

MEMORANDUM

TO: BOB WOOD
FROM: JAGER SMITH
DATE: FEBRUARY 13, 2001
RE: PSC Actions re Decommissioning Funding

Bob,

Thank you for talking with Mike Krupa and me on February 6 about concerns over state regulators' actions with respect to decommissioning funding. As we mentioned to you on the phone, the Arkansas Public Service Commission (APSC) has ordered that Entergy Arkansas, Inc. cease further collections from ratepayers for the decommissioning trust fund for Arkansas Nuclear One (ANO), Units 1 and 2, based on an assumed life extension of both of the units. Similarly, in testimony filed last December before the Louisiana Public Service Commission (LPSC), the LPSC staff consultant recommended the cessation of collections for Entergy Gulf States, Inc.'s River Bend Station decommissioning trust fund based on an assumed life extension for that unit. The LPSC consultant based his recommendation in part on the APSC's action. Although ANO Unit 1 has a license renewal application pending at the NRC, neither ANO Unit 2 nor River Bend Station has filed for a license renewal. Pursuant to 10 CFR 54.17(c), River Bend Station will not be eligible to file a license renewal application before August 29, 2005.

Entergy Arkansas, Inc. opposed the APSC's action in ordering cessation of decommissioning collections, and may be able to seek reversal of this action in a future proceeding. Entergy Gulf States, Inc. has filed responsive testimony at the LPSC attempting to explain the many drawbacks of cessation of decommissioning collections, and seeking to persuade the LPSC not to follow the APSC's steps. The LPSC will hold hearings on this issue beginning April 2, 2001.

As promised on our call, I am including with this memo a copy of the relevant portions of the testimony of the LPSC staff consultant (Stephen J. Baron) who has recommended cessation of River Bend Station's decommissioning trust fund collections. Mr. Baron's educational background is in Political Science and Economics. He has no experience working in the nuclear industry. I am also providing a copy of the APSC's order suspending decommissioning fund collections for ANO, dated October 3, 2000. Both of the included documents are public information.

We look forward to discussing these issues with you further some time soon.

Enclosures:

Direct Testimony of Stephen J. Baron on Behalf of the Louisiana Public Service Commission, dated December 2000, LPSC Docket No. U-24993, pages 1-2, 18-27.
Arkansas Public Service Commission Order No. 32, APSC Docket No. 87-166-TF, dated October 3, 2000.

A001

BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION

**Re: Seventh Annual Monitoring of Entergy Gulf)
States, Inc.'s Louisiana Jurisdictional)
Revenue Requirement Study Under) Docket No. U-24993
Terms of the Joint Regulatory)
Proposal Set Forth in Appendix 1)
To Commission Order No. U-19904)**

DIRECT TESTIMONY
AND EXHIBITS
OF
STEPHEN J. BARON

ON BEHALF OF
THE LOUISIANA PUBLIC SERVICE COMMISSION

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

December 2000

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

**Re: Seventh Annual Monitoring of Entergy Gulf)
States, Inc.'s Louisiana Jurisdictional)
Revenue Requirement Study Under) Docket No. U-24993
Terms of the Joint Regulatory)
Proposal Set Forth in Appendix 1)
To Commission Order No. U-19904)**

DIRECT TESTIMONY OF STEPHEN J. BARON

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Stephen J. Baron. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by whom are you employed?

A. I am the President and a Principal of Kennedy and Associates, a firm of utility rate, planning, and economic consultants in Atlanta, Georgia.

Q. Please describe briefly the nature of the consulting services provided by Kennedy and Associates.

A. Kennedy and Associates provides consulting services in the electric and gas utility industries. Our clients include state agencies and industrial electricity consumers. The firm provides expertise in system planning, load forecasting, financial analysis, cost-of-service, and rate design. Current clients include the Georgia and Louisiana Public Service Commissions, and industrial consumer groups throughout the United States.

Q. Please state your educational background.

J. Kennedy and Associates, Inc.

A. I graduated from the University of Florida in 1972 with a B.A. degree with high honors in Political Science and significant coursework in Mathematics and Computer Science. In 1974, I received a Master of Arts Degree in Economics, also from the University of Florida. My areas of specialization were econometrics, statistics, and public utility economics. My thesis concerned the development of an econometric model to forecast electricity sales in the State of Florida, for which I received a grant from the Public Utility Research Center of the University of Florida. In addition, I have advanced study and coursework in time series analysis and dynamic model building.

Q. Please describe your professional experience.

A. I have more than twenty-five years of experience in the electric utility industry in the areas of cost and rate analysis, forecasting, planning, and economic analysis.

Following the completion of my graduate work in economics, I joined the staff of the Florida Public Service Commission in August of 1974 as a Rate Economist. My responsibilities included the analysis of rate cases for electric, telephone, and gas utilities, as well as the preparation of cross-examination material and the preparation of staff recommendations.

current year decommissioning cost estimates for the years 1999 and 1998, decommissioning costs have actually dropped by 6.5% for the one-year period. Although I do not believe that it would be appropriate to incorporate this result into any analysis of future expectations, it is important to understand that the Company's escalation factor, that exceeds inflation by almost 100%, is highly unlikely to occur each and every year for the next 31 or more years. The Company's analysis is simply unreasonable and not appropriate for computing rates in this proceeding.

Q. Does the Company have an opportunity to adjust its decommissioning revenue requirement if costs escalate at a rate greater than projected by the CPI-U?

A. Yes. Since the Company is free to update its nuclear decommissioning cost estimate in current year dollars in any future rate proceedings, the Company has the ability to update its nuclear decommissioning revenue requirement analysis continually using the most recently available detailed engineering cost estimates. In fact, the Company has updated its engineering cost estimates a number of times during the earnings reviews.

