# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application of Kansas City	)	
Power & Light Company for Approval of the	)	Case No. EO-2006-0094
Accrual and Funding of Wolf Creek Generating	)	
Station Decommissioning Costs at Current Levels	)	

# **STAFF RECOMMENDATION**

COMES NOW the Staff of the Missouri Public Service Commission (Staff) and submits the attached Staff Memorandum And Recommendation to the Missouri Public Service Commission (Commission), and respectfully states as follows:

- 1. On August 30, 2005, Kansas City Power & Light Company (KCPL) filed its Application for approval of, among other things, the continuation of the accrual and funding of Wolf Creek Generating Station (Wolf Creek) decommissioning costs at the current level of \$2,303,856 and the finding that the Wolf Creek decommissioning costs are included in the KCPL's current cost of service and are properly reflected in current rates for ratemaking purposes.
- 2. On November 18, 2005, pursuant to Commission order, the Staff filed its Status Report, and on December 20, 2005 a Unanimous Stipulation And Agreement was filed in this case. The Staff intends that its Memorandum And Recommendation serve as its Suggestions In Support of the Unanimous Stipulation And Agreement.
- 3. Attached hereto as Appendix A is the Staff's Memorandum And Recommendation, which is consistent with the content of the Unanimous Stipulation And Agreement.

- 4. The signatories to the Unanimous Stipulation And Agreement, i.e., the Staff, the Office of the Public Counsel (Public Counsel) and KCPL, request in said document that the Commission issue an order:
  - a. Approving this Unanimous Stipulation And Agreement filed on December 20, 2005;
  - b. Receiving into evidence this Unanimous Stipulation And Agreement and KCPL's 2005 Cost Study;
  - c. Finding that KCPL's 2005 Cost Study satisfies the requirements of 4 CSR 240-3.185(3);
  - d. Finding, pursuant to this Unanimous Stipulation And Agreement, that KCPL's retail jurisdiction annual decommissioning expense accruals and trust fund payments shall continue at the current level of \$2,303,856;
  - e. Finding, in order for the decommissioning fund to retain its qualified tax status, that the current decommissioning costs for Wolf Creek are included in KCPL's current cost of service and are reflected in its current rates for ratemaking purposes;
  - f. Authorizing KCPL to continue to record and preserve Wolf Creek asset retirement obligation costs, as agreed to by the Staff, Pubic Counsel and KCPL, and authorized by the Commission in Case No. EU-2004-0294; and
  - g. Directing that KCPL or its trustee file, on a prospective basis in Case No. EO-2006-0094, one copy of the quarterly reports required by 4 CSR 240-3.185(1) and one copy of the annual reports required by 4 CSR 240-3.185(2).
  - 5. The Staff would note the following paragraph in KCPL's Application:

KCPL notes that pursuant to the terms of the Stipulation and Agreement approved by the MPSC in Case No. EO-2005-0329, KCPL must file its next general rate case by February 1, 2006. The effective date of the rates set in that case will be January 1, 2007. The level of KCPL's annual Wolf Creek decommissioning cost accrual can be reviewed at that time in the context of the entirety of KCPL's rates.

6. Finally, Staff Counsel apologizes for any inconvenience caused by his delay in filing the attached Staff Memorandum And Recommendation, which delay was due to the necessity of addressing other Commission work.

WHEREFORE, the Staff submits its Memorandum And Recommendation and respectfully requests that the Commission issue an Order approving the Unanimous Stipulation And Agreement, and taking the additional specific actions recommended therein.

Respectfully submitted,

### /s/ Steven Dottheim

Steven Dottheim Chief Deputy General Counsel Missouri Bar No. 29149

Attorney for the Staff of the Missouri Public Service Commission P. O. Box 360
Jefferson City, MO 65102
(573) 751-7489 (Telephone)
(573) 751-9285 (Fax)
steve.dottheim@psc.mo.gov

# **Certificate of Service**

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile, or electronically mailed to all counsel of record this 9th day of January 2006.

