

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

In the Matter of the 2023 Wolf Creek)	Docket No.
Triennial Decommissioning Financing)	24-WCNE-235-GIE
Plan.)	

DIRECT TESTIMONY

PREPARED BY

Adam H. Gatewood

UTILITIES DIVISION

KANSAS CORPORATION COMMISSION

May 10, 2024

1 **Q. Would you please state your name and business address?**

2 A. My name is Adam H. Gatewood. My business address is 1500 Southwest
3 Arrowhead Road, Topeka, Kansas, 66604.

4 **Q. Who is your employer, and what is your title?**

5 A. I am a Senior Managing Financial Analyst in the Utilities Division of the Kansas
6 Corporation Commission.

7 **Q. What is your educational and professional background?**

8 A. I graduated from Washburn University with a B.A. in Economics and a Masters of
9 Business Administration. I have testified on the cost of capital and related financial
10 issues before the Commission in more than 150 proceedings. I have also testified
11 on cost of capital issues before the Federal Energy Regulatory Commission in
12 natural gas pipeline and electric transmission dockets.

13 **Q. What issues are you testifying to in this Docket?**

14 A. My testimony addresses two issues. First, I am testifying to the escalation rates that
15 Wolf Creek Nuclear Operating Corporation¹ (WCNOC) proposes in connection
16 with the Decommissioning Cost Study (**Cost Study**) in Attachment 2 of the Joint

¹ Wolf Creek Nuclear Operating Corporation is owned by Evergy Metro (f/k/a, Kansas City Power & Light Company) 47%, Evergy Kansas South (f/k/a, Kansas Gas & Electric Company) 47%, and Kansas Electric Power Cooperative, Incorporated, 6%.

1 Pleading Regarding Decommissioning Financing Plan (**Joint Pleading**).² The
2 Direct Testimony of Brett Lovell and Attachment 3 of the Joint Pleading discuss
3 the escalation rates. The escalation rate inflates the decommissioning cost estimate
4 from the 2023-dollar amount in the Cost Study to the year when those costs occur.

5 Second, I review the annual accrual amounts for Evergy Kansas Metro (**EKM**),
6 Evergy Kansas South (**EKS**), and Kansas Electric Power Cooperative (**KEPCo**)
7 (collectively referred to as **WCNOC Owners**) that appear in Attachment 4 of the
8 Joint Pleading. The annual accrual is the amount each WCNOC Owner must set
9 aside in their respective nuclear decommissioning trust (**NDT**)³ to fund their share
10 of the decommissioning costs.

11 **Q. Please summarize your findings and recommendations.**

12 A. First, regarding the escalation rate, I agree with the rates proposed in Brett Lovell's
13 testimony and his methodology of applying them to the decommissioning cost
14 components. I recommend that the Commission apply these rates to its
15 decommissioning methodology.

16 Second, concerning the annual accruals for EKM, EKS, and KEPCo, I reviewed
17 the inputs and calculations underlying Attachment 4 of the Joint Pleading and
18 concluded that the current annual accruals are sufficient to meet their respective

² Decommissioning Cost Analysis for the Wolf Creek Generation Station prepared for the Wolf Creek Nuclear Operating Corporation, prepared by TLG Services, Inc. of Bridgewater Connecticut; August 2023. Attachment 2 of Application in 24-WCNE-235-GIE.

³ The nuclear decommissioning trust accounts for EKS and EKM are "qualified nuclear decommissioning trusts" under IRS Code Section 468A. KEPCo's decommissioning trust account is a segregated internal fund governed by a Grantor Trust.

1 shares of decommissioning costs. The information the WCNOC Owners provided
2 in Attachment 4 of the Joint Pleading thoroughly addresses the annual funding
3 requirements; therefore, subsequent dockets on that issue are not necessary unless
4 the Commission adopts a different decommissioning methodology with a different
5 schedule of cash flows than portrayed in Attach 4 of the Joint Pleading. EKS's
6 analysis is based on its current annual accrual of \$5,772,700. EKM's analysis is
7 based on its current annual accrual of \$2,036,230. KEPCo's analysis is based on
8 an annual accrual of \$550,200. As stated previously, each of the three entities
9 accruals are sufficient to meet the trust's future obligations.

10 Third, WCNOC is likely to seek a second license extension to allow it to operate
11 beyond its current life of 60 years and WCNOC's future filings in the triennial
12 reviews must include a discussion of where it is in that process. That extension,
13 though unlikely by the time of the next triennial review, is in the foreseeable future.
14 If a license extension is granted, it will affect the cash flows of the decommissioning
15 process, the overall costs, and ultimately, the annual accrual necessary for each
16 WCNOC Owners' NDT. While calculating the annual accruals must be based on
17 the existing license expiration date, stakeholders need to be informed of the
18 ramifications of such an extension before receiving an extension.

19 **Q. Are your recommendations dependent on the decommissioning method**
20 **selected by the Commission?**

21 A. The escalation rates are appropriate for the decommissioning methodologies
22 presented in the Cost Study. Mr. Lovell provides long-run estimates for each

1 decommissioning cost component, which could be applied to any decommissioning
2 method detailed in the Cost Analysis. My recommendations for the WCNOG
3 Owners' annual accruals are based on the DECON Alternative (**DECON-Alt**)
4 methodology and the specific cash flows detailed in Table 3.1 and Attachment 4.⁴
5 The Commission selected the DECON-Alt method in the last review.⁵

6 **Q. What documents did you review in preparing your testimony?**

7 A. I reviewed the Joint Pleading, including Attachments 3 and 4, Brett Lovell's direct
8 testimony, data request responses in this docket, and various documents from
9 previous decommissioning dockets.

10 **Escalation Rates Applied to Decommissioning Costs**

11 **Q. What are the purpose of the escalation rates in this Docket?**

12 A. The Cost Study presents the estimated cost of decommissioning in 2023 dollars. In
13 the case of the DECON-Alt methodology, the decommissioning process begins in
14 the year 2045 and continues through 2079. The escalation rates are necessary to
15 inflate the 2023-dollar estimates of the decommissioning cost components to the
16 years in the future when they occur. Those inflated costs are critical inputs to
17 calculate the annual accrual for each owner.

⁴ Decommissioning Cost Analysis for the Wolf Creek Generation Station prepared for the Wolf Creek Nuclear Operating Corporation, prepared by TLG Services, Inc. of Bridgewater Connecticut; August 2023. Attachment 2, page 68 of 172, of Application in 24-WCNE-235-GIE.

⁵ Order in Docket No. 21-WCNE-103-GIE; April 20, 2021.

1 **Q. Please discuss the escalation rates proposed by the WCNOC Owners.**

2 A. Brett Lovell (Attachment 3 of the Joint Pleading) presents long-run inflation
3 forecasts for the decommissioning cost components of labor, equipment &
4 materials, energy, burial costs, and a broad, general category to capture the
5 remaining costs outside those categories. He obtained the inflation forecasts for
6 four of these five cost categories from Moody's Analytics. There are no
7 commercially available inflation forecasts for the burial costs of low-level
8 radioactive waste. In place of a forecast, Mr. Lovell relies on historical data of
9 burial costs reported by the Nuclear Regulatory Commission to form an inflation
10 rate forecast.⁶

11 **Q. Do you agree that these forecasts are reasonable for escalating cost**
12 **components?**

13 A. The forecasts are acceptable to Staff; they are from reputable sources, specific to
14 the cost categories associated with the decommissioning process, and represent a
15 best-available estimate for the decommissioning period. These are also the same
16 sources that WCNOC Owners and the Commission have historically relied on. I
17 recommend that the Commission adopt the inflation forecasts in Mr. Lovell's
18 testimony. Mr. Lovell applied the escalation rate of each cost category, specifically
19 to the costs in that category, which is the methodology adopted by the Commission
20 in the recent triennial reviews.

⁶ NUREG-1307 (Revisions 11, 14, 15, 16, and 17); "Report on Waste Burial Charges," Nuclear Regulatory Commission. Data and Calculation contained in Attachment 3, page 10 of 27 of Application.

Escalation Rates		
	21-103	24-235
Labor	3.40%	3.20%
Energy-Electricity	2.60%	2.80%
Energy-Fuel	1.60%	1.70%
Burial	5.85%	5.15%
Equipment & Material	1.80%	2.00%
Other	2.50%	2.50%

Sources:
21-WCNE-103-GIE; Application Attachment 3
24-WCNE-235-GIE; Application Attachment 3

1

2 **Setting the Annual Accrual to Fund the Nuclear Decommissioning Trusts**3 **Q. What is the annual accrual?**4 A. The annual accrual is the amount that each owner must deposit in their respective
5 nuclear decommissioning trusts (NDT) each year to fund their share of
6 decommissioning costs.7 **Q. What information is necessary to determine each owner's annual accrual?**8 A. The calculation of total costs requires 1) a decommissioning cost estimate with a
9 schedule of annual cash flows and 2) an escalation rate to inflate the
10 decommissioning cost estimate from 2023 dollars to the year the costs occur. Then,
11 inputs to estimate each owner's annual accruals necessary to satisfy their portion of
12 the total cost, which include: 1) its ownership interest in Wolf Creek; 2) the Kansas
13 jurisdictional allocation for EKM; 3) the current balance of their respective NDTs;
14 and 4) forecasts of the returns on their NDTs net of income taxes and management
15 fees.

1 Attachment 4 of the Joint Pleading contains all of the necessary inputs. WCNOG
2 ownership consists of EKS owning 47%, EKM 47%, and KEPCo 6%. For EKM,
3 the portion allocated to Kansas is the product of its system average peak demand
4 experienced in its Kansas jurisdiction using the 12-CP approach. The portfolio
5 market-value balances for each owner on June 30, 2023, are in their respective
6 calculations.⁷ Last of all, the expected return on each owner's respective NDT.
7 This input is the most subjective because returns on financial assets such as stocks
8 and bonds are volatile yearly, and long-term expectations vary, even among
9 sophisticated, competent asset managers.

10 **Q. Concerning EKM's share of the decommissioning costs, how did the**
11 **Applicants calculate the allocator?**

12 A. The EKM allocation recognizes that Evergy-Metro is 47% owner of Wolf Creek;
13 that portion is fixed over the plant's life. EKM's Kansas allocator is 44.88%, which
14 is derived from the weighted average of the Kansas allocators over the 60-year life
15 of Wolf Creek; the years of 1985 through 2022 are computed using the 12
16 coincident peak methodology, and the result of 46.75% for 2022 is carried forward
17 through 2079. The 2022 12 CP allocator is consistent with that used in the 23-
18 EKCE-775-RTS rate case for EKM.

19

⁷ Responses to KCC Staff data requests 7 and 8 provided updates to those balances to March 30, 2024. Responses from EKS, EKM, and KEPCo indicated their NDT balances had increased since June 30, 2023, used in Attachment 4 of the Joint Pleading.

1 **Q. Discuss the allocations required to determine EKS's share of responsibility for**
2 **the decommissioning costs.**

3 A. All of EKS' retail sales are jurisdictional to Kansas, so the only allocation issue is
4 its 47% ownership of Wolf Creek.

5 **Q. Discuss the allocations required to determine KEPCo's share of the**
6 **decommissioning costs.**

7 A. KEPCo owns the remaining 6% of Wolf Creek and is responsible for that portion
8 of the decommissioning costs.

9 **Trust Fund Balances**

10 **Q. At what date are the trust balances reported in the KEPCo, EKM, and EKS**
11 **calculations found in Attachment 4?**

12 A. Each owner's analysis incorporates their trust balance on June 30, 2023. This date
13 does not reflect a high or low point in the equity markets as the broad-market total-
14 return indexes on June 30, 2023, were 11% below the index high recorded on
15 January 3, 2022. Broad equity indexes set record highs around the end of March
16 2024. Asset prices of the fixed-income market were experiencing significant
17 declines as interest rates had increased markedly from their historic lows. For
18 example, on July 30, 2020, the market yield on 10-year U.S. Treasury Bonds was
19 0.55%; on June 30, 2023, that yield rose to 3.69%; and on March 30, 2024, the yield
20 was 4.22%.

1 **Forecasted Returns on Invested Funds**

2 **Q. How did you evaluate the expected returns and earnings assumptions**
3 **contained in the Joint Pleading?**

4 A. It has been Staff's position that an appropriate expected return should fall within
5 the range of returns forecasted by sophisticated, experienced asset managers. Long-
6 run historical returns provide minimal guidance for the future and are significantly
7 higher than the market's expectations; I have not encountered a forecast by an asset
8 manager that is as high as historical returns. The lower returns for the future are
9 primarily due to the expectation that future economic growth in the U.S. and
10 globally will be lower than that experienced in the last 90 years.

11 **Q. What have these trusts returned historically?**

12 A. Based on the data provided in Attachment 4 to the Joint Pleading, EKM has earned
13 a 5.99% return, EKS has earned a 5.49% return, and KEPCo has earned a 5.93%
14 return. These returns reflect quarterly deposits to the respective trusts that began
15 in 1986 and their June 30, 2023, trust account balances. The EKM and EKS trusts
16 are taxable, and their returns include unrealized gains within their trusts' balances.
17 KEPCo's trust will not incur an income tax expense.

18 **Q. How did Staff evaluate the returns forecasted for the future years of the**
19 **decommissioning trust accounts?**

20 A. The returns forecasted for the future years of the decommissioning trusts are

1 applied to the trusts over the remaining 55 years of Wolf Creek’s license, a long
 2 horizon that will undoubtedly contain several economic and market cycles. The
 3 triennial reviews reduce the speculative nature of such long-range forecasts, as we
 4 are not setting an expected return once and for all for the remaining years.

5 As a benchmark for reasonable expectations for returns on various asset classes of
 6 investments, I reviewed those published by asset management firms and select
 7 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The table below
 8 summarizes their expected returns on equities and fixed-income investments.

Survey of Forecasted and Historic Returns on Financial Assets				
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		Equities	U.S. 10-Year Treas. Bond	Corporate Bonds
Survey of Forecasted Returns				
J.P. Morgan Long-Term Market Assumptions 2023		8.50%	4.20%	4.64%
BlackRock Capital Market Assuptions 2023		6.93%	3.20%	4.00%
BNY Mellon 2023		6.90%	3.10%	5.00%
Voya 2023, Long-run Equilibrium Return Assumptions		7.25%	3.85%	4.75%
Survey of Professional Forecasters		7.50%	3.35%	n/a
T.Rowe Price		9.40%	5.00%	5.70%
Average & Range of Forecasted Returns				
	Mean	7.75%	3.78%	4.82%
	Min	6.90%	3.10%	4.00%
	Max	9.40%	5.00%	5.70%
Sources:				
https://am.ipmorgan.com/us/en/asset-management/institutional/insights/portfolio-insights/ltema/				
https://www.blackrock.com/institutions/en-us/insights/charts/capital-market-assumptions				
https://advisors.voya.com/system/files/system/files/article/file/capital-market-assumptions-2023_0.pdf				
https://www.philadelphiafed.org/-/media/frbp/assets/surveys-and-data/survey-of-professional-				

9

10 EKS and EKM rely on capital market forecasts produced by Willis Towers Watson,
 11 a global insurance and risk management company. As Willis Towers Watson
 12 actively participates and advises clients in the global capital markets, its forecasts

1 are relevant, with an anticipated return on U.S. large capitalization stocks of 8.52%
2 and a return on fixed-income assets of 4.91%. Those pretax returns incorporated
3 by EKS and EKM in Schedule B of Attachment 4 are within the range expected by
4 other asset management companies. Calculations in Schedule B also involve EKM
5 and EKS adjusting the asset allocation assumptions as the decommissioning date
6 nears; the funds will rely on investments with less volatile annual returns.

7 **Q. Please discuss KEPCo's asset return assumptions.**

8 A. KEPCo's decommissioning trust account is managed by T. Rowe Price and
9 incorporates the funds it manages. KEPCo's expected returns are five-year
10 historical returns of T. Rowe Price funds. Although KEPCo's expected returns on
11 common stock funds are above those of asset managers shown in the previous table,
12 its expected returns on fixed-income investments are significantly below those of
13 asset managers as KEPCo's reflect the historic low-interest rates of the past five
14 years. When the asset classes are weighted in the trust's portfolio, the expected
15 returns are similar to those expected by asset managers cited in the previous table.
16 Notably, with interest rates rebounding off historic lows, KEPCo's historic return
17 on fixed-income investments understates the future returns on that asset class of
18 investments. KEPCo's asset allocation within the portfolio and across the lifespan
19 of the trust reasonably models expected changes in the asset allocation toward less
20 volatile assets in the later years of the trust.

21

1 **Q. The Joint Applicants completed their Utility Funding Plan, shown in**
2 **Attachment 4, using portfolio balances from June 30, 2023. Have capital**
3 **markets changed since then?**

4 A. Stock prices increased to new record highs, while fixed-income asset prices have
5 been flat to slightly downward. Based on my review of the capital markets and
6 updates to the trust account balances from June 30, 2023, to the present, I believe
7 the calculations in the Utility Funding Plans contained in Attachment 4 are still
8 relevant.

9 Prices in the equity markets have advanced since June 30, 2023, with the S&P 500
10 Index moving from 4,450 to 5,202 or 17%. Interest rates on 10-year U.S. Treasury
11 Bonds increased from 3.77% to 4.22%, with total returns on index funds composed
12 of intermediate-term bonds flat since June 30, 2023. Rising interest rates during
13 the past two years reduced the value of fixed-income assets and are the reason for
14 their low total returns. The end of the zero-interest-rate policy era will benefit these
15 trusts in the long run as the trusts will earn higher returns on relatively stable, fixed-
16 income investments over the remaining years of the trusts.

17 **RECOMMENDATIONS**

18 **Q. What is your recommendation concerning EKS's annual accrual?**

19 A. EKS's analysis is based on its current annual accrual of \$5,772,700, an annual
20 amount that has been in place since 2017. In Staff's opinion, EKS's current annual
21 accrual of \$5,772,700 will likely meet its future obligations. Staff reviewed the

1 updated account balances of EKS's NDT, which supports the continuation of
2 EKS's current annual accrual.

3 **Q. What is your recommendation for EKM's annual accrual?**

4 A. EKM's analysis is based on its current annual accrual of \$2,036,230, which has
5 been in place since 2011. In Staff's opinion, this amount is likely to meet EKM's
6 future obligations. Staff reviewed the updated account balances of EKM's NDT,
7 which supports the continuation of EKM's current annual accrual.

8 **Q. Concerning KEPCo's annual accrual, what amount was used in Attachment 4**
9 **of the Joint Pleading?**

10 A. KEPCo's analysis incorporates a very small increase in its annual accrual to
11 \$552,636, an increase of \$2,436. In Staff's opinion, KEPCo's annual accrual is
12 sufficient to meet the trust's future obligations.

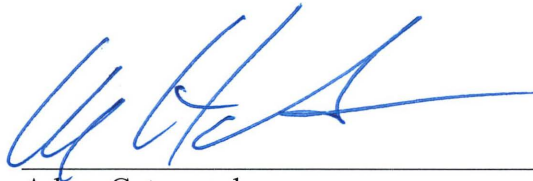
13 **Q. Does this conclude your testimony?**

14 A. Yes, it does.

STATE OF KANSAS)
) ss.
COUNTY OF SHAWNEE)

VERIFICATION

Adam Gatewood, being duly sworn upon his oath deposes and states that he is a Senior Managing Financial Analyst for the Utilities Division of the Kansas Corporation Commission of the State of Kansas, that he has read and is familiar with the foregoing *Direct Testimony*, and attests that the statements contained therein are true and correct to the best of his knowledge, information and belief.




Adam Gatewood
Senior Managing Financial Analyst
State Corporation Commission of the
State of Kansas

Subscribed and sworn to before me this 7 day of May, 2024.



Notary Public

My Appointment Expires: 4/28/25

 NOTARY PUBLIC - State of Kansas
ANN M. MURPHY
My Appt. Expires 4/28/25

CERTIFICATE OF SERVICE

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I, the undersigned, certify that a true and correct copy of the above and foregoing Direct Testimony was served via electronic service this 10th day of May, 2024, to the following:

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