Q. Would you please discuss the next issue on which you differ with the Company, the expected operating life of River Bend?

A. The Company has performed its nuclear decommissioning analysis in this proceeding using an assumed decommissioning date of 2025 for the River Bend unit. In this case, as in past proceedings, EGSI has based its revenue requirement analysis on an assumption that River Bend would operate for a 40 year period, during which time ratepayers would contribute decommissioning revenues. To the extent that River Bend actually operates longer than 40 years, it is reasonable to assume that Louisiana ratepayers would continue to pay decommissioning revenues for the extended period over which the unit operates.

Q. What is the impact if River Bend actually operates beyond its current expected 40-year life and no adjustment is made to reflect the life extension in the decommissioning revenue requirement computation?

A. If the unit continues to operate beyond the year 2025 and no adjustment is made in the annual revenue requirement to reflect it, there would be a substantial amount of overfunding of the trust funds, assuming that ratepayers continue to make decommissioning payments over the life of the unit. If the unit operates beyond the year 2025, it would ordinarily follow that ratepayers would continue to pay decommissioning. Even absent additional payments by ratepayers, the trust fund balances would continue to accrue earnings and grow over time. To the extent that the after-tax earnings exceed the growth in decommissioning costs (the escalation rate), overfunding would occur. Even under EGSI's unreasonable 4.49% escalation

rate, after-tax earnings on the tax qualified and non-tax qualified funds exceed this level. If River Bend's life is ultimately extended, and no adjustment has been made to decommissioning revenue requirements in prior rate proceedings, the trust fund will be substantially over-funded.

Q. Is there any basis to assume that River Bend will in fact operate beyond its current expected 40-year life?

A. Yes. Based on the response to data request LPSC-5-31, five nuclear units in the United States have received 20-year operating license extensions from the Nuclear Regulatory Commission ("NRC"). These units are the Calvert Cliffs, Units 1 and 2 owned by Baltimore Gas & Electric Company and the Oconee Nuclear Station, Units 1, 2 and 3 owned by Duke Power Company. In addition, Entergy filed for a 20-year license extension for its ANO, Unit 1 nuclear unit in Arkansas on March 1, 2000. The Company also indicated (response to LPSC-5-30) that it expects to request a 20-year NRC license extension of ANO, Unit 2 in 2003. Baron Exhibits ___(SJB-3) and ___(SJB-4) contain copies of these data responses.

Q. Does Entergy anticipate requesting a 20-year license extension for the River Bend nuclear unit?

A. Yes. In response to LPSC-5-29, Entergy indicates that it does intend to submit a license renewal application for River Bend prior to the year 2010 to "preserve the option to operate the plant past its original design life of 40 years". This data response is included as Exhibit ____ (SJB-5).

Q. Do you believe that the fact that the Company has not committed to an actual extension of the River Bend nuclear unit for 20 years at this point in time, has a bearing on the appropriate useful life that should be assumed by the LPSC for ratemaking purposes for the unit?

A. In general, I believe that it is appropriate for the Commission to utilize an assumed 20-year life extension for economic and ratemaking evaluations associated with the River Bend unit. The Company has indicated that it intends to file for a 20-year license extension for River Bend and has done so for ANO Unit 1 and intends to do so for ANO Unit 2. As I indicated, other utilities have received such extensions and it is presumed that the purpose behind these requests was to actually extend the lives of these units. It would make no sense whatsoever for Baltimore Gas & Electric Company or Duke Power Company or Entergy to spend two years and significant funds securing a 20-year license extension for a nuclear unit and then choose to decommission it at its otherwise expected original decommissioning date.

Q. Is there any other information that would be useful to consider in evaluating the reasonableness of an assumed 20-year life extension for the River Bend unit?

A. Yes. Based on the information provided by Entergy witness McGaha during his deposition, the cost to Entergy to develop the necessary documentation for the NRC filing to secure a 20-year operating license renewal is \$10 million. It would seem highly imprudent for Entergy to expend such an amount without having a reasonable expectation of actually extending the life of the unit.

Although no such operating license request (nor expenditures) has been made for the River Bend unit, such expenditures have been made for the ANO Unit 1 license renewal. It would seem reasonable to assume, for economic and ratemaking purposes, that the River Bend nuclear unit will in fact ultimately be extended by 20 years beyond its original decommissioning date of 2025.

Q. Have any regulatory commissions considered the impact of a 20-year license extension on decommissioning revenue requirements?

A. Yes. The Arkansas Public Service Commission recently considered the impact of a 20-year license extension and operating life extension on ANO Units 1 and 2, even though no application had been filed to extend the operating license of ANO 2. The

Commission, in Order No. 32 (Docket No. 87-166-TF) issued a decision in which decommissioning revenue requirements were evaluated based on an assumed 20-year life extension for these units. As a result of this assumption, the Commission determined that ANO nuclear units 1 and 2 were overfunded with respect to decommissioning and set the decommissioning revenue requirement at \$0 for these units.

The Arkansas Commission stated as follows:

The Commission finds that NRC license extension approval for ANO Units 1 and 2 is highly likely. The Commission finds that EAI, upon license extension, will have the opportunity to continue plant operations for up to an additional twenty years. The Commission finds that there is a substantial risk of over-collection of decommissioning costs, should re-licensing be approved and extended operations occur. The Commission finds that, in contrast, there is negligible risk that there will be a materially adverse impact on ratepayers, if a zero rate is adopted in the short term but ANO operations are not extended. Balancing those risks, the Commission finds that the current Rider M26 should be calculated to reflect a 20-year extended life of the ANO units. As such, EAI is ordered to file its next Rider M26 update reflecting the resulting zero rate for the coming year. As recommended by witness Fricke, EAI is to continue its expanded filing so that the Commission may monitor the adequacy of the decommissioning trust balances on an annual basis.

