

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE ELECTRONIC APPLICATION OF EAST)
KENTUCKY POWER COOPERATIVE, INC.)
FOR A GENERAL ADJUSTMENT OF RATES,)
APPROVAL OF DEPRECIATION STUDY,)
AND OTHER GENERAL RELIEF)

Case No. 2025-00208

REBUTTAL TESTIMONY OF
JOHN J. SPANOS
ON BEHALF OF
EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: December 2, 2025

Notary Commission No. 1143028

Commission expiration: February 20, 2027

TABLE OF CONTENTS

| | <u>PAGE</u> |
|---|--------------------|
| I. INTRODUCTION | 1 |
| II. LIFE SPANS OF GENERATING FACILITIES | 2 |
| III. TERMINAL NET SALVAGE FOR PRODUCTION | 5 |
| IV. INTERIM RETIREMENTS AND INTERIM NET SALVAGE..... | 10 |
| V. CONCLUSION | 13 |

I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

2 A. My name is John J. Spanos. My business address is 300 Sterling Parkway,
3 Mechanicsburg, Pennsylvania, 17050 (formerly 207 Senate Avenue, Camp Hill,
4 Pennsylvania, 17011).

5 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS**
6 **PROCEEDING?**

7 A. Yes. I previously submitted direct testimony on behalf of East Power Cooperative,
8 Inc. (“EKPC” or the “Company”) on August 1, 2025.

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

10 A. The purpose of my rebuttal testimony is to respond to the direct testimony of the
11 Kentucky Office of the Attorney General (AG) and Nucor Gallatin Steel witness
12 Lane Kollen as it relates to the Company’s depreciation rates proposed in this
13 proceeding.

14 **Q. WHAT ARE THE SUBJECTS OF YOUR REBUTTAL TESTIMONY?**

15 A. My rebuttal testimony relates to depreciation issues, specifically the appropriate
16 recovery methodology for generating facilities which includes the most appropriate
17 life span for each generating facility; the standard practice of recording
18 decommissioning costs as a component of the depreciation rate and the most
19 reasonable interim survivor curves and interim net salvage for generating facilities.

II. LIFE SPANS OF GENERATING FACILITIES

1 **Q. HAS MR. KOLLEN PROPOSED A DIFFERENT PROBABLE**
2 **RETIREMENT DATE FOR MANY GENERATING FACILITIES THAN**
3 **WHAT WAS RECOMMENDED IN THE DEPRECIATION STUDY?**

4 A. Yes. First, Mr. Kollen proposed using a probable retirement date or life span period
5 for units at Spurlock to be the same date. This is not appropriate. Second, he
6 suggested to extend the life span for gas turbines to 45 years with an inaccurate
7 industry range of 45 years. This is also incorrect and does not consider all the
8 factors that lead to the most appropriate life span of gas turbines.

9 **Q. DOES MR. KOLLEN’S RECOMMENDED PROBABLE RETIREMENT**
10 **DATE PROPERLY CONSIDER THE APPROPRIATE LIFE CYCLE OF**
11 **EACH GENERATING UNIT?**

12 A. No. The purpose of a probable retirement date and the impact on depreciation is to
13 estimate the life cycle of each asset class and to recover the investment over the
14 same time period that the asset will render service. Mr. Kollen chose to ignore this
15 fundamental concept of depreciation (that is, matching recovery to usage) in his
16 proposal. For example, he suggests that, “the Commission modify the estimated
17 life spans for Spurlock 2,3 and 4 to match the life span for Spurlock 1 so that all
18 four of the units reflect the same life span of 62 years”¹ and that “the Commission
19 modify and extend the estimated life spans for all of the Smith units to 45 years,
20 still well below the upper range of actual and estimated life spans for gas-fired.”²
21 Mr. Kollen’s testimony that 45 years is well below the upper range is not accurate.

¹ Kollen testimony, page 27, lines 6-8.

² *Id.*, p. 27, lines 13-14.

1 The most common life span for gas turbines is 40 years. The life span of gas
2 turbines is driven by hours of usage, number of starts, and overhaul cycles.
3 Therefore, randomly extending lives to 45 years is not justified. Not only is this an
4 arbitrary proposal, but more importantly, it is at odds with a fundamental concept
5 of depreciation which is matching recovery to the usage of assets.

6 **Q. WHY IS IT IMPORTANT TO MATCH RECOVERY OF AN ASSET TO**
7 **THE SAME TIME PERIOD THAT THE ASSET WILL RENDER**
8 **SERVICE?**

9 A. The matching principle is the underlying concept of depreciation. This is based on
10 the concept that customers that benefit from the service pay for the service equally
11 over the life of the asset systematically and rationally. This is how depreciation
12 rates in the depreciation study were developed, contrary to Mr. Kollen's testimony.

13 **Q. DOES MR. KOLLEN PROVIDE ANY ANALYSIS TO SUPPORT HIS**
14 **PROPOSED LIFE EXTENSIONS OF THESE GENERATING**
15 **FACILITEIS?**

16 A. No. Mr. Kollen provides no substantial basis for his proposal of extending life
17 spans. In contrast, EKPC's proposed probable retirement dates are supported by
18 informed judgement based on evaluation of various economic considerations and
19 industry practices. For example, coal fired generating units that were built prior to
20 1980 generally have life spans between 55-65 years and reaching that period of
21 time requires a major upgrade of the units. Coal fired units built after 1980 have
22 an average estimated life span of less than 50 years. This is driven by economics
23 and environmental regulations.

1 **Q. DO UTILITY COMPANIES GENERALLY ESTABLISH FIRM**
2 **RETIREMENT DATES FOR GENERATING FACILITIES MANY YEARS**
3 **IN ADVANCE OF THE RETIREMENT?**

4 A. No. First, it is called a probable retirement date because the date is based on all
5 factors that are known at that time. Second, the probable retirement date is no
6 different than many of the other components of a depreciation study in that there
7 are numerous estimates that are based on informed judgment that couples statistical
8 analysis, management plans, and general information in the industry. These
9 estimated probable retirement dates will likely change over time especially as it
10 gets closer to the end of the asset's useful life.

11 **Q. WHAT TREND HAVE YOU EXPERIENCED IN THE RETIREMENT OF**
12 **COAL FIRED GENERATING FACILITIES?**

13 A. In my experience of almost 40 years working within the electric industry, I have
14 conducted depreciation studies of hundreds of electric utilities throughout the
15 United States, and I see trends within the industry firsthand. In recent years, there
16 is clearly a trend of increased coal generation retirement, and most, if not all, of the
17 retired facilities are being taken out of service earlier than their estimated retirement
18 dates. Similar to the discussion above, prior to 2015, the most common range of
19 life spans for coal fired generating facilities was between 55 and 65 years. Since
20 2015, the average age of coal fired generating facilities has been well below 50
21 years. Each of the Spurlock units are consistent with these ranges.

22

III. TERMINAL NET SALVAGE FOR PRODUCTION

1 **Q. WHAT ARE MR. KOLLEN’S OBJECTIONS TO THE TERMINAL NET**
2 **SALVAGE ESTIMATES FOR THE GENERATING FACILITIES?**

3 A. Mr. Kollen has two additional objections to the development of the proper recovery
4 of the full service value of generating facilities in this case. First, he claims
5 decommissioning, or terminal net salvage, should be excluded from the
6 depreciation rate for steam and gas turbine generating units. Second, Mr. Kollen
7 excludes interim retirements and interim net salvage from proper recovery. I will
8 address the terminal net salvage component in this section.

9 **Q. DO EKPC’S CURRENT DEPRECIATION RATES, APPROVED BY THE**
10 **COMMISSION, INCLUDE ESCALATION?**

11 A. Yes, EKPC’s current depreciation rates include the terminal net salvage estimates
12 with escalation to the date of retirement and were developed in the same manner as
13 in the instant case.

14 **Q. WILL MR. KOLLEN’S PROPOSAL TO ELIMINATE TERMINAL NET**
15 **SALVAGE PROPERLY ALLOCATE THE COMPANY’S COSTS OVER**
16 **THE SERVICE LIVES OF THEIR GENERATING FACILITIES?**

17 A. No. The net salvage costs need to be escalated so that the correct amounts are
18 allocated over the lives of the plants. Mr. Kollen’s proposal to remove terminal net
19 salvage to the date of retirement would result in insufficient recovery of the
20 Company’s actual costs. As is the case for all assets, full recovery is determined
21 based on the original cost at the time of installation plus the end of life cost (cost of
22 removal minus gross salvage) to retire the asset. If the full cost at the time of

1 retirement, which is in the future, is not determined then full recovery of the service
2 value of the asset is not achieved.

3 **Q. ARE MR. KOLLEN'S NET SALVAGE PROPOSALS BASED ON**
4 **ACCEPTED DEPRECIATION PRACTICES?**

5 A. No. It is widely accepted that depreciation should include future net salvage costs,
6 which are recovered on a straight-line basis and that those costs should be based on
7 the expected cost to retire the Company's assets at the time of retirement or
8 removal. This applies not only to decommissioning costs but to the costs of all
9 plant assets.

10 **Q. SHOULD NET SALVAGE BE BASED ON THE FUTURE COSTS**
11 **EXPECTED TO BE INCURRED, NOT ON TODAY'S COSTS?**

12 A. Yes. Because net salvage must be based on future costs, decommissioning costs
13 for net salvage must also be estimates of the future cost at the time of
14 decommissioning. For this reason, if decommissioning estimates are developed
15 using the cost to decommission a plant today, then these costs must be escalated to
16 the time period in which they are expected to be incurred to achieve adequate
17 recovery.

18 **Q. SHOULD NET SALVAGE BE RECOVERED IN TODAY'S COST (THAT IS,**
19 **THE COST IN TODAY'S DOLLARS)?**

20 A. No. In order to recover the service value of the Company's assets, net salvage must
21 be determined at the cost that will be incurred in the future when the plant is retired.
22 When using the straight-line method of depreciation, these costs are recovered
23 ratably, or in equal amounts each year, over the life of the Company's plant.

1 **Q. IS RECOVERING THE FUTURE COST OF NET SALVAGE CONSISTENT**
2 **WITH THE FEDERAL ENERGY REGULATORY COMMISSION’S**
3 **UNIFORM SYSTEM OF ACCOUNTS (FERC USOA)?**

4 **A.** Yes. The FERC USOA specifically defines net salvage as follows:

5 19. Net salvage value means the salvage value of property retired
6 less the cost of removal.

7 Cost of removal is defined as:

8 10. Cost of removal means the cost of demolishing, dismantling,
9 tearing down or otherwise removing electric plant, including the
10 cost of transportation and handling incidental thereto. It does not
11 include the cost of removal activities associated with asset
12 retirement obligations that are capitalized as part of the tangible
13 long-lived assets that give rise to the obligation. (See General
14 Instruction 25).

15 Finally, cost is defined as (emphasis added):

16 9. Cost means the amount of money actually paid for property or
17 services. When the consideration given is other than cash in a
18 purchase and sale transaction, as distinguished from a transaction
19 involving the issuance of common stock in a merger or a pooling of
20 interest, the value of such consideration shall be determined on a
21 cash basis.

22 Read together, it should be clear from these definitions that the USOA specifies
23 cost of removal, as part of net salvage, must be recovered through depreciation
24 expense and is the actual amount paid at the time of the transaction. Because net
25 salvage will occur in the future, it is an estimate of the future cost that must be
26 included in depreciation rates.

1 **Q. DO GENERALLY ACCEPTED DEPRECIATION CONCEPTS SUPPORT**
2 **THAT THE NET SALVAGE IN DEPRECIATION SHOULD BE INCLUDED**
3 **AT THE COST THAT WILL BE INCURRED?**

4 A. Yes. Including the future cost of net salvage for plant accounts is consistent with
5 established depreciation concepts. Depreciation is a cost allocation concept, in
6 which the full cost of an asset (original cost less net salvage) is allocated on a
7 straight-line basis over the period of time an asset will be in service.

8 **Q. DO ANY AUTHORITATIVE DEPRECIATION TEXTS SUPPORT THAT**
9 **THE NET SALVAGE AMOUNT SHOULD REPRESENT THE FUTURE**
10 **COST?**

11 A. Yes. Two preeminent depreciation texts are the National Association of Regulatory
12 Utility Commissioners' Public Utility Depreciation Practices (typically referred to
13 as "NARUC3") and *Depreciation Systems* by Wolf and Fitch (Wolf and Fitch4).
14 Both texts are clear that net salvage should be included in depreciation as a future
15 cost. NARUC states the following:

16 [U]nder presently accepted concepts, the amount of depreciation to
17 be accrued over the life of an asset is its original cost less net
18 salvage. Net salvage is difference between the gross salvage that will
19 be realized when the asset is disposed of and the cost of retiring it.⁵
20 (Emphasis added)

21 NARUC also explains that:

22 The goal of accounting for net salvage is to allocate the net cost of
23 an asset to accounting periods, making due allowance for the net
24 salvage, positive or negative, that will be obtained when the asset is
25 retired. This concept carries with it the premise that property
26 ownership includes the responsibility for the property's ultimate

3 National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices* (1996).

4 Frank K. Wolf and W. Chester Fitch, *Depreciation Systems* (1994).

⁵NARUC Manual at 18.

1 abandonment or removal. Hence, if users benefit from its use, they
2 should pay their pro rata share of the costs involved in the
3 abandonment or removal of the property and also receive their pro
4 rata share of the benefits of the proceeds received.⁶ (Emphasis
5 added)

6 Wolf and Fitch explain that:

7 The matching principle specifies that all cost incurred to produce a
8 service should be matched against the revenue produced. Estimated
9 future costs of retiring an asset currently in service must be accrued
10 and allocated as part of the current expenses.⁷

11 **Q. MR. KOLLEN ADDRESSES THE CONCEPT OF INTERGENERATIONAL**
12 **EQUITY ON PAGE 16 OF HIS TESTIMONY. IS HIS ASSESSMENT**
13 **ACCURATE?**

14 A. No. First, the decommissioning cost is a component of the full service value of an
15 asset. Per the definition of depreciation, the full service value of an asset which
16 includes its removal at the end of life, needs to be recovered over the life of the
17 asset systematically and rationally. Therefore, delaying recovery does not promote
18 intergenerational equity as Mr. Kollen states in his testimony. It does the exact
19 opposite. It requires generations of customers that did not benefit from the asset
20 while in service to pay for the decommissioning of the asset. He then goes on in
21 his testimony to say not only will future customers need to pay for the
22 decommissioning of the retired generating plant but also the new facilities that
23 replace it. Second, the development of depreciation rates are based on many
24 estimates so suggesting that the decommissioning costs are different than the future

⁶ NARUC Manual at 18.

⁷ Wolf and Fitch, p. 7.

1 costs of other asset classes such as poles are completely inappropriate and
2 contradicts the entire concept of depreciation and the matching principle.

3 **Q. IS THERE ANY REASON THAT DECOMMISSIONING COSTS SHOULD**
4 **BE RECOVERED ANY DIFFERENTLY THAN MASS PROPERTY NET**
5 **SALVAGE?**

6 A. No. Decommissioning costs as well as the mass property net salvage (cost of
7 removal and gross salvage) are all end-of-life costs. Each, by definition, are part
8 of the recovery of the full service value of the asset over the entire life of the assets.
9 Additionally, the percentages that are established based on informed judgment that
10 includes statistical information and estimates of the future. Therefore, the
11 decommissioning (terminal net salvage) component should be included in the
12 depreciation rate just like all other net salvage percentages for each of the other
13 asset classes.

IV. INTERIM RETIREMENTS AND INTERIM NET SALVAGE

14 **Q. HAS MR. KOLLEN PROPERLY REFLECTED HOW DEPRECIATION**
15 **RATES ARE DETERMINED IN DEPRECIATION STUDIES FOR RATE**
16 **CASES?**

17 A. No. Depreciation studies are the development of depreciation rates to be applied
18 into the future. Two of the primary parameters in determining each account's
19 depreciation rate is the survivor curve and the net salvage percentage. For every
20 account, an estimate of the life characteristics include a survivor curve which
21 represents life estimation for the future and a net salvage percentage. As described
22 by all authoritative texts, this includes a combination of statistical analysis and
23 informed judgment. Two of the key authoritative texts are the Public Utility

1 Depreciation Practices by the National Association of Regulatory Utility
2 Commissioners (NARUC) and Depreciation Systems by Wolf and Fitch. The
3 process that I have conducted in the Depreciation Study follows all those
4 requirements.

5 **Q. HAS THERE BEEN INTERIM RETIREMENTS TO DATE THAT ARE**
6 **SUPPORT FOR INTERIM SURVIVOR CURVES FOR GENERATING**
7 **ACCOUNTS?**

8 A. Yes. Part III of the Depreciation Study discuss the process for determining survivor
9 curves and the case of generating accounts the interim survivor curve. Part VII sets
10 forth the statistical support for the interim survivor curves. These interim survivor
11 curves support the historical indications and the need to include interim survivor
12 curves for generating assets and the expectation that these curves are reasonable
13 expectations to occur into the foreseeable future for determining depreciation rates.
14 For example, Account 312.00, Boiler Plant Equipment, has a recommended interim
15 survivor curve of 60-S0.5. See page VII-7 of the Depreciation Study. The 60-S0.5
16 survivor curve is supported by statistical data from the transactional period, 1984-
17 2023 related to 1954-2023 vintages. This shows that approximately 50 percent of
18 the assets over that period have been retired/replaced. Mr. Kollen has proposed the
19 historical indications going forward will completely stop and all existing assets will
20 stay in service to the date of retirement. That would be an unprecedented change
21 for life characteristics for boiler plant equipment.

1 **Q. HAS THERE BEEN NET SALVAGE TO DATE THAT SUPPORT**
2 **INTERIM NET SALVAGE PERCENTAGES FOR GENERATING**
3 **ACCOUNTS?**

4 A. Yes. Part IV of the Depreciation Study discuss the process for determining net
5 salvage percentages and the case of generating accounts the interim net salvage.
6 Part VIII sets forth the statistical support for the interim net salvage. These net
7 salvage data support the historical indications and the need to include interim net
8 salvage for generating assets and the expectation that the interim net salvage
9 component is a reasonable expectation to occur into the foreseeable future for
10 determining depreciation rates of each account. For example, Account 312.00,
11 Boiler Plant Equipment, has a recommended interim net salvage component of
12 negative 15 percent. See pages VIII-5 and VIII-6 of the Depreciation Study. The
13 negative 15 percent is supported by statistical data from the transactional period,
14 2006-2023. The statistical support shows \$122.3 million of retirements over the 18
15 year period and this includes \$32 million of cost of removal and \$7.8 million of
16 gross salvage. The data supports interim net salvage for Account 312 of 20 percent
17 negative. Mr. Kollen proposed that not only will the annual retirements stop but
18 the associated cost of removal of those retirements will also not be incurred. Again
19 quite a change from what has been experienced in the last 18 years. That would be
20 an unprecedented change for the standard operation of a generating facility.

21 **Q. IS MR. KOLLEN'S DISCUSSION RELATED TO ESTIMATED**
22 **RETIREMENT AND INTERIM NET SALVAGE APPLICABLE TO HOW**
23 **DEPRECIATION RATES SHOULD BE DEVELOPED?**

1 A. No. The process of determining depreciation rates for regulatory ratemaking
2 purposes presented in the Depreciation Study is consistent with standard utility
3 practice. Mr. Kollen appears to try to correlate the interim retirements and interim
4 net salvage calculations as future components. This is very misleading. The
5 process for determining interim retirements and interim net salvage for generating
6 facilities is the same as all mass property accounts. There are no future entries
7 calculated into rates. There are just estimations of what retirements should be
8 anticipated into the future based on historical indications.

V. CONCLUSION

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

10 A. Yes.