industry organizations.

- 2 My current responsibilities include providing Transmission-related support for 3 the AEP operating companies and transmission-only companies ("Transcos") in their 4 respective state and federal jurisdictions.
- 5 Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL AND
 6 PROFESSIONAL BACKGROUND

A. I received a Bachelor of Science degree in Mechanical Engineering from Oklahoma
State University in 1984. I received Master of Science and Doctor of Philosophy
degrees in Nuclear Engineering from the University of Michigan in 1986 and 1991
respectively. I received a Master of Science in Industrial Administration degree from
Carnegie Mellon University in 1994.

12 From 1986 to 1988, I worked for a subsidiary of Olin Corporation. From 1991 13 to 1996, I worked for the United States Department of Energy within the Office of 14 Fossil Energy. My responsibilities included serving as a Contracting Officer's 15 Representative in the oversight and administration of government-funded research of 16 advanced generation and environmental remediation technologies and projects. I also 17 supported strategic studies for deployment and commercialization of these 18 technologies, as well as administration and support of government research and 19 development solicitations.

In 1996, I joined AEPSC as a Rate Consultant I in the Regulatory Services department. In 2001, I was promoted to Senior Regulatory Consultant. My responsibilities included preparation of class cost-of-service studies and rate design for AEP operating companies and the preparation of special contracts and regulated pricing

1		for retail customers. In 2003, I transferred to Commercial Operations within AEPSC
2		as Manager of Cost Recovery Analysis. In 2007, I was promoted to Director of
3		Commercial Analysis. During this period, I was responsible for analyzing the financial
4		impacts of Commercial Operations related activities. I also supported settlement of
5		AEP's generation pooling agreements among AEP's operating companies. In 2010, I
6		transferred to Regulatory Services as Director, Contracts and Analysis. In April 2018,
7		I was promoted to Managing Director, Contracts Analysis and FERC Regulatory. In
8		September 2018, I transferred to Transmission in my current position. I am a registered
9		Professional Engineer in Ohio and West Virginia.
10	Q.	HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY
11		COMMISSIONS?
11		
11	A.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the
	A.	
12	A.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the
12 13	A.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the Virginia State Corporation Commission in Case No. PUE-2001-00306, before the
12 13 14	A.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the Virginia State Corporation Commission in Case No. PUE-2001-00306, before the Public Utilities Commission of Ohio in Case Nos. 11- 346-EL-SSO, <i>et al.</i> , 10-2929-
12 13 14 15	A.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the Virginia State Corporation Commission in Case No. PUE-2001-00306, before the Public Utilities Commission of Ohio in Case Nos. 11- 346-EL-SSO, <i>et al.</i> , 10-2929-EL-UNC, and 14-1693-EL-RDR, <i>et al.</i> , before the Indiana Commission in Cause No.
12 13 14 15 16	A.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the Virginia State Corporation Commission in Case No. PUE-2001-00306, before the Public Utilities Commission of Ohio in Case Nos. 11- 346-EL-SSO, <i>et al.</i> , 10-2929- EL-UNC, and 14-1693-EL-RDR, <i>et al.</i> , before the Indiana Commission in Cause No. 43992, before the Corporation Commission of Oklahoma in Cause No. 201700267, and
12 13 14 15 16 17	A.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the Virginia State Corporation Commission in Case No. PUE-2001-00306, before the Public Utilities Commission of Ohio in Case Nos. 11- 346-EL-SSO, <i>et al.</i> , 10-2929- EL-UNC, and 14-1693-EL-RDR, <i>et al.</i> , before the Indiana Commission in Cause No. 43992, before the Corporation Commission of Oklahoma in Cause No. 201700267, and before the Public Utility Commission of Texas in Docket No. 47461. I have also
12 13 14 15 16 17 18	А. Q.	Yes. I testified before this Commission in Case No. 2014-00225. I testified before the Virginia State Corporation Commission in Case No. PUE-2001-00306, before the Public Utilities Commission of Ohio in Case Nos. 11- 346-EL-SSO, <i>et al.</i> , 10-2929- EL-UNC, and 14-1693-EL-RDR, <i>et al.</i> , before the Indiana Commission in Cause No. 43992, before the Corporation Commission of Oklahoma in Cause No. 201700267, and before the Public Utility Commission of Texas in Docket No. 47461. I have also submitted testimony in various dockets, including to the Federal Energy Regulatory

II. <u>PURPOSE OF REBUTTAL TESTIMONY</u>

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

- 2 A. The purpose of my rebuttal testimony is as follows:
- I respond to the Kentucky Attorney General and Kentucky Industrial Utility
 Customers, Inc. ("AG/KIUC") witness Mr. Stephen J. Baron's testimony on
 transmission issues.
- I demonstrate that Kentucky Power's participation in the AEP Transmission
 Agreement benefits Kentucky Power's customers; and
- I respond to Mr. Baron's suggestion that Kentucky Power should become a
 standalone member of PJM.

