

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ELECTRONIC EXAMINATION OF THE)
APPLICATION OF THE FUEL ADJUSTMENT)
CLAUSE OF KENTUCKY POWER COMPANY)
FROM NOVEMBER 1, 2021 THROUGH APRIL)
30, 2022)

Case No. 2022-00263

REBUTTAL TESTIMONY OF
JASON M. STEGALL
ON BEHALF OF KENTUCKY POWER COMPANY

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I. INTRODUCTION

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

2 A. My name is Jason M. Stegall. I am employed by American Electric Power Service
3 Corporation (“AEPSC”), a subsidiary of American Electric Power Company, Inc. (“AEP”),
4 in the Regulatory Services organization as Director of Regulatory Services. My business
5 address is 1 Riverside Plaza, Columbus, Ohio 43215.

6 **Q. ARE YOU THE SAME JASON M. STEGALL WHO OFFERED DIRECT**
7 **TESTIMONY IN THIS PROCEEDING?**

8 A. Yes.

II. PURPOSE OF REBUTTAL TESTIMONY

9 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

10 A. The purpose of my rebuttal testimony is to identify and correct misstatements made by
11 Attorney General and Kentucky Industrial Utility Customers, Inc. (AG/KIUC) witness
12 Lane Kollen. I will also address the recommendation of disallowance recommended by
13 Mr. Kollen and AG/KIUC witness Randy Futral based on their proposed changes to the
14 Peaking Unit Equivalent (PUE) calculation embedded in the Company’s Fuel Adjustment
15 Clause (FAC) revenue requirement calculation.

16 **Q. ARE YOU SPONSORING ANY REBUTTAL EXHIBITS?**

17 A. No.

III. OVERVIEW OF THE PUE CALCULATION

1 **Q. WHAT IS THE PUE CALCULATION?**

2 A. The PUE calculation is formula used to determine whether the Company's purchased
3 power costs are considered economy purchases recoverable through the FAC, or non-
4 economy purchases excluded from the FAC and recoverable through base rates (if
5 reasonably incurred).

6 **Q. WHEN WAS THE PUE CALCULATION IMPLEMENTED?**

7 A. The Commission initially approved the Company's use of the PUE to determine economy
8 and non-economy purchased power in its October 3, 2002, order in Case No. 2000-00495-
9 B. Therein, the Commission said:

10 The Commission recognizes [Kentucky Power] is unique among Kentucky
11 generators as it operates only base load coal-fired units. Our interpretation
12 of Administrative Regulation 807 KAR 5:056, as set forth in our Order of
13 May 2, 2002, permits AEP to recover a lesser portion of the cost of
14 purchased power than other utilities that operate higher cost gas-fired
15 peaking generators. This result could occur even if the supplier and source
16 of supply are the same. This anomaly requires us to consider the use of
17 [Kentucky Power]'s proposed proxy mechanism. Based upon our review of
18 the record and being otherwise sufficiently advised, we find that [Kentucky
19 Power]'s proposed Peaking Unit Equivalent approach to calculate the level
20 of non-economy purchased power costs to flow through its FAC is
21 reasonable and should be approved.¹

22 **Q. WAS THE PUE DESIGNED TO SIMULATE THE OPERATION OF A**
23 **GENERATING UNIT?**

24 A. No. Kentucky Power does not have a peaking unit in its portfolio. The PUE calculation
25 allows the Company's FAC calculation, for an individual hour, to compare the result of a
26 cost-based formula to the price of purchased power to determine how much purchased

¹ Order at 3, *In The Matter Of: An Examination By The Public Service Commission Of The Fuel Adjustment Clause Of American Electric Power Company From May 1, 2001 To October 31, 2001*, Case No. 2000-00495-B (Ky. P.S.C. October 3, 2002).

1 power expense can be classified as economy purchased power and included in the FAC.

