

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

**In the Matter of the Application of The)
Empire District Electric Company for)
Approval of the Commission to Make)
Certain Changes in its Charges for)
Electric Service)**

Docket No. 19-EPDE-223-RTS

DIRECT TESTIMONY

PREPARED BY

CHAD UNREIN

UTILITIES DIVISION

KANSAS CORPORATION COMMISSION

May 13, 2019

1	Contents	
2	I. Introduction, Qualifications, Assigned Responsibilities	2
3	II. Executive Summary	4
4	III. Rate Base Adjustments.....	6
5	A. Plant in Service Adjustment	6
6	B. Accumulated Depreciation Adjustment.....	9
7	IV. Asbury Environmental & Riverton Recovery Riders	11
8	A. Procedural History of the AECR and AERR Riders.	11
9	B. Staff’s Review of Capital Costs of the Asbury and Riverton Projects	15
10	C. AECR/AERR Rider Revenue Requirement Review and True-up Calc.	18
11	V. Conclusion.....	20
12		

1 **I. Introduction, Qualifications, Assigned Responsibilities**

2 **Q. Would you please state your name?**

3 A. My name is Chad Unrein.

4

5 **Q. What is your business address?**

6 A. My business address is 1500 Southwest Arrowhead Road, Topeka, Kansas 66604.

7

8 **Q. By whom are you employed and in what capacity?**

9 A. I am employed by the Kansas Corporation Commission (Commission) as a Managing
10 Auditor/Federal Energy Regulatory Commission (FERC) Affairs Specialist.

11

12 **Q. Would you please describe your educational background and business
13 experience?**

14 A. In May of 2010, I graduated from Washburn University with a Master's degree in
15 Business Administration. Prior to my MBA, I earned a Bachelor's of Business
16 Administration with an emphasis in Accounting and a Gold-tiered Certificate in
17 Leadership Studies from Washburn University in 2004. Upon graduation, I was
18 promoted from an Intern to an Associate Accountant in the Financial Reporting
19 Department of Westar Energy, Inc. (Westar) with various responsibilities, including the
20 preparation of financial statements, FERC Regulatory Reporting, managerial reporting,
21 and developing financial analysis for presentations to Westar's Board of Directors. In
22 2005, I was promoted to the position of Risk Management Analyst in Westar's Risk
23 Management Department, which is responsible for the oversight of Westar's asset and
24 non-asset based energy marketing portfolios. My primary responsibilities in this

1 position included counterparty credit analytics, virtual transaction reporting, and
2 serving as Secretary for the Risk Oversight Committee. In 2006, I accepted a position
3 at Security Benefit Group as a Portfolio Performance Analyst in their Asset
4 Management Department. I performed a variety of benchmarking data analysis,
5 risk/return analysis, and portfolio risk assessments. I began my employment with the
6 Commission as a Regulatory Auditor in January of 2014 and was promoted to Senior
7 Auditor in November of 2016. In July of 2018, I was promoted to my current position
8 as a Managing Auditor/FERC Affairs Specialist. Throughout my career, I have
9 participated in various continuing education seminars/conferences on Accounting for
10 Utilities, Regional Transmission Organization Settlements, Risk and Credit Analytics,
11 Decision Making under Uncertainty, and Ratemaking.

12
13 **Q. Have you ever testified before the Commission?**

14 A. Yes, I filed testimony in Docket Nos. 14-SPEE-507-RTS, 14-BHCG-502-RTS, 14-
15 MRGT-097-KSF, 15-SPEE-519-RTS, 15-SPEE-161-RTS, 15-KCPE-116-RTS, 16-
16 MKEE-023-TAR, 16-SPEE-497-RTS, 16-KGSG-491-RTS, 17-SPEE-476-RTS, 18-
17 WSEE-328-RTS, 18-KCPE-480-RTS, 19-MPCE-064-COC, and 19-GBEE-253-ACQ.

18
19 **Q. What were your responsibilities in the review of the Application filed in Docket**
20 **No. 19-EPDE-223-RTS (19-223 Docket)?**

21 A. My responsibilities as a regulatory auditor were to analyze, audit, and review The
22 Empire District Electric Company's (Empire or Company) rate case Application. I
23 examined the Company's filing for accuracy and adherence to regulatory accounting

1 principles and issued discovery regarding my assigned sections of the Application. I
2 am supporting selected Staff adjustments to Empire's pro forma rate base in an effort
3 to ensure that the resulting rates are just and reasonable. All of my responsibilities
4 were carried out under the direction of Andria Jackson, Senior Managing Auditor, and
5 Justin Grady, Chief of Accounting and Financial Analysis.

6 **II. Executive Summary**

7 **Q. What is the purpose of your testimony in this proceeding?**

8 A. The purpose of my testimony is to offer reasoning and support for two Staff
9 adjustments to Empire's pro forma rate base. In addition to these adjustments, I review
10 the implementation of the Asbury Environmental Cost Recovery (AECR) rider, which
11 was approved by the Commission in Docket No. 15-EPDE-233-TAR (15-233 Docket),
12 and the Asbury Environmental and Riverton Recovery rider (AERR), which was
13 approved by the Commission in Docket No. 17-EPDE-280-TAR (17-280 Docket). In
14 my testimony on the AECR and AERR riders, I present my evaluation of the prudence
15 of the capital costs and compare the actual costs recovered by Empire to the revenue
16 requirements approved in the 15-233 Docket and the 17-280 Docket.

17 As a result of Staff's prudence evaluation, Staff is not recommending any
18 disallowance adjustments to Empire's investment in the Asbury Air Quality Control
19 System (AQCS) or the Riverton 12 Combined Cycle natural-gas fired generating unit
20 (Riverton 12). In Staff's review of the Commission-approved revenue requirements,
21 Staff found a minor error in the calculation of the Gross Revenue Conversion Factor
22 used to calculate the revenue requirement for the AERR rider. After incorporating this
23 correction into the revenue requirement calculation and comparing it against Empire's

actual recovered costs, Staff is not recommending that any true-up adjustment be applied to the Company's recovered costs for the Asbury ACQS or Riverton 12 conversion projects due to the de minimis value of the adjustment.

My testimony is supported by three Staff Exhibits that detail my calculations of two rate base adjustments and, for informational purposes only, Staff's cost-recovery analysis for the final true-up calculation for the AECR/AERR riders.¹ A summary of my sponsored pro forma adjustments are listed below.

<i>Rate Base</i>		
Adjustment No.	Description	Increase/(Decrease) to Rate Base
RB-1	Plant In Service Adjustment	\$ 847,553
RB-2	Accumulated Depreciation Adjustment	(1,291,846)

Q. Are the adjustments presented in Staff's testimony presented on a Kansas-jurisdictional basis of operations?

A. Yes, each of Staff's adjustments presented in the listing above and in the testimony to follow are presented in terms of Empire's Kansas-jurisdictional operations. Staff witnesses first calculate the adjustment based on Empire's total company operations in order to maintain consistency with Empire's presentation in the Application and Empire's accounting methodology for its plant and expenses. Staff witnesses then apply the Kansas-jurisdictional allocation factor to each adjustment in order to produce a Kansas-jurisdictional adjustment. The adjustments I am sponsoring are presented

¹ Exhibits CCU-1 through CCU-3 are attached at the end of my testimony.

1 and discussed on a Kansas-jurisdictional basis, and I will specifically identify any costs
2 that are being discussed on a total company basis throughout my testimony.

3 **III. Rate Base Adjustments**

4 **A. Plant in Service Adjustment**

5 **Q. Could you please explain Staff Adjustment No. 1 to rate base?**

6 A. Staff Adjustment No. 1 (RB-1) updates Empire's plant in service balances through
7 January 31, 2019, and results in an increase to Empire's rate base of \$847,553.² Staff
8 has structured its plant adjustment to produce a single change to plant in service in
9 comparison to Empire's methodology, which produces multiple adjustments to plant in
10 service.

11 Staff's adjustment is calculated as the difference between Empire's pro forma
12 adjusted balance for plant in service as of June 30, 2018, and Staff's adjusted plant in
13 service as of January 31, 2019. Staff's adjusted plant in service is calculated based on
14 the total company plant balances as of January 31, 2019, multiplied by the Kansas-
15 jurisdictional allocators that were used in Empire's Application. Staff chose to use the
16 test year Kansas-jurisdictional allocators found in the Application to maintain
17 consistency across its adjustments to both rate base and expenses. After calculating a
18 Kansas-jurisdictional plant in service balance, Staff adjusted the plant balances to
19 remove additional components of the adjustment, including the removal of the Iatan
20 and Plum Point Prudency disallowance, removal of common gas property, and removal
21 of plant included in the Transmission Delivery Charge (TDC). Staff's adjustment

² See Exhibit CCU-1: Plant in Service Adjustment.

1 updates each of these components for either corrections to Empire's adjustment
2 methodologies or to update the removal of plant for plant balances as of January 31,
3 2019. The Iatan and Plum Point Prudency disallowance, removal of common gas
4 property, and removal of plant included in the TDC are discussed in the testimony of
5 Staff witness Andria Jackson and the calculations are detailed in Exhibits ANJ-1 –
6 ANJ-3.

7 Staff recommends the Commission adopt Staff's adjustment because it relies on
8 actual, known and measurable plant in service balances as of January 31, 2019. Staff's
9 update to plant in service includes actual additions and retirements to plant in service
10 while Empire's adjustment only includes projected additions through January 31, 2019.
11 Updating plant and accumulated depreciation balances allows the Company a
12 reasonable opportunity to earn a fair return on, and a return of, plant that is in service
13 and used and required to be used. The end result is a cost of service which most
14 closely resembles Empire's ongoing cost of conducting business.

15
16 **Q. Did Empire's Application include other adjustments to plant in service that were**
17 **not included in Staff's adjustment?**

18 A. Yes, Empire's pro forma adjusted plant in service included two additional adjustments
19 that were not included in Staff's update to plant in service. Empire included
20 adjustments to the test year plant in service for construction work in progress (CWIP)
21 and the capitalized portion of the merit increase contained in Empire's payroll
22 adjustment.

1 In Empire Adjustment No. 5 (ADJ-5), Empire included additions to plant in service
2 for projects that were in CWIP as of the end of the test year that were projected to be in
3 service by January 31, 2019. In addition to the impact on plant in service, Empire's
4 ADJ-5 for CWIP included the impact of the plant additions on accumulated
5 depreciation, depreciation expense, accumulated deferred income taxes, and property
6 taxes. While Staff did not directly include an adjustment to plant in service for CWIP,
7 Staff's update to plant in service would have included any additions to plant that were
8 placed into service by Empire through Staff's update period ending January 31, 2019.
9 Therefore, Staff's adjustment methodology for plant in service, accumulated
10 depreciation, and accumulated deferred income taxes would have include Empire's
11 projected additions included in CWIP that were placed into service and were used and
12 required to be used. Additionally, Staff's adjusted plant in service is used to calculate
13 an updated depreciation expense adjustment using Staff's proposed depreciation rates.
14 Unlike Empire's methodology, Staff is not proposing any adjustment to property tax
15 expense for plant additions. Empire has an ad valorem tax surcharge rider that
16 incorporates changes to property tax expense on a yearly basis. Therefore, Staff is
17 recommending Empire's adjustment for property taxes related to CWIP additions be
18 removed from its case as part of Staff Adjustment No. 2 (IS-2) to the income statement,
19 which is sponsored by Staff witness Andria Jackson. The total impact to reverse
20 Empire's adjustment to property taxes expenses reduces Empire's operating expense
21 by \$2,894 and increases Empire's operating income by the same amount.³

³ See Andria Jackson's Exhibit ANJ-5 for the calculation of Staff Adjustment IS-2 to remove property tax expense related to CWIP.

1 As referenced earlier, Empire's adjusted plant in service balance included an
2 adjustment to increase plant in service for the capitalized portion of Empire's merit
3 increase to payroll. Unlike the methodology used by Empire, Staff's plant in service
4 adjustment does not include a similar component to increase plant in service for the
5 capitalized portion of the merit increase contained in Staff's Income Statement
6 Adjustment No. 6 for payroll. Staff witness Katie Figs provides supporting testimony
7 for Staff's methodology concerning the merit increase in her payroll adjustment and
8 discusses its impact to plant in service and accumulated depreciation.

9
10 **B. Accumulated Depreciation Adjustment**

11 **Q. Could you please explain Staff Adjustment No. 3 to rate base?**

12 A. Staff Adjustment No. 2 (RB-2) updates Empire's accumulated depreciation balances
13 through January 31, 2019, and results in a decrease to Empire's rate base of
14 \$1,291,846.⁴ Staff has structured its adjustment to produce single change to
15 accumulated depreciation, similar to Staff Adjustment RB-1 for plant in service.

16 Staff's adjustment is calculated as the difference between Empire's pro forma
17 adjusted test year balance for accumulated depreciation as of June 30, 2018, and Staff's
18 adjusted accumulated depreciation as of January 31, 2019. Staff's adjusted
19 accumulated depreciation is calculated based on total company depreciation reserve
20 balances as of January 31, 2019, multiplied by the Kansas-jurisdictional allocators that
21 were used in Empire's Application. Once again, Staff chose to use the test year
22 Kansas-jurisdictional allocators found in the Application to maintain consistency

⁴ See Exhibit CCU-2: Accumulated Depreciation Adjustment.

1 across its adjustments to both rate base and expenses. After calculating the Kansas-
2 jurisdictional accumulated depreciation balance, Staff adjusted the reserve balance to
3 remove other components of the adjustment including the removal of accumulated
4 depreciation for the Iatan and Plum Point Prudency disallowance, the removal of
5 common gas property, and removal of accumulated depreciation included in the TDC.
6 These components of Staff's adjustment were each updated and applied to the Kansas-
7 jurisdictional depreciation reserve balances as of January 31, 2019. Staff's adjustment
8 updates each of these components for either corrections to Empire's adjustment
9 methodologies or to update the removal of accumulated depreciation balances as of
10 January 31, 2019. The Iatan and Plum Point Prudency disallowance, removal of
11 common gas property, and removal of accumulated depreciation included in the TDC
12 are discussed in the testimony of Staff witness Andria Jackson and the calculations are
13 detailed in Exhibits ANJ-1 – ANJ-3. Similar to Staff's plant in service adjustment,
14 Staff's accumulated depreciation adjustment excludes additional adjustments for CWIP
15 and the capitalized portion of the merit increase contained in Empire's payroll
16 adjustment.

17 During Staff's review of Empire's Application, Staff identified an error in Empire's
18 calculation of the Kansas-jurisdictional accumulated depreciation found in Section 3 of
19 the Application, which was used by Empire to calculate its revenue requirement.
20 Empire included a Kansas-jurisdictional accumulated depreciation balance of
21 \$42,104,067 in Section 3 of the Application as compared to the Kansas-jurisdictional
22 accumulated depreciation balance of \$41,987,657 that is supported by the calculation
23 detailed in Empire's accumulated depreciation workpapers found in Section 5 of the

1 Application. Staff was unable to tie-out the Kansas-jurisdictional accumulated
2 depreciation balance of \$42,104,067, which was hard-coded into the Section 3
3 workpapers. As a result, Staff chose to use the \$41,987,657 as Empire's Kansas-
4 jurisdictional accumulated depreciation balance and incorporated the correction of
5 \$116,410 in Staff's adjustment. As a result of the error, Empire had understated its rate
6 base by \$116,410.

7 Staff recommends the Commission adopt Staff's adjustment because it relies on
8 actual, known and measurable accumulated depreciation balances as of January 31,
9 2019. This adjustment is a companion adjustment to the update of plant in service and
10 is necessary so that the plant in service balance is synchronized with accumulated
11 depreciation. Updating accumulated depreciation ensures that ratepayers are given the
12 proper amount of credit for the capital that they have returned to Empire and, therefore,
13 no longer need to pay a return on.

14 **IV. Asbury Environmental & Riverton Recovery Riders**

15 **A. Procedural History of the AECR and AERR Riders.**

16 **Q. Would you please detail the procedural history of Empire's AECR rider?**

17 A. On April 14, 2015, the AECR rider was approved by the Commission on an interim
18 basis to recover Empire's investment in an environmental retrofit of the Asbury coal-
19 fired generating station with an AQCS.⁵ Empire's investment in the environmental
20 retrofit of Asbury was driven by the Environmental Protection Agency's (EPA) newly
21 enacted air quality standards. When the project was placed in service, the cost of

⁵ See Commission Order granting the Application of Empire's proposed AECR rider surcharge subject to refund, dated April 14, 2015; <http://estar.kcc.ks.gov/estar/ViewFile.aspx?Id=e3352f97-ef95-4396-89cb-5248d283d480>.

1 Empire's investment in the AQCS totaled \$121,152,515 on a total company basis.
2 Staff incorporated this investment into the AECR rider's revenue requirement
3 calculation, which produced a Kansas-jurisdictional revenue requirement of \$782,479.⁶

4 Staff recommended approval of the AECR rider to avoid the costs of processing
5 two rate cases over an 18-month period. Additionally, Staff recommended that the
6 Commission approve the AECR rider subject to refund. This allowed the AECR rider
7 to be implemented without Staff performing a full comprehensive review of the
8 components of the revenue requirement calculation and a review of the actual capital
9 costs to determine whether Empire's expenses in the Asbury AQCS were prudently
10 incurred. Staff's full review of the revenue requirement would occur at the time
11 Empire filed its next rate case. In addition to the prudence review, Staff was to
12 recalculate the revenue requirement and any revenue recovery in excess of the
13 Commission's determined revenue requirement would be refunded. As conditioned by
14 the Order, Empire was required to file a general rate case no later than September 30,
15 2016, and the AECR rider would terminate with the effective date of rates contained in
16 the Commission's Order.

17
18 **Q. Please discuss the impact that Liberty Utilities' acquisition of Empire had on the**
19 **termination of the AECR rider and the filing of the AERR rider?**

20 A. On March 16, 2016, Empire, Liberty Sub Corp (LSC), and Liberty Utilities (Central)
21 Co. (LUCo) filed a Joint-Application in Docket No. 16-EPDE-410-ACQ (16-410
22 Docket) seeking Commission approval of an Agreement and Plan of Merger that called

⁶ See *id.*

1 for LUCo to acquire all of the capital stock of Empire by way of merging LSC with
2 Empire. Following the Merger Application and in accordance with the Commission's
3 Order approving the AECR rider, Empire filed its Application for a rate increase in
4 Docket No. 17-EPDE-101-RTS (17-101 Docket) on September 16, 2016. On October
5 6, 2016, the Joint Applicants, along with KCC Staff and the Citizens Ratepayer Board
6 (CURB), filed a Joint Motion requesting the Commission issue an Order approving the
7 terms and conditions as set forth in the Unanimous Settlement Agreement in the 16-
8 410 Docket.⁷

9 As part of the Unanimous Settlement Agreement, Empire agreed to withdraw its
10 Application for a rate increase in the 17-101 Docket and not re-file a request to change
11 its base rates prior to May 1, 2018, with new rates effective no sooner than January 1,
12 2019.⁸ Additionally, Empire agreed to seek an Order from the Commission to amend
13 its current AECR rider to include the revenue requirement associated with its
14 investment in the Riverton 12 project following the close of the Empire acquisition
15 transaction.⁹ Staff and CURB agreed to not categorically oppose Empire's request to
16 amend the AECR rider if Empire's request met certain conditions set forth in the
17 Settlement Agreement. On December 22, 2016, the Commission issued its Order
18 approving the Joint Application and Settlement Agreement.¹⁰

⁷ See Joint Motion for Commission Approval of the Unanimous Settlement Agreement filed 10/6/16;
<http://estar.kcc.ks.gov/estar/ViewFile.aspx?Id=1f6f8357-ee7b-4327-bb2c-4548ce2008f8>.

⁸ See *id.*, page 5, ¶24.

⁹ See *id.*, page 6, ¶26.

¹⁰ See Commission Order granting the Joint Motion to approve the Unanimous Settlement Agreement and approval of the Joint Application filed on 12/22/2016;
<http://estar.kcc.ks.gov/estar/ViewFile.aspx?Id=a15f1be0-cdc3-4802-ac9c-841e2cc8927f>.

1 **Q. Please discuss the specifics of Empire’s AERR rider for the cost recovery of the**
2 **Riverton 12 Project.**

3 A. On January 6, 2017, Empire filed its Application in the 17-280 Docket requesting
4 Commission approval of its AERR rider replacing the existing AEER rider. The
5 AERR rider was approved by the Commission on an interim basis, subject to refund, to
6 recover Empire’s investment to convert Riverton 12 from a simple cycle natural gas
7 turbine to a combined cycle natural gas turbine.¹¹ At the time the project was placed
8 into service, Empire’s investment in the Riverton 12 project was \$168,553,709, on a
9 total company basis. Once incorporated into the AERR rider’s revenue requirement
10 calculation, the Kansas-jurisdictional revenue requirement was \$1,740,667, which
11 includes Empire’s investment in the Asbury AQCS project and the Riverton 12
12 conversion. When compared to the AEER rider, the revised AERR rider resulted in an
13 incremental revenue requirement increase of \$958,186 for the Riverton 12 conversion.

14 Ultimately, Staff recommended approval of the AERR rider subject to refund to
15 allow Empire to recover costs of its investment in the Riverton 12 project during the
16 20-month rate moratorium included in the Settlement and Agreement from the 16-410
17 Docket. At the time, Staff had projected the net present value of the 20-month rate
18 moratorium equated to \$5.77 million savings to customers or approximately \$597 per
19 Kansas customer. The Commission issued its Order approving the AERR rider
20 surcharge on June 29, 2017, and the rider became effective July 1, 2017.¹²

¹¹ See Commission Order adopting Staff’s Report and Recommendation in the 17-280 Docket filed on June 29, 2017; <http://estar.kcc.ks.gov/estar/ViewFile.aspx?Id=767e227b-bbd9-44c6-a381-1274df865df4>.

¹² See *id.*

1 Like the AECR rider, the AERR rider was implemented without Staff conducting a
2 comprehensive review of all the components of the revenue requirement or a review of
3 the actual capital costs to determine whether Empire's expenses were prudently
4 incurred for the Riverton 12 conversion. Staff would conduct a full review of the
5 revenue requirement at the time Empire filed its next rate case, and the revenue
6 requirement would be recalculated, and any revenue recovery in excess of the
7 Commission's determined revenue requirement would be refunded.

8
9 **B. Staff's Review of Capital Costs of the Asbury and Riverton Projects**

10 **Q. Did you conduct a review of the capital costs related to the Ashbury AQCS and**
11 **Riverton 12 conversion?**

12 A. Yes. Staff began its review with the testimony of Empire witness Timothy N. Wilson,
13 which details Empire's decision to construct the Asbury AQCS in 2011; the
14 alternatives Empire explored as part of Empire's 2010 Integrated Resource Plan (IRP);
15 how those alternatives compared to the Asbury project; and how Empire made the
16 ultimate decision to construct the AQCS to comply with EPA environmental
17 regulations. Mr. Wilson also reviews the investment Empire made in the Riverton 12
18 conversion; how Riverton 12 was identified in Empire's 2013 IRP as the Preferred
19 Plan; and the decision to construct Riverton 12 as the least cost option to comply with
20 environmental regulations including the Cross State Air Pollution Rule.

21 In addition to analyzing the details included in Mr. Wilson's testimony, Staff issued
22 discovery to obtain worksheets that provided a breakdown of the total cost of each
23 project, including purchase order numbers, FERC accounts, vendors, dates, and other
24 pertinent accounting information. Additionally, Staff requested access to any

1 supporting documents that were used in Missouri's prudency determination for the
2 Asbury AQCS and the Riverton 12 conversion. Staff received the confidential
3 testimony of Missouri witnesses and Missouri's audit report that detailed its analysis
4 covering the construction audit, prudence review, bidding process, gross capital costs
5 and expenses of the project vs. projected/budgeted costs for the project. Staff also
6 obtained and reviewed the Confidential Global Settlement Agreements from Missouri's
7 2014 and 2016 rate cases.

8

9 **Q. Did Staff decide to conduct its own prudency audit for the construction costs of**
10 **Empire's investment in the environmental retrofit of Asbury Generating Station**
11 **and the Riverton 12 conversion projects?**

12 A. Staff did not conduct an exhaustive independent prudency evaluation, per se. After
13 thoroughly reviewing Empire's analysis provided in Mr. Wilson's testimony;
14 Missouri's Confidential testimony and analysis covering its Construction Audits; and a
15 preliminary review of the worksheets providing a breakdown of the total costs of the
16 Asbury and Riverton projects by purchase order number, Staff made a determination
17 that it would not duplicate Missouri's extensive efforts in order to conduct a similar in-
18 depth prudency review. The Kansas-jurisdictional allocation of the investments are
19 roughly 5.1% of the total cost of the projects and duplicating the prudency review
20 would have required additional Staff resources, likely in the form of external
21 consultants.

22 Another key factor in Staff's decision not to conduct an additional in-depth
23 prudency review was Empire use of Engineering, Procurement, and Construction

1 (EPC) Contracts for the construction of the Asbury AQCS and the Riverton 12
2 conversion projects. EPC Contracts are a particular form of contracting arrangement
3 used in utility industries where the EPC contractor is made responsible for all the
4 activities from design, procurement, construction, commissioning, and handover of the
5 project to the end-user or owner. EPC Contracts are bid at a fixed-price and transfer
6 much of the construction risk for budget overruns and time delays during the
7 construction of the project by building in performance guarantees into the contracts.
8 When Staff analyzed the final costs for the construction of each project, the Asbury
9 AQCS and Riverton 12 conversion projects were constructed at the lower end of the
10 projected range of costs for each project, which were contained in analysis presented in
11 Missouri's IRP. The actual cost of the Asbury AQCS through January 2017 was
12 \$112,109,024, excluding allowance for funds used during construction (AFUDC),
13 which compares to the estimate/projection in Missouri's 2010 IRP of \$112 – \$130
14 million excluding AFUDC.¹³ The final cost of the Riverton 12 project through May of
15 2017 was \$168,065,246 excluding AFUDC, which compares to the estimate/projection
16 in Missouri's 2013 IRP of \$165 – \$175 million excluding AFUDC.¹⁴ Upon Staff's
17 review of the actual vs. projected expenses for the Asbury AQCS and Riverton 12
18 conversion projects, Staff determined the duplication of a full prudency audit would
19 not have been an efficient use of Staff resources and, in Staff's opinion, the audit likely
20 would not have resulted in any additional disallowances to the total construction costs
21 for either project.

¹³ See the testimony of Timothy N. Wilson, page 9, lines 9-12.

¹⁴ See *id.*, p. 14, lines 5-7.

1 While much of Missouri's construction costs audit are considered confidential,
2 Staff can make the results available to the Commission if requested. As a result of the
3 Missouri analysis, Missouri's Staff did not recommend any disallowance of the
4 construction costs for either the Asbury AQCS project or the Riverton 12 conversion
5 project.

6 While Staff is not recommending any disallowance of costs for the Asbury AQCS,
7 Staff is recommending an Asbury Retirement Credit Tariff as it relates to the cost-
8 recovery of Empire's investment in the Asbury Power Plant and the AQCS in the event
9 Empire chooses to retire the plant in the near future. Empire is evaluating retirement of
10 the Asbury Generating Plant as part of Empire's 2019 triennial IRP, which will be
11 completed July 1, 2019. The Asbury Retirement Credit Tariff is discussed in the
12 testimony of Staff witness Justin Grady.

13
14 **C. AECR/AERR Rider Revenue Requirement Review and True-up Calc.**

15 **Q. Please detail Staff's full review of the Commission-approved revenue requirement**
16 **calculations for the AECR and AERR riders.**

17 A. Staff completed a comprehensive review of the revenue requirement calculations that
18 were approved by the Commission for the AECR rider in the 15-233 Docket and the
19 AERR rider approved in the 17-280 Docket. As stated earlier, the Commission-
20 approved Kansas-jurisdictional revenue requirement for the AECR rider totaled
21 \$782,479. In this Docket, Staff's review examined multiple elements of the revenue
22 requirement calculation including the total plant in service, capital costs, rate of return,
23 accumulated depreciation, the Kansas-jurisdictional allocation percentage, depreciation
24 expense, and income taxes. Staff determined that all of the key inputs for the

1 calculation of the AECR rider were based on the most recent data available at the time
2 of the Application or were carried over from Empire's last Commission-approved rate
3 proceeding. Staff is not recommending any corrections to the revenue requirement
4 calculation for the AECR rider.

5 While Staff is not recommending any corrections for the AECR rider, Staff did find
6 a correction in its review of the Commission-approved revenue requirement for the
7 AERR rider. The Kansas-jurisdictional revenue requirement approved for the AERR
8 rider was \$1,740,667. Similar to its review of the AECR rider, Staff performed a
9 comprehensive review of the key inputs into the AERR rider's revenue requirement
10 calculation. In its review, Staff found a minor error in the calculation of the Gross
11 Revenue Conversion Factor that Empire used to calculate income tax expense. The
12 Gross Revenue Conversion Factor used by Empire in the AERR rider calculation was
13 approximately 1.6605, which was based off the usage of a Federal Income Tax rate of
14 35%¹⁵ and a Kansas State Income Tax rate of 7.35%. The State of Kansas Income tax
15 rate that should have been used in the calculation was 7%, which corrected the Gross
16 Revenue Conversion factor to 1.6543. After incorporating this correction into the
17 revenue requirement calculation, the corrected AERR rider's revenue requirement
18 totaled \$1,736,912, or a reduction to the revenue requirement of \$3,755.

¹⁵ The impact for the change in Empire's AERR revenue requirement related to the Tax Cut and Jobs Act (TCJA) was incorporated into the calculation of the regulatory liability approved by the Commission in its Order approving Empire's Settlement Agreement in Docket No. 18-GIMX-248-GIV filed on July 12, 2018. The regulatory liability included a reduction of \$179,495 for Empire's AERR revenue requirement related to the reduction of the Federal Income Tax Rate to 21% resulting from the TCJA. This credit is discussed in the testimony of Staff witness Justin Grady.

1 **Q. Please detail Staff's calculation of the true-up adjustment for the AECR and**
2 **AERR riders.**

3 A. Through discovery, Staff obtained Empire's calculation of its true-up adjustment for
4 the AECR/AERR riders, which compared Empire's actual revenue recovered from the
5 surcharges and compared the revenue against the Commission-approved revenue
6 requirements for the riders. In response to Staff Data Request No. 262, Empire
7 presented its calculation of the true-up adjustment and provided additional supporting
8 documentation that allowed Staff to tie-out the monthly revenue received from the
9 AECR and AERR surcharges. Empire calculated that it had under-recovered the
10 Commission's approved AECR and AERR riders revenue requirement by \$6,134;
11 however, after Staff incorporated the corrected AERR revenue requirement of
12 \$1,736,912 for the error in the Gross Revenue Conversion Factor, Empire's under-
13 recovery was reduced to \$188.¹⁶ Therefore, Staff is not recommending any additional
14 true-up adjustment to Empire's recovered costs for its investments in the Asbury
15 AQCS or the Riverton 12 conversion due to the de minimis value of the adjustment.

16 **V. Conclusion**

17 **Q. Please provide a summary of your recommended adjustments.**

18 A. My testimony supports two Staff adjustments to Empire's rate base covering Staff's
19 update to plant in service and accumulated depreciation balances through January 31,
20 2019. Staff's update to plant in service increases Empire's rate base by \$847,553 and

¹⁶ See Exhibit CCU-3: AECR/AERR True-up for the calculation details. Exhibit CCU-3 is provided for informational purposes only.

1 Staff's update to accumulated depreciation reduces Empire's rate base by \$1,291,846.

2 In total, my adjustments reduce Empire's rate base by \$444,293.

3 As a result of its review of Empire's AECR and AERR riders, Staff is not
4 recommending any additional adjustments related to Empire's recovered costs for its
5 investments in the Asbury AQCS or the Riverton 12 conversion projects.

6

7 **Q. Does this conclude your testimony?**

8 A. Yes.

1 **EXHIBITS**

2	<u>Exhibit No.</u>	<u>Description</u>
3	CCU-1	Plant in Service Adjustment
4	CCU-2	Accumulated Depreciation Adjustment
5	CCU-3	AERR True-up Workpapers

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Line No.	Description	Kansas Jurisdictional							
		Update to Kansas Ending Balance as of January 31, 2019	Iatan and Plum Point Prudency Adjustment	Common Property Gas Adjustment	TDC Adjustment	Total Pro Forma Adjustments	Staff Adjusted Plant In Service as of January 31, 2019	Empire Pro Forma Adjusted Plant In Service	Staff Adjustment to Plant In Service
	(a)	(b)	(c)	(d)	(e)	(f) = (c) + (d) + (e)	(g) = (b) + (f)	(h) = Section 4 WP	(i) = (g) - (h)
1	Adjustment Number	DR 254	RB-1(a)	RB-1(b)	RB-1(c)	Sum RB-1(a) - RB-1(c)	Total	Plant Detail Tabs	RB-1
2	Steam	\$ 37,487,191	\$ (255,255) (1)	\$ -	\$ -	\$ (255,255)	\$ 37,231,936	\$ 37,459,420 (2)	\$ (227,485)
3	Hydro	520,466				-	520,466	524,818	(4,352)
4	Other	25,835,705				-	25,835,705	25,631,508 (2)	204,197
5	Total Production Plant	63,843,361	(255,255)			(255,255)	63,588,106	63,615,746	(27,640)
6	Transmission Plant	18,218,818			(18,218,818)	(18,218,818)	-	-	-
7	Distribution Plant	54,520,961				-	54,520,961	53,609,073	911,888
8	General Plant	4,479,806		(117,939)	(326,178)	(444,117)	4,035,688	3,922,214	113,474
9	Intangible Plant	2,189,357	-		(163,719)	(163,719)	2,025,638	2,175,808	(150,169)
10	Total Plant Adjustments (Sum of Line 5 through Line 9)	\$ 143,252,303	\$ (255,255)	\$ (117,939)	\$ (18,708,716)	\$ (19,081,910)	\$ 124,170,393	\$ 123,322,840	\$ 847,553

Footnote:

(1) Iatan and Plum Point Adjustment are Kansas Jurisdiction specific per Order 11-EDPE-856-RTS
(2) Empire's Disallowances (Added Back into Rate Base) were reclassified into the appropriate FERC Plant Accounts in response to KCC DR 254: Plant Update WP. Therefore, Staff is reversing these disallowances in Line No. 105 of the Production Plant tab from Empire's Section 4 WP in the Application. Staff included \$120,413 in Steam Production Plant and \$7,086 in Other Production Plant for the disallowance included in line 105 of the Production Plant tab from Empire's Section 4: Plant WP.

Sources:

Data Request No. 254: Plant Update WP
Application - Section 4 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019									Pro Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage ⁽¹⁾	Kansas Ending Balance	TDC Adjustment ⁽²⁾	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Intangible Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h) = (f) * (g)	(i) = -(h) * W/S Alloc	(j) = (h) + (i)	(k) = Section 4 WP	(l) = (j) - (k)
1		Adjustment Number							RB-1(c)			RB-1
Intangible Plant												
2	301.0	Organizational Costs	KCC DR 254	\$ 29,940	\$ -	\$ 29,940	5.01%	\$ 1,501	\$ (112)	\$ 1,389	\$ 1,501	\$ (112)
3	302.0	Franchises & Consents	KCC DR 254	1,079,798	-	1,079,798	5.01%	54,152	(4,049)	50,102	54,152	(4,049)
4	303.0	Misc. Intangible Plant	KCC DR 254	42,546,583	-	42,546,583	5.01%	2,133,704	(159,557)	1,974,147	2,120,154	(146,008)
5		Total		\$ 43,656,321	\$ -	\$ 43,656,321		\$ 2,189,357	\$ (163,719)	\$ 2,025,638	\$ 2,175,808	\$ (150,169)

Footnote:

- (1) Allocator - Intangible & General Plant included in the Application: 5.01%
(2) Wage & Salaries Allocator from TFR: 7.48%

Sources:

Data Request No. 254: Plant Update WP
Empire's 2017 Transmission Formula Rate - Wage and Salaries Allocator
Application - Section 4 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019										Pro-Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass (3)	Total Company Revised Ending Balance	Notes	Allocation Percentage	Kansas Ending Balance	Iatan and Plum Point Prudency Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Production Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h)	(i) = (f) x (h)	(j)	(k) = (i) + (j)	(l) = Section 4 WP	(m) = (k) - (l)
1	Adjustment Number									RB-1(a)		RB-1	
Production Plant - Riverton													
2	310.0	Land and Land Rights	KCC DR 254	\$ -	\$ -	\$ -	(1)	4.73%	\$ -	\$ -	\$ -	\$ -	\$ -
3	311.0	Structures and Improvements	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	8,111	(8,111)
4	312.0	Boiler Plant Equipment	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	3,038	(3,038)
5	314.0	Turbogenerator Units	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	-	-
6	315.0	Accessory Electric Equipment	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	517	(517)
7	316.0	Misc Power Plant Equipment	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	-	-
Production Plant - Asbury													
8	310.0	Land and Land Rights	KCC DR 254	1,349,995	-	1,349,995	(1)	4.73%	63,881	-	63,881	63,881	-
9	311.0	Structures and Improvements	KCC DR 254	21,553,967	-	21,553,967	(1)	4.73%	1,019,929	-	1,019,929	996,260	23,670
10	312.0	Boiler Plant Equipment	KCC DR 254	218,277,817	-	218,277,817	(1)	4.73%	10,328,861	(26,430)	10,302,432	10,454,791	(152,360)
11	312.AT	Unit Train	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	(994)	994
12	314.0	Turbogenerator Units	KCC DR 254	36,723,935	-	36,723,935	(1)	4.73%	1,737,769	-	1,737,769	1,739,887	(2,118)
13	315.0	Accessory Electric Equipment	KCC DR 254	6,886,420	-	6,886,420	(1)	4.73%	325,864	(819)	325,045	325,864	(819)
14	316.0	Misc Power Plant Equipment	KCC DR 254	2,486,317	-	2,486,317	(1)	4.73%	117,652	-	117,652	116,866	786
Production Plant - Iatan 1													
15	310.0	Land and Land Rights	KCC DR 254	121,639	-	121,639	(2)	4.73%	5,755.92	-	5,756	5,756	-
16	311.0	Structures and Improvements	KCC DR 254	4,096,077	18,302	4,114,379	(2)	4.73%	194,691.59	-	194,692	193,826	866
17	312.0	Boiler Plant Equipment	KCC DR 254	76,183,308	110,166	76,293,474	(2)	4.73%	3,610,191.51	-	3,610,192	3,618,437	(8,245)
18	312.T	(Unit Train)	KCC DR 254	329,005	-	329,005	(2)	4.73%	15,568.43	-	15,568	15,568	-
19	314.0	Turbogenerator Units	KCC DR 254	15,133,621	-	15,133,621	(2)	4.73%	716,119.84	-	716,120	717,319	(1,200)
20	315.0	Accessory Electric Equipment	KCC DR 254	8,353,182	27,541	8,380,723	(2)	4.73%	396,574.09	-	396,574	401,981	(5,406)
21	316.0	Misc Power Plant Equipment	KCC DR 254	1,348,579	21,678	1,370,257	(2)	4.73%	64,840.26	-	64,840	64,767	74
Production Plant - Iatan 2													
22	310.0	Land and Land Rights	KCC DR 254	-	-	-	(2)	4.73%	-	-	-	-	-
23	311.0	Structures and Improvements	KCC DR 254	20,678,832	247,841	20,926,673	(2)	4.73%	990,245.88	(13,627)	976,619	975,246	1,373
24	311.R	Structures and Improvements	KCC DR 254	-	-	-	(2)	4.73%	-	-	-	-	-
25	312.0	Boiler Plant Equipment	KCC DR 254	145,887,045	1,110,749	146,997,794	(2)	4.73%	6,955,905.36	(61,038)	6,894,867	6,802,939	91,929
26	312.R	Boiler Plant Equipment	KCC DR 254	-	-	-	(2)	4.73%	-	-	-	4,324	(4,324)
27	314.0	Turbogenerator Units	KCC DR 254	49,002,316	185,191	49,187,507	(2)	4.73%	2,327,542.69	(10,172)	2,317,370	2,312,941	4,429
28	314.R	Turbogenerator Units	KCC DR 254	-	-	-	(2)	4.73%	-	-	-	-	-
29	315.0	Accessory Electric Equipment	KCC DR 254	12,328,254	184,692	12,512,946	(2)	4.73%	592,110.02	(10,145)	581,965	589,373	(7,408)
30	315.R	Accessory Electric Equipment	KCC DR 254	-	-	-	(2)	4.73%	-	-	-	-	-
31	316.0	Misc Power Plant Equipment	KCC DR 254	347,662	638,512	986,174	(2)	4.73%	46,665.56	(36,042)	10,624	8,386	2,238
32	316.R	Misc Power Plant Equipment	KCC DR 254	-	-	-	(2)	4.73%	-	-	-	-	-
Production Plant - Iatan Common													
33	310.0	Land and Land Rights	KCC DR 254	7,217	-	7,217	(2)	4.73%	342	-	342	342	-
34	311.0	Structures and Improvements	KCC DR 254	15,846,778	-	15,846,778	(2)	4.73%	749,866	-	749,866	748,989	878
35	312.0	Boiler Plant Equipment	KCC DR 254	39,453,772	-	39,453,772	(2)	4.73%	1,866,944	(32,182)	1,834,763	1,837,888	(3,126)
36	314.0	Turbogenerator Units	KCC DR 254	1,294,040	-	1,294,040	(2)	4.73%	61,234	-	61,234	61,234	-
37	315.0	Accessory Electric Equipment	KCC DR 254	5,085,092	-	5,085,092	(2)	4.73%	240,626	-	240,626	227,473	13,152
38	316.0	Misc Power Plant Equipment	KCC DR 254	693,623	-	693,623	(2)	4.73%	32,822	(266)	32,556	32,236	321

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019										Pro-Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass (3)	Total Company Revised Ending Balance	Notes	Allocation Percentage	Kansas Ending Balance	Iatan and Plum Point Prudency Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Production Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h)	(i) = (f) x (h)	(j)	(k) = (i) + (j)	(l) = Section 4 WP	(m) = (k) - (l)
Production Plant - Plum Point													
39	310.0	Land and Land Rights	KCC DR 254	956,529	-	956,529	(2)	4.73%	45,263	-	45,263	45,263	-
40	311.0	Structures and Improvements	KCC DR 254	20,567,779	-	20,567,779	(2)	4.73%	973,263	(20,555)	952,708	968,559	(15,851)
41	312.0	Boiler Plant Equipment	KCC DR 254	53,867,480	-	53,867,480	(2)	4.73%	2,548,998	(29,327)	2,519,671	2,544,173	(24,501)
42	312.T	Unit Train	KCC DR 254	5,208,789	-	5,208,789	(2)	4.73%	246,479	-	246,479	246,479	-
43	314.0	Turbogenerator Units	KCC DR 254	17,210,918	-	17,210,918	(2)	4.73%	814,417	(6,130)	808,287	812,983	(4,696)
44	315.0	Accessory Electric Equipment	KCC DR 254	5,416,385	-	5,416,385	(2)	4.73%	256,302	(4,291)	252,012	254,811	(2,799)
45	316.0	Misc Power Plant Equipment	KCC DR 254	2,968,456	-	2,968,456	(2)	4.73%	140,467	(4,232)	136,234	139,496	(3,262)
46		Total Steam:		789,664,827	2,544,672	792,209,499			37,487,191	(255,255)	37,231,936	37,339,007	(107,072)
Production Plant - Ozark Beach													
47	330.0	Land and Land Rights	KCC DR 254	226,488	-	226,488	(1)	4.73%	10,717	-	10,717	10,717	-
48	331.0	Structures and Improvements	KCC DR 254	842,031	-	842,031	(1)	4.73%	39,845	-	39,845	38,383	1,461
49	332.0	Reservoirs, Dams and Waterways	KCC DR 254	3,418,678	-	3,418,678	(1)	4.73%	161,771	-	161,771	161,769	2
50	333.0	Water Wheels, Turbines & Generators	KCC DR 254	4,298,229	-	4,298,229	(1)	4.73%	203,391	-	203,391	212,316	(8,924)
51	334.0	Accessory Electric Equip	KCC DR 254	1,502,098	-	1,502,098	(1)	4.73%	71,079	-	71,079	70,806	273
52	335.0	Miscellaneous Power Plant Equipment	KCC DR 254	711,385	-	711,385	(1)	4.73%	33,663	-	33,663	30,827	2,836
53		Total Hydro:		10,998,908	-	10,998,908			520,466	-	520,466	524,818	(4,352)
Production Plant - Energy Center													
54	340.0	Land and Land Rights	KCC DR 254	163,097	-	163,097	(1)	4.73%	7,717.70	-	7,718	7,718	-
55	341.0	Structures and Improvements	KCC DR 254	2,327,809	2,242	2,330,051	(1)	4.73%	110,257.55	-	110,258	109,572	686
56	342.0	Fuel Holders, Producers & Accessories	KCC DR 254	1,292,806	-	1,292,806	(1)	4.73%	61,175.31	-	61,175	61,175	-
57	343.0	Prime Movers	KCC DR 254	27,149,774	-	27,149,774	(1)	4.73%	1,284,721.72	-	1,284,722	1,288,281	(3,559)
58	344.0	Generators	KCC DR 254	5,508,305	80,693	5,588,998	(1)	4.73%	264,470.23	-	264,470	261,470	3,000
59	345.0	Accessory Electric Equipment	KCC DR 254	2,180,300	4,880	2,185,180	(1)	4.73%	103,402.28	-	103,402	103,179	223
60	346.0	Miscellaneous Power Plant Equipment	KCC DR 254	1,824,759	30,119	1,854,878	(1)	4.73%	87,772.44	-	87,772	85,865	1,908
Production Plant - Energy Center FT8													
61	340.0	Land and Land Rights	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	-	-
62	341.0	Structures and Improvements	KCC DR 254	1,124,306	-	1,124,306	(1)	4.73%	53,202	-	53,202	54,344	(1,142)
63	342.0	Fuel Holders, Producers & Accessories	KCC DR 254	1,398,813	-	1,398,813	(1)	4.73%	66,192	-	66,192	66,576	(384)
64	343.0	Prime Movers	KCC DR 254	49,735,573	-	49,735,573	(1)	4.73%	2,353,477	-	2,353,477	2,356,316	(2,838)
65	344.0	Generators	KCC DR 254	625,119	-	625,119	(1)	4.73%	29,580	-	29,580	29,580	-
66	345.0	Accessory Electric Equipment	KCC DR 254	3,405,450	-	3,405,450	(1)	4.73%	161,145	-	161,145	161,145	-
67	346.0	Miscellaneous Power Plant Equipment	KCC DR 254	1,041,864	-	1,041,864	(1)	4.73%	49,301	-	49,301	49,301	-
Production Plant - Riverton Common													
68	340.0	Land and Land Rights	KCC DR 254	253,184	-	253,184	(1)	4.73%	11,981	-	11,981	11,981	-
Production Plant - Riverton CT Units 9, 10, 11													
69	340.0	Land and Land Rights	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	-	-
70	341.0	Structures and Improvements	KCC DR 254	8,528,553	-	8,528,553	(1)	4.73%	403,569	-	403,569	386,411	17,159
71	342.0	Fuel Holders, Producers & Accessories	KCC DR 254	554,417	-	554,417	(1)	4.73%	26,235	-	26,235	26,216	19
72	343.0	Prime Movers	KCC DR 254	7,118,991	-	7,118,991	(1)	4.73%	336,869	-	336,869	333,767	3,102
73	344.0	Generators	KCC DR 254	1,779,491	-	1,779,491	(1)	4.73%	84,205	-	84,205	84,205	-
74	345.0	Accessory Electric Equipment	KCC DR 254	1,648,145	-	1,648,145	(1)	4.73%	77,990	-	77,990	78,294	(304)
75	346.0	Miscellaneous Power Plant Equipment	KCC DR 254	1,217,226	-	1,217,226	(1)	4.73%	57,599	-	57,599	49,006	8,593
Production Plant - Riverton Unit 12													
76	340.0	Land and Land Rights	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	-	-
77	341.0	Structures and Improvements	KCC DR 254	17,818,454	-	17,818,454	(1)	4.73%	843,166	-	843,166	843,166	(0)
78	342.0	Fuel Holders, Producers & Accessories	KCC DR 254	945,601	-	945,601	(1)	4.73%	44,746	-	44,746	44,746	-
79	343.0	Prime Movers	KCC DR 254	151,299,815	-	151,299,815	(1)	4.73%	7,159,476	-	7,159,476	7,162,902	(3,426)
80	344.0	Generators	KCC DR 254	21,353,322	-	21,353,322	(1)	4.73%	1,010,435	-	1,010,435	1,010,435	-
81	345.0	Accessory Electric Equipment	KCC DR 254	26,569,291	-	26,569,291	(1)	4.73%	1,257,253	-	1,257,253	1,255,057	2,196
82	346.0	Miscellaneous Power Plant Equipment	KCC DR 254	2,633,996	-	2,633,996	(1)	4.73%	124,640	-	124,640	125,297	(657)

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019										Pro-Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass (3)	Total Company Revised Ending Balance	Notes	Allocation Percentage	Kansas Ending Balance	Iatan and Plum Point Prudency Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Production Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h)	(i) = (f) x (h)	(j)	(k) = (i) + (j)	(l) = Section 4 WP	(m) = (k) - (l)
Production Plant - State Line CT (Unit 1)													
83	340.0	Land and Land Rights	KCC DR 254	11,897	-	11,897	(1)	4.73%	563	-	563	563	-
84	341.0	Structures and Improvements	KCC DR 254	1,110,619	-	1,110,619	(1)	4.73%	52,554	-	52,554	52,482	73
85	342.0	Fuel Holders, Producers & Accessories	KCC DR 254	3,187,313	-	3,187,313	(1)	4.73%	150,823	-	150,823	150,823	-
86	343.0	Prime Movers	KCC DR 254	27,038,322	-	27,038,322	(1)	4.73%	1,279,448	-	1,279,448	1,233,341	46,107
87	344.0	Generators	KCC DR 254	7,695,950	-	7,695,950	(1)	4.73%	364,171	-	364,171	236,740	127,431
88	345.0	Accessory Electric Equipment	KCC DR 254	3,329,383	-	3,329,383	(1)	4.73%	157,546	-	157,546	134,645	22,901
89	346.0	Miscellaneous Power Plant Equipment	KCC DR 254	363,805	-	363,805	(1)	4.73%	17,215	-	17,215	7,037	10,178
Production Plant - State Line Common													
90	340.0	Land and Land Rights	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	-	-
91	341.0	Structures and Improvements	KCC DR 254	3,055,355	-	3,055,355	(1)	4.73%	144,579	-	144,579	144,510	69
92	342.0	Fuel Holders, Producers & Accessories	KCC DR 254	226,749	-	226,749	(1)	4.73%	10,730	-	10,730	10,730	-
93	343.0	Prime Movers	KCC DR 254	631,509	31,814	663,323	(1)	4.73%	31,388.29	-	31,388	29,883	1,505
94	344.0	Generators	KCC DR 254	-	-	-	(1)	4.73%	-	-	-	-	-
95	345.0	Accessory Electric Equipment	KCC DR 254	259,166	-	259,166	(1)	4.73%	12,264	-	12,264	11,357	907
96	346.0	Miscellaneous Power Plant Equipment	KCC DR 254	1,031,288	-	1,031,288	(1)	4.73%	48,800	-	48,800	46,873	1,927
Production Plant - State Line Combined Cycle													
97	340.0	Land and Land Rights	KCC DR 254	838,836	-	838,836	(1)	4.73%	39,694	-	39,694	39,694	-
98	341.0	Structures and Improvements	KCC DR 254	7,890,198	-	7,890,198	(1)	4.73%	373,363	-	373,363	373,801	(438)
99	342.0	Fuel Holders, Producers & Accessories	KCC DR 254	204,374	-	204,374	(1)	4.73%	9,671	-	9,671	12,611	(2,940)
100	343.0	Prime Movers	KCC DR 254	107,836,122	-	107,836,122	(1)	4.73%	5,102,783	-	5,102,783	5,116,389	(13,606)
101	344.0	Generators	KCC DR 254	30,294,250	-	30,294,250	(1)	4.73%	1,433,518	-	1,433,518	1,433,518	-
102	345.0	Accessory Electric Equipment	KCC DR 254	8,566,946	-	8,566,946	(1)	4.73%	405,386	-	405,386	412,792	(7,406)
103	346.0	Miscellaneous Power Plant Equipment	KCC DR 254	2,760,623	-	2,760,623	(1)	4.73%	130,632	-	130,632	130,632	-
104		Total Other:		545,831,168	149,748	545,980,916			25,835,705	-	25,835,705	25,624,422	211,283
105		Disallowances (Added Back into Rate Base):		-	-	-	(3)		-	-	-	127,499	(127,499)
106		Total		\$ 1,346,494,904	\$ 2,694,420	\$ 1,349,189,324			\$ 63,843,361	\$ (255,255)	\$ 63,588,106	\$ 63,615,746	\$ (27,640)

Footnote:

(1) Allocation Factor 12 Month Average Peak Allocator included in the Application: 4.73%
(2) Order 11-EPDE-856-RTS - Prudence Issues Relating to Iatan 1 AQCS and Iatan 2: The Kansas jurisdictional share of the rate base amount attributed to Iatan 1 AQCS, Iatan 2 and Plum Point shall be \$23,143,000. S&A, ~ 14.
(3) Empire's Disallowances (Added Back into Rate Base) were reclassified into the appropriate FERC Plant Accounts in response to KCC DR 254: Plant Update WP. Therefore, Staff is reversing these disallowances in Line No. 105 of the Production Plant tab from Empire's Section 4 WP in the Application. In the Summary tab, Staff included \$120,413 in Steam Production Plant and \$7,086 in Other Production Plant for the disallowance included line 105 of the Production Plant tab in Empire's Section 4: Plant WP.

Sources:

Data Request No. 254: Plant Update WP
Data Request No. 202: Iatan/Plum Point Prudency
Application - Section 4 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019									Pro Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage (1)	Kansas Ending Balance	TDC Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Transmission Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h) = (f) * (g)	(i)	(j) = (h) + (i)	(k) = Section 4 WP	(l) = (j) - (k)
1		Adjustment Number							RB-1(c)			RB-1
Transmission Plant												
2	350.0	Land and Land Rights	KCC DR 254	\$ 11,924,426	\$ -	\$ 11,924,426	4.73%	\$ 564,261	\$ (564,261)	\$ -	\$ -	\$ -
3	352.0	Structures and Improvements	KCC DR 254	3,814,604	-	3,814,604	4.73%	180,506	(180,506)	-	-	-
4	352.1	Structures and Improvements (latan)	KCC DR 254	23,013	-	23,013	4.73%	1,089	(1,089)	-	-	-
5	353.0	Station Equipment	KCC DR 254	172,940,225	-	172,940,225	4.73%	8,183,496	(8,183,496)	-	-	-
6	353.1	Station Equipment (latan)	KCC DR 254	609,911	-	609,911	4.73%	28,861	(28,861)	-	-	-
7	354.0	Towers & Fixtures	KCC DR 254	2,141,151	-	2,141,151	4.73%	101,319	(101,319)	-	-	-
8	355.0	Poles & Fixtures	KCC DR 254	96,232,823	-	96,232,823	4.73%	4,553,717	(4,553,717)	-	-	-
9	356.0	Overhead Conductors & Devices	KCC DR 254	97,328,587	-	97,328,587	4.73%	4,605,569	(4,605,569)	-	-	-
10		Total		\$ 385,014,739	\$ -	\$ 385,014,739		\$ 18,218,818	\$ (18,218,818)	\$ -	\$ -	\$ -

Footnote:

(1) Allocation 12 Month Average Peak Allocator included in the Application: 4.73%

Sources:

Data Request No. 254: Plant Update WP
Empire's 2017 Transmission Formula Rate - Wage and Salaries Allocator
Application - Section 4 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019									Pro-Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage	Kansas Ending Balance	Staff Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Distribution Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h)	(i)	(j) = (h) + (i)	(k) = Section 4 WP	(l) = (j) - (k)
1	Adjustment Number											RB-1
<u>Distribution Plant</u>												
2	360.0	Land and Land Rights	KCC DR 254	\$ 4,626,086	\$ -	\$ 4,626,086	Direct Assigned	\$ 219,428	\$ -	\$ 219,428	\$ 219,428	\$ -
3	361.0	Structures and Improvements	KCC DR 254	26,651,644	-	26,651,644	Direct Assigned	693,149	-	693,149	693,149	0
4	362.0	Station Equipment	KCC DR 254	135,661,847	-	135,661,847	Direct Assigned	4,699,323	-	4,699,323	4,696,247	3,076
5	364.0	Poles, Towers & Fixtures	KCC DR 254	216,396,920	-	216,396,920	Direct Assigned	19,079,884	-	19,079,884	18,804,426	275,458
6	365.0	Overhead Conductors & Devices	KCC DR 254	215,881,482	-	215,881,482	Direct Assigned	13,801,120	-	13,801,120	13,638,350	162,770
7	366.0	Underground Conduit	KCC DR 254	47,877,422	-	47,877,422	Direct Assigned	661,767	-	661,767	659,590	2,177
8	367.0	Underground Conduit & Device	KCC DR 254	68,498,497	-	68,498,497	Direct Assigned	821,266	-	821,266	802,117	19,150
9	368.0	Line Transformers	KCC DR 254	126,470,094	-	126,470,094	Direct Assigned	5,753,619	-	5,753,619	5,576,568	177,052
10	369.0	Services	KCC DR 254	89,342,423	-	89,342,423	Direct Assigned	4,827,148	-	4,827,148	4,572,969	254,179
11	370.0	Meters	KCC DR 254	24,568,173	-	24,568,173	Direct Assigned	1,368,545	-	1,368,545	1,401,538	(32,993)
12	371.0	Installation on Customers' Premises	KCC DR 254	17,840,142	-	17,840,142	Direct Assigned	1,582,772	-	1,582,772	1,553,946	28,826
13	373.0	Street Lighting & Signal Systems	KCC DR 254	20,262,973	-	20,262,973	Direct Assigned	1,012,939	-	1,012,939	990,744	22,194
14	375.0	Charging Stations	KCC DR 254	161,631	-	161,631	Direct Assigned	-	-	-	-	-
15	Total			\$ 994,239,334	\$ -	\$ 994,239,334		\$ 54,520,961	\$ -	\$ 54,520,961	\$ 53,609,073	\$ 911,888

Sources:

Data Request No. 254: Plant Update WP
Application - Section 4 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 1
Plant In Service Adjustment
Update to Test Year Ending June 30, 2018

Update to January 31, 2019										Pro Forma Adjusted Update Period			As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage (1)	Kansas Ending Balance	Wage & Salary Allocator from 2017 TFR (2)	Common Property Gas Adjustment	TDC Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to General Plant
	(a)	(b)	(c)	(d)	(e)	(f)=(d) + (e)	(g)	(h) = (f) * (g)	(i)	(j)	(k) = -[(h) + (j)] * (i)	(l) = (h) + (j) + (k)	(m) = Section 4 WP	(n) = (l) - (m)
1	Adjustment Number									RB-1(b)	RB-1(c)	RB-1		
General Plant														
2	389.0	Land and Land Rights	KCC DR 254	\$ 1,057,907	\$ -	\$ 1,057,907	5.01%	\$ 53,054	7.48%	\$ (3,059)	\$ (3,739)	\$ 46,256	\$ 44,587	\$ 1,669
3	390.0	Structures and Improvements	KCC DR 254	12,237,055	-	12,237,055	5.01%	\$ 613,686	7.48%	(35,885)	(43,208)	534,594	510,598	23,995
4	391.1	Office Furniture & Equipment	KCC DR 254	6,350,047	-	6,350,047	5.01%	\$ 318,454	7.48%	(17,209)	(22,527)	278,718	272,194	6,524
5	391.3	Computer Equipment	KCC DR 254	14,846,621	-	14,846,621	5.01%	\$ 744,556	7.48%	(42,299)	(52,514)	649,742	639,196	10,546
6	392.0	Transportation Equipment	KCC DR 254	14,879,187	-	14,879,187	5.01%	\$ 746,189	7.48%	-	(55,800)	690,389	656,570	33,819
7	393.0	Stores Equipment	KCC DR 254	877,525	-	877,525	5.01%	\$ 44,008	7.48%	-	(3,291)	40,717	39,064	1,653
8	394.0	Tools, Shop & Garage Equipment	KCC DR 254	7,103,962	-	7,103,962	5.01%	\$ 356,263	7.48%	-	(26,641)	329,621	318,620	11,001
9	395.0	Laboratory Equipment	KCC DR 254	2,013,741	-	2,013,741	5.01%	\$ 100,989	7.48%	-	(7,552)	93,437	89,474	3,963
10	396.0	Power Operated Equipment	KCC DR 254	17,745,813	-	17,745,813	5.01%	\$ 889,950	7.48%	-	(66,550)	823,400	823,362	38
11	397.0	Communication Equipment	KCC DR 254	11,938,749	-	11,938,749	5.01%	\$ 598,726	7.48%	(18,864)	(43,362)	536,500	516,679	19,821
12	398.0	Misc. Equipment	KCC DR 254	277,810	-	277,810	5.01%	\$ 13,932	7.48%	(623)	(995)	12,313	11,868	445
13	Total			\$ 89,328,418	\$ -	\$ 89,328,418		\$ 4,479,806	7.48%	\$ (117,939)	\$ (326,178)	\$ 4,035,688	\$ 3,922,214	\$ 113,474

Footnote:

(1) Allocator-General Plant and Intangible included in the Application 5.01%
(2) Wage & Salaries Allocator from TFR 7.48%

Sources:

Data Request No. 254: Plant Update WP
Data Request No. 292: Common Property WP
Empire's 2017 Transmission Formula Rate - Wage and Salaries Allocator
Application - Section 4 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Line No.	Description	Kansas Jurisdiction											
		Update to Kansas Ending Balance as of January 31, 2019	Iatan and Plum Point Prudency Adjustment (1)	Common Property Gas Adjustment	TDC Adjustment	Total Pro Forma Adjustments	Staff Pro Forma Adjusted Kansas Reserve Balance	Empire Pro Forma Adjusted Kansas Reserve Balance	Allocation of Section 3 Offage to tie to Empire's Reserve Balance (3)	Empire's Kansas Reserve Balance in Section 3 of Application (3)	Staff Adjustment to Update Section 5 Balance	Staff Adjustment to Remove Section 3 Offage	Staff Adjustment to Accumulated Depreciation
	(a)	(b)	(c)	(d)	(e)	(f) = (c) + (d) + (e)	(g) = (b) + (f)	(h) = Section 5 WP	(i) = Proportional Allocation of Offage	(j) = (h) + (i)	(k) = (g) - (h)	(l) = -(i)	(m) = (k) + (l)
1	Adjustment Number/Reference	DR 255	RB-2(a)	RB-2(b)	RB-2(c)	Sum RB-1(a) - RB-1(c)	Total	AD Detail Tabs	Allocation Calc	Adjusted Reserve	AD Detail	Section 3	RB-2
2	Steam	\$ 8,366,015	\$ (30,672)	\$ -	\$ -	\$ (30,672)	\$ 8,335,342	\$ 7,940,641 (2)	\$ 22,015	\$ 7,962,657	\$ 394,701	\$ (22,015)	\$ 372,686
3	Hydro	156,568				-	156,568	152,145	422	152,567	4,423	(422)	4,001
4	Other	6,537,690				-	6,537,690	6,330,117	17,550	6,347,667	207,573	(17,550)	190,023
5	Total Production Plant AD	15,060,272	(30,672)	-	-	(30,672)	15,029,600	14,422,903	39,987	14,462,891	606,696	(39,987)	566,709
6	Transmission Plant AD	5,099,581			(5,099,581)	(5,099,581)	-	-					-
7	Distribution Plant AD	24,913,773				-	24,913,773	24,268,808	67,285	24,336,092	644,965	(67,285)	577,680
8	General Plant AD	2,648,987		(76,162)	(192,395)	(268,557)	2,380,430	2,250,794	6,240	2,257,034	129,636	(6,240)	123,396
9	Intangible Plant AD	1,158,762			(86,652)	(86,652)	1,072,110	1,045,152	2,898	1,048,050	26,959	(2,898)	24,061
10	Total AD Adjustments (Sum of Line 5 through Line 9)	\$ 48,881,375	\$ (30,672)	\$ (76,162)	\$ (5,378,627)	\$ (5,485,462)	\$ 43,395,913	\$ 41,987,657	\$ 116,410	\$ 42,104,067	\$ 1,408,256	\$ (116,410)	\$ 1,291,846

Footnote:

(1) Iatan and Plum Point Adjustment are Kansas Jurisdiction specific per Order 11-EDPE-856-RTS
(2) Empire's Disallowances (Added Back into Rate Base) were reclassified into the appropriate FERC Accumulated Depreciation Accounts in response to KCC DR 255: AD Update WP. Therefore, Staff is reversing these disallowances in Line No. 105 of the Production AD tab from Empire's Section 5 WP. Staff included the \$58,205 disallowance in Steam Production Plant found in Line No. 105 of Empire's Section 5: Accumulated Depreciation workpaper.
(3) Section 3: Kansas Allocated Accumulated Depreciation does not tie to Section 5 of the Application. Staff allocated this \$116,410 Offage as part of its Update to Accumulated Depreciation.
Empire's Reserve Balance in Section 3 of Application: \$ 42,104,067

Sources:

Data Request No. 255: Accumulated Depreciation Update WP
Application - Section 5 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019									Pro Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage (1)	Kansas Ending Balance	TDC Adjustment (2)	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Reserve Balance for Intangible Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h) = (f) * (g)	(i) = -(h) * W/S Alloc	(j) = (h) + (i)	(k) = Section 5 WP	(l) = (j) - (k)
1	Adjustment Number								RB-2(c)		RB-2	
Intangible Plant												
2	301.0	Organizational Costs	KCC DR 255	\$ -	\$ -	\$ -	5.01%	\$ -	\$ -	\$ -	\$ -	\$ -
3	302.0	Franchises & Consents	KCC DR 255	964,678	-	964,678	5.01%	48,378	(3,618)	44,761	47,342	(2,581)
4	303.0	Misc. Intangible Plant	KCC DR 255	22,141,322	-	22,141,322	5.01%	1,110,384	(83,034)	1,027,350	997,810	29,540
5	Total			\$ 23,106,000	\$ -	\$ 23,106,000		\$ 1,158,762	\$ (86,652)	\$ 1,072,110	\$ 1,045,152	\$ 26,959

Footnote:

(1) Allocator - Intangible & General Plant included in the Application: 5.01%

(2) Wage & Salaries Allocator from TFR: 7.48%

Sources:

Data Request No. 255: Accumulated Depreciation Update WP
Empire's 2017 Transmission Formula Rate - Wage and Salaries Allocator
Application - Section 5 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019										Pro-Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass (4)	Total Company Revised Ending Balance	Notes	Allocation Percentage	Kansas Ending Balance	Iatan and Plum Point Prudency Adjustment (3)	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Reserve Balance for Distribution Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h)	(i) = (f) * (h)	(j)	(k) = (i) + (j)	(l) = Section 5 Plant WP	(m) = (k) - (l)
1	Adjustment Number									RB-2(a)		RB-2	
Production Plant - Riverton													
2	310.0	Land and Land Rights	KCC DR 255	\$ -	\$ -	\$ -	(1)	4.73%	\$ -		\$ -	\$ -	\$ -
3	311.0	Structures and Improvements	KCC DR 255	-	-	-	(1)	4.73%	-		-	71,447	(71,447)
4	312.0	Boiler Plant Equipment	KCC DR 255	-	-	-	(1)	4.73%	-		-	(24,081)	24,081
5	314.0	Turbogenerator Units	KCC DR 255	-	-	-	(1)	4.73%	-		-	(4,126)	4,126
6	315.0	Accessory Electric Equipment	KCC DR 255	-	-	-	(1)	4.73%	-		-	15,459	(15,459)
7	316.0	Misc Power Plant Equipment	KCC DR 255	-	-	-	(1)	4.73%	-		-	317	(317)
Production Plant - Asbury													
8	310.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
9	311.0	Structures and Improvements	KCC DR 255	7,117,215	-	7,117,215	(1)	4.73%	336,785		336,785	314,158	22,627
10	312.0	Boiler Plant Equipment	KCC DR 255	56,873,322	-	56,873,322	(1)	4.73%	2,691,234		2,691,234	2,455,679	235,554
11	312.AT	Unit Train	KCC DR 255	-	(1,280,163)	(1,280,163)	(1)	4.73%	(60,577)		(60,577)	-	(60,577)
12	314.0	Turbogenerator Units	KCC DR 255	7,136,752	-	7,136,752	(1)	4.73%	337,710		337,710	292,966	44,744
13	315.0	Accessory Electric Equipment	KCC DR 255	3,097,799	-	3,097,799	(1)	4.73%	146,587		146,587	139,906	6,682
14	316.0	Misc Power Plant Equipment	KCC DR 255	1,220,180	-	1,220,180	(1)	4.73%	57,739		57,739	55,634	2,105
Production Plant - Iatan 1													
15	310.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
16	311.0	Structures and Improvements	KCC DR 255	2,761,003	627	2,761,630	(1)	4.73%	130,680	-	130,680	128,543	2,137
17	312.0	Boiler Plant Equipment	KCC DR 255	35,248,845	4,333	35,253,178	(1)	4.73%	1,668,173	(3,413)	1,664,760	1,611,663	53,097
18	312.T	(Unit Train)	KCC DR 255	162,575	-	162,575	(1)	4.73%	7,693		7,693	7,113	580
19	314.0	Turbogenerator Units	KCC DR 255	5,782,971	3,482	5,786,453	(1)	4.73%	273,814		273,814	264,150	9,664
20	315.0	Accessory Electric Equipment	KCC DR 255	3,626,959	865	3,627,824	(1)	4.73%	171,668	(101)	171,567	172,612	(1,046)
21	316.0	Misc Power Plant Equipment	KCC DR 255	695,919	1,496	697,415	(1)	4.73%	33,002	-	33,002	32,033	969
Production Plant - Iatan 2													
22	310.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
23	311.0	Structures and Improvements	KCC DR 255	2,843,493	3,835	2,847,328	(1)	4.73%	134,735	(987)	133,748	125,774	7,974
24	311.05R	Structures and Improvements	KCC DR 255	3,544,751	-	3,544,751	(2)	0.00%	-		-	-	-
25	312.0	Boiler Plant Equipment	KCC DR 255	17,431,063	19,868	17,450,931	(1)	4.73%	825,774	(7,883)	817,891	847,298	(29,406)
26	312.05R	Boiler Plant Equipment	KCC DR 255	23,321,791	-	23,321,791	(2)	0.00%	-		-	-	-
27	314.0	Turbogenerator Units	KCC DR 255	6,481,037	-	6,481,037	(1)	4.73%	306,681	(1,126)	305,555	286,029	19,527
28	314.05R	Turbogenerator Units	KCC DR 255	8,319,550	-	8,319,550	(2)	0.00%	-		-	-	-
29	315.0	Accessory Electric Equipment	KCC DR 255	1,485,774	3,694	1,489,468	(1)	4.73%	70,481	(1,255)	69,227	73,136	(3,909)
30	315.05R	Accessory Electric Equipment	KCC DR 255	2,101,102	-	2,101,102	(2)	0.00%	-		-	-	-
31	316.0	Misc Power Plant Equipment	KCