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Entergy

Entergy Arkansas, Inc.
Regulatory Affairs
425 W. Capitol Avenue
P.O. Box 551
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VIA OVERNIGHT MAIL

December 9, 2016

Mr. David Foster
Chief, Utility Division
Tennessee Regulatory Authority
502 Deaderick Street, 4th Floor
Nashville, TN 37243

Re: Tennessee Regulatory Authority Tariff Filing No. 2016 - 00146
Entergy Arkansas, Inc. Tariff Revisions for Revised Rate Schedule No. 37 ANO Decommissioning Cost Rider (Rider NDCR)

Dear Mr. Foster:

In accordance with our letter dated November 9, 2016, attached is an original and 4 copies along with an electronic copy of the Arkansas Public Service Commission (APSC) General Staff direct testimony of Kim O. Davis filed on December 1, 2016, in APSC Docket No. 87-166-TF recommending approval of Entergy Arkansas, Inc.'s (EAI) revised Attachment A to Rider NDCR to become effective on the first billing cycle in January 2017, which is December 30, 2016, and APSC Order No. 64 issued December 6, 2016, approving EAI's Attachment A to Rider NDCR.

Also included with this transmittal are both clean and revision-marked copies of Rider NDCR with these same revisions for filing with the Tennessee Regulatory Authority (TRA) for its acknowledgement and inclusion into EAI's Tennessee tariffs.

EAI is requesting the thirty-day notice required in TRA Rule 1220-4-1-.04 be waived to allow EAI to place these revised rates in effect for Arkansas retail customers residing in Tennessee concurrent with the effective date established in the APSC's orders.

If you have any questions or need additional information, please do not hesitate to call me at (501) 377-3571.

Sincerely,

David Palmer
Arkansas Regulatory Affairs

DP/ss
Attachments

BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION

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

DIRECT TESTIMONY

OF

KIM O. DAVIS, CRRA
DIRECTOR
FINANCIAL ANALYSIS SECTION

ON BEHALF OF THE GENERAL STAFF
OF THE ARKANSAS PUBLIC SERVICE COMMISSION

DECEMBER 1, 2016

INTRODUCTION

Q. Please state your name and business address.

A. My name is Kim O. Davis. My business address is Arkansas Public Service Commission (Commission), 1000 Center Street, Little Rock, Arkansas, 72201, where I am employed by the General Staff (Staff) as the Director of the Financial Analysis Section.

Q. Are you the same Kim O. Davis who previously filed testimony in this docket?

A. Yes I am.

PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address the Arkansas Nuclear One (ANO) Decommissioning Cost Rider (Rider NDCR) annual update filed by Entergy Arkansas, Inc. (EAI or Company) on November 1, 2016, pursuant to the terms of Rider NDCR and Commission orders and the Supplemental Testimony and Exhibits of Barbara L. Casey.

SUMMARY OF COMPANY FILING

Q. Please summarize the Company's filing.

A. Based on the 2016 inputs, the accumulated excess trust fund balance for Unit 1 is projected to be $169.9 million. However, absent any additional revenue collections, the trust fund balance for Unit 2 is estimated to be insufficient to cover its projected decommissioning costs by $193.4 million. EAI's filed rate adjustment for 2017 reflects a $2.435 million total Rider NDCR revenue requirement and $2.303 million Arkansas Retail revenue requirement starting in January 2017. EAI is proposing to continue the Rider NDCR to ensure that adequate funds are available to cover the projected decommissioning expenditures of ANO Unit 2 in the future when the plant is to be decommissioned.

BACKGROUND FOR NUCLEAR DECOMMISSIONING REVIEWS

Q. What procedures are in place for addressing the costs of decommissioning?

A. By way of background, the Company's November 1, 2016, filing was made under the terms of the Rider NDCR which provides for an annual review of the revenue requirement or current collections needed to provide adequate funds for the future estimated cost of decommissioning of ANO Units 1 and 2. The Company is required to make its filing by November 1 of each year with Staff's review due by December 15 and the rate adjustment to be effective for service on January 1. The revenue requirement model in the filing compares estimated future decommissioning costs to the estimated future value of trust fund balances.

Q. Does this docket also provide for the Company to prepare periodic estimates of the cost of decommissioning?

A. Yes. Every five years, EAI is required to prepare a revised estimate of the future cost of decommissioning. The most recent five-year estimate of future decommissioning cost was filed on March 31, 2014, in this docket. The cost escalation rate used to estimate the future cost of decommissioning is the Consumer Price Index – Urban (CPI-U). The next revised estimate of the future cost of decommissioning is due to be filed by March 31, 2019.

Q. Does EAI periodically file information on the decommissioning trust fund balances?

A. Yes. As required by the Decommissioning Trust Fund Guidelines, approved by Order No. 3 in Docket No. 96-341-U, the Company files quarterly reports that provide information on the trust fund balances and fund performance.

STAFF REVIEW

Q. Does EAI's November 1, 2016, filing reflect the Commission's most recent finding regarding the decommissioning cost estimate?

A. Yes. Order No. 61 in this docket approved a nuclear decommissioning cost estimate of $1.344 billion, which specifically does not include post-shutdown spent fuel management costs, for use in the annual November 1 tariff filings for the years 2014 through 2018.[1] EAI's calculations provided in the workpapers reflect this estimate.

Q. Does EAI's filing also comprehend the other provisions of Order No. 50 in this docket that are specific to the inputs to be used in the annual Rider NDCR filings?

A. Yes. Order No. 50 authorized a 60% equity allocation target which is reflected in EAI's calculations provided in its workpapers. Order No. 50 also directed EAI to

[1] Docket No. 87-166-TF, Order No. 61, p. 5 (November 10, 2014).

use the Annual CPI-U as the escalation rate in its annual filings for the years 2009 through 2013. Absent a Commission-approved change in the established process and methodology, Order No. 50 further directed EAI to use the Annual CPI-U as the escalation rate in its annual November 1 filings for the years 2014 and thereafter.[2] EAI's calculations provided in its workpapers comprehend this requirement.

Q. What is the current projected over-collection if no additional contributions are made to the ANO Unit 1 funds?

A. As reflected on Attachment 1 of EAI's November 1, 2016, filing, page 3 of 3, the decommissioning trust fund balance for ANO Unit 1 continues to increase annually (from 2016 to 2033) until the current operating license expires in 2034 and decommissioning expenditures begin. As shown on line 31, without any further contributions from ratepayers and after decommissioning expenditures, the over-collection for ANO Unit 1 is projected to be $169.883 million.

Q. What is the current projected under-collection if no additional contributions are made to ANO Unit 2 funds?

A. In the 2014 Rider NDCR redetermination, the projection of the ending trust fund balance net of decommissioning costs had decreased to $6.71 million. In this 2016 redetermination, the projection is that, without reestablishing the NDCR rate, the projected cost to decommission ANO 2 would be insufficient by $193.4

[2] Docket No. 87-166-TF, Order No. 50, p. 10 (October 13, 2009).

million in 2046, the year the decommissioning process is expected to be complete.

Q. What circumstances have led to this projected deficiency with regard to ANO Unit 2?

A. The primary reason for the projected deficiency is the significant increase in decommissioning costs as estimated by EAI. The 2014 five-year estimate of decommissioning costs for Units 1 and 2, approved by Commission Order No. 61 in this docket on November 10, 2014, was $1,344 million -- an increase of $294 million over the 2009 estimate of $1,050 million. In addition, as reflected in Table 1 below, the performance of the trust funds in 2016 is less than it was in the 2015 Rider NDCR filing for both the 2015 year and the projected 2016 year.

Table 1

	From 2016 Filing	**From 2015 Filing**	
	2016	**2015**	**2016**
ANO 1 Tax Qualified Fund Return	5.84%	5.88%	6.01%
ANO 2 Tax Qualified Fund Return	5.78%	5.81%	6.01%
Returns Listed are After-tax / Before Fees	*Actual Results Q1 – Q3 / Projected Results for Q4*	*Actual Results Q1 – Q3 / Projected Results for Q4*	*Projected Year*

Also, the Global Insights' projections for CPI-U have trended upwards since 2009 and continue to do so. This combination of factors has resulted in a projected shortfall in the ANO Unit 2 trust fund absent any additional revenue collection under the Rider NDCR.

Q. What is the effect on the Rider NDCR rate due to the 2016 update?

A. The proposed rates would decrease slightly for each rate class from the current effective rates for ANO Unit 2 (see Table 2 below). The proposed rates would go into effect beginning January 2017.

Table 2

Rate Class	Current Rate (per kWh)	Proposed Rate (per kWh)	Change (per kWh)
Residential	$0.00016	$0.00014	-$0.00002
Small General Service	$0.00014	$0.00012	-$0.00002
Large General Service	$0.04000	$0.03000	-$0.01000
Lighting	$0.00021	$0.00016	-$0.00005

Q. How many EAI customers are subject to Rider NDCR?

A. As of September 30, 2016, the number of retail customers subject to Rider NDCR was 712,021. The estimated bill impact of this update on the average residential customer with usage of 1,000 kWh per month is a decrease of $0.02, or 0.02 percent.

RECOMMENDATIONS

Q. Please summarize your recommendations to the Commission.

A. Attachment 1, page 2 of 3, of EAI's November 1, 2016, filing shows a zero revenue requirement for ANO Unit 1 and a $2.435 million total revenue requirement for ANO Unit 2 for 2017. Attachment 1, page 1 of 3, of EAI's filing (Attachment A to Rate Schedule No. 37) reflects a rate adjustment of zero for all classes for ANO Unit 1 and reflects a rate adjustment as noted herein for all classes for ANO Unit 2, to be effective during the billing months of January 2017 through December 2017.

Given the adequacy of the decommissioning funding for ANO Unit 1, continued suspension of the Rider NDCR for 2017 is warranted for Unit 1. However, given the projected inadequacy of decommissioning funding for ANO Unit 2, continuation of the Rider NDCR for 2017 is warranted for Unit 2. I therefore recommend the Commission approve a revenue requirement of $2.435 million with collections to begin for the new Rider NDCR rates beginning in January, 2017. The Commission should approve the tariff rates reflected in Attachment A to Rate Schedule No. 37 (Attachment 1, page 1 of 3, of EAI's November 1, 2016 filing).

Q. Does this conclude your testimony?

A. Yes.

CERTIFICATE OF SERVICE

I, Fran Hickman, hereby certify that a copy of the foregoing has been served on all parties of record via the Electronic Filing Service this 1st day of December, 2016.

/s/ *Fran C. Hickman*
Fran C. Hickman

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 ORDER NO. 64

ORDER

On November 1, 2016, Entergy Arkansas Inc. (EAI) (formerly Arkansas Power and Light Company) submitted in this docket an *ANO Decommissioning Cost Rider NDCR Update* (Update) and the Supplemental Testimony and Exhibits of Barbara L. Casey. On December 1, 2016, the General Staff (Staff) of the Arkansas Public Service Commission (Commission) submitted the Direct Testimony of Kim O. Davis.

Positions of the Parties

Ms. Casey explains EAI's 2016 annual update to its Arkansas Nuclear One (ANO) Decommissioning Cost Rider (Rider NDCR). She testifies that Rider NDCR is a levelized-real (inflation adjusted) revenue requirement necessary to fund the decommissioning trusts for ANO Units 1 and 2. Casey Supplemental at 2-3.

Ms. Casey explains the results of the 2016 Rider NDCR Update. She states that ANO Unit 1's 2017 projected decommissioning revenue requirement remains zero because its projected decommissioning trust fund balance is projected to fund the unit's escalated decommissioning cost estate. Ms. Casey notes that ANO Unit 2's 2017 decommissioning revenue requirement is positive because the projected trust fund balance for ANO Unit 2 does not exceed the current escalated decommissioning cost estimate. She remarks that based on 2016 inputs, once the decommissioning process is complete, the accumulated excess trust fund balance for Unit 1 is estimated to be $169.9

million. Ms. Casey notes that the trust fund balance for Unit 2 is insufficient to cover its projected decommissioning costs by $193.4 million. She explains that these estimates are based on current assumptions as to trust fund earnings rates, trustee and investment management fees, nuclear cost escalation rates, the Decommissioning Cost Estimate (2014 dollars) filed on March 31, 2014 in this docket, and the currently approved expiration dates of 2034 and 2038 for ANO Unit 1 and ANO Unit 2, respectively. *Id.* at 4-5.

Ms. Casey testifies that the 2014 Rider NDCR redetermination for Unit 2 projected an ending trust fund balance of only $7 million excess after a projected excess of $320 million in the 2013 Rider NDCR redetermination. She explains that the decrease in the excess is largely due to the $294 million increase in estimated decommissioning costs in the 2014 decommissioning cost study update. Ms. Casey notes that after reestablishing the NDCR rate in 2016 that the trust deficiency is projected to have decreased by $54.6 million to $193.4 million. She explains this projection is based on the assumption that a zero annual revenue requirement was maintained through 2046 for ANO Unit 2. Ms. Casey testifies that the change in projected ending balances over time can be attributed to the following:

- The 2014 five-year estimate of decommissioning costs for Units 1 and 2, approved by the Commission in Order No. 61 in this docket on November 10, 2014, was $1,344 million, an increase of $294 million over the 2009 estimate of $1,050 million;
- Global Insights' projections for Consumer Price Index-Urban have had an upward trend since 2009; and

- The average performance of the trust funds over the last year is almost unchanged and historical earnings show a downward trend. The ANO 2 year ending 2015 trust fund balance in the 2015 redetermination was $313.6 million and the year ending 2016 trust fund balance is now projected to be $344.3 million.

Id. at 5-6.

Ms. Casey states that as of September 30, 2016, the number of retail customers subject to Rider NDCR is 712,021. She testifies that the estimated bill impact of this update on the average customer with usage of 1,000 kWh per month is a decrease of $0.02, or 0.02 percent. Ms. Casey concludes her testimony stating that the Rider NDCR decommissioning retail revenue requirement for 2017 is $2.3 million with a total Rider NDCR revenue requirement of $2.44 million. *Id.* at 6-7.

Staff witness Davis testifies that EAI's calculations provided in the work papers reflect the nuclear decommissioning estimate of $1.344 billion approved in Order No. 61. He further explains that EAI's calculations comprehend the requirements for the inputs to be used to the annual Rider NDCR filings that were established by Order No. 50 in this docket. Mr. Davis notes that the over-collection for ANO Unit 1 is projected to be $169.883 million after decommissioning expenditures without any further contributions from ratepayers. He explains that the projected cost to decommission ANO Unit 2 would be insufficient by $193.4 million in 2046 when the decommissioning process is expected to be completed. Davis Direct at 4-6.

Mr. Davis explains that the primary reason for the projected deficiency is the significant increase in the decommissioning costs as estimated by EAI. He states that the 2014 five-year estimate of the decommissioning costs for Units 1 and 2 was $1,344 million, an increase of $294 million over the 2009 estimate. Mr. Davis remarks that in addition to the increased estimate, the performance of the trust funds in 2016 is less than it was in the 2015 Rider NDCR filing for both the 2015 year and the projected 2016 year. He further notes that Global Insights' projections for CPI-U have trended upwards since 2009 and continue to do so. Mr. Davis explains that this combination of factors has resulted in a projected shortfall in the ANO Unit 2 trust fund absent any additional revenue collection under the Rider NDCR. He states that the effect on the Rider NDCR rate due to the 2016 update are that proposed rates would decrease slightly for each rate class from the current effective rates for ANO Unit 2. Mr. Davis confirms that the number of retail customers subject to Rider NDCR as of September 30, 2016, is 712,021 and that the estimated bill impact of the update on the average retail customer with usage of 1,000 kWh per month is a decrease of $0.02 or 0.02 percent. *Id.* at 6-7.

Mr. Davis testifies that, given the adequacy of the decommissioning funding for ANO Unit 1, the continued suspension of the Rider NDCR for 2017 is warranted for Unit 1. He recommends that the Commission approve a revenue requirement of $2.435 million with collections to begin for the new Rider NDCR rates beginning in January 2017. Mr. Davis recommends that the Commission approve the tariff rates reflected in Attachment A to Rate Schedule No. 37 (Attachment 1, page 1 of 3, of EAI's November 1, 2016 filing). *Id.* at 8.

<u>Findings and Rulings</u>

On the basis of EAI's tariff filing and the testimony of Ms. Casey, and of Mr. Davis's review and recommendations, the Commission finds that EAI's update of Rider

NDCR as filed on November 1, 2016, is consistent with the public interest. Accordingly, the Commission approves the following:

(1) continued suspension for 2017 of the Unit 1 component of the rate for Rider NDCR Unit 1;

(2) a revenue requirement of $2.435 million for Unit 2; and

(3) the tariff rates reflected in Attachment A to Rate Schedule No. 37 (Attachment 1, page 1 of 3, of EAI's November 1, 2016, filing), with collections to begin for Rider NDCR in January 2017.

BY ORDER OF THE COMMISSION,

This 6th day of December, 2016.

Ted J. Thomas, Chairman

Elana C. Wills, Commissioner

Kimberly A. O'Guinn, Commissioner

Karen Shook (acting)
Michael Sappington, Secretary of the Commission

I hereby certify that this order, issued by the Arkansas Public Service Commission, has been served on all parties of record on this date by the following method:

____U.S. mail with postage prepaid using the mailing address of each party as indicated in the official docket file, or

X Electronic mail using the email address of each party as indicated in the official docket file

Effective: January 2017

Attachment A to
Rate Schedule No. 37
Page 1 of 1
Schedule Sheet 4 of 4

ATTACHMENT A

The Net Monthly Rates set forth in EAI's schedules identified below will be increased by the following Rate Adjustment amounts during the billing months of January 2017 through December 2017: (CT) (CT)

Rate Class	Rate Schedules	Rate Adjustment	
ANO-1			
Residential	RS, RT, REMT	$0.00000 per kWh	
Small General Service	SGS, GFS, MP, AP, CTV, SMWHR, CGS, TSS	$0.00000 per kWh	
Large General Service	LGS, LPS, GST, PST, SSR	$0.00 per kW	
Lighting	L1, L4, L1SH	$0.00000 per kWh	
ANO-2			
Residential	RS, RT, REMT	$0.00014 per kWh	(CR)
Small General Service	SGS, GFS, MP, AP, CTV, SMWHR, CGS, TSS	$0.00012 per kWh	(CR)
Large General Service	LGS, LPS, GST, PST, SSR	$0.03 per kW	(CR)
Lighting	L1, L4, L1SH	$0.00016 per kWh	(CR)

Attachment 1
TRA Docket No. ~~16-00038~~
Page 1 of 3

Effective: ~~August 2016~~January 2017

Attachment A to
Rate Schedule No. 37
Page 1 of 1
Schedule Sheet 4 of 4

ATTACHMENT A

The Net Monthly Rates set forth in EAI's schedules identified below will be increased by the following Rate Adjustment amounts during the billing months of January ~~2016~~2017 through December ~~2016~~2017: (CT) (CT)

Rate Class	Rate Schedules	Rate Adjustment	
ANO-1			
Residential	RS, RT, REMT	$0.00000 per kWh	
Small General Service	SGS, GFS, MP, AP, CTV, SMWHR, CGS, TSS	$0.00000 per kWh	
Large General Service	LGS, LPS, GST, PST, SSR	$0.00 per kW	
Lighting	L1, L4, L1SH	$0.00000 per kWh	
ANO-2			
Residential	RS, RT, REMT	$0.~~00016~~00014 per kWh	(CR)
Small General Service	SGS, GFS, MP, AP, CTV, SMWHR, CGS, TSS	$0.~~00014~~00012 per kWh	(CR)
Large General Service	LGS, LPS, GST, PST, SSR	$0.~~04~~03 per kW	(CR)
Lighting	L1, L4, L1SH	$0.~~00021~~00016 per kWh	(CR)