2 The PUE thus operates as a proxy; it is a formula-derived approximation:

3 In Case No. 2000-00495-B, the Commission authorized American Electric
4 Power's ("AEP") use of a *proxy mechanism* to establish the energy portion
5 of non-economy energy purchases. *The proxy mechanism approximates*
6 *the energy costs* of a "Peaking Unit Equivalent" based on the operating
7 characteristics of a General Electric simple cycle gas turbine.²

8 The approximate nature of the proxy is underscored by the 75 percent threshold for
9 consideration of the PUE in connection with the Company's purchased power costs:

10 When a power purchase occurs during an expense month, AEP will
11 determine the average daily market price for that month. It will then
12 determine the lowest daily market price for gas for the theoretical turbine
13 during that month and compare that price to its actual average purchased
14 energy cost for internal uses for the same month. *If the actual average*
15 *purchased energy cost for internal use for the month is 75 percent or less*
16 *of the lowest daily market price for gas for the theoretical gas turbine*
17 *during the same month*, AEP will consider this cost as the fuel cost for
18 these purchases. *If the actual average purchased energy cost for internal*
19 *use is greater than 75 percent of the lowest daily market price for gas for*
20 *the hypothetical gas turbine*, then AEP will compare its average purchased
21 energy cost for internal uses with the market price for gas for the
22 hypothetical turbine for each day of the month and exclude for FAC
23 purposes any of the actual purchased energy costs that exceed the daily gas
24 market price.³

25 This formula is what Mr. Futral described as a "hypothetical ratemaking
26 methodology"⁴ and was never designed to replicate the actual performance of a generating
27 unit. The performance of any generating unit in an individual hour can be affected by
28 factors such as the state of the unit and its component equipment, ambient conditions such
29 as air temperature, and the availability and quality of its fuel. In addition, actual units

² Order, *In the Matter of: The Request Of Kentucky Power Company D/B/A American Electric Power To Change The Gas Price Index It May Use In Determining The Costs Recoverable Through Its Fuel Adjustment Clause*, Case No. 2004-00375 at 1 (Ky. P.S.C. November 10, 2004) (emphasis supplied).

³ See Order, *In the Matter Of: An Examination By The Public Service Commission Of The Application Of The Fuel Adjustment Clause Of American Electric Power Company From May 1, 2001 to October 1, 2001*, at 2-3 (Ky. P.S.C. October 3, 2002) (emphasis supplied).

⁴ Direct Testimony of R. Futral, Pg. 5

1 require maintenance and planned outages to maintain equipment as well as fixed operations
2 and maintenance (O&M) expenses and capital investment to maintain their performance.
3 The PUE, by its nature, does not take those factors into account and focuses on a only on
4 a formula based on the cost of natural gas.

5 **Q. DID THE COMPANY PROPOSE CHANGES TO THE PUE CALCULATION IN**
6 **CASE NO. 2017-00179?**

7 A. Yes. The Company, via witness Alex Vaughan, proposed changes to the calculation in Case
8 No. 2017-00179 and the Commission authorized an update to the PUE calculation in its
9 order on rehearing, dated February 27, 2018.

10 In his Direct Testimony Mr. Vaughan proposed to include unit startup costs, the
11 cost of firm natural gas service, and variable O&M expense in the PUE calculation.⁵ Mr.
12 Vaughan even went on to explain that, “the startup costs, variable O&M, and firm gas
13 components combine to add between \$38 - \$39/MWh to the peaking unit equivalent cost
14 calculation depending on the month of the year.”⁶ In its order on rehearing, the
15 Commission specifically found that the Company’s “proposal to include startup costs,
16 variable O&M expense, transportation retainage, park and lend rates, and FERC annual
17 charge adjustment costs is reasonable and should be approved.”⁷ The Commission’s order
18 had the effect of reducing the requested increase to \$33.48/MWh.

⁵ Direct Testimony of Alex Vaughan at 33:17-21, *In The Matter Of: 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 (June 28, 2017).

⁶ *Id.*, –at 35:4-6.

⁷ Order at 5, *In The Matter Of: 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 (Ky. P.S.C. February 27, 2018).

1 **Q. MR. FUTRAL CLAIMS MR. VAUGHAN DID NOT PROVIDE THE SOURCE FOR**
2 **HIS STARTUP COST CALCULATION.⁸ DO YOU AGREE?**

3 A. No, Mr. Futral's claim is factually incorrect. In Case No. 2017-00179, the Commission
4 Staff requested, and the Company provided, the electronic forms of all exhibits in data
5 request KPSC 1-73. Mr. Vaughan's Exhibit AEV-8, and the underlying workpapers with
6 the calculation of the startup cost, was provided as Attachment 78 to that response.⁹ The
7 startup cost workpaper in that attachment provides the calculation of the \$30/MWh startup
8 cost.

9 **Q. WHEN DID THE COMPANY FIRST IMPLEMENT THE CHANGES APPROVED**
10 **IN CASE NO. 2017-00179?**

11 A. The Company first applied the approved changes in its PUE calculations for power
12 purchases in February 2018.

IV. OVERVIEW OF PARTICIPATION IN PJM

13 **Q. PLEASE EXPLAIN KENTUCKY POWER'S PARTICIPATION IN PJM.**

14 A. Kentucky Power participates in PJM with its affiliates Wheeling Power Company,
15 Appalachian Power Company, and Indiana Michigan Power Company through a Power
16 Coordination Agreement (PCA). This agreement allows the four entities to pool their
17 capacity resources with the other three companies to meet its PJM capacity obligations but

⁸ Direct Testimony of Randy Futral at 8:18-20.

⁹ See Company's Response to KPSC 1-73, *In The Matter Of: 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 (July 12, 2017).

1 also allows Kentucky Power to participate as an individual company for the purchase of its
2 load and the sale of its generation obligations I identified in my direct testimony.¹⁰

3 In addition, the PCA between AEP East Companies establishes AEPSC to act as
4 the agent for Kentucky Power, but also establishes that “costs and revenues will be assigned
5 or allocated directly by the applicable regional transmission organization or its agent when
6 practical.”¹¹

7 **Q. WHO ULTIMATELY DETERMINES THE AMOUNT OF PURCHASED POWER**
8 **NECESSARY TO MEET KENTUCKY POWER’S LOAD OBLIGATION IN PJM?**

9 A. PJM, pursuant to its FERC approved tariff, determines the Company’s hourly obligation
10 and the required cost to meet that obligation. Through its settlement process, PJM
11 determines the amount of generation sold in an individual hour as well as the load
12 purchased and identifies any purchases necessary to balance the two. In contrast to a
13 statement made by Mr. Kollen in his testimony¹² AEPSC obtains the data from PJM
14 necessary to calculate the PUE and to record all the net transactions to Company’s general
15 ledger.

16 **Q. DID THE COMPANY EMPLOY APPROPRIATE PRACTICES IN OFFERING**
17 **ITS UNITS INTO THE PJM MARKET DURING THE REVIEW PERIOD?**

18 A. Yes, as discussed by Company witness Chilcote, the Company was at risk of running out
19 of coal during this period due to unavailability in the market. If this had occurred, it would
20 have exposed Kentucky Power to additional energy market risk, as well as the potential for
21 capacity de-rates on the affected units. In response to the unavailability of coal in the

¹⁰ Direct Testimony of J. Stegall, Pg. 3 Line 10 – Pg. 4 Line 7

¹¹ See Power Coordination Agreement, Section 7.4

¹² Direct Testimony of Lane Kollen at 11:19-20.

1 market at the time, the Company adopted a market strategy to address that limited supply,
2 which I discussed in my direct testimony. Mr. Kollen’s statement that, “The only party that
3 can control its coal inventory is the Company, or its agent for that purpose, AEPSC,”¹³
4 completely disregards market forces and whether there actually is any coal available for
5 the Company to purchase when needed. It also disregards that the Company is
6 knowledgeable and experienced in maintaining its coal inventory and that it employs best
7 practices based on that knowledge and experience. Mr. Kollen has no firsthand experience
8 in the field of coal procurement and inventory management and his opinions on what the
9 Company should have done differently should be given little, if any, weight. Company
10 Witness Chilcote provides additional information to rebut Mr. Kollen’s unsupported
11 assertions.

12 Furthermore, coal supply issues during the review period were not a Kentucky
13 Power specific issue. The problem of coal supply was an issue across the AEP footprint
14 and across the various coal plant operators within PJM. As evidence to this, the entire PJM
15 coal fleet achieved an average capacity factor of 37%¹⁴ during the review period which
16 contained relatively high PJM LMPs.