- Q. What is your recommendation with regard to the appropriate life for the River Bend unit, with respect to nuclear decommissioning revenue requirements and other ratemaking issues, such as depreciation?**

A. I believe that it is reasonable to assume, for ratemaking purposes, that the River Bend nuclear unit will receive a 20-year license extension and that its actual operating life will be extended by 20 years. The Staff's recommended nuclear decommissioning revenue requirement is premised on an assumed 20-year life extension for the River Bend unit. As I will discuss subsequently, based on the Staff's assumptions regarding initial trust fund balances, nuclear cost escalation rates and the 20-year life extension, the River Bend decommissioning revenue requirement should be set to \$0 in this proceeding.

If, in the future, facts and circumstances change regarding the likelihood of life extension, it would be appropriate to address the impact of such changes on future revenue requirement determinations.

Q. Have you performed any alternative nuclear decommissioning revenue requirement analyses reflecting the various assumptions that you have discussed previously in your testimony?

A. Yes. I have performed a number of decommissioning revenue requirement analyses, based on various assumptions regarding escalation rates, initial trust fund balances and the River Bend unit life. Baron Exhibit ____ (SJB-6) contains the Staff's primary recommendation regarding nuclear decommissioning for the River

Bend unit. This analysis incorporates an assumed decommissioning date for River Bend beginning in the year 2045. Essentially, this analysis extends the life of River Bend by 20 years and incorporates the Staff's assumed initial trust balances and 2.3% CPI escalation factor for nuclear decommissioning costs. With respect to the earnings rates, Baron Exhibit ____ (SJB-6) incorporates the Company's assumed earnings rates forecast, extended for a 20-year period. In particular, the analysis assumes that in the years immediately preceding decommissioning, the trust fund is converted into less risky municipal bonds investments that produce a lower rate of return. A similar assumption has been made in the 20-year life extension analysis shown in Exhibit (SJB-6).

Q. Based on the analysis shown in Exhibit (SJB-6), that produces a \$0 nuclear decommissioning revenue requirement, are there any amounts remaining in the trust fund after the unit is decommissioned during the period 2045 through 2058?

A. Yes. Using a \$0 annual revenue requirement for the remaining life of River Bend produces an overfunding of almost \$290 million by the end of decommissioning. Using the Staff's assumptions, the annual revenue requirement would actually have to be negative in order to fully utilize the trust fund balances for River Bend decommissioning. For illustration purposes, Baron Exhibit ____ (SJB-7) shows the results of an annual nuclear decommissioning revenue requirement credit analysis

that would produce a \$0 balance in the nuclear decommissioning trust fund at the end of River Bend's expected life, assuming a 20-year life extension. In order for the trust fund balance to be fully utilized, it would be necessary to incorporate a revenue requirement credit of \$440,000 beginning in the year 2001. Based on the Staff's assumptions in this case, the current River Bend nuclear decommissioning trust funds are overfunded on a Louisiana retail jurisdictional basis.

Q. Are you recommending such a revenue requirement credit in this proceeding?

A. No. My recommendation is that the nuclear decommissioning revenue requirement be set to \$0 in this case. As time goes on, and further information is obtained regarding decommissioning costs, life extension expectations and other factors, adjustments could be made to the revenue requirement in future years.

Q. Have you developed any alternative analyses with regard to nuclear decommissioning?

A. Yes. For illustration purposes, I have performed an analysis of nuclear decommissioning revenue requirements using the Company's assumed 4.49% escalation factor and the Company's assumed initial trust fund balances, together with a 20-year life extension. A summary of this analysis is shown in Baron Exhibit ___(SJB-8). As can be seen, the annual revenue requirement for nuclear

decommissioning using the Company's assumed 4.49% escalation rate and the Company's initial trust fund balance calculation is \$1.292 million, about 60% less than the \$3.285 million revenue requirement request made by the Company in this proceeding. If Entergy actually extends the life of River Bend by 20 years and all of the Company's other assumptions regarding nuclear decommissioning are accepted, the Company's own revenue requirement would decline by 60% from the level requested by EGSI in this case.

Q. Have you performed any analyses using a 40-year life for River Bend, as assumed by the Company in this case?

A. Yes. Baron Exhibit ____ (SJB-9) is an analysis of the Staff's revenue requirement using a 2.3% CPI-based escalation factor and the Staff's recommended trust fund balances. This analysis is based on an assumed decommissioning date for River Bend of 2025, the same period assumed by EGSI in this proceeding. As can be seen from Exhibit (SJB-9), the annual revenue requirement for decommissioning River Bend would be \$800,000 under the Staff's base case assumptions, assuming that no 20-year life extension is included. This \$800,000 revenue requirement calculation would be the Staff's recommended revenue requirement in this case, if the Commission does not accept the Staff's recommendation for a 20-year life extension assumption. Finally, Baron Exhibit ____ (SJB-10) contains an analysis of the Staff's nuclear decommissioning revenue requirement using the CPI escalation

OCT 3 2 08 PM '00

ARKANSAS PUBLIC SERVICE COMMISSION

FILED

IN THE MATTER OF ARKANSAS POWER AND)
LIGHT COMPANY'S PROPOSED NUCLEAR)
DECOMMISSIONING COST RIDER M26)
AND PROPOSED DEPRECIATION RATE)
REDUCTION RIDER M41)

DOCKET NO. 87-166-TF
ORDER NO. 32

ORDER

By Order No. 27, issued October 30, 1998, in this docket, the Commission directed Entergy Arkansas, Inc. ("EAI") to file each March 1 a status report on its progress in obtaining licensing extensions from the Nuclear Regulatory Commission ("NRC") for its nuclear generating plants, ANO Unit 1 and ANO Unit 2. Additionally, the Commission directed EAI, in its December 29, 1999, Order No. 30, to include in its March 2000 status report testimony which addresses decommissioning fund asset allocation and related issues. On March 1, 2000, EAI filed the testimony of Mr. John R. McGaha, Executive Vice President of Entergy Operations, Inc. ("EOI"), as its second progress report, pursuant to Order No. 27, on the status of the re-licensing of the ANO Units 1 and 2. EAI also filed the testimony of Mr. Michael A. Caruso, Assistant Treasurer of EAI, who addressed the decommissioning fund asset allocation and the testimony of Mr. Patrick J. Cicio, who addressed EAI's change in its financial forecasting data source from The WEFA Group, Inc. ("WEFA") to Regional Financial Associates, Inc., a Division of Dismal Sciences ("RFA").