/s/ Steven Dottheim

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Application Power & Light Company for Accrual and Funding of Wolf Station Decommissioning Cost	Approval of the Creek Generating	) ) )	Case No. EO-2006-0094		
AFFIDAVIT OF JOHN KIEBEL					
STATE OF MISSOURI COUNTY OF COLE	) ) ss )				
John Kiebel, of lawful age, on oath states: that he has participated in the preparation of the foregoing written Memorandum And Recommendation, consisting of seven pages to be presented in the above case, that the information in the attached written Memorandum And Recommendation was given by him; that he has knowledge of the matters set forth in such Memorandum And Recommendation; and that such matters are true and correct to the best of his knowledge and belief.					
Subscribed and sworn to befo	re me this 9# day	V	M. Keiler ID		
		Fosem	Pholic Robinson		
My commission expires 9	<del>23-200</del> 8		ROSEMARY R. ROBINSON Notary Public - Notary Seal State of Missouri County of Callaway My Commission Exp. 09/23/2008		

# **MEMORANDUM**

TO: Missouri Public Service Commission Official Case File,

Case No. EO-2006-0094, Kansas City Power & Light Company

FROM: John Kiebel, Utility Management Analyst III, Engineering and Management Services

Department

/s/ John Kiebel / 01-09-06 /s/ Steven Dottheim / 01-09-06

John Kiebel Steven Dottheim

Project Coordinator/Date General Counsel's Office/Date

SUBJECT: Staff's Recommendation for Approval of Kansas City Power & Light Company's

Application for Approval of the Accrual and Funding of Wolf Creek's Generating

Station Decommissioning Costs at Current Levels

DATE: January 9, 2006

#### **KCP&L** Application

On August 30, 2005, Kansas City Power & Light Company (KCP&L or Company), filed an Application with the Missouri Public Service Commission requesting the Commission: 1) find that the 2005 Study satisfies the requirements of 4 CSR 240-3.185(3); 2) approve the Company's 2005 decommissioning cost estimate of \$517,600,000; 3) approve the continuation of the annual accrual at the current level of \$2,303,856; and 4) find that the Wolf Creek Generating Station (Wolf Creek) decommissioning costs are included in the Company's current cost of service and are properly reflected in current rates for ratemaking purposes. In response, the Commission established Case No. EO-2006-0094.

On September 2, 2005, the Commission issued an Order in this case. In that order, the Commission directed its Staff to file a proposed procedural schedule, on or before October 17, 2005. On October 17, 2005, the Commission directed the parties to file a Stipulation And Agreement and a Staff Recommendation, including a jointly proposed procedural schedule, or a Status Report indicating when Staff would file a Recommendation, including a jointly proposed procedural schedule. The Staff filed a Status Report on November 18, 2005, and a Unanimous Stipulation And Agreement was filed with the Commission December 20, 2005.

#### **Background**

The U.S. Nuclear Regulatory Commission (NRC) defines the term "decommission" as follows in 10 C.F.R. §50.2 and limits decommissioning to the radiological part of the facility:

*Decommission* means to remove (as a facility) safely from service and reduce residual radioactivity to a level that permits release of the property for unstructured use and termination of license.

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This Commission defines "decommissioning" and "decommissioning costs" as follows in 4 CSR 240-20.070:

- (1) As used in this rule, decommissioning means those activities undertaken in connection with a nuclear generating unit's retirement from service to ensure that the final removal, disposal, entombment or other disposition of the unit and of any radioactive components and materials associated with the unit, are accomplished in compliance with all applicable laws, and to ensure that the final disposition does not pose any undue threat to the public health and safety. Decommissioning includes the removal and disposal of the structures, systems and components of a nuclear generating unit at the time of decommissioning.
- (2) As used in this rule, decommissioning costs means all reasonable costs and expenses incurred in connection with decommissioning, including all expenses to be incurred in connection with the preparation for decommissioning, including, but not limited to, engineering and other planning expenses; and to be incurred after the actual decommissioning occurs, including, but not limited to, physical security and radiation monitoring expenses, less proceeds of insurance, salvage or resale of machinery, construction equipment or apparatus the cost of which was charged as a decommissioning expense.

In addition, 4 CSR 240-20.070(9) establishes the frequency of filings with the Commission of information regarding the decommissioning trust fund, stating in pertinent part:

On or before September 1, 1990 and every three (3) years after that, utilities with decommissioning trust funds shall perform and file with the commission cost studies detailing the utilities' latest cost estimates for decommissioning their nuclear generating unit(s) along with the funding levels necessary to defray these decommissioning costs. These studies shall be filed along with appropriate tariff(s) effectuating the change in rates necessary to accomplish the funding required.

KCP&L owns 47% of Wolf Creek. The Company's electric operations involve three jurisdictions to which KCP&L's decommissioning costs are allocated: 1) Missouri retail (state jurisdiction); 2) Kansas retail (state jurisdiction); and 3) Missouri and Kansas wholesale (federal jurisdiction). Missouri's retail jurisdiction constitutes approximately 58% of KCP&L's electric operations on the basis of demand.

#### **Filing History**

The Company has made its triennial filings on a timely basis since Wolf Creek went into operation on September 3, 1985. The Company filed its first decommissioning study on September 4, 1990 in Case No. EO-91-84. Subsequent filings were made in Case Nos. EO-94-80, EO-97-84, EO-2000-0210, and EO-2003-0083.

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As with Union Electric Company, d/b/a AmerenUE (AmerenUE), regarding the Callaway Nuclear Power Plant (Callaway), is appears that the Wolf Creek nuclear decommissioning trust fund will be able to maintain its tax-qualified status without the Commission making a finding as to a specified dollar amount necessary to decommission Wolf Creek.

On January 16, 2004, KCP&L filed in Case No. EU-2004-0294 an Application requesting that the Commission issue an Accounting Authority Order authorizing it to place Asset Retirement Obligations (ARO) costs in regulatory deferred accounts so that current regulatory treatment for and recovery of those costs would not be altered due to KCP&L adopting Statement of Financial Accounting Standard No. 143 (SFAS 143). At a prehearing conference on January 29, 2004, the Staff and KCP&L indicated that they thought that they were close to an agreement on language for a Staff recommendation to the Commission that would address the needs of KCP&L. KCP&L indicated that the Staff Recommendation, which the Staff, the Office of the Public Counsel (Public Counsel), and KCP&L had been discussing, would provide the assurance that KCP&L's external auditor, Deloitte & Touche, was seeking regarding KCP&L's Wolf Creek decommissioning funding and SFAS 143. On January 30, 2004, the Staff filed a Recommendation with the Commission providing language for a Commission Order addressing KCP&L's concerns. The Staff related that it had been authorized to indicate to the Commission that Public Counsel concurred in the Staff's Recommendation. On February 2, 2004, KCP&L filed a pleading stating its concurrence with the Staff Recommendation. On March 5, 2004, the Commission issued an Order in Case No. EU-2004-0294 approving and adopting the Staff Recommendation and Memorandum attached thereto. KCP&L should continue to record and preserve Wolf Creek asset retirement obligation costs, as agreed to by the Staff, Pubic Counsel and KCP&L, and authorized by the Commission, in Case No. EU-2004-0294.

Pursuant to the terms of the Stipulation And Agreement approved by the Commission in Case No. EO-2005-0329 ("Regulatory Plan Agreement"), KCPL must file its next general rate case by February 1, 2006 ("Rate Filing #1"). The Regulatory Plan Agreement includes specific provisions pertaining to KCPL's Wolf Creek decommissioning costs:

# Section III.B.1.m of the Regulatory Plan Agreement provides that:

KCPL agrees to determine the effect on the depreciation reserve related to the difference in depreciation rates for [Wolf Creek] resulting from the depreciation rates approved in Missouri and Kansas prior to [the Regulatory Plan Agreement]. KCPL further agrees to include this information in its filing related to Rate Filing #1 required in [the Regulatory Plan Agreement] for review by the Signatory Parties [thereto] and Commission approval. The identified amount of depreciation reserve resulting for Missouri operations shall be identified and be assigned specifically to Missouri jurisdictional operations in Rate Filing #1 and all subsequent cases involving KCPL or its successors. It is the intent of this requirement to ensure Missouri ratepayers receive credit (via the rate base deduction afforded depreciation reserve funds) for providing additional depreciation expense to KCPL and

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> eliminating the possibility of these funds being allocated in future cases to the Kansas jurisdiction or other jurisdictions that did not provide the funds.

Section III.B.1.n of the Regulatory Plan Agreement provides that:

Upon the effective date of [the Regulatory Plan Agreement], KCPL will begin recording depreciation expense for [Wolf Creek] based on a 60-year life span. The Signatory Parties [to the Regulatory Plan Agreement] agree the Commission should authorize KCPL to use depreciation rates for the various nuclear plant accounts, as contained in Appendix G [of the Regulatory Plan Agreement] "Depreciation & Amortization Rates, Missouri Jurisdictional."

Section III.B.1.h of the Regulatory Plan Agreement provides that:

KCPL shall record additional amortization expense in the amount of \$10.3 million on an annual Missouri jurisdictional basis beginning with the effective date of [the Regulatory Plan] Agreement until the effective date of the tariffs resulting from Rate Filing #1, per Paragraph III.B.3.a of [the Regulatory Plan] Agreement. This amount is equal to the change in depreciation expense reflecting a change in service life span of [Wolf Creek] from 40 to 60 years provided for in Paragraph III.A.3.n of [the Regulatory Plan] Agreement.

KCPL, Staff, Public Counsel and other Signatory Parties [to the Regulatory Plan Agreement] may propose that these amortizations be directed toward specific plant accounts: Provided, however, that the Wolf Creek amortizations will be assigned only to the nuclear generation plant accounts. Any such accumulated amortizations will be used as an offset to rate base, in future rate proceedings of KCPL or its successors.

# **Decommissioning Cost Study**

KCP&L contracted with TLG Services, Inc. (TLG) to perform the analysis of the cost to decommission Wolf Creek in 1993. TLG has been utilized by KCP&L to update the 1993 cost study for each triennial review since 1993. According to the Application, TLG is an industry leader in nuclear decommissioning cost analysis, and has provided engineering and field services for contaminated facilities including estimates of decommissioning costs for nuclear generating units since 1982.

The Company's current estimate to decommission Wolf Creek is \$517.6 million in terms of 2005 Dollars. In the Company's prior filing, the estimate to decommission Callaway was \$468.4 million in terms of 2002 Dollars. The estimated decommissioning cost in terms of 2005 Dollars is about 10.5% more than it was in terms of 2002 Dollars.

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The Staff has not performed an analysis of the cost to decommission Wolf Creek.<sup>1</sup> The Staff does not have the data necessary to either support or challenge the cost estimate to decommission Wolf Creek, nor can it endorse the decommissioning cost amount provided by KCP&L. The Staff recommends that the Commission not make a specific finding that the cost of decommissioning Wolf Creek is approximately \$517.6 million.

The Staff believes that both AmerenUE and KCP&L will seek NRC approval of license extensions that will permit them to continue operating their nuclear generating units for an additional 20 years. The Staff also notes that both AmerenUE and KCP&L will need to file at least six more triennial decommissioning studies beginning in 2008 and prior to the expiration of the current nuclear plant operating licenses.

The Staff believes that a detailed analysis of the decommissioning cost is not warranted at this time. The Staff's conclusion is based on the estimated cost to hire a consultant and on the number of remaining years of operation for Wolf Creek until the expiration of its license. However, the Staff continues to believe a consultant should be utilized in a future decommissioning case when Wolf Creek is closer to license expiration.

#### **Cost of Service**

The Company believes that the \$2,303,856 annual contribution should provide a sufficient fund to decommission Wolf Creek at the expiration of its current operating license in 2025. The Staff is willing to accept KCP&L's amount for purposes of calculating the annual contribution given the lack of a Staff-endorsed detailed cost estimate. The Staff asserts that KCP&L's annual contribution is included in the Company's current cost of service for ratemaking purposes.

#### **Decommissioning Trust Fund Model**

The Staff's Decommissioning Trust Fund Model was developed in 1999. The primary objective of the model was to calculate a "revised annual contribution" given various input data. This would help to assure that the trust fund will be sufficient for the eventual decommissioning of Wolf Creek with no surplus funds remaining after payment of all decommissioning costs.

The model relies heavily on the assumptions set forth in Case No. EO-91-84, as well as the decommissioning cost estimates provided by TLG. Due to the present uncertainty of actual decommissioning costs, it is Staff's position that its own assumptions provide the "best available" information on which to estimate an appropriate annual contribution amount. The current annual

<sup>&</sup>lt;sup>1</sup> In previous decommissioning cases, the Staff has advised the Commission of its intention to retain a consultant to perform or assist in performing an analysis of the cost to decommission Callaway and Wolf Creek, the nuclear generating unit owned by KCP&L. It was anticipated that the consultant would also provide a reconciliation between the Callaway and Wolf Creek decommissioning quantities, dimensions, weights and levels of radioactivity. The cost for the Staff to hire a consultant to perform the desired analysis has been priced as amounting to several hundred thousand dollars. As a consequence, the Staff does not anticipate seeking to hire such a consultant until further in the life of the Callaway and Wolf Creek generating units.

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payment was calculated by the Company, and Staff believes it to be sufficient to cover the estimated decommissioning cost under a reasonable set of economic, financial and investment assumptions.

The calculation of an annual decommissioning expense and contribution amount is sensitive to varying forecasts of future decommissioning inflation and investment returns. Forecasted nominal investment returns are dependent upon future investment policy and on forecasts of real returns on bond investments, equity premiums over and above bond investment returns and on general inflation levels.

Based on its own analysis, the Staff believes it is appropriate to keep the funding level of the decommissioning trust fund at its current annual level, with payment made to the trust fund on a quarterly basis.

# **Decommissioning Trust Fund Performance**

KCP&L's decommissioning trust fund had a market value of \$60.1 million as of June 30, 2005 for its Missouri jurisdictional portion of Wolf Creek. The June 30, 2005 market value is approximately 39% higher than the June 30, 2002 market value of \$43.2 million.

The Staff has calculated an internal rate of return for the trust fund and reviewed the overall rate of return of the fund. The overall rate of return is simply the percentage of gain/loss realized on the capital invested in the fund, which does not take into consideration the timing of deposits and withdrawals to the trust fund. KCP&L's trust fund has achieved an overall after-tax rate of return of 7.95% since the December 31, 1986 inception of the fund.

Although both the internal rate of return and the overall after-tax rate of return provide Staff with a valuable measurement of how the fund is performing, the Staff chose to use the overall after-tax rate of return to evaluate the fund's overall performance. This is due to Staff's ability to benchmark current performance measurements against assumptions established by this Commission in Case No. EO-91-84. In that case, the Staff proposed two assumptions to be used for the purpose of evaluating future decommissioning funding needs: an inflation factor of 5% and an after-tax average return of 8.5%.

The Company's actual after-tax return of 7.95% through June 30, 2005 is somewhat below the Staff's assumed after-tax return of 8.50%. The real rate of return, which removes the August 2005 Consumer Price Index inflation level of 3.60% from the actual after-tax return, is approximately 4.35%. This compares favorably to Staff's assumption on the real rate of return. The Staff assumed both an 8.50% after-tax average return and a 5.00% inflation rate to arrive at a 3.5% assumed real rate of return.

The Staff also reviewed information provided by KCP&L, which compares the performance of KCP&L's Decommissioning Trust to the following indices:

Name of Fund/Index	Inception Date	After-tax Return from Inception through Quarter Ended June 30, 2005
KCP&L Decommissioning Trust	8/31/1985	7.95%
S&P 500 Equity Index	12/31/1970	11.32%
Lehman Aggregate Bond Index	12/31/1975	8.91%
Lehman 7 yr GO Muni Bond Index	6/30/1998	5.48%
Lehman 5 yr GO Muni Bond Index	3/31/1998	4.93%
Lehman Government	12/31/1972	8.47%
Lehman Govt/Credit	12/31/1972	8.51%
91-day Treasury Bill Index	11/30/1978	6.72%

Source: KCP&L Response to Staff Data Request 0001 dated September 27, 2005.

# **Staff Recommendation**

As a result of the Staff's review, the following areas were resolved among KCP&L, the Staff and the Public Counsel:

- (1) KCP&L will continue to fund the decommissioning trust fund at the annual level of \$2,303,856.
- (2) The current level of the decommissioning fund will be adequate to decommission Wolf Creek at the expiration of its current operating license.
- (3) The annual contribution of \$2,303,856 is included in the Company's current cost of service for ratemaking purposes.
- (4) The Commission should not make a specific finding that the cost of decommissioning Wolf Creek is approximately \$517,600,000.
- (5) Pursuant to Section 393.292 RSMo 2000 and 4 CSR 240-3.185: The annual contribution amount is subject to change by the Commission in any subsequent general rate increase or excess earnings complaint case, for good cause, including a material change in circumstances.
- (6) KCP&L will continue to record and preserve Wolf Creek asset retirement obligation costs, as agreed to by the Staff, Public Counsel and KCP&L, and authorized by the Commission, in Case No. EU-2004-0294.