III. COST ALLOCATION AND THE AEP TRANSMISSION AGREEMENT

10 Q. ON PAGE 13, LINES 12 THROUGH 14 OF MR. BARON'S TESTIMONY, HE

11QUESTIONS KENTUCKY POWER'S PARTICIPATION IN THE AEP12TRANSMISSION AGREEMENT. PLEASE DESCRIBE THE AEP13TRANSMISSION AGREEMENT.

A. The AEP Transmission Agreement is a FERC-approved agreement that governs the
allocation of revenues and expenses among the AEP member transmission companies.
It provides for the equitable sharing among the members of the costs incurred by the
members in connection with the ownership and use of the transmission system.

18 Q. DOES THE TRANSMISSION AGREEMENT PROVIDE BENEFITS TO 19 KENTUCKY POWER?

A. Yes. AEP developed an extensive transmission system that serves as the medium for
integrating the power supply resources of the member companies. The PJM East Zone

system stretches from the southeastern shores of Lake Michigan through northern
 Indiana and Ohio to the mountains of Kentucky, Tennessee, Virginia, and West
 Virginia. AEP pioneered extra-high-voltage ("EHV") transmission as a means of
 achieving the advantages of large-scale system integration and the ability to move
 power to widely separated load areas via high voltage and EHV transmission.

6 Q. WHAT BENEFITS DOES KENTUCKY POWER GET FROM THE 7 TRANSMISSION AGREEMENT?

8 A. A significant benefit that Kentucky Power receives from its participation in the 9 transmission agreement is the allocation of its costs as a PJM Load Serving Entity 10 ("LSE"). PJM allocates the cost of Network Integrated Transmission Service ("NITS") 11 among LSEs in the AEP zone based on each LSE's contribution to the single highest 12 hourly peak of the zone over a 12-month period ("1 Coincident Peak" or "1CP"). Under 13 the Transmission Agreement, the total NITS charge to the members is reallocated 14 among the members based on the average of each member's average contribution to 15 the monthly peaks over a 12-month period ("12 Coincident Peaks" or "12CP"). Mr. 16 Baron appears to agree with the Company, for example on page 19, lines 7 through 11, 17 regarding this difference in the allocation.

18

Q. WHY DOES PJM ALLOCATE COSTS USING 1CP?

A. PJM has used a simplified approach in terms of allocating transmission costs based on
the single highest hourly demand on the system. One reasoning is that the system
overall is designed to accommodate this maximum peak, and so 1CP is selected to
identify each LSE's contribution to it.

1 Q. WHY IS 12CP USED IN THE TRANSMISSION AGREEMENT?

2 A. There is generally no "perfect" allocation method. In the case of 12CP, it is reasonable 3 because it considers loads' use of the transmission system based on more than a single 4 hour. Loads use the transmission system throughout the year and it is just and 5 reasonable that that is reflected in what they are charged. Second, use of only 1CP may 6 incentivize gaming in the sense that LSEs may attempt to reduce their load during that 7 1CP and shift cost to other LSEs. I distinguish gaming from legitimate load 8 management activities. Third and most important, use of the 12CP tends to be less 9 volatile than 1CP. Each member's contribution to the 12CP is going to tend to change 10 less from year to year than their 1CP contribution. Use of the 12CP thus helps the 11 companies and their customers better manage their costs with reduced volatility. 12 Importantly, in this case, the 12CP method benefits all the members of the 13 Transmission Agreement, including Kentucky Power.

14 Q. WHAT IMPACT DOES SEASONAL PEAK VARIATION HAVE ON THIS 15 VOLATILITY?

A. AEP companies are geographically diverse. Some of the AEP companies tend to be
 summer-peaking, while others are winter-peaking, including Kentucky Power. If AEP
 used the 1CP method, individual AEP companies would be subject to more volatile
 swings in expenses. Their cost would fluctuate significantly depending on whether the
 1CP occurred in the summer or the winter. The 12CP method results in more stable
 cost sharing among the AEP companies than other alternatives.

Q. YOU MENTIONED EARLIER THAT THE 12CP ALLOCATION BENEFITS KENTUCKY POWER. HAVE YOU PERFORMED AN ANALYSIS THAT

1 2

COMPARES KENTUCKY POWER'S EXPENSES USING THE 12CP METHOD TO THE 1CP METHOD?

3 A. Yes. I looked at the impacts on the peaks for the last seven years in the AEP zone. 4 Over that period, Kentucky Power's allocation of the AEP NITS and net expansion 5 cost based on 12CP varied from 5.66% to 6.53%, with a standard deviation -- a measure of volatility with the higher number indicating more volatility -- of 0.40%. Under the 6 7 1CP method over the same period, Kentucky Power's allocation of total zonal NITS 8 cost would have varied from 4.42% up to 6.63% with a standard deviation of 0.92%. 9 The 1CP would have resulted in much more volatility for Kentucky Power over the 10 period, with its NITS responsibility changing as much as 2.21% from one year to 11 another. By contrast, the costs allocated using 12CP varied only 0.87% or by a factor 12 of 2.5 less.