¹³ AG-KIUC response to KPCO 1-11.

¹⁴ Per the PJM State of the Market report there is 52,232.2 MW of installed coal capacity in the RTO. Monthly PJM generation by fuel type is publicly available at <https://dataminer2.pjm.com/list>

V. AG-KIUC'S RECOMMENDATIONS

1 **Q. PLEASE SUMMARIZE THE OVERALL RECOMMENDATIONS OF AG/KIUC**
2 **WITNESSES KOLLEN AND FUTRAL.**

3 A. Kollen and Futral propose to retroactively alter the Commission-approved PUE calculation
4 in order to reduce the Company's recovery through the FAC of its prudently-incurred
5 purchased power expenses by an additional \$21.6 million.

6 Specifically, the AG-KIUC witnesses propose to alter the PUE calculation such that
7 it calculates the economy purchase price cap based on the PUE for the first
8 100 mW, and based on the BUE for purchases in excess of the first 100
9 mWh at the lower of the actual cost of purchased power or the highest fuel
10 cost base load generating unit (Mitchell 1 and 2, Rockport 1 and 2) during
11 the month.

12 The PUE methodology will continue to be used to set the economy purchase
13 cap, but only up to 100 mW per hour, consistent with the physical limitation
14 of the hypothetical PUE. The BUE methodology will be used to set the
15 economy purchase cap for all purchases in any hour above 100 mW using
16 the lesser of the actual purchased power costs or the Company's highest
17 cost base load generating unit (Mitchell or Rockport) during the month. The
18 pricing under the BUE methodology would exclude unusual costs or costs
19 not related to the operation of the generating units in order to avoid an
20 unreasonable cost for the base load generating unit.¹⁵

21 **Q. WHAT IS THE SIGNIFICANCE OF THE PROPOSED CHANGE?**

22 A. The proposed change would force the Company to absorb, until they can be recovered
23 through base rates, an additional \$21.6 million for services provided to customers that were
24 prudently incurred and charged to customers in accordance with the Commission's orders
25 and 807 KAR 5:056. The proposed incremental disallowance calculated by Mr. Futral
26 represents 45.5% of the Company's operating income over the 6-month period under
27 review and 72.6% of its net income over that same period.

¹⁵ Kollen Direct Testimony at 20-21.

1 **Q. WHAT IS YOUR RESPONSE TO THIS PROPOSAL TO SIGNIFICANTLY**
2 **ALTER THE PUE CALCULATION AND TO DISALLOW \$21.6 MILLION OF**
3 **PRUDENTLY-INCURRED FUEL COSTS?**

4 A. Based on the significance of the proposed changes and the magnitude of their result as
5 proposed, the PUE calculation would become punitive. Not only are Mr. Kollen's and Mr.
6 Futral's testimonies and the suggestions therein contrary to the Commission's orders and
7 807 KAR 5:056, they also lack any discussion of the subsequent effect that such a large
8 disallowance of concurrent cost recovery would have, most notably to Kentucky Power's
9 existing cash flow and its ability to secure future capital. As such, whether to
10 fundamentally alter the PUE calculation is a subject best evaluated in a base rate case where
11 witness(es) with the necessary expertise can advise the Commission on the advisability of
12 such a change and the possible effects on the Company's financial metrics, risk profile,
13 and where all possible means of recovery of purchased power expenses can be
14 comprehensively reviewed.

VI. COMPARISONS TO CEREDO UNIT 1

15 **Q. IN GENERAL, MR. KOLLEN AND MR. FUTRAL PROPOSE CHANGES TO THE**
16 **PEAKING UNIT EQUIVALENT CALCULATION BASED ON COMPARISONS**
17 **TO APPALACHIAN POWER COMPANY'S CEREDO UNIT 1. DO YOU AGREE?**

18 A. No. Both Mr. Kollen and Mr. Futral base their recommendations on the premise that the
19 PUE calculation is supposed to be based on Ceredo Unit 1, a combustion turbine unit
20 owned by Kentucky Power affiliate Appalachian Power Company. However, as stated
21 above, the Commission originally approved the use of the PUE calculation in 2002, not
22 based on any particular combustion turbine unit, but rather on a theoretical unit. It further

1 held on multiple occasions that the PUE was a proxy, and therefore not based on any
2 particular unit. In any event, Appalachian Power Company did not even acquire the Ceredo
3 plant until December 2005. The Company only used Ceredo Unit 1 as an informative
4 model to demonstrate Mr. Vaughan's proposed updates in Case No. 2017-00179.

5 **Q. DID THIS FACT INFORM MR. KOLLEN'S PROPOSED LIMIT ON THE**
6 **AMOUNT OF HOURLY ENERGY SUBJECT TO THE PUE CALCULATION?**

7 A. It appears that Mr. Kollen did not take into account at all the fact that the PUE was not
8 based on an actual combustion turbine unit when making his recommendations. His
9 recommended imposition of a 100 mW limit, and its use in a Base Unit Equivalent
10 calculation, is completely arbitrary. A limit was never discussed when the Company
11 originally proposed the PUE because the PUE was to be based on a theoretical combustion
12 turbine unit (because the Company did not own one) in order to set the amount of costs
13 allowable for recovery through the FAC. Nor was it discussed by any party when the
14 Company proposed its updates to the PUE calculation in Case No. 2017-00179 for the same
15 reasons.

16 **Q. MR. FUTRAL HAS PROPOSED TO REDUCE THE STARTUP COST INCLUDED**
17 **IN THE PUE CALCULATION BASED ON THE AVERAGE RUNTIME FOR**
18 **CEREDO UNIT 1. DO YOU AGREE?**

19 A. No. As I stated above, the PUE is a proxy formula designed to set the amount of costs
20 allowable for recovery through the FAC, not to simulate the operation of a specific
21 generating unit. Further, the inclusion of startup costs was explicitly approved by the
22 Commission. In any event, Mr. Futral also appears to overestimate the average hours of
23 operation for Ceredo Unit 1. The actual average value for 2021 was 5.66 hours, the average

1 value for 2020 was 4.82 hours, and the average value for the first 11 months of 2022 was
2 5.72 hours.

3 **Q. DID MR. FUTRAL COMPARE THE AVERAGE HEAT RATE OF CEREDO UNIT**
4 **1 TO THAT USED IN THE PUE?**

5 A. No, he did not. Further evidencing that the Company did not model the PUE after any
6 specific combustion turbine unit, much less the Ceredo Unit 1, is that Ceredo Unit 1 had
7 an average heat rate of 12,106 Btu/kWh during the test year for Case No. 2017-00179.
8 This is well above the 10,400 Btu/kWh that the Company uses for the PUE calculation
9 during the non-summer months and the 10,800 Btu/kWh for the summer months.

VII. CONCLUSIONS

10 **Q. SHOULD THE COMMISSION ADOPT CHANGES TO THE PUE PROPOSED BY**
11 **AG/KIUC WITNESSES KOLLEN AND FUTRAL?**

12 A. No. The changes are not based on evidence and do not take into consideration real-world
13 circumstances. Moreover, the proposed changes will cause a significant disallowance of
14 recovery through the FAC of prudently incurred purchased power costs. If the Commission
15 were inclined to review any proposed changes to the PUE calculation, any changes should
16 be comprehensively evaluated in the larger context of a base rate case. AG-KIUC's
17 proposal to amortize startup costs should be rejected as inconsistent with the Commission's
18 order. The Commission approved the inclusion of startup costs as the Company proposed
19 and no circumstances have changed that would justify modification of the Commission's
20 orders with respect to startup costs. The assumption that the PUE calculation is based on
21 the Ceredo Unit 1 generating unit owned by affiliate Appalachian Power Company also is

1 not based on fact. As a result, AG-KIUC's proposals, specifically its PUE/BUE
2 methodology proposal,¹⁶ should be rejected.

3 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

4 A. Yes, it does.

¹⁶ See AG-KIUC response to KPCO 1-8 (January 6, 2023).



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I, Ashley Price, did witness the participants named above electronically sign this document.