On June 22, 2000, Ms. Karen Fricke, Public Utility Analyst in the Financial Analysis Section of the General Staff of the Arkansas Public Service Commission ("Staff"), filed testimony and exhibits in response to EAI's March 2000 testimony. On July 27, 2000, EAI filed the rebuttal testimonies of

Messrs. McGaha, Caruso, and Cicio. On August 11, 2000, Staff witness Fricke filed surrebuttal testimony and the Arkansas Electric Energy Consumers ("AEEC") filed the rebuttal testimony of Mr. Randall J. Falkenberg. A public hearing was conducted on August 23, 2000.

Decommissioning Fund Asset Allocation

Pursuant to Order No. 30 in this docket, EAI witness Caruso provides updated information on the current equity fund allocation targets and current balances. EAI's balance of equity investments continues to exceed its 50% allocation target, despite investing all current contributions in fixed rate assets. Mr. Caruso advises the Commission that a new asset allocation study should be completed prior to EAI's next Rider M26 filing.¹ Mr. Caruso proposes that EAI not be required, at this time, to sell any investments to achieve the 50% equity investment target. Further, Mr. Caruso asks that EAI be allowed to use the targeted 50% equity balance, rather than the actual equity balance, in calculating the upcoming M26 Rider. (T. 47)

Staff witness Fricke agrees that, if the asset allocation study is completed in time for the upcoming M26 Rider update, its recommendations should be incorporated into that update. However, if that study is not completed as of the M26 update, Ms. Fricke recommends that actual equity balances be used in the calculations. Ms. Fricke testifies that, because the current equity balances are closer to 60% than the currently recommended 50% and because neither she nor Mr. Caruso recommend the sale of assets to achieve that 50% target, it is more appropriate to use the actual balances in the M26 Rider. (T. 105-106) In rebuttal testimony, Mr. Caruso advises the Commission that EAI will support Ms. Fricke's recommendation in this regard. (T. 54)

On September 7, 2000, subsequent to the hearing, EAI filed the Asset Allocation Studies for

¹Rider M26 Adjustment filings are made on or before November 1 of each year.

each of the ANO units along with the supporting supplemental testimony of Mr. Caruso. Such studies are not part of this record. The studies generally recommend equity allocations reflective of percentages currently in place, with slightly higher equity investment levels for ANO unit 2. The studies recommend a resumption of a 50% equity level, should plant life extensions occur. EAI objects to the ANO Unit 2 higher equity percentage recommended. The other parties to the hearing have not had an opportunity to respond to the studies.

On September 21, 2000, Ms. Fricke filed supplemental testimony in response to Mr. Caruso's September 7, 2000 supplemental testimony. In Ms. Fricke's June 22, 2000 testimony she recommended that in the event the asset allocation study had not been reviewed and a final determination made on this issue in time for inclusion in the November 1, 2000 Rider M26 update filing, that the actual asset allocation ratio be used. (T. 106) EAI concurred with this recommendation in Mr. Caruso's July 27, 2000 testimony. (T. 54) In her September 21, 2000 testimony, Ms. Fricke testifies that Staff is not in a position to review the two new asset allocation studies and EAI's recommended target asset allocation factors in time for a final determination to be made and incorporated in the November 1 update filing. According to Ms. Fricke, Staff has begun its review and assessed the need for discovery. Further, Ms. Fricke points out that EAI is actually recommending different asset allocation factors than the study identifies. She testifies that it is not practical to adequately review and submit a recommendation on this issue in the short time frame allowed. Accordingly, Ms. Fricke's recommendation continues to be that the actual asset allocation of the trust funds be used in the November 1, 2000 filing.

The Commission finds that, based upon the record and giving due consideration of the Asset Allocation Studies filed subsequent to the hearing, it is more appropriate to use the actual equity balances in the immediately forthcoming M26 Rider filing.

EAI's Financial Forecasting Source

EAI has recently changed the vendor it uses to provide forecasting services for its annual Rider M26 calculation. EAI had previously used WEFA, but now employs RFA. (T. 62) Witness Cicio explains the Company's rationale for the change, including EAI's use of RFA's services for other-than Rider M26 forecasts. Mr. Cicio supports, as appropriate for Rider M26 forecasting needs, the use of RFA. (T. 63-66) Staff witness Fricke testifies that Mr. Cicio's considerations related to RFA's other uses by EAI do not provide sufficient evidence to justify a change to RFA for purposes of decommissioning cost forecasts. (T. 104) Ms. Fricke states that Staff continues to have concerns regarding RFA's prior year forecasting results and their variance from those of WEFA. (T. 104-105) Ms. Fricke recommends that, for this year, EAI be required to employ WEFA for Rider M26 purposes. (T. 104) Ms. Fricke also expresses Staff's willingness to work with EAI "to explore information the Company may possess ... to address (Staff's) concerns" regarding RFA's use for Rider M26 forecasting. (T. 105) Mr. Cicio, in his rebuttal testimony, advises the Commission that EAI agrees to Ms. Fricke's recommendation and will employ WEFA for its forecasting needs for its upcoming Rider M26 estimate. (T. 70)

The Commission finds that the continued use of WEFA is appropriate at this time. It is certainly more logical and more compelling to use a forecasting source that is the most accurate in its results, as compared to one that may be more economically efficient to use for non-related company purposes, but is less reliable in its product. The Commission further orders the parties, as proposed by Ms. Fricke, to work together to attempt to reconcile the parties' differences in this matter, prior to EAI's November 2001 Rider M26 filing.

ANO License Extensions Update

As required by Order No. 27 in this Docket, EAI witness Mr. McGaha provides updated information regarding the efforts of EAI, through its nuclear management affiliate, Entergy Operations, Inc. ("EOI"), in obtaining NRC license extensions for its ANO Units 1 and 2. For ANO Unit 2, EOI has advised the NRC that it expects its license renewal application to be completed and filed by third quarter of 2003. (T. 176) EOI has already filed its NRC application for renewal of the ANO Unit 1 license. That application is currently undergoing initial review, and, with that review to be completed soon, will then be docketed and opened to intervention and comment by other parties. (T. 175-177) EOI's current estimated time line indicates that Unit 1's application should be decided by February 2002. (T. 181) EOI generally cites no known impediments to Unit 1's license renewal. Observation of other NRC license extension proceedings indicates that the NRC has done a good job in adhering to its scheduling. (T. 184) Further, EOI has adapted its Unit 1 application to reflect the information and commitments² requested by the NRC in these other license extension proceedings, which should facilitate the process and approval. (T. 185-186) To additionally facilitate the process, EOI will meet monthly with the NRC to resolve differences before they can impede the progress of the renewal. (T. 186-187) EOI anticipates no major stumbling blocks to the process, although intervention by opposing parties and uncertainty about NRC detail requirements do exist. (T. 187-188) Mr. McGaha also notes that, while the expected NRC-required commitments do not appear to threaten the economic viability of ANO 1, NRC final recommendations could change that. (T. 189-190)

Rider M26 Revenue Requirement

In view of EAI's ANO license renewal update, Staff witness Fricke recommends that the

²EOI does not believe commitments currently being required by the NRC are significant enough to jeopardize economical operation of a nuclear plant. (T. 186)

Commission set the current Rider M26 revenue requirement to zero and temporarily suspend collections. She concurrently recommends continuation of the expanded filing so that the Commission may monitor the adequacy of the decommissioning trust balances. (T. 102-103) Ms. Fricke bases her recommendation on the change in circumstances since EAI's last Rider M26 proceeding. Those changes increase the likelihood of the extended operation of the ANO units and the resulting over-recovery of decommissioning costs.

In Order No. 27, the Commission concluded that it was premature to suspend M26 collections based on the circumstances at that time. Specifically, the Commission found that: (1) the NRC had approved no applications from any utility for nuclear plant license extensions (T. 91); (2) EAI had not filed for license renewal for Unit 1 and advised the Commission it was unsure that it would file for Unit 2 (T. 92); (3) there was some concern that the NRC would impose restrictions which would make extended operation of the units uneconomic (T. 94); and (4) there was no indication that the NRC would grant an extension for the full 20 years (T. 95). Currently, however: (1) five out of five applications for nuclear plant license renewal have received NRC approval (T. 91); (2) EOI has already filed its application for Unit 1 and expects to file its Unit 2 application in 2003 (T. 92-93); (3) the NRC has imposed no uneconomic restrictions in the five nuclear re-licensing orders, nor does EAI, by its own admission, expect any for either of its renewal applications (T. 94-95); and, finally, (4) the five license extensions have been granted for the full twenty years (T. 95).

Ms. Fricke testifies that the increased probability of license renewal increases the probability of extending the ANO units' operation, which will result in an increased risk of over-collection of decommissioning costs from ratepayers. Exhibit KBF-5 (Exh. 49), prepared by Ms. Fricke in conjunction with her July 21, 1998 testimony filed in this docket, addresses the adequacy of the trust

fund balances as of December 31, 1997 assuming a 20 year life extension. The purpose of this analysis was to determine the adequacy of the current funds and, therefore, did not include any future annual contributions. Using the 1997 decommissioning cost estimate and the same CPI and earnings rate forecasts which were used in the then-current Rider M26 model, the time period was extended 20 years. Specifically, Ms. Fricke's analysis: (1) escalated for 20 additional years the current cost estimate by the CPI forecast currently reflected in the model; (2) continued for 20 additional years the earnings rate currently reflected in the model; and (3) maintained the asset allocation changes as the funds move from equities to more fixed assets during the last ten years prior to decommissioning, consistent with the current model. Ms. Fricke's analysis, which changed only the date of decommissioning to reflect a 20 year life extension and otherwise utilized assumptions currently reflected in the Decommissioning Revenue Requirement Model, showed a surplus of approximately \$1 billion at the end of decommissioning ANO Units 1 and 2. (T. 96)

As required by Order No.27, the decommissioning fund analysis is updated annually in the November 1 Rider M26 update. Accordingly, Exhibit KBF-6 (Exh. 50) was prepared by Ms. Fricke as part of her 2000 analysis. Based on the trust fund balances at year end 1999, with no additional contributions, and assuming a 20 year life extension for both ANO plants, Exhibit KBF-6 indicates that the projected decommissioning trust fund balances would now exceed the projected cost to decommission ANO Units 1 and 2 by more than \$2 billion. Thus, the projected over-funding level has doubled in just three years. (T. 96)

Taking into account the time value of money and the concept of compound earnings, Ms. Fricke asserts that extending the length of time over which the funds can grow by an additional 20 years will

always have a significant impact on the accumulation of funds. At six percent interest the funds would double every twelve years through compounding and without any additional contributions according to Ms. Fricke. Ms. Fricke further points out that since the elimination of the Black Lung restrictions, the trust fund balances have consistently exceeded the prior year's projected balances. The increase in equity investments coupled with the healthy equity returns over the past few years have increased the holdings of the trusts to the point that the annual revenue requirements have been much less than projected even as recently as two to three years ago. (T. 97)

Regarding the impact of suspending the collection from ratepayers of decommissioning funds if the licenses are not extended, Ms. Fricke testifies that the impact is so negligible it is not a key consideration. As required by Order No. 27, an analysis of the impact of a one year suspension is included in each November 1 Rider M26 filing. Ms. Fricke's Exhibit KBF-7 (Exh. 51) compares the future revenue requirements if Rider M26 rates were suspended one year and the future revenue requirements with the rates as implemented January 1, 2000. According to Ms. Fricke's testimony, the maximum future annual Arkansas Retail revenue requirement is increased from \$8.9 million to \$9.7 million or less than \$1 million by a one year suspension. This increase in revenue requirement would equate to roughly \$.06/month for the typical residential customer. On the other hand, Ms. Fricke argues that interim refunds of significant over-collections are not likely due to possible adverse tax consequences. The risk of over-collection, according to Ms. Fricke's testimony, is much greater for customers because significant refunds are an extremely long-term solution occurring some 40-50 years in the future after the plants are decommissioned. (T. 97-98)

Order No. 27 directed the parties to explore changes to the Decommissioning Trust Agreements

to protect ratepayers should over-collections occur and refunds be required and to file a report. Responding to the question of whether or not such changes would permit interim refunds, Ms. Fricke pointed out that only the Non-Tax Qualified Trust Fund Agreement was amended to permit interim refunds. The balance in the Non-Tax Qualified Trust Fund as of March 31, 2000 was \$75.19 million. The Tax Qualified Trust Agreements have not been changed to permit interim refunds. Due to the Internal Revenue Service regulations governing the Tax Qualified Trust Funds, interim refunds from these funds would be very complicated. The balance in the Tax Qualified Funds was \$288.98 million as of March 31, 2000. (T. 98)

The Electric Consumer Choice Act of 1999 ("Act 1556") provides for the introduction of retail competition into the electric utility industry, the regulation of new energy service providers, the recovery of stranded costs, and other elements associated with the transition to retail competition. Act 1556 provides that a competitive retail electric market should be established by January 1, 2002, but not later than June 30, 2003. After retail open access, generation assets will not be subject to the ratemaking authority of the Commission, except that the Commission will retain jurisdiction to authorize the recovery of nuclear decommissioning costs or the refund of over-recovery of decommissioning costs.

Under Act 1556, decommissioning costs are to be recovered through a Customer Transition Charge ("CTC") implemented after retail open access. The CTC is a non-bypassable charge applicable to all retail customers within an electric utility's service area regardless of whether the service is at the distribution or the transmission level. Act 1556 also requires a standard service package to be offered to customers which either have not obtained or could not obtain service from an

alternative service provider. The rates and charges for this service are to be the same as charges for comparable service immediately prior to retail open access for a period of one or three years ("rate freeze") depending upon the utility's recovery of stranded costs. Entergy has filed notice with the Commission of its intention to seek recovery of stranded costs, so presumably its rates and charges for this service will be the same for three years. The nuclear decommissioning costs included in a CTC as part of the rate freeze charges will be the same as the Rider M26 rates in effect immediately prior to retail open access and will remain the same for three years. Fuel was the only exception noted in Act 1556, which would continue to fluctuate under the terms of the tariff.

The decommissioning cost recovery rates for Rider M26 change annually. On November 1, 2000, Entergy will file updated rates to become effective January 1, 2001 through December 31, 2001. Assuming that retail open access occurs January 1, 2002, the rates for comparable service effective immediately prior to retail open access will be the rates established by the current update process. The decommissioning rates for customers covered by the freeze would then be the same for three years. For customers not covered by the freeze, Rider M26 would continue to be updated annually. Thus, the nuclear decommissioning component of the CTC would likely differ between freeze and non-freeze customers. Given that Rider M26 annual revenue requirements have been declining for the past six years, Ms. Fricke testified that decommissioning cost recovery rates included in the CTC for rate freeze customers would be higher during the freeze period than they otherwise would have been absent the rate freeze. All other customers' rates would continue to be updated annually by the Rider M26 model and would be declining. (T. 101)

Regarding other potential benefits from suspending Rider M26 collections, Ms. Fricke argues

that if Rider M26 collections are suspended during the rate freeze period, CTC rate differences within classes of customers would be avoided. To the extent that the non-bypassable portion of the bill could influence a customer's decision to pursue competitive options, Ms. Fricke asserts that this would be a desirable result affording similarly situated customers the same opportunities by paying the same class CTC for nuclear decommissioning costs. (T. 101)

Accordingly, Ms. Fricke recommends the Commission order a revenue requirement of zero and suspend collections for Rider M26 at this time due to the significant likelihood of license renewal and corresponding impact of substantial overcollections. She recommends continuation of the expanded filing for monitoring purposes, which includes license expiration dates associated with a license renewal, and that the Commission annually monitor the funding adequacy and future impacts of the suspension through the Rider M26 filings. As Ms. Fricke's testimony demonstrates, the probability that the ANO plants will receive 20 year license extensions is very high. Given the adequacy of current fund balances and the unique design of Rider M26 to annually review and recover the future costs of decommissioning over the life of the plants, Ms. Fricke argues that a suspension of decommissioning fund collections should not adversely impact EAI. Ms. Fricke states that the financial exposure to ratepayers of suspending Rider M26 rates is negligible, while the risk of significant over-funding is an extremely long-term proposition. In conclusion, Ms. Fricke testified that her recommendations properly balance the need for adequate funding and the negative consequences of significant over-collections from current ratepayers. (T. 102)

EAI opposes Ms. Fricke's recommendation to cease collections under Rider M26. (T. 159) EAI proposes that M26 charges continue to be collected and EAI will keep the Commission prospectively

informed each year of the licensing status of its ANO Units 1 and 2. (T. 159 and 168) Mr. McGaha testifies that there is no certainty these plants' lives will be extended for another 20 years. (T. 158) Even if the NRC approves a 20-year extension, Mr. McGaha asserts there is no guarantee that EAI should operate the plant that long, or even at all. (T. 159, 160-161) According to Mr. McGaha, there are too many uncertainties surrounding the operation of the plants past the current license period, of which the economic viability of extended operation is the most important. (T. 162, 165-167) EAI's purpose in applying for license extensions at this time, according to Mr. McGaha, is simply to preserve its options, given the future economics. (T. 162) Mr. McGaha argues that although Staff has proposed suspension of collections based on its assumption that the plant will operate for an additional 20 years, Staff has failed to recognize that no nuclear plant has ever operated that long. (T. 163) Further, according to Mr. McGaha, no other state commission, whose plants under their jurisdiction received NRC 20-year extensions, have required cessation of decommissioning collections. (T. 167)

In her surrebuttal testimony, Ms. Fricke notes that EAI does not dispute that the circumstances cited by the Commission in Order No. 27 have changed (T. 109), nor does EAI refute or address Act 1556 implications, including the Act's "guarantee" of full decommissioning cost recovery. (T. 112, 113) Ms. Fricke testifies that EAI witness McGaha's assertions as to Staff's conclusions are either incorrect or not justified by the facts. (T. 109)

AEEC witness Falkenberg testifies that EAI has overstated the "uncertainties" related to the licensing and operation of these units. Specifically, Mr. Falkenberg asserts that EAI has overstated the risks related to the economics of future operation. Based on the most current technology, Mr. Falkenberg states that costs for these plants would have to increase by a full 50% before the plants would be uneconomic. (T. 16,29-30) Additionally, according to Mr. Falkenberg, there are other

methods³ of decommissioning available which could substantially reduce costs, indicating even greater over-collections. (T. 26-27) Finally, Mr. Falkenberg testifies that the ANO decommissioning charges have already incorporated significant amounts as a contingency for uncertainty. Current ANO decommissioning cost estimates according to Mr. Falkenberg are already inflated by 22% for unexpected costs. (T. 23) Irrespective of the uncertainties which do exist, Mr. Falkenberg argues that any cost-related risk is significantly reduced by the Commission's ability to re-institute collections at any time under Rider M-26. (T. 21)

Ms. Fricke and Mr. Falkenberg also rebut EAI's implication that Staff's basis for recommending cessation of collections is wholly dependent upon the assumption that plants must operate a full twenty years past the current license period. Collections could cease today and these plants need only operate for an additional five to six years past current projections to accumulate sufficient amounts to fully fund decommissioning costs. (T. 16, 26, 110)

Ms. Fricke rebuts Mr. McGaha's suggestion that there is considerable uncertainty as to the ability to extend the lives of the two ANO units for an additional twenty years. Entergy's active pursuit of ANO re-licensing and acquisition of other nuclear facilities is consistent with the expectation that extended operation of nuclear plants will take place. (T. 17, 111)

Mr. Falkenberg also testified that Mr. McGaha's assertions related to the orders of other state commissions on this issue are misleading. (T. 23) Mr. Falkenberg testified that most other states roll decommissioning costs into base rates, which are only changed during a general rate case. (T. 20-21) Mr. Falkenberg points out that Rider M26 provides a unique, separate vehicle by which future costs are

³ Cost estimates are based on the immediate dismantlement method or DECON. Other, less expensive methods include entombment or ENTOMB and mothballing or SAFSTOR (T. 27).

estimated and collected, and changes to those estimates may be made without the necessity of base rate changes. (T. 20-2, 111) Further, as noted by Ms. Fricke, other commissions are beginning to address the over-collection issue as more license extensions are granted. (T. 112) Ms. Fricke also notes that it is not entirely clear that the impact of license extensions and over-recovery has not been addressed and captured in any one of many stranded cost settlements. (T. 23-26, 111-112)

Conclusion

The question before the Commission is not whether EAI should be denied recovery of appropriate decommissioning costs for its ANO nuclear units. No party suggests that the Commission consider this as an option and Ms. Fricke acknowledges that her proposal “will not jeopardize the ultimate recovery of decommissioning costs.” (T. 113)

The Commission also recognizes that current estimates of decommissioning costs are precisely that; they are estimates, based on the best information available at the time. Certainly, the actual costs could vary from the estimates, but it is not necessary to have precision and certainty in this area in order to address the narrow issue currently before the Commission. The issue at hand is one of balancing the financial and public interest risks of significantly over-collecting decommissioning funds from ratepayers, based on reasonably predictable future events, versus the ability to re-institute collection and have a comparatively de minimus amount of money to seek from customers upon the occurrence of a less likely scenario.

The record indicates, in Mr. McGaha’s testimony, that EAI and EOI are aggressively pursuing extensions of NRC licenses, which will result in the opportunity to continue plant operations for both ANO units for an additional twenty years. (T. 175-176) That testimony is supported by the testimony of Mr. Falkenberg and Ms. Fricke. (T. 18-19, 92-93)

Mr. McGaha testifies that EAI anticipates that the licenses will be approved on a timely basis, for the full twenty years, and with no negative economic commitments required by the NRC. (T. 181, 184, 186, 189) That testimony is supported by the testimony of Ms. Fricke and Mr. Falkenberg. (T. 18-19, 29, 91-95) Mr. McGaha, however, also testifies that it is possible that its licenses may be revoked by the NRC, (T. 159) some delays may occur, assuming interventions, (T. 180) and future operation of the plants may not be economic due to NRC commitment requirements, market prices, or costs of nuclear material storage (T. 163, 166, 189). EAI suggests a five to ten year delay in Commission determination on this issue because of these "uncertainties". (T. 78) EAI provides no substantive evidence to determine that any of the adverse possibilities are likely to occur. Ms. Fricke, on the other hand, notes that records indicate no intervention has been filed in the Unit 1 NRC license proceeding, and little or no objection evident to NRC approval. (T. 93) Mr. Falkenberg testifies that operational costs for the units would have to increase by 50% to prove uneconomic. (T. 16, 29)

In 1998, Ms. Fricke calculated an estimated over-recovery of decommissioning costs, assuming twenty year life extension for the ANO plants, of approximately \$1 billion. (T. 96) Today, she testifies that estimates of over-earnings, assuming the same twenty year extension, have risen to approximately \$2 billion. (T. 96) EAI has not rebutted her calculations of these amounts based on the twenty year extension.

Ms. Fricke recommends that the Commission set the next revenue requirement for Rider M26 at zero, in view of the magnitude of this potential over-recovery. (T. 102, 113) She testifies, that, based on the most current approved decommissioning cost estimates, the revenue requirement would be zero if the plants operate at a minimum of five to six years past current projections. That level of over-earnings would increase substantially for each additional year they are operated. (T. 26, 96, 110,

Exhibits at 50) EAI does not dispute these calculations.

Ms. Fricke testifies that a one-year cessation of collections would have a negligible impact on ratepayers, if plant operations are not extended. A one-year delay would increase charges by one million dollars annually. (T. 97) EAI questions whether Ms. Fricke has done additional analysis on the ratepayer impact, should collections cease for more than one year pursuant to Act 1556's rate freeze requirement. (T. at 122) Ms. Fricke responded that the one-year, one million dollar impact analysis reflects representative amounts applicable to an extended four-year period and, given ongoing decreases in decommissioning costs, the extended impact may actually be less. (T. 122) EAI neither rebuts her analysis nor does the company provide any of its own.

Mr. McGaha questions the Commission's authority to approve a revenue requirement of zero at this time, calling it "unprecedented" and not supported by the action of any other commission faced with similar circumstances. (T. 158) He argues that a determination by the Commission, in this regard, "comes close to arbitrary, perhaps, unlawful, action..." and is not sure "... if the Commission can simply stop and start a tariff." (T. 84)

The Commission, based upon appropriate evidence, is clearly obligated to deny operation of any tariff it finds unjust, unreasonable, and not in the public interest. EAI, however, misinterprets Staff's recommendation. Staff recommends that, based upon the most current evidence available, it is in the public interest to find that the revenue requirement, applicable to Rider M26, should be zero. Staff's proposed change in the estimate, here, represents no precedent for Rider M26. EAI has proposed multiple changes in the Rider's rate estimates to more accurately reflect the most current information available.

The most current evidence, reflected in the record herein, indicates that: (1) the NRC will

approve 20-year license extensions for both ANO units; (2) EAI will enjoy the opportunity to extend operations for up to the full twenty years; (3) if it does take advantage of that opportunity and collections under Rider M26 continue, there will be significant over-collections and a corresponding unnecessary adverse impact on ratepayers; (4) even if EAI only chooses to extend operations for some five to six years, current decommissioning balances are sufficient to pay those costs; and, (6) if EAI does not choose to extend operations, adoption of a zero rate for one to four years now will not have a materially adverse impact on ratepayers. In other words, the evidence indicates that it is much more likely that over-collections from continuance of M26 recovery will result, which will add up to far more money than any possible funding deficiency that might have to be addressed in the future.

The Commission finds that NRC license extension approval for ANO Units 1 and 2 is highly likely. The Commission finds that EAI, upon license extension, will have the opportunity to continue plant operations for up to an additional twenty years. The Commission finds that there is a substantial risk of over-collection of decommissioning costs, should re-licensing be approved and extended operations occur. The Commission finds that, in contrast, there is negligible risk that there will be a materially adverse impact on ratepayers, if a zero rate is adopted in the short term but ANO operations are not extended. Balancing those risks, the Commission finds that the current Rider M26 should be calculated to reflect a 20-year extended life of the ANO units. As such, EAI is ordered to file its next Rider M26 update reflecting the resulting zero rate for the coming year. As recommended by witness Fricke, EAI is to continue its expanded filing so that the Commission may monitor the adequacy of the decommissioning trust balances on an annual basis.

THEREFORE, the Commission orders as follows:

1. EAI use actual equity balance percentages in the calculation of the upcoming Rider M26;
2. EAI use WEFA for forecasting services applicable to the upcoming Rider M26 filing;
3. The parties work together to attempt to reconcile differences regarding the choice of forecasting vendors prior to EAI's November 2001 Rider M26 filing; and,
4. EAI incorporate 20-year plant life extensions for both ANO units for the calculation of the appropriate rate for Rider M26, the result of which should reflect a zero rate for the upcoming year.

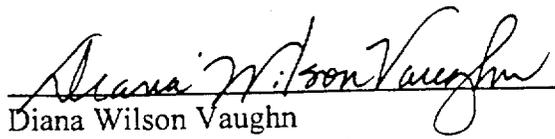
BY ORDER OF THE COMMISSION.

This 3rd day of October, 2000.


Sandra L. Hochstetter, Chairman


Sam I. Bratton, Jr., Commissioner


Betty C. Dickey, Commissioner


Diana Wilson Vaughn
Secretary of the Commission