Q. WOULD KENTUCKY POWER'S TOTAL NITS COST RESPONSIBILITY HAVE BEEN LOWER OVER THIS SEVEN-YEAR PERIOD USING 1CP?

A. Figure KDP-1 shows the increases (2015, 2016, 2019, and 2020) and decreases (2014,
2017, and 2018) in NITS expense that would have been paid by Kentucky Power if
17 1CP had been used in lieu of the 12CP allocation methodology specified by the
Transmission Agreement. As shown in Figure KDP-1, some years, Kentucky Power
would have paid more and some years less using 1CP instead of 12CP. But over the
7-year period, Kentucky Power customers would have paid approximately \$37.5
Million more using 1CP than they paid under the 12CP method of allocation.

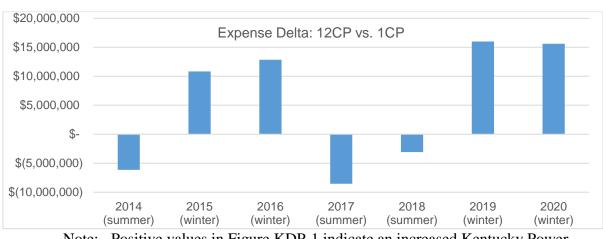


Figure KDP-1

Note: Positive values in Figure KDP-1 indicate an increased Kentucky Power expense using 1CP instead of 12CP, while lower numbers indicate a reduced Kentucky Power expense using 1CP.

Q. HAVE THESE VALUES BEEN REVISED SINCE THIS REBUTTAL TESTIMONY WAS FIRST FILED?

3 A. Yes. To identify the values shown in Figure KDP-1, the annual amounts were first 4 split between the cost responsibility of the affiliates, which are the AEP operating 5 companies (~85%), and the non-affiliates which are munis and co-ops that are within 6 the AEP zone but are not served by any AEP operating company as their load serving 7 entity (~15%). The Kentucky Power portion of the affiliates responsibility was then 8 determined using the Kentucky Power allocator on a 1CP and 12CP basis and the 9 differences or "deltas" were shown in Figure KDP-1. Subsequent to the original filing, 10 it was discovered that incorrect non-affiliate portions were used in the subsequent steps instead of the correct affiliate values. Figure KDP-1 above has been corrected and 11 12 simplified by taking Kentucky Power's portion of the entire AEP zone based on 1CP.

1	Q.	DOES THE AEP TRANSMISSION AGREEMENT ALLOW MEMBERS T	0
2		WITHDRAW FROM THE AGREEMENT?	

A. Section 9.3 of the AEP Transmission Agreement allows any member to withdraw from
the agreement upon at least three years' prior written notice to the other members and
the agent.

6 Q. IN YOUR OPINION, SHOULD KENTUCKY POWER GIVE THIS NOTICE TO 7 LEAVE THE TRANSMISSION AGREEMENT?

- 8 A. Due to the benefits described above, no. As I have discussed, doing so would subject
 9 Kentucky Power and its customers to greater volatility in NITS costs.
- 10 Q. ON PAGE 13, LINE 12 OF MR. BARON'S TESTIMONY, HE SUGGESTS
- 11 THAT KENTUCKY POWER SHOULD SEEK TO HAVE ITS SERVICE
- 12 TERRITORY BECOME ITS OWN LOAD ZONE IN PJM. DOES THE PJM
- 13 CONSOLIDATED TRANSMISSION OWNERS AGREEMENT ("CTOA")

14 ALLOW FOR THE ESTABLISHMENT OF ADDITIONAL ZONES?

- 15 A. No. As shown in the Company's response to AG/KIUC First Set of Data Requests
- 16 (AG_KIUC-1-052) the PJM CTOA Section 7.4 provides the following:
- For purposes of developing rates for service under the PJM Tariff, transmission rate
 Zones smaller than those shown in Attachment J to the PJM Tariff, or subzones of those
 Zones, shall not be permitted within the current boundaries of the PJM Region;
 provided, however, that additional Zones may be established if the current boundaries
 of the PJM Region is expanded to accommodate new Parties to this Agreement.
- 22 The CTOA does not allow for the establishment of a Kentucky Power-specific load
- zone.

24 Q. SETTING ASIDE THE CTOA, WOULD THIS ACTION BENEFIT 25 KENTUCKY POWER?

A. I do not believe it would. Investment among the various AEP Companies, including
 Kentucky Power, varies over time for reasons explained by Company Witness Ali.

IV. <u>CONCLUSION</u>

3 Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

4 A. Yes, it does.

VERIFICATION

The undersigned, Kelly D. Pearce, being duly sworn, deposes and says he is a Managing Director of Transmission Asset Strategy and Policy for American Electric Power Service Corporation 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 after reasonable inquiry.

enne

Kelly D. Pearce

STATE OF OHIO

COUNTY OF FRANKLIN

) Case No. 2020-00174

Subscribed and sworn to before me, a Notary Public in and before said County and State, by



Paul D. Flory Attorney At Law Notary Public, State of Ohio commission has no expiration date Sec. 147.03 R.C.

2 0

Notary Public

Notary ID Number: My Commission Expires: