Exhibit No.: Issue: Customer Savings and Necessary Regulatory Approvals Witness: Christopher D. Krygier Type of Exhibit: Direct Testimony Sponsoring Party: The Empire District Electric Company Case No: APSC Docket No. 17-061-U KCC Docket No. 18-EPDE-____-PRE MPSC File No. EO-2018-0092 OCC No. PUD 2017 _____ Date Testimony Prepared: October 2017

Direct Testimony

of

Christopher D. Krygier



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1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- A. My name is Christopher D. Krygier and my business address is 602 South Joplin
 Avenue, Joplin, Missouri, 64801.
- 5 (

Q. WHO IS YOUR EMPLOYER AND WHAT POSITION DO YOU HOLD?

- A. My employer is Liberty Utilities Service Corp. and I serve as the Director of Rates
 and Regulatory Affairs for Liberty Utilities Central Region, which includes The
 Empire District Electric Company ("Empire" or "Company").
- 9 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

A. In 2006, I completed my Bachelor of Science in Economics from the W.P. Carey
School of Business at Arizona State University. In 2010, I completed my Master of
Business Administration with an emphasis in Finance from Arizona State University.
Finally, I am a Certified Management Accountant as designated by the Institute of
Management Accountants.

15 Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

16 A. I currently oversee the rates and regulatory affairs for Liberty Utilities Central Region 17 which includes electric, natural gas, water and wastewater utilities located in 18 Missouri, Kansas, Arkansas, Oklahoma, Iowa and Illinois. Prior to that, I worked for 19 Liberty Utilities affiliates located in Jackson, Missouri and Avondale, Arizona and 20 was responsible for rates and regulatory affairs. Before working for Liberty Utilities, 21 I worked for several subsidiaries of American Water Works, Inc. for approximately 22 six years in a variety of capacities, including Financial Planning and Analysis, Rates, 23 Regulatory Compliance and Capital Programs.

1Q.HAVE YOU TESTIFIED BEFORE ANY STATE REGULATORY2COMMISSIONS?

- A. Yes, I have provided testimony before the public utility commissions in Arizona,
 Arkansas, Hawaii, Illinois, Kansas, Missouri and Oklahoma.
- 5 Q. PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY.
- 6 My testimony describes the requested relief associated with the Company's Customer A. 7 Savings Plan, the impact of the Customer Savings Plan on customer rates, and state 8 specific filing requirements. It is important to note that Empire is not proposing any 9 changes to customer rates as part of this filing, but rather is proposing a plan that will 10 result in lower cost power in the future for its customers. Based on the Generation 11 Fleet Savings Analysis outlined in Company witness McMahon's testimony, it is 12 estimated that customers will experience up to \$325 million of savings on their 13 overall bill over twenty years. As calculated by Company witness Macias in Direct 14 Attachment GEM-2, based on the estimated \$325 million in savings, the monthly 15 average lower cost of power for a residential customer using 1,000 kwh for the 16 twenty year period is significant, Table 1 reflects the savings by state, but on average, 17 Empire residential customers are saving \$9.62 per month for the twenty year period.

Table 1				
State	Average Residential Savings Per Month			
Missouri	\$9.33			
Arkansas	\$11.62			
Kansas	\$10.02			
Oklahoma	\$7.49			
4 State Average	\$9.62			

1

2 Q. PLEASE DESCRIBE EMPIRE AND THE AREA IT SERVES.

A. Empire was acquired by Liberty Utilities (Central) Co., an indirect subsidiary of
Algonquin Power & Utilities Corp., on January 1, 2017. Empire owns and operates
an electric utility system located in contiguous portions of Arkansas, Kansas,
Missouri and Oklahoma, which serves approximately 172,000 electric customers.
Approximately 153,000 of Empire's customers are located in Missouri, 10,000 in
Kansas, 4,700 in Oklahoma and 4,500 in Arkansas.

9 II. <u>RELIEF REQUESTED TO IMPLEMENT THE CUSTOMER SAVINGS PLAN</u>

10 Q. PLEASE DESCRIBE THE COMPANY'S CUSTOMER SAVINGS PLAN.

A. Through its Customer Savings Plan, Empire is proposing changes to its generation
fleet in order to take advantage of expiring federal production tax credits ("PTCs") to
bring up to \$325 million in savings for its customers over the next twenty years.
Specifically, Empire proposes acquiring up to 800 MW of wind generation
strategically located in or near its service territory (the "Wind Projects") in
conjunction with a tax equity partner (or partners, as the case may be). By partnering

with tax equity, Empire can acquire this generation for approximately 40 cents on the dollar. At the same time, Empire proposes to retire its Asbury coal plant, saving customers millions of dollars in annual operating expenses and avoiding tens of millions of dollars of capital investments needed by April 2019 to meet environmental regulations. Empire is requesting an order from each of its state commissions effective no later than June 30, 2018 so that it can take advantage of this limited window of opportunity to make these savings a reality for its customers.

8 Q. IS EMPIRE REQUESTING THAT ANY OF ITS COMMISSIONS¹ GRANT 9 ANY RATE INCREASES IN THIS FILING?

10 A. No. Rate changes to reflect the savings and costs of the Customer Savings Plan will 11 occur either in the next general rate case in each jurisdiction or in a subsequent filing 12 as applicable in each jurisdiction in which Empire operates. While Empire will seek 13 recovery for the costs it will incur to acquire, operate and maintain the wind projects 14 that are part of the Customer Savings Plan in a subsequent proceeding(s), Empire 15 seeks approval now of certain regulatory treatment of costs associated with the 16 Customer Savings Plan given the magnitude of the contemplated investments.

17 Q. WHAT RELIEF DOES EMPIRE SEEK FROM THE COMMISSION TO

18 IMPLEMENT THE CUSTOMER SAVINGS PLAN?

- A. Empire seeks the following approvals in order to implement the Customer SavingsPlan:
- 21

1. Authorization to record its investment in and the costs to operate and maintain

¹ The Company refers to each of the four state public utility commissions as "commissions," not in specific reference to one commission.

1 2 3 4 5 6			any Wind Projects acquired as part of the Customer Savings Plan as described in Mr. Mooney's testimony, including a finding that Empire's investment related to the Customer Savings Plan should not be excluded from Empire's rate base on the ground that the decision to proceed with the Plan was not prudent;				
0 7 8 9 10		2. Authorization to create a regulatory asset for the undepreciated balance. Asbury facility, as described in Company witness Sager's testimony, so may be considered for rate base treatment in subsequent rate cases;					
10 11 12 13		3.	Approval of the arrangements between Empire and affiliates necessary to implement the Customer Savings Plan, to the extent necessary;				
13 14 15 16 17		4.	Approval of depreciation rates for the Wind Projects, as described in Company witness Watson's testimony, so that Empire can begin depreciating those assets as soon as they are placed in service; and				
17 18 19 20 21		5. Issuance of an order that is effective by June 30, 2018 so that Empire can ta advantage of a limited window of opportunity to bring these savings customers.					
22		I desc	ribe each portion of the requested relief below.				
23		8	a. <u>Wind Projects Related Relief</u>				
24	Q.	WHAT RELIEF IS EMPIRE SEEKING AS IT RELATES TO THOSE COSTS					
25		AND INVESTMENTS EMPIRE INCURS TO ACQUIRE AND OPERATE					
26		THE WIND PROJECTS?					
27	A.	Empire requests that the Commission authorize it to treat its capital investment to					
28		acquire the Wind Projects as rate base investment, and to allow it to recover the					
29		operating expenses associated with the Wind Projects in the same manner it recovers					
30		the operating expense of its generation assets today. Company witness Mooney's					
31		testimony describes that capital investment in detail, as well as the related operating					
32		expen	ses.				

A. The Wind Projects will be jointly owned by Empire and the tax equity partner(s)
which is similar to Empire's joint ownership of its Iatan and Plum Point generation.
In those cases, Empire's costs to acquire the generating units have been included in
Empire's rate base, and their operating costs have been flowed through to customers.
Empire's customers will be receiving the savings arising out of acquisition of the
Wind Projects, and thus it is appropriate that they should pay the costs associated
with them.

8

b. Other Regulatory Relief

9 Q. WHAT RELIEF IS EMPIRE SEEKING RELATED TO ASBURY?

A. Empire is requesting authority to record as a regulatory asset the remaining plant
 balances associated with the Asbury coal plant once retired. Company witness
 Sager's testimony discusses the accounting mechanics of this request.

13 Q. HOW DOES THE CONTINUED RECOVERY OF EMPIRE'S ASBURY 14 INVESTMENT BENEFIT EMPIRE'S CUSTOMERS?

A. The \$172 - \$325 million in savings proposed by the Customer Savings Plan, and discussed in Company witness McMahon's testimony is premised on the retirement of Asbury and the establishment of a regulatory asset allowing for the return on and of the remaining net plant balances. As Company witness Swain explains, without adopting the Customer Savings Plan in its entirety, Empire would not be able to bring these savings to its customers.

21 Q. PLEASE DISCUSS THE REQUESTED RELIEF RELATED TO AFFILIATE 22 TRANSACTIONS.

A. As Company witnesses Mertens and Mooney explain, there will be a number of
contracts between Empire or Liberty Utilities Service Corp. and the Wind Project Co.
Because the Wind Project Co. will be a subsidiary of Empire's, it will be an affiliated
company, and thus affiliate requirements may be triggered. Empire requests that the
Commission authorize these affiliate transactions to the extent required in order to
implement the Customer Savings Plan.

7 Q. PLEASE DISCUSS THE COMPANY'S REQUESTED RELIEF RELATED TO 8 DEPRECIATION RATES.

9 A. Company witness Mooney explains that the Wind Projects will be placed in-service 10 no later than December 31, 2020 to meet Internal Revenue Service guidelines for PTC eligibility. Because Empire does not have wind depreciation rates in place, it 11 12 will need to have a depreciation rate in place for these assets effective as of the date 13 that they are placed in-service. This rate would remain in effect until Empire's next 14 rate case is completed and a full depreciation study can be completed for the Wind 15 Projects. Company witness Watson's testimony recommends a depreciation rate for 16 use until a full depreciation study is completed.

17 Q. IS EMPIRE REQUESTING AN ORDER BY A PARTICULAR DATE?

A. Yes. Empire requests that the Commission issue an order effective no later than June
30, 2018 so that the Company can take the steps necessary to implement the
Customer Savings Plan. As outlined by Company witnesses Swain and Mooney,
Empire has a very limited period of time to acquire wind generation assets that
qualify for the PTCs and to avoid spending millions of dollars on further
environmental upgrades for Asbury. Without acting within the time frame requested,

- Empire cannot bring up to \$325 million in savings to its customers. Thus, without
 such action, this opportunity will be lost for the Company's customers.
- 3 III. CUSTOMER RATE IMPACTS

4 Q. PLEASE SUMMARIZE THE CUSTOMER RATE IMPACTS OF THE 5 CUSTOMER SAVINGS PLAN.

A. The Customer Savings Plan is expected to result in a lower cost of power for the
average residential customer monthly bill by \$7 to \$12 depending on whether you are
a resident of Missouri, Arkansas, Kansas or Oklahoma. This monthly savings is
estimated by looking at the revenue requirement impacts of both the wind generation
asset and the retirement of Asbury, which is reflected on Direct Attachment CDK-1.

11 Q. PLEASE DISCUSS EACH COST CATEGORY LISTED ON DIRECT 12 ATTACHMENT CDK-1.

A. <u>Direct Attachment CDK-1</u> lists five major categories: 1) Asbury fuel savings, 2) Asbury O&M savings, 3) Asbury regulatory asset return on and of, 4) wind generation asset revenue requirement, and 5) Wind Project energy savings.

16 The first component, Asbury fuel savings, refers to the cost savings resulting 17 from avoided purchases of coal once Asbury is retired. The second component, 18 Asbury O&M savings, similar to coal costs, reflects the reductions in O&M due to 19 Asbury no longer operating. In this case, repairs, maintenance, labor and other 20 charges will no longer be experienced after the plant closes. The third component, 21 Asbury regulatory asset return on and of, calculates the annual amount of regulatory 22 asset amortization and rate base return generated by the Asbury plant. This annual 23 amortization was calculated by taking the remaining net plant balance and amortizing

1 it over 30 years. The rate base return multiplies the net plant balance by the weighted 2 average cost of capital to net the annual return component grossed-up for income 3 taxes. The fourth component, the Wind Projects revenue requirement, calculates the 4 return on and of the Wind Projects. This component reflects the tax equity 5 investment described in Mr. Mooney's testimony, a thirty year depreciation rate as 6 recommended by Mr. Watson, and the weighted average cost of capital grossed-up 7 for taxes as described by Company witness McMahon. The fifth component, Wind 8 Projects energy savings, reflects the amount of energy output expected from the Wind 9 Projects plus the incremental revenue that will be received from the Southwest Power 10 Pool. These five components are summed and netted against each other resulting in an estimated revenue requirement reduction for the twenty year period contemplated 11 12 by the Customer Savings Plan.

13 Q. DID EMPIRE PERFORM A NEW RATE DESIGN STUDY TO ALLOCATE 14 THESE SAVINGS FOR THIS PROJECT?

A. No, Empire relied on the rate designs previously used in its rate cases in each
 jurisdiction. Company witness Macias provides a detailed breakdown of the revenue
 requirement components discussed above and allocated by customer class based upon
 rate designs frameworks utilized in the prior rate case for each Empire jurisdiction.

19 Q. WHAT IS THE RESULT OF THIS RATE ALLOCATION?

A. As reflected in Table 1 earlier and reflected in <u>Direct Attachment GEM-2</u>, the average monthly savings over the twenty years \$9.62 for Empire residential customers.

23 Q. ARE THERE ANY OTHER POTENTIAL IMPACTS TO CONSIDER?

A. Yes, one potential impact to consider is how the savings are captured on a yearly
basis over the twenty or thirty year period contemplated by the Customer Savings
Plan. Once the final Wind Projects are selected through the Request for Proposal
process, the Company will re-calculate the savings on a year-by-year basis and
determine if any levelization of the savings is necessary to ensure no net detriment to
customers.

7

IV. STATE SPECIFIC FILING REQUIREMENTS

8

a. Minimum Filing Requirements Under K.S.A. 66-1239

9 Q. DOES EMPIRE'S FILING MEET THE MINIMUM FILING 10 REQUIREMENTS UNDER K.S.A. 66-1239?

- 11 A. As I understand it, in order for an electric utility to seek a pre-determination of the 12 ratemaking principles and treatment that will apply to the recovery in rates of the 13 costs incurred in acquiring new electric generation facilities, the utility is required to 14 provide information regarding the following:
- 15 (1) The description of proposed generation facilities and selection process.
 16 (2) The utility's conservation measures and demand side management ("DSM")
- 17 efforts.
- 18 (3) The utility's ten-year generation and load forecast.
- 19 (4) The power supply alternatives considered by Empire.20

The description of the proposed generation facilities and request for proposal ("RFP") process are described in Company witness Wilson's testimony. Empire's conservation measures and DSM efforts, its 10-year generation and load forecast, and the power supply alternatives considered by Empire are included as part of the Generation Fleet Savings Analysis and discussed in Company witness McMahon's testimony.

- 1
- b. Empire's Request Under K.S.A. 66-1245

2 Q. IS THE COMPANY REQUESTING A DETERMINATION UNDER K.S.A. 66-

- 3 1245?
- 4 A. Yes. To the extent the Company acquires a project in Kansas that meets the
 5 following criteria, the Company seeks a determination from the Kansas Corporation
- 6 Commission ("KCC") that it will be entitled to the adjustment in its rates as allowed
- 7 under K.S.A. 66-1245. That statute states:

8 (a) If an electric public utility constructs new or expanded electric generation 9 capacity on or after January 1, 2004, in a county where the population has not 10 increased more than 5% between the dates of the two most recent decennial censuses 11 taken and published by the United States bureau of the census, the state corporation 12 commission, in determining the utility's revenue requirements, shall make 13 adjustments that allow the utility to retain benefits equivalent to 10% of the net 14 revenues from sales of electricity generated by such new or expanded capacity to 15 customers outside the state.

- (b) The provisions of this section shall not apply to net revenues which are subject to
 the provisions of K.S.A. 66-1,184a, and amendments thereto.
- 18

19 Q. WHAT DOES THE STATUTE CONTEMPLATE?

- 20 A. While I am not attorney, I read the statute to create certain incentives if an electric
- 21 utility builds electric generation in certain parts of the state.

22 Q. WHAT ARE THE CRITERIA TO QUALIFY FOR THE INCENTIVES

- 23 UNDER THE STATUTE?
- A. Again, while I am not an attorney, I see several: (1) the entity must be an electric
- 25 public utility; (2) the generation constructed must be new or expanded; (3) the facility
- 26 must be located in a Kansas county where the population has not increased more than
- 27 5%, and; (4) the generation facility must serve customers inside and outside the state
- 28 of Kansas.

1 Q. DOES THE CUSTOMER SAVINGS PLAN MEET ALL OF THIS CRITERIA?

- A. Assuming that through the RFP process Empire acquires a Wind Project that is
 located within a qualifying Kansas county, I believe that these criteria will be met.
 Assuming that occurs, Empire will provide the KCC with specific information
 regarding the Wind Project and the application of the statute.
- 6

c. Empire's Request Under The Clean Energy Development Act

7 Q. WILL THE COMPANY MAKE ANY SUBSEQUENT FILINGS UNDER THE 8 CLEAN ENERGY DEVELOPMENT ACT?

- 9 A. Yes. Assuming the Arkansas Public Service Commission approves of the Company's 10 Customer Savings Plan, the Company would make a subsequent filing that includes a 11 request for rider that includes the costs of the Wind Projects and a calculation of how 12 they would be recovered in rates for Arkansas jurisdictional customers. The 13 Company would work with Staff of the Arkansas Public Service Commission along 14 with the Arkansas Attorney General and any other stakeholders to the docket to 15 effectuate such a rider. An example of such a rider is included as **Direct Attachment** 16 **CDK-2** to my testimony.
- 17 d. Empire's Request Under Missouri Chapter 22, Chapter 12 Change in
 18 Preferred Plan

19 Q. EMPIRE FILED ITS MOST RECENT INTEGRATED RESOURCE PLAN IN 20 MISSOURI ON APRIL 1, 2016, IN FILE NO. EO-2016-0223. HOW DID THAT 21 MATTER CONCLUDE?

A. On April 6, 2017, effective May 6, 2017, the Commission issued its *Order Regarding* 2016 *Integrated Resource Plan*, wherein, among other things, the Commission found

that Empire's 2016 Triennial Compliance Filing was "in substantial compliance with
 the requirements of Chapter 22 and the utility's resource acquisition strategy does
 meet the requirements stated in 4 CSR 240-22."

- 4 Q. WAS THE CUSTOMER SAVINGS PLAN DESCRIBED IN THIS FILING
 5 IDENTIFIED AS THE PREFERRED RESOURCE PLAN IN THE 2016
 6 TRIENNIAL COMPLIANCE FILING THE PREFERRED PLAN?
- A. It was not. As explained by Company witness Mertens, Empire undertook a review
 of its generation fleet to determine whether it could create any additional savings to
 customers over its 2016 Integrated Resource Plan. The Customer Savings Plan is a
 product of this work.
- COMMISSION RULE 4 C.S.R. 240-22.080(12) REQUIRES CERTAIN 11 **O**. 12 NOTIFICATION WHEN Α **"UTILITY'S** BUSINESS **PLAN** OR 13 ACQUISITION STRATEGY BECOMES MATERIALLY INCONSISTENT WITH THE PREFERRED RESOURCE PLAN OR IF THE UTILITY 14 15 DETERMINES THAT THE PREFERRED RESOURCE PLAN OR ACQUISITION STRATEGY IS NO LONGER APPROPRIATE " HAS 16 **EMPIRE PROVIDED ANY SUCH NOTICE?** 17
- 18 A. No.

19 **Q. WHY NOT?**

A. The Customer Savings Plan represents an alternative approach to the preferred plan that provides additional savings to customers, and thus presents a better option for customers, assuming that Empire obtains the relief requested in time to take advantage of expiring PTCs, and to avoid incurring the expense of further

3	Q.	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
2		remain unchanged from that contained its 2016 Triennial Compliance Filing.
1		environmental upgrades at Asbury. Without this relief, Empire's preferred plan will

4 A. Yes.

The Empire District Electric Company Twenty Year Revenue Requirement Savings (\$000)

Line

<u>No.</u>											
1		2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2	Wind Revenue Requirement	0.00	2.40	132.62	130.15	126.60	124.96	124.72	108.60	119.91	116.69
3	Wind Benefits	0.00	(23.22)	(106.05)	(115.56)	(123.27)	(129.34)	(134.87)	(141.57)	(147.14)	(155.58)
4	NET WIND	0.00	(20.82)	26.57	14.58	3.33	(4.38)	(10.16)	(32.97)	(27.23)	(38.90)
5											
6	Asbury Revenue Requirement	(9.37)	(20.43)	(26.22)	(26.12)	(25.40)	(24.96)	(24.60)	(24.24)	(23.44)	(22.75)
7	Asbury Benefits	0.00	6.64	12.78	15.37	17.25	18.94	17.89	21.28	21.05	22.30
8	NET ASBURY	(9.37)	(13.79)	(13.44)	(10.75)	(8.15)	(6.03)	(6.72)	(2.97)	(2.39)	(0.45)
9											
10	Other	(0.18)	(0.72)	2.07	2.67	2.25	2.47	2.69	14.48	17.88	15.18
11	TOTAL (Savings) / Increase	(9.55)	(35.34)	15.20	6.50	(2.57)	(7.93)	(14.18)	(21.46)	(11.74)	(24.17)
12											
13											
14		2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
15	Wind Revenue Requirement	112.55	120.70	91.24	62.14	31.39	(3.50)	0.34	79.82	39.03	39.89
16	Wind Benefits	(161.65)	(146.18)	(152.65)	(124.73)	(128.83)	(135.24)	(142.45)	(149.30)	(155.82)	(160.53)
17	NET WIND	(49.10)	(25.47)	(61.42)	(62.59)	(97.44)	(138.74)	(142.11)	(69.47)	(116.79)	(120.64)
18											
19	Asbury Revenue Requirement	(22.11)	(14.41)	(23.07)	(19.68)	(26.77)	(19.00)	(16.34)	(23.83)	4.25	4.33
20	Asbury Benefits	24.31	23.59	25.22	26.70	26.48	29.24	30.83	0.00	0.00	0.00
21	NET ASBURY	2.20	9.17	2.15	7.01	(0.29)	10.24	14.49	(23.83)	4.25	4.33
22											
23	Other	15.24	(5.66)	(2.54)	12.80	8.04	52.76	44.05	19.41	(7.08)	(7.60)
24	TOTAL (Savings) / Increase	(31.66)	(21.96)	(61.81)	(42.78)	(89.69)	(75.73)	(83.57)	(73.89)	(119.62)	(123.91)

DIRECT ATTACHMENT CDK-2 Page 1 of 2

ARKANSAS PUBLIC SERVICE COMMISSION

Original		l			
Original	Sheet No.				
Replacing:	Sheet No.				
nepideing.					
The Empire District Electric Company					
Name of Company					
Kind of Service: <u>Electric</u>	Class of Service: All				
Part III. Rate Schedule No.					
Title: CUSTOMER SAVINGS PLAN- RIDE	PSC File Mark Only				

PURPOSE

The Customer Savings Plan (CSP) Rider is designed to recover return on and of the wind asset facility and operation and maintenance expenditures after the facility (or facilities, as the case may be) commences commercial operation as approved in Docket No. 17-061-U.

This schedule is applicable to and becomes part of each Empire jurisdictional rate schedule. This schedule is applicable to energy consumption of retail customers and to facilities, premises and loads of such retail customers.

The CSP Factors will include the Arkansas jurisdictional portion of the project once it is placed in commercial operation and will be determined using the most recently approved production allocation factors for Empire. The CSP Factors will be calculated in accordance with the following methodology and will be applied to each kWh sold.

ANNUAL DETERMINATION

The initial period for the CSP Factors shall be the forecasted initial 12 months of operation after the commercial operation date of the wind project.

A True-up Adjustment shall be calculated and reflected in the following year's CSP Factor calculation. The True-up Adjustment shall be defined as the difference between the actual CSP costs for the prior year and the revenue received from the CSP Factors.

CSP Factors shall be submitted to the Director of the Commission and shall be accompanied by a set of workpapers sufficient to fully document the calculations of the CSP Factors including any potential True-up Adjustment.

THE CSP FACTORS SHALL BE CALCULATED AS SHOWN BELOW:

CSPARR = (((CSPAP – ADEP)*ROR + DEPX + O&M) * RBAF) + TU

Forecasted Base Revenues or kWh Sales by Major Rate Class, as appropriate.

- CSPAP = Average project plant in service balance for the forecasted calendar year
- ADEP = Average accumulated depreciation balance for the forecasted calendar year
 - based on the depreciation rates in effect for Empire
- DEPX = Depreciation expense for the forecast period based on the depreciation

rates in effect for Empire

- O&M = Operations and Maintenance expense for the forecasted period
- ROR = Return on plant in service which includes interest on debt, shareholder return and related income taxes based on a pre-tax rate of return specific to the CSP Rider of X.XX%, with the weighted equity component rate grossed-up by the gross conversion factor specific to income taxes currently in effect

DIRECT ATTACHMENT CDK-2 Page 2 of 2

ARKANSAS PUBLIC SERVICE COMMISSION

Original	Sheet No.	
Replacing:	Sheet No.	
The Empire District Electric Company Name of Company		
Kind of Service: <u>Electric</u>	Class of Service: All	
Part III. Rate Schedule No.		
Title: CUSTOMER SAVINGS PLAN – RID	PSC File Mark Only	

RBAF = Allocation Factor for each major rate class from the Company's cost allocation study provided in the most recent rate case or as determined by the parties. The allocators are as follows:

• •	
	Production
Major Rate Class	Allocators
Residential	XX.XX%
Commercial	XX.XX%
General Power	XX.XX%
Transmission Service	XX.XX%

TU = The true-up amount to correct for any variance between the actual CSP costs for the prior year and the revenue received from the CSP Factors. The calculation will be done on an annual basis, and will determine the true-up for the following year.

ANNUAL REVIEW

The Company will submit to the Director of the Commission the requested CSP Annual Factors approximately 90 days preceding the requested effective date. The requested CSP Factors will become effective, upon Commission approval, with the first billing cycle of the requested billing month.

<u>TERM</u>

The CSP Factors will be determined on an annual basis until the generating facility is included in retail base rates of the Company.

AFFIDAVIT OF CHRISTOPHER D. KRYGIER

STATE OF MISSOURI) SS COUNTY OF JASPER)

On the 30th day of October, 2017, before me appeared Christopher D. Krygier, to me personally known, who, being by me first duly sworn, states that he is the Director of Rates and Regulatory Affairs of Empire District - Liberties Utilities Central and acknowledges that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

Christopher D. Krygier

Subscribed and sworn to before me this 3^{a+b} day of October, 2017.

ANGELA M. CLOVEN Notary Public - Notary Seal State of Missouri Commissioned for Jasper County My Commission Expires: November 01, 2019 Commission Number: 15262659

Notary Public

My commission expires: