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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

50-313/368

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

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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

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[1]Rider 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 commitments[2] 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

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[2]EOI 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 its 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

methods[3] 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. MaGaha'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 -ear 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
Sandra L. Hochstetter, Chairman

Sam I. Bratton, Jr.
Sam I. Bratton, Jr., Commissioner

Betty C. Dickey
Betty C. Dickey, Commissioner

Diana Wilson Vaughn
Diana Wilson Vaughn
Secretary of the Commission

I hereby certify that the following order issued by the Arkansas Public Service Commission has been served on all parties of record this date by U. S. mail with postage prepaid, using the address of each party as indicated in the official docket file.

Jan Sanders
Jan Sanders
Secretary of the Commission
Date 10-3-00

Rider M26 is the funding vehicle for nuclear decommissioning costs which was established in 1987 and remains in place today. Rider M26 is a unique rate mechanism designed specifically to recover the projected decommissioning costs for Arkansas Nuclear Operations (ANO) Unit 1 and Unit 2. The rider provides for the an update of the cost projection every five years. The rider also provides for an annual update of the financial model inputs including inflation factors, fund balances, and earnings projections resulting in an annual review of the status of decommissioning funding. The balance in the external trust funds totaled $360 million as of December 2000. Rider M26 is still an Entergy tariff and external trust earnings continue to accumulate. The Commission has suspended revenue collection only and all other aspects of the tariff are effective. Annual filings continue as do the projected cost updates.

- Staff Testimony and the Commission order refer to suspension of collections under Rider M26 and annual monitoring, not prevention of collection. (Fricke Surrebuttal pg. 5 and Fricke Prepared pg. 15)

- Staff's testimony specifically stated a 20 year life extension was not necessary for the conclusion that revenue collection should be suspended. Staff calculated using Company-proposed assumptions that if the plants operated 6 years beyond the current license terms further collection would not be required. (Fricke Surrebuttal pg. 2)

- Staff did not intend that funds would not be available at the termination of operation. Staff testimony in fact assessed the impact of not receiving license extension and calculated the risk to ratepayers in terms of increased future annual revenue requirements. The risk of over-collection without timely refunds was clearly much greater than the increased future annual revenue requirements. Additionally, Arkansas deregulation legislation provides for decommissioning costs to be a non-bypassable charge so recovery could continue from all customers after retail open access. (Fricke Prepared pg. 10 and Fricke Surrebuttal pg. 3)

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BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

IN THE MATTER OF ARKANSAS POWER & LIGHT COMPANY'S PROPOSED NUCLEAR DECOMMISSIONING COST RIDER M26 AND PROPOSED DEPRECIATION RATE REDUCTION RIDER M41	)))))	DOCKET NO. 87-166-TF

PREPARED TESTIMONY

OF

KAREN FRICKE
PUBLIC UTILITY ANALYST

ON BEHALF OF THE
ARKANSAS PUBLIC SERVICE COMMISSION STAFF

JUNE 22, 2000

Introduction

Q. Please state your name and business address.

A. My name is Karen Fricke. My business address is Arkansas Public Service Commission (Commission or APSC), 1000 Center, Little Rock, Arkansas 72201.

Q. In what capacity are you employed at the Commission?

A. I am a Public Utility Analyst in the Staff's Financial Analysis Section. In that capacity, I provide analysis of utility companies and utility company filings, develop positions thereto, present that position when necessary in written and oral testimony before the Commission, and perform other duties as assigned. My primary responsibility for the last six years has been the review of all decommissioning filings including the annual updates for Rider M26, proposed revisions in the cost estimates for decommissioning, and the filings required by the ANO Decommissioning Trust Fund Guidelines.

Q. Please describe your educational training and experience.

A. I graduated from Southwestern at Memphis (now Rhodes College) in Memphis, Tennessee, in June, 1976 with a Bachelor of Arts degree in Economics. In January, 1980 I received a Master of Arts degree in Business Administration from the University of Arkansas at Little Rock. I have over 20 years experience in utility regulation and rate matters.

I joined the Staff of the Arkansas Public Service Commission as a Rate Analyst in October, 1978. While employed by the Staff, I attended numerous schools and seminars on various aspects of utility regulation. I have previously prepared and presented testimony in many dockets before the Commission, including electric, gas, telephone and water cases.

In February, 1987 I took a position as Rate Analyst for the North Little Rock Electric Department, a local municipal electric utility serving 35,000 customers. My duties included review and monitoring of wholesale power costs, negotiation of wholesale power and service agreements, and serving as acting General Manager.

In June, 1992 I returned to the Commission in my present position. Since returning to the Commission I have focused on nuclear decommissioning cost and funding matters. I have attended three TLG Decommissioning Conferences. I was instrumental in the development of the ANO Decommissioning Trust Fund Guidelines.

Purpose of Testimony

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to address the testimonies of Messrs. McGaha, Cicio, and Caruso filed on behalf of Entergy Arkansas, Inc. (Entergy or EAI) on March 1, 2000. Mr. McGaha's testimony is the second progress report "regarding the status and progress of re-licensing and extending the lives of ANO Units 1 and 2" as required by the Commission in Order No. 27 in this Docket. The testimonies of Mr. Cicio and Mr. Caruso address issues regarding the data sources and assumptions for input to the Decommissioning Revenue Requirement Model used to calculate the annual rate changes for Rider M26, as required by Commission Order No. 30 in this Docket.

Overview of Recommendation

Q. Please summarize you recommendations to the Commission.

A. I am recommending that the Commission order a revenue requirement of zero and suspend

collections for Rider M26, based on significant changes regarding the status of license renewal for EAI's Arkansas Nuclear One Units 1 and 2. I also recommend the continued use of The WEFA Group, Inc.(WEFA) forecasts for inputs in the Decommissioning Revenue Requirement Model (Model) and the use of the actual asset allocation ratio for the development of the projected earnings inputs in the Model.

Order No. 27 Findings

Q. Please summarize Order No. 27 regarding license extension.

A. In testimony filed in July and August of 1998 in this Docket, Staff recommended suspending collection of ANO decommissioning costs recovery through Rider M26 because of the potential of license extension for the ANO plants, and the likelihood of a resulting significant over-funding of ANO decommissioning costs if the licenses were extended. While the Commission in its Order No. 27 recognized that life extensions would have an impact on the necessary level of current funding of decommissioning costs,[1] it found "that the mere possibility of re-licensing and operating the ANO plants for perhaps an additional 20 years, is entirely speculative at this time, and, as such, does not justify the immediate cessation of ANO decommissioning cost recovery". Specifically, the Commission noted that at that point in time (1) the Nuclear Regulatory Commission (NRC) had not, as of yet, renewed the operating license of any nuclear plant, (2) EAI had not yet decided to ask for a plant license extension, (3) the NRC would most likely impose certain restrictions and requirements which could be costly and needed

[1]The Commission had earlier recognized in its Order No. 16 in this Docket, issued August 3, 1993, that license renewal has the potential to lower decommissioning costs to current ratepayers through spreading such costs over a greater number of years.

to be factored into the economics of seeking license extension and continued operation of the plant beyond its current license, and (4) there was no guarantee that the extension would be approved for a full 20 years. The Commission stated its expectation that EAI continue to pursue ANO license extensions in a prudent manner, noting that the Commission considers life extensions to be a viable means to effectively mitigate potential stranded costs. The Commission directed, among other things, that EAI file each March 1 a status update report on the Company's progress toward license extension.

Status of Key Considerations has Significantly Changed

Q. Has the status of these key considerations changed significantly since October 30, 1998 when the Commission issued Order No. 27?

A. Yes, as my testimony will substantiate, there have been significant changes in each of these areas.

Q. At the time of Order No. 27, no license renewal requests had been granted. As of this writing has the NRC renewed the operating license of any nuclear plant?

A. Yes. In total the owners of eight reactors at four different plants have submitted applications for 20 year license renewal to the NRC.[2] The NRC has concluded its review of license renewal requests for five reactors and has renewed the licenses of all five reactors. On March 23, 2000, the NRC renewed for 20 years the licenses of Baltimore Gas & Electric Company's two Calvert

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[2] "Plant Applications for License Renewal." June 20, 2000 http://www.nrc.gov/NRC/REACTOR/LR/applications.html (20 June 2000).

Cliffs reactors.[3] On May 23, 2000, the NRC renewed for 20 years the licenses of Duke Energy Corporation's three Oconee reactors.[4] The license renewal applications for ANO Unit 1 and Southern Company's Hatch Units 1 and 2 are under review by the NRC.[5] Additionally, as of June 20, 2000, the owners of 26 reactors at 16 plants had notified the NRC of their intentions to seek license extensions.[6] ANO Unit 2 is among these 26 reactors and EAI is scheduled to submit an application for 20 year license renewal for ANO Unit 2 in September 2003. In summary, the NRC has renewed for an additional 20 years the licenses of five reactors, has received applications for a 20 year license renewal for three additional reactors, and has been notified of the intention to submit applications for 26 more reactors.

Q. Order No. 27 noted that EAI had not yet decided to ask for a plant license renewal. Has that decision now been made?

A. Yes, it has. As Mr. McGaha noted, EAI has submitted a license renewal application for ANO Unit 1 which would extend the license through May 20, 2034. The NRC received the ANO Unit 1 application on February 1, 2000 and is currently in the process of reviewing the application. As shown in Exhibit KBF-1, the ANO Unit 1 License Renewal Application was docketed

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[3]Enclosures 1 & 2 to Letter dated March 23, 2000. NRC Ascension #ML003694857

[4]Enclosures 1,2, & 3 to Letter dated May 23, 2000. NRC Ascension #ML003717453

[5]"NRC Renews Licenses for Oconee Nuclear Power Plant for an Additional 20 Years." May 23, 2000. http://www.nrc.gov/OPA/gmo/nrarcv/00-84.html (24 May 2000).

[6]"Plant Applications for License Renewal." June 20, 2000. http://www.nrc.gov/NRC/REACTOR/LR/applications.html (20 June 2000). See Exhibit KBF-2.

March 3, 2000.[7] Also, as can be determined by Exhibit KBF-1, the deadline for intervention was April 3, 2000 and there are no interveners.[8] On April 4, 2000 the NRC held two public meetings in Russellville to gather information for its environmental review of the application for license renewal of ANO Unit 1. Staff attended both these meetings and observed that no issues were raised and no opposition presented to the proposed 20 year license renewal.

As outlined by Mr. McGaha's testimony and delineated on Exhibit KBF-1, a very specific and detailed review process is planned. Mr. McGaha concluded that "the NRC is serious about establishing a viable license renewal process"[9] and I agree with his conclusion. There have been no complications to date and based on the schedule published by the NRC, a decision on the license renewal application is expected on February 11, 2002 with a renewed license issued on February 21, 2002.

As noted by Mr. McGaha, the Company is working on the license renewal application for ANO Unit 2. As Exhibit KBF-2 shows, the NRC has been notified of a future submittal in September 2003.

Q. How has the NRC's actual review time compared to the milestone scheduling initially set out upon filing of the license renewal applications?

A. The NRC was ahead of schedule compared to the milestone scheduling for both the Oconee

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[7]Docket No. 50-313-LR

[8]The NRC schedule notes that "...the review schedule was revised from a 30-month schedule to a 25-month schedule because the NRC did not receive any petitions to intervene or requests for a hearing."

[9]March 1, 2000, McGaha testimony page15, lines 18-19.

reactors and the Calvert Cliffs reactors. Exhibit KBF-3 shows that the Calvert Cliffs license renewals were ahead of schedule by about a week with the renewed licenses issued March 23, 2000, as compared to the April 3, 2000 scheduled date for issuance. Exhibit KBF-4 shows the Oconee license renewals were ahead of schedule by a little more than a month with the renewed licenses issued May 23, 2000, as compared to the July 3, 2000 scheduled date. Efficiencies in reviewing the applications as well as further standardization of the applications will likely contribute to the NRC's ability to remain on or ahead of schedule. Further, various NRC Voting Records[10] highlight the NRC's desire to ensure adequate resources for timely review of applications. At this point in time, all indications are that the ANO Unit 1 license renewal should be on or before February 21, 2002, as reflected in Exhibit KBF-1.

Q. Order No. 27 noted EAI's position that the NRC would most likely impose certain restrictions and requirements which could be costly and would need to be factored into the economics of seeking a license extension and operating the plant beyond its current license. Has the NRC imposed or does EAI now expect restrictions or requirements that would negatively impact license renewal application decisions?

A. No. The NRC has not imposed costly restrictions which would adversely impact the economics of the plants. As Mr. McGaha's testimony acknowledges, ". . . Entergy Operations does not believe commitments being required by the NRC in the Calvert Cliffs and Oconee applications are significant enough to jeopardize the economical operation of a nuclear plant,"[11] and

[10]e.g. SECY-00-0081

[11]March 1, 2000, McGaha testimony page17, lines 11-14

"... Entergy Operations does not presently expect the NRC to require commitments that threaten the economic viability of ANO 1."[12] My review of the renewed licenses and other NRC documents supports this conclusion.

Q. For what length of time have the licenses been extended?

A. All of the license renewals issued have extended the current licenses for an additional 20 years. The ANO Unit 1 application supports continued operation of the reactor for an additional 20 years. Based on current information there is no reason to expect that ANO Unit 1 would be extended for other than 20 years.

Q. Please briefly outline the four key considerations that have changed since Order No. 27.

A. In summary, the NRC has extended the licenses of five reactors for an additional 20 years. EAI has filed an application to renew the license for ANO Unit 1 an additional 20 years and the NRC is presently considering the application with an approval date scheduled for February 11, 2002. EAI has notified the NRC of its intent to seek a 20 year license renewal for ANO Unit 2 in September 2003. The NRC has not imposed costly restrictions or requirements in conjunction with 20 year license extensions. Every license renewal has been for 20 years. Additionally, all indications are that the NRC is committed to a timely license renewal process.

License Extension Funding Impact

Q. In Order No. 27 the Commission recognized that license extensions and ultimately life extensions would have an impact on the necessary level of current funding for decommissioning costs. Have you performed an analysis concerning the impact a license extension could have on

[12]March 1, 2000, McGaha testimony page 21, lines 7-9

decommissioning funding?

A. Yes. Exhibit KBF-5, prepared in conjunction with my July 21, 1998 testimony filed in this Docket, evaluated 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 rates forecasts which were used in the then-current model for Rider M26, the time period was extended 20 years. Specifically, this 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. This 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, identified a surplus of approximately <u>$1 billion</u> at the end of decommissioning ANO Units 1 and 2.

As required by Order No.27, this analysis is updated annually in the November 1 Rider M26 update. Exhibit KBF-6 is a copy of the most recently filed 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, the projected decommissioning trust fund balances would now exceed the projected cost to decommission ANO Units 1 and 2 by more than <u>$2 billion</u>. Thus, the projected over-funded level has doubled in three years.

Q. Are these results consistent with what you would expect were the date of decommissioning to be extended 20 years?

A. Yes. Taking into account the time value of money and the concept of compound earnings, 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. Additionally, 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 the annual revenue requirements have been much less than projected even as recently as two to three years ago.

Q. What is the impact to ratepayers if Rider M26 collections are suspended and ultimately the license is not extended?

A. 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. Exhibit KBF-7 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. 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. Clearly this is an insignificant risk. On the other hand, interim refunds of significant over-collections

are not likely due to possible adverse tax consequences. The risk of over-collection 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.

Q. 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. Do the changes permit interim refunds?

A. Only the Non-Tax Qualified Trust Fund Agreement was amended to permit interim refunds. The balance in the Non-Tax Qualified 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. Consistent with the Joint Recommendations all of the Agreements were changed to require prior APSC approval of revocation and the adoption of any amendments which would impact the Commission's rights currently within the agreements.

Act 1556 Implications

Q. Have there been any other developments which might impact the recovery of decommissioning costs through Rider M26?

A. Yes. The 82nd General Assembly in Regular Session in 1999 passed "The Electric Consumer Choice Act of 1999; an act to provide for the introduction of retail competition into the electric utility industry, the regulation of new energy service providers, the recovery of stranded costs; and for other purposes" (Act 1556). Act 1556 provides that a competitive retail electric market

should be established by January 1, 2002, but not later than June 30, 2003.[13] After retail open access, generation assets shall not be subject to the ratemaking authority of the Commission except that the Commission shall retain jurisdiction to authorize the recovery of nuclear decommissioning costs or refund over-recovery of decommissioning costs.[14]

Q. Does Act 1556 prescribe how decommissioning costs are to be recovered?

A. Yes. Decommissioning costs are to be recovered through the Customer Transition Charge (CTC) after retail open access according to Act 1556.[15] The CTC is defined as 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.[16] Act 1556 also requires service be offered to customers which either have not or could not obtain service from an alternative service provider.[17] 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.[18] 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

[13] Ark. Code Ann. §23-19-101(d)

[14] Ark. Code Ann. §23-19-103(e)

[15] Ark. Code Ann. §23-19-303(a)

[16] Ark. Code Ann. §23-19-102(7)

[17] Ark. Code Ann. §23-19-402(a)

[18] Ark. Code Ann. §23-19-402(b)

decommissioning costs included in a CTC charged 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.[19] Fuel was the only exception noted in Act 1556 which would continue to fluctuate under the terms of the tariff.[20]

Q. Specifically, what impact will Act 1556 have on the Rider M26 recovery of decommissioning costs?

A. 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 from the November 1, 2000 update. The decommissioning rates for customers covered by the freeze would then be the same for three years.

For the customers not covered by the freeze, Rider M26 would continue to be updated annually on November 1 and rates established to become effective each January 1. Thus, the nuclear decommissioning component of the CTC would likely differ between freeze and non-freeze customers within the residential class and other classes with small business customers.[21]

Q. The annual revenue requirements for Rider M26 have been declining for the past six years. Given this past decline, what are the implications for the rate freeze customers?

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[19] Ark. Code Ann. §23-19-402(b)

[20] Ark. Code Ann. §23-19-402(c)

[21] Ark. Code Ann. §23-19-404(b)

A. In a declining revenue requirement period, decommissioning cost recovery rates included in the CTC for rate freeze customers would be higher 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.

Q. Are there further implications for freeze customers by waiting until the NRC has issued a renewed license for ANO Unit 1 before considering the significant impact of license renewal in rates?

A. Yes. If retail open access begins January 1, 2002, the nuclear decommissioning rates in effect on December 31, 2001 will be frozen presumably for three years. Because the expected date for NRC final action is February 21, 2002, just beyond the January 1, 2002 retail open access date, even immediate inclusion of that change in the Rider M26 rates would not be passed on to freeze customers whose rates would be frozen.

Q. Are there other potential benefits from suspending Rider M26 collections?

A. Yes. If Rider M26 collections are suspended during the rate freeze period, CTC rate differences within classes of customers would be avoided. In that the non-bypassable portion of the bill could influence a customer's decision to pursue competitive options, this would be a desirable result affording similarly situated customers the same opportunities by paying the same class CTC for nuclear decommissioning costs.

Q. Does Act 1556 address plant life extension?

A. Yes. Ark. Code Ann. §23-19-302 provides that an electric utility shall have a duty to mitigate its potential stranded costs. Extending the operational life of generating facilities is one of the mitigation measures identified in the Act.

Suspension Recommendation

Q. What is your recommendation for recovery of decommissioning costs and Rider M26?

A. I recommend the Commission order a revenue requirement of zero and suspend collections for Rider M26 at this time due to the significant impact of license renewal. I recommend 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 my testimony demonstrates, much has changed since 1998 and today the probability that the ANO plants will receive license extensions is very high.

Financial analyses in exhibits to this testimony reflect the major impact license extensions will have on decommissioning funding and that the potential over-collections have doubled in the past three years. 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, my suspension recommendation should not adversely impact the Company. 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.

I believe my recommendations properly balance the need for adequate funding and the negative consequences of significant over-collections from current ratepayers. My analysis and recommendations recognize the significant change a likely 20 year life extension can have and the extreme long-term risk exposure of significant over-funding, while readily providing for annual review and consideration of any new information or facts, without further exposing

customers to the long-term risk of over-collections. For these reasons, I support a revenue requirement of zero and suspension of the collections under Rider M26 at this time as a reasonable ratemaking approach.

Use of WEFA Forecasts

Q. Have you reviewed Mr. Cicio's testimony regarding EAI's change from WEFA to Regional Financial Associates, Inc., a Division of Dismal Sciences ("RFA") as the source for economic forecast data used as inputs to the Decommissioning Revenue Requirement Model ("Model")?

A. Yes.

Q. How did EAI choose RFA as a data source?

A. Actually it is ESI, the service company affiliate, which contracts with vendors for forecasting services. ESI decided in 1999 to evaluate other forecasting services exploring the availability of services "tailored to meet the needs of the Operating Companies". As delineated in Mr. Cicio's testimony at page 6, the criteria used to evaluate the forecasting services were:

1. Ability to provide forecasts tailored to the input requirements of the Company's customer and sales forecasting models;
2. Accuracy, credibility, reliability and recognition;
3. Ability to provide an acceptable level of customer service; and
4. Relative cost.

The first criteria is the "ability to provide forecasts tailored to the input requirements of the Company's customer and sales forecasting models". This does not pertain to the economic forecast data used as inputs in the Model. The second criteria is an obvious criteria for any

data resource and is certainly important for the Rider M26 inputs. The third and fourth criteria, "acceptable level of customer service" and "cost", while certainly understandable do not necessarily support the appropriateness of using RFA for Rider M26 purposes. Based on these criteria ESI decided the economic forecasting data from RFA was "better suited" for its needs than WEFA's economic forecasting data. The choice of RFA was based on the overall package and forecast features.[22]

Q. What is your recommendation to the Commission regarding the change from WEFA to RFA?

A. While RFA's forecasts may have additional variables and formats utilized in other areas of the Company's business, Mr. Cicio's testimony has not substantiated its superiority or equivalent applicability for use in the Rider M26 Model. The ANO trust fund balances totaled $364 million as of March 31, 2000 and will be growing over time and in existence for a long period of time. Accuracy and credibility should be paramount, not necessarily the features of an overall package of services for varied purposes. For this reason, I recommend that for this year's filing the Company continue to use WEFA and that further comparisons of these sources be made before a final decision on the exclusive use of RFA is made. Given that DRI and WEFA have long been recognized as reliable sources for the types of input necessary in Rider M26, further comparisons of the RFA and WEFA estimates should be made. Thus, I continue to recommend that RFA be justified on the merits of its relative appropriateness for Rider M26, not necessarily other uses. Last year's filing included RFA projections which did not vary significantly from

[22]Response to APSC 13-4 data request.

WEFA although significant deviations would have been observed had RFA been utilized in prior years. Staff is willing to informally work with the Company prior to next year's filing to explore information the Company may possess not reflected in their testimony or which can be obtained to address our concerns.

Use of Actual Asset Allocation Ratio

Q. What did Order No. 30 require regarding an asset allocation study?

A. Order No. 30 required the Company to file on March 1,2000 testimony which addresses decommissioning fund asset allocation and related issues as discussed in my December 15, 1999 testimony.

Q. Have you reviewed Mr. Caruso's testimony which addresses management of the decommissioning trust funds relative to asset allocation?

A. Yes. Mr. Caruso's testimony outlines the status of an asset allocation study. He indicates the study is expected to be completed in August, in time for the results to be used in the November 1, 2000 Rider M26 update filing.

Q. Has the Company sent out requests for proposals (RFPs) for the asset allocation study?

A. Staff Data Request APSC-13-9 response stated in part, "When the RFP has been prepared and the list of recipients is known, the Staff will be advised accordingly by the Company". Staff has not received notification that the RFPs have been sent.

Q. In the event the asset allocation study is not completed in time to be reviewed and a final determination made on this issue, what asset allocation do you recommend for the November 1, 2000 filing?

A. In that event the asset allocation study has not been reviewed and a final determination made on this issue, Staff recommends that the November 1, 2000 filing use the actual asset allocation ratio. Currently the target allocation of 50% equity is being utilized in the Model. The actual equity allocation is closer to 60% equity. In order to attain the target allocation of 50% equity the Company would need to sell equities and neither Mr. Caruso nor I recommend selling equities at this time. The actual allocation of 60% equity is consistent with the range of survey results included in Mr. Caruso's testimony. Therefore, I recommend that the earnings projections for Rider M26 be based on the actual asset allocation.

Summary of Recommendations

Q. In summary, what are your recommendations?

A. I recommend the Commission order a revenue requirement of zero and suspend collections for Rider M26 at this time. Rider M26 annual filings should continue and be used to monitor the funding adequacy and future impacts of the suspension. I also recommend the continued use of WEFA for the economic forecast input data to the Rider M26 Model. Finally, I recommend the earnings projections for Rider M26 be based on the actual asset allocation.

Q. Does this conclude your testimony?

A. Yes, it does.

CERTIFICATE OF SERVICE

I, Jan Sanders, hereby certify that a copy of the foregoing Testimony has been served on all parties of record by forwarding the same by first-class mail, postage prepaid, this 22nd day of June, 2000.

Jan Sanders

Jan Sanders
Secretary of the Commission

Dais.

JUN 22 3 04 PM '00

FILED

BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

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PREPARED EXHIBITS

OF

KAREN FRICKE
PUBLIC UTILITY ANALYST

ON BEHALF OF THE
ARKANSAS PUBLIC SERVICE COMMISSION STAFF

JUNE 22, 2000

Arkansas Nuclear One, Unit 1
License Renewal Application

License Renewal Review Schedule

Milestone	Date	Actual
Receive License Renewal Application	2/1/00	2/1/00
Notice Application Tendered	2/15/00	2/11/00
Publish Acceptance Review & Docket Application/Notice of Opportunity for Hearing	3/3/00	3/3/00
Notice of Intent/Notice of Environmental Scoping Meeting	3/6/00	3/10/00
Deadline for Filing Hearing Requests and Petitions for Intervention	4/3/00	4/3/00
Environmental Scoping Meeting	4/4/00	4/4/00
EIS Scoping Period Ends	5/9/00	5/9/00
Staff Complete Environmental RAIs	6/23/00	
Staff Complete Technical RAIs	6/29/00	
Applicant Responds to Environmental RAIs	8/18/00	
Applicant Responds to Technical RAIs	9/12/00	
Complete Scoping Inspection	12/1/00	
Staff Issue Draft EIS for Comment	12/5/00	
Staff Issue SER & Identify Open Items	1/10/01	
Public Meeting to Discuss DEIS	1/15/01	
ACRS Subcommittee Meeting	1/26/01	
Complete Aging Management Review Inspection	2/9/01	
ACRS Full Committee Meeting	2/10/01	
End of DEIS Comment Period	2/26/01	
Applicant Compete Responses to SER Open Items	5/10/01	
Staff Issue Final EIS	7/3/01	
Complete Optional Final Inspection	8/10/01	
Staff Issue SSER	9/7/01	
ACRS Subcommittee Meeting	9/23/01	
Regional Administrator's Recommendation	9/25/01	
ACRS Full Committee Meeting	10/7/01	
ACRS Letter	10/15/01	
Issue SER as NUREG	10/22/01	
Commission Paper with Staff Recommendation	11/12/01	
Commission Meeting	1/31/02	
Commission Decision on Renewed License	2/11/02	
Renewed License Issued (if approved)	2/21/02	

By letter dated May 19, 2000, (Adams Accession #: ML 003716854) Entergy Operations was informed that the review schedule was revised from a 30-month schedule to a 25-month schedule because the NRC did not received any petitions to intervene or requests for a hearing.

NOTE: If your computer can not display files in WordPerfect or Adobe Portable Document Format (PDF), see our Viewers and Plugins page.

Last Updated on: June 1, 2000

Status of Applications and Industry Activities

Plant Applications for License Renewal

- Draft Standard Format for License Renewal Application, August 9, 1999
- Calvert Cliffs, Units 1 and 2 *(includes milestones, application, and safety evaluation report)*
- Oconee Nuclear Station, Units 1, 2 and 3 *(includes milestones, application, and safety evaluation report)*
- Arkansas Nuclear One, Unit 1 - Application received February 1, 2000
- Edwin I. Hatch, Units 1 and 2 - Application received March 1, 2000
- *Future Submittals*
  - *Turkey Point, Units 3 and 4 - December 2000*
  - *Catawba, Units 1 and 2 - June 2001 (earliest submittal date based on granted exemptions)*
  - *McGuire Units, 1 and 2 - June 2001 (earliest submittal date based on granted exemptions)*
  - *Peach Bottom, Units 2 and 3 - July 2001*
  - *North Anna, Units 1 and 2 - August 2001*
  - *Surry, Units 1 and 2 - August 2001*
  - *Fort Calhoun 1 - March 2002*
  - *St. Lucie, Units 1 and 2 - June 2002 (Unit 2 requires exemption)*
  - *Point Beach, Units 1 and 2 - July 2002*
  - *V.C. Summer - August 2002*
  - *Crystal River, Unit 3 - December 2002*
  - *Farley, Units 1 and 2 - June 2003*
  - *Arkansas Nuclear One, Unit 2 - September 2003*
  - *H. B. Robinson, Unit 2 - December 2003*
  - *Browns Ferry, Units 2 and 3 - December 2003*
  - *Cooper - 2003*

Last Updated on: June 20, 2000

Calvert Cliffs License Renewal Application

[Home Page]

Milestone Schedule

Calvert Cliffs Milestone	Date	Actual
Receive Renewal Application	4/10/1998	4/10/1998
Notice Application Tendered	4/25/1998	4/21/1998
Complete Acceptance & Docketing	5/10/1998	5/8/1998
Notice of Opportunity for Hearing	7/8/98	7/8/1998
Public Meeting & EIS Scoping	7/9/1998	7/9/1998
Case-Specific Order to ASLB		8/19/1998
Staff Complete Technical RAIs	9/7/1998	9/7/1998
Petitioner Submit Contentions	10/1/1998	10/13/1998
Staff Complete Environmental RAIs	10/7/1998	9/28/1998
Prehearing Conference	11/12/1998	N/A
ASLB Decision on Intervention	12/1998	10/16/1998
Applicant Complete Technical RAI Responses	11/21/1998	11/20/1998(1)
Applicant Complete Response to Environmental RAIs	12/6/1998	12/3/1998
Commission Appeal Denial (CLI 98-25)		12/23/1998
Issue DES for Comment (Draft NUREG-1437, Supp. 1)	3/6/1999	2/24/1999
Staff Complete SER and Identify Open Items	3/21/1999	3/21/1999
Public Meeting on DES	4/5/1999	4/6/1999
ACRS Subcommittee Meeting		4/28-29/1999
Complete DES Comments	5/20/1999	5/20/1999
Applicant Complete Response to Open Items	7/19/1999	7/19/1999
Meeting to Resolve Open & Confirmatory Items	10/12/1999	10/12/1999
NRC Develop Renewed License Format	10/20/99	10/25/99
Forward Closure of Open and Confirmatory Items to ACRS	11/1/1999	11/3/1999
Staff Issue FES (NUREG-1437, Supp.1)	11/16/99	11/15/1999
Staff Issue SER	11/16/1999	11/16/1999
Meeting with Applicant on Form of New License	11/17/1999	11/22/1999
ACRS Subcommittee SER OI/CI Review	11/18/1999	11/18/1999
Staff Conduct Final Inspection	11/29-12/3/1999	12/3/1999
ACRS Full Committee Meeting	12/4/1999	12/2/1999
ACRS Letter	12/10/1999	12/10/1999
Issue SER as NUREG-1705	12/20/1999	12/16/1999
Regional Administrator Letter	12/31/1999	1/12/2000
Commission Paper with Staff Recommendation	1/14/2000	1/14/2000
Commission Meeting (if requested)	3/15/2000	3/3/2000
Commission Decision	3/27/2000	3/23/2000
Renewed License Issued (if approved)	4/3/2000	3/23/2000

Note (1): All responses were received except for five which required clarification by the NRC Those five responses were received on 12/14/1998.

Last Updated on: April 6, 2000

Oconee Nuclear Station - Units 1, 2 and 3
License Renewal Application
Milestone Schedule

Oconee Milestone	Date	Actual
Receive Renewal Application	7/7/1998	7/7/1998
Notice Application Tendered	7/22/1998	7/8/1998
Complete Acceptance & Docketing	8/6/1998	8/5/1998
Notice of Opportunity for Hearing		8/11/1998
Case-Specific Order to ASLB		9/15/1998
Public Meeting & EIS Scoping	10/19/1998	10/19/1998
Petitioner Submit Contentions	10/30/1998	10/30/1998
Staff Complete Technical RAIs	12/4/1998	12/4/1998
Staff Complete Environmental RAIs	1/3/1999	12/29/1998
ASLB Petition Denial (LBP 98-33)		12/29/1998
Applicant Complete Technical RAI Responses	2/17/1999	2/17/1999
Applicant Complete Response to Environmental RAIs	3/4/1999	3/4/1999
Commission Appeal Denial (CL99-11)		4/15/1999
Issue DES for Comment	6/2/1999	5/20/1999
ACRS Subcommittee Meeting		6/30-7/1
Staff Complete SER and Identify Open Items	[illegible]	6/16/1999
Public Meeting on DES	7/2/1999	7/8/1999
Complete DES Comments	8/16/1999	8/16/1999
Applicant Complete Response to Open Items	10/15/1999	10/15/1999
Meeting to Resolve Open Items	12/9/1999	12/9/1999
Staff Issue FES	2/12/2000	12/9/1999
Staff Issue SSER	2/12/2000	2/3/2000
ACRS Subcommittee Meeting	2/2000	2/24/2000
Final Renewal Inspection	2/28/2000	2/28/2000
ACRS Full Committee Meeting	3/3/2000	3/2/2000
ACRS Letter	3/10/2000	3/13/2000
Issue SER as NUREG	3/24/2000	3/23/2000
Regional Administrator's Letter	3/31/2000	3/16/2000
Commission Paper with Staff Recommendation	4/14/2000	4/10/2000
Commission Meeting (if requested)	6/15/2000	5/2/2000
Commission Decision	6/26/2000	5/23/2000
Renewed License Issued (if approved)	7/3/2000	5/23/2000

EXHIBIT KBF-5

DECOMMISSIONING COST ESCALATED FOR 20 YEAR EXTENSION

TRUST FUND BALANCES WITH NO ADDITIONAL CONTRIBUTIONS

Year	Earnings Rate	ANO1TQ Balance	Earnings Rate	ANO2TQ Balance	Earnings Rate	ANO1NTQ Balance	Earnings Rate	ANO2NTQ Balance	TOTAL
1997		$106,030,000		$101,500,000		$33,162,655		$13,037,345	$253,730,000
1998	7.33%	$113,801,999	7.13%	$108,736,950	6.78%	$35,411,083	6.83%	$13,927,796	$271,877,828
1999	7.51%	$122,348,529	7.37%	$116,750,863	6.53%	$37,723,426	5.75%	$14,728,644	$291,551,463
2000	7.29%	$131,267,737	7.29%	$125,262,001	6.34%	$40,115,092	6.34%	$15,662,440	$312,307,270
2001	7.16%	$140,666,507	7.16%	$134,230,760	6.22%	$42,610,250	6.22%	$16,636,644	$334,144,162
2002	7.04%	$150,569,429	7.04%	$143,680,606	6.12%	$45,217,998	6.12%	$17,654,807	$357,122,839
2003	6.89%	$160,943,663	6.89%	$153,580,200	6.02%	$47,940,121	6.02%	$18,717,626	$381,181,609
2004	6.85%	$171,968,303	6.85%	$164,100,443	6.00%	$50,816,528	6.00%	$19,840,684	$406,725,959
2005	6.85%	$183,748,132	6.85%	$175,341,324	6.00%	$53,865,520	6.00%	$21,031,125	$433,986,101
2006	6.85%	$196,334,879	6.85%	$187,352,204	6.00%	$57,097,451	6.00%	$22,292,992	$463,077,527
2007	6.85%	$209,783,819	6.85%	$200,185,830	6.00%	$60,523,298	6.00%	$23,630,572	$494,123,519
2008	6.85%	$224,154,010	6.85%	$213,898,560	6.00%	$64,154,696	6.00%	$25,048,406	$527,255,672
2009	6.85%	$239,508,560	6.85%	$228,550,611	6.00%	$68,003,978	6.00%	$26,551,310	$562,614,459
2010	6.85%	$255,914,896	6.85%	$244,206,328	6.00%	$72,084,217	6.00%	$28,144,389	$600,349,830
2011	6.85%	$273,445,067	6.85%	$260,934,462	6.00%	$76,409,270	6.00%	$29,833,052	$640,621,850
2012	6.85%	$292,176,054	6.85%	$278,808,472	6.00%	$80,993,826	6.00%	$31,623,035	$683,601,387
2013	6.85%	$312,190,113	6.85%	$297,906,852	6.00%	$85,853,456	6.00%	$33,520,417	$729,470,839
2014	6.85%	$333,575,136	6.85%	$318,313,472	6.00%	$91,004,663	6.00%	$35,531,643	$778,424,913
2015	6.85%	$356,425,033	6.85%	$340,117,945	6.00%	$96,464,943	6.00%	$37,663,541	$830,671,461
2016	6.85%	$380,840,148	6.85%	$363,416,024	6.00%	$102,252,839	6.00%	$39,923,354	$886,432,364
2017	6.85%	$406,927,698	6.85%	$388,310,022	6.00%	$108,388,010	6.00%	$42,318,755	$945,944,484
2018	6.85%	$434,802,245	6.85%	$414,909,258	6.00%	$114,891,290	6.00%	$44,857,880	$1,009,460,673
2019	6.85%	$464,586,199	6.85%	$443,330,542	6.00%	$121,784,767	6.00%	$47,549,353	$1,077,250,861
2020	6.85%	$496,410,353	6.85%	$473,698,684	6.00%	$129,091,854	6.00%	$50,402,314	$1,149,603,205
2021	6.85%	$530,414,463	6.85%	$506,147,044	6.00%	$136,837,365	6.00%	$53,426,453	$1,226,825,324
2022	6.85%	$566,747,853	6.85%	$540,818,117	6.00%	$145,047,607	6.00%	$56,632,040	$1,309,245,617
2023	6.85%	$605,570,081	6.85%	$577,864,158	6.00%	$153,750,463	6.00%	$60,029,962	$1,397,214,664
2024	6.82%	$646,869,961	6.84%	$617,390,066	5.98%	$162,944,741	5.98%	$63,619,754	$1,490,824,522
2025	6.80%	$690,857,118	6.82%	$659,496,069	5.98%	$172,688,836	5.98%	$67,424,215	$1,590,466,238
2026	6.78%	$737,697,231	6.80%	$704,341,801	5.97%	$182,998,360	5.97%	$71,449,441	$1,696,486,833
2027	6.77%	$787,639,333	6.78%	$752,096,175	5.96%	$193,905,062	5.96%	$75,707,828	$1,809,348,399
2028	6.54%	$839,150,946	6.77%	$803,013,086	5.94%	$205,423,023	5.94%	$80,204,873	$1,927,791,928
2029	6.11%	$890,423,069	6.75%	$857,216,470	5.93%	$217,604,608	5.93%	$84,961,022	$2,050,205,168
2030	5.70%	$941,177,183	6.75%	$915,078,582	5.77%	$230,160,394	5.91%	$89,982,218	$2,176,398,377
2031	5.26%	$990,683,103	6.79%	$977,212,417	5.41%	$242,612,071	5.91%	$95,300,167	$2,305,807,759
2032	4.82%	$1,038,434,029	6.79%	$1,043,565,140	5.06%	$254,888,242	5.94%	$100,960,997	$2,437,848,408
2033	4.64%	$1,086,617,368	6.57%	$1,112,127,370	4.70%	$266,867,989	5.94%	$106,958,080	$2,572,570,807
2034	4.92%	$1,140,078,942	6.13%	$1,180,300,778	4.32%	$238,985,920	5.80%	$113,161,649	$2,672,527,290
2035	4.92%	$1,196,170,826	5.92%	$1,250,174,584	4.14%	$178,536,429	5.43%	$119,306,327	$2,744,188,166
2036	4.92%	$1,215,519,833	5.51%	$1,319,059,203	4.39%	$0	5.25%	$125,569,909	$2,660,148,945
2037	4.92%	$1,031,157,479	5.10%	$1,386,331,223	4.39%	$0	4.90%	$131,722,834	$2,549,211,536
2038	4.92%	$830,209,732	4.92%	$1,454,538,719	4.39%	$0	4.56%	$117,818,608	$2,402,567,059
2039	4.92%	$761,778,521	4.92%	$1,470,771,464	4.39%	$0	4.74%	$0	$2,232,549,985
2040	4.92%	$713,702,283	4.92%	$1,335,930,574	4.39%	$0	4.74%	$0	$2,049,632,857
2041	4.92%	$665,276,584	4.92%	$1,184,021,418	4.39%	$0	4.74%	$0	$1,849,298,001
2042	4.92%	$613,729,850	4.92%	$1,011,688,602	4.39%	$0	4.74%	$0	$1,625,418,453
2043	4.92%	$561,248,640	4.92%	$822,703,686	4.39%	$0	4.74%	$0	$1,383,952,326
2044	4.92%	$492,760,062	4.92%	$711,691,764	4.39%	$0	4.74%	$0	$1,204,451,826
2045	4.92%	$468,788,750	4.92%	$643,984,353	4.39%	$0	4.74%	$0	$1,112,773,103
2046	4.92%	$491,853,157	4.92%	$553,462,310	4.39%	$0	4.74%	$0	$1,045,315,466

Entergy Arkansas, Inc.
ANO Decommissioning Model
Trust Balance Summary
($000)

Line No	Year	ANO 1 [1]	ANO 2 [2]	Both Units
1	1999	178,297	144,271	322,568
2	2000	189,911	153,833	343,744
3	2001	202,388	164,171	366,559
4	2002	215,916	175,389	391,305
5	2003	229,742	186,874	416,617
6	2004	244,274	198,960	443,234
7	2005	259,688	211,789	471,477
8	2006	276,127	225,483	501,610
9	2007	293,645	240,086	533,731
10	2008	312,270	255,627	567,898
11	2009	332,110	272,194	604,305
12	2010	353,244	289,855	643,099
13	2011	375,755	308,683	684,438
14	2012	399,734	328,753	728,488
15	2013	425,278	350,153	775,431
16	2014	452,488	372,967	825,454
17	2015	481,473	397,287	878,760
18	2016	512,350	423,215	935,565
19	2017	545,243	450,855	996,098
20	2018	580,282	480,323	1,060,605
21	2019	617,610	511,737	1,129,347
22	2020	657,375	545,228	1,202,604
23	2021	699,738	580,933	1,280,672
24	2022	744,868	618,999	1,363,867
25	2023	792,947	659,581	1,452,527
26	2024	844,167	702,846	1,547,013
27	2025	898,735	748,972	1,647,707
28	2026	956,871	798,148	1,755,018
29	2027	1,018,807	850,576	1,869,383
30	2028	1,084,793	906,472	1,991,265
31	2029	1,155,094	966,066	2,121,160
32	2030	1,227,632	1,029,601	2,257,233
33	2031	1,299,408	1,097,340	2,396,747
34	2032	1,369,754	1,169,560	2,539,314
35	2033	1,438,119	1,246,559	2,684,678
36	2034	1,473,132	1,326,025	2,799,156
37	2035	1,483,608	1,404,814	2,888,422
38	2036	1,384,123	1,483,479	2,867,602
39	2037	1,261,881	1,560,137	2,822,018
40	2038	1,129,484	1,619,043	2,748,527
41	2039	1,099,248	1,562,641	2,661,889
42	2040	1,085,811	1,479,459	2,565,271
43	2041	1,073,602	1,385,515	2,459,117
44	2042	1,060,616	1,278,517	2,339,134
45	2043	1,048,541	1,161,457	2,209,998
46	2044	1,026,396	1,103,920	2,130,316
47	2045	1,038,515	1,079,870	2,118,385
48	2046	N/A [3]	1,040,989	1,040,989

Notes:

[1] See Workpaper E.2.

[2] See Workpaper E.5.

[3] Assumes that the 2045 balance is refunded to customers in 2045.

Entergy Arkansas, Inc.
ANO Decommissioning Model
Revenue Requirement Summary
($000)

		Unit 1		Unit 2		Both Units	
Line No	Year	Total Company [1]	Arkansas Retail [2]	Total Company [3]	Arkansas Retail [2]	Total Company	Arkansas Retail [2]
1	2000	0	0	0	0	0	0
2	2001	5,201	4,480	3,210	2,765	8,411	7,245
3	2002	5,331	4,591	3,290	2,834	8,621	7,425
4	2003	5,456	4,699	3,367	2,900	8,823	7,599
5	2004	5,581	4,807	3,444	2,966	9,025	7,773
6	2005	5,705	4,914	3,521	3,033	9,226	7,947
7	2006	5,835	5,026	3,601	3,102	9,436	8,128
8	2007	5,971	5,142	3,685	3,174	9,656	8,316
9	2008	6,106	5,259	3,768	3,246	9,874	8,505
10	2009	6,246	5,380	3,855	3,320	10,101	8,700
11	2010	6,392	5,505	3,945	3,398	10,337	8,903
12	2011	6,537	5,631	4,035	3,475	10,572	9,106
13	2012	6,688	5,761	4,128	3,555	10,816	9,316
14	2013	6,844	5,895	4,224	3,638	11,068	9,533
15	2014	7,000	6,029	4,320	3,721	11,320	9,750
16	2015	0	0	4,420	3,807	4,420	3,807
17	2016	0	0	4,519	3,892	4,519	3,892
18	2017	0	0	4,622	3,981	4,622	3,981
19	2018	0	0	4,728	4,072	4,728	4,072

Entergy Arkansas, Inc.
ANO Decommissioning Model
Revenue Requirement Summary
($000)

		Unit 1		Unit 2		Both Units	
Line No	Year	Total Company [1]	Arkansas Retail [2]	Total Company [3]	Arkansas Retail [2]	Total Company	Arkansas Retail [2]
1	2000	4,631	3,989	2,895	2,493	7,526	6,482
2	2001	4,738	4,081	2,962	2,551	7,700	6,632
3	2002	4,853	4,180	3,034	2,613	7,887	6,793
4	2003	4,969	4,280	3,106	2,675	8,075	6,955
5	2004	5,085	4,380	3,179	2,738	8,264	7,118
6	2005	5,201	4,479	3,251	2,800	8,452	7,279
7	2006	5,321	4,583	3,326	2,865	8,647	7,448
8	2007	5,442	4,687	3,402	2,930	8,844	7,617
9	2008	5,567	4,795	3,480	2,997	9,047	7,792
10	2009	5,696	4,906	3,561	3,067	9,257	7,973
11	2010	5,826	5,018	3,642	3,137	9,468	8,155
12	2011	5,960	5,134	3,726	3,209	9,686	8,343
13	2012	6,099	5,253	3,813	3,284	9,912	8,537
14	2013	6,238	5,373	3,900	3,359	10,138	8,732
15	2014	6,382	5,497	3,989	3,436	10,371	8,933
16	2015	0	0	4,079	3,513	4,079	3,513
17	2016	0	0	4,172	3,593	4,172	3,593
18	2017	0	0	4,267	3,675	4,267	3,675
19	2018	0	0	4,366	3,760	4,366	3,760

CERTIFICATE OF SERVICE

I, Jan Sanders, hereby certify that a copy of the foregoing Exhibits has been served on all parties of record by forwarding the same by first-class mail, postage prepaid, this 22nd day of June, 2000.

Jan Sanders

Jan Sanders
Secretary of the Commission

AUG 11 2 38 PM '00

BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION FILED

IN THE MATTER OF ARKANSAS POWER & LIGHT COMPANY'S PROPOSED NUCLEAR DECOMMISSIONING COST RIDER M26 AND PROPOSED DEPRECIATION RATE REDUCTION RIDER M41	)))))	DOCKET NO. 87-166-TF

SURREBUTTAL TESTIMONY

OF

KAREN FRICKE
PUBLIC UTILITY ANALYST

ON BEHALF OF THE
ARKANSAS PUBLIC SERVICE COMMISSION STAFF

AUGUST 11, 2000

Q. Please state your name and business address.

A. My name is Karen Fricke. My business address is Arkansas Public Service Commission (Commission or APSC), 1000 Center, Little Rock, Arkansas 72201.

Q. Are you the same Karen Fricke who previously filed testimony in this docket on June 22, 2000?

A. I am.

Q. What is the purpose of your Surrebuttal Testimony?

A. I will respond to the rebuttal testimonies of John R. McGaha, Michael Caruso, and Patrick Cicio filed on behalf of Entergy Arkansas, Inc. (EAI) on July 27, 2000.

Q. Please comment on the testimonies of Messrs. Caruso and Cicio.

A. Their testimonies indicate the Company accepts/adopts my recommendations regarding asset allocation inputs for Rider M26 and the use of WEFA for the financial projection data for Rider M26.

Q. Did the testimony of Mr. McGaha dispute the facts outlined in your testimony of June 22, 2000 regarding changes since Order No. 27?

A. No. The Commission ordered annual updates including information and testimony regarding the status of relicensing and extending the lives of the ANO units. My testimony outlined changed facts in the four areas addressed in Order No. 27. Mr. McGaha does not dispute these changed facts and specifically states these facts are correct.[1] The assertions he did raise regarding my conclusions are either incorrect or not justified by the facts. Therefore, the

[1] McGaha's Rebuttal Testimony of July 27, 2000 page 5, lines 1-12.

Commission should approve my recommendations.

Q. Mr. McGaha alleges that your conclusion "essentially assumed license extension is equivalent to life extension." Do your conclusions make such an assumption?

A. No. While my analysis[2] comprehended a 20-year license renewal, my conclusions do not require that a 20-year license extension equal a 20-year life extension. In fact, my conclusions are valid if the plants only operate a few years beyond their current license terms. Using the fund balances and data inputs included in the most recent Rider M26 annual update filed November 1, 1999, further collections are not required if the ANO plants each operate only 6 years beyond their current license terms.[3]

Q. Mr. McGaha asserts that no plant has operated as long as its 40-year license, implying an inability to operate a nuclear plant for 40 years. He calculates an average life of 19.5 years from a group of plants which have ceased operation. What are the deficiencies in this type of assessment?

A. The fact is no commercial nuclear plant had begun operation forty years ago so it is not possible for one to have operated for as long as forty years. Mr. McGaha focused solely on plants which have ceased operations, representing only a small percentage of the total number of nuclear plants. Further, the plants in Mr. McGaha's table are not comparable to ANO in terms of expected life due to differences in size, vintage, and performance. An average plant life calculation based on these plants is not a reasonable indicator of the expected plant life for

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[2]Consistent with the Model assumptions currently approved for Rider M26 collections.

[3]At Staff's request EAI ran the Model with 5 and 7 year lives beyond the current term. Exhibit KBF-8 includes the summary sheet for both runs. The 5 year run is under-recovered and the 7 year run is over-recovered.

the ANO units.

The fundamental determination in the NRC's relicensing of nuclear generating plants is that the plants can operate and be operated safely beyond their current license term. According to Mr. McGaha, the ANO plants could operate indefinitely.[4] The NRC and the industry would not be expending the time, effort and dollars required to apply, review and award renewed licenses if the continued operation of nuclear plants was not a real probability. Further, Entergy's recent actions are consistent with the expectation of life extension beyond the current license term, not the uncertain picture Mr. McGaha suggests. Entergy is now offering consulting services for the preparation and support of relicensing applications[5], and is actively acquiring additional nuclear facilities. Regardless, as many of the plants on Mr. McGaha's table have chosen to do, delayed dismantlement (SAFESTOR) is an option which allows the funds to grow for a period before the plants are dismantled.

Q. Mr. McGaha discusses two other factors, decommissioning costs and rate regulation in other states. What are your comments in response to these factors?

A. Cost changes are comprehended by the Model. Rider M26 is a unique rate mechanism developed to provide recovery for future decommissioning costs. It includes periodic and routine updates of projected decommissioning costs which are comprehended on a current basis through the annual revisions to Rider M26.

With regard to rate regulation in other states I offer the following observations. First,

[4]Testimony of John McGaha, July 27, 2000, page 7 line 5.

[5]See Exhibit KBF-9.

given the move to retail open access and stranded cost determinations through settlement, it is not evident exactly how 20-year license renewal has been factored into those settlements. For example, the Maryland Public Service Commission has reached a settlement agreement with Baltimore Gas and Electric, the owner of the Calvert Cliffs plants, freezing the cost estimate for decommissioning at $520 million in 1993 dollars escalated by the NRC inflation factor. It is not always known because of such settlement agreements what factors were considered underlying a settlement. Regulators may in fact be altering decommissioning fund collections through settlements. Second, a recommendation that customers need not contribute further towards decommissioning and the decommissioning rate should be zero is pending before the Illinois Commerce Commission in Docket No. 00-0361. Regardless, the decision in this case should be based on the specific facts of this case.

Q. Has EAI previously proposed current ratemaking treatment in anticipation of future NRC operating license extension?

A. Yes. EAI's application establishing this very docket proposed depreciation rate treatment and nuclear decommissioning cost recovery rate treatment in anticipation of the Company filing for and subsequently receiving a 5.5-year extension of the operating licenses of the ANO units.[6]

Q. Did EAI address or refute the Act 1556 implications which you discussed in your Prepared Testimony?

A. No. EAI's rebuttal testimony was silent on these concerns.

[6]November 4, 1987 Arkansas Power and Light application and Direct Testimony of Rod Gilbreath at page 3.

Q. Please summarize your conclusions.

A. The facts in this case overwhelmingly support suspension. Nothing in the Rebuttal Testimony of Mr. McGaha alters in any way my support for the suspension recommendations reflected in my Prepared Testimony.[7] The suspension of collections under Rider M26 will not jeopardize the ultimate recovery of decommissioning costs. The question is the timing of the recovery of the projected decommissioning costs. Rider M26 recovers revenues to be applied to future decommissioning costs and for this reason it is a unique rate recovery mechanism. Typically, adjusted historical information is utilized in developing and justifying the reasonableness of rates. In the case of decommissioning costs there are no historical expenses rather there are only estimated expenses that will be incurred at some point in the future when the plants are actually decommissioned. The Company's suggestion to wait 14 to 18 years to determine whether continued operation of the units will be economic[8] is not a responsible ratemaking approach. My recommendation would require annual filings to monitor the status of the decommissioning funding, thus, if exceptional circumstances arose, the mechanism for correction would already be in place and could be reinstated. Further, Act 1556 provides for the recovery of decommissioning costs as a non-bypassable charge, thus minimizing recovery risks in the competitive market. Considering the facts regarding the likelihood of license renewal for the ANO plants being granted, continued collections impose unnecessary risks on the ratepayers in the form of potential over collection with no reasonable recourse until 40 years in the future.

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[7]Page 15, line 1 - page 16, line3.

[8]McGaha's Rebuttal Testimony page 6, lines 13-15 and page 7, lines 21-23.

Suspending the collections of Rider M26 is fair and equitable for ratepayers, while providing adequate funds to ultimately decommission the ANO units. For these reasons and those outlined in my Prepared Testimony, I support a revenue requirement of zero and suspension of the collections under Rider M26 at this time as a reasonable ratemaking approach. I also affirm my earlier recommendations, which the Company has accepted, regarding 1) the continued use of WEFA for the economic forecast input data to the Rider M26 Model and 2) the use of earnings projections for Rider M26 based on actual asset allocation.

Q. Does this conclude your Surrebuttal Testimony?

A. Yes.

CERTIFICATE OF SERVICE

I, Jan Sanders, hereby certify that a copy of the foregoing Testimony has been served on all parties of record by forwarding the same by first-class mail, postage prepaid, this 11th day of August, 2000.

Jan Sanders

Jan Sanders
Secretary of the Commission

AUG 11 2 39 PM '00

BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

FILED

IN THE MATTER OF ARKANSAS POWER & LIGHT COMPANY'S PROPOSED NUCLEAR DECOMMISSIONING COST RIDER M26 AND PROPOSED DEPRECIATION RATE REDUCTION RIDER M41	)))))	DOCKET NO. 87-166-TF

SURREBUTTAL EXHIBITS

OF

KAREN FRICKE
PUBLIC UTILITY ANALYST

ON BEHALF OF THE
ARKANSAS PUBLIC SERVICE COMMISSION STAFF

AUGUST 11, 2000

Entergy Arkansas, Inc.
ANO Decommissioning Model
Revenue Requirement Summary
($000)

		Unit 1		Unit 2		Both Units	
Line No	Year	Total Company [1]	Arkansas Retail [2]	Total Company [3]	Arkansas Retail [2]	Total Company	Arkansas Retail [2]
1	2000	(340)	(293)	(476)	(410)	(816)	(703)
2	2001	(348)	(299)	(487)	(420)	(835)	(719)
3	2002	(356)	(307)	(499)	(430)	(855)	(737)
4	2003	(365)	(314)	(511)	(440)	(876)	(754)
5	2004	(373)	(321)	(523)	(450)	(896)	(771)
6	2005	(382)	(329)	(535)	(461)	(917)	(790)
7	2006	(390)	(336)	(547)	(471)	(937)	(807)
8	2007	(399)	(344)	(560)	(482)	(959)	(826)
9	2008	(409)	(352)	(573)	(493)	(982)	(845)
10	2009	(418)	(360)	(586)	(505)	(1,004)	(865)
11	2010	(428)	(368)	(599)	(516)	(1,027)	(884)
12	2011	(437)	(377)	(613)	(528)	(1,050)	(905)
13	2012	(448)	(386)	(627)	(540)	(1,075)	(926)
14	2013	(458)	(394)	(642)	(553)	(1,100)	(947)
15	2014	(468)	(403)	(656)	(565)	(1,124)	(968)
16	2015	(479)	(412)	(671)	(578)	(1,150)	(990)
17	2016	(490)	(422)	(686)	(591)	(1,176)	(1,013)
18	2017	(501)	(431)	(702)	(605)	(1,203)	(1,036)
19	2018	(513)	(441)	(718)	(619)	(1,231)	(1,060)
20	2019	(524)	(451)	(734)	(633)	(1,258)	(1,084)
21	2020	(536)	(462)	(751)	(647)	(1,287)	(1,109)
22	2021	(548)	(472)	(768)	(662)	(1,316)	(1,134)
23	2022	0	0	(786)	(677)	(786)	(677)
24	2023	0	0	(804)	(692)	(804)	(692)
25	2024	0	0	(822)	(708)	(822)	(708)
26	2025	0	0	(841)	(724)	(841)	(724)

Notes:

[1] See Workpaper B.2.

[2] Total Company * Retail Allocation Factor (0.8613). See Workpaper B.9.

[3] See Workpaper B.5.

Entergy, Framatome Enter License Renewal Market

Entergy Nuclear and **Framatome Technologies** are teaming up in a new business – nuclear operating license renewal services in the U.S. The U.S. nuclear utility and the U.S. arm of the French nuclear company signed a memorandum of understanding last week to get the business rolling.

"This is an outstanding combination for nuclear power plant owners who need expert assistance in license renewal," said **Randy Hutchinson** of Entergy Nuclear. "We will be offering Entergy's extensive knowledge as the second largest nuclear operator in the country along with Framatome's proven expertise, particularly in pressurized water reactor technology."

Framatome Technologies, owned by Paris-based Framatome, France's nuclear plant vendor, was formerly **B&W Nuclear Technologies** and is based in Lynchburg, Va. Entergy Nuclear, a subsidiary of Entergy Corp. of New Orleans, is based in Jackson, Miss.

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CERTIFICATE OF SERVICE

I, Jan Sanders, hereby certify that a copy of the foregoing Exhibits has been served on all parties of record by forwarding the same by first-class mail, postage prepaid, this 11th day of August, 2000.

Jan Sanders

Jan Sanders
Secretary of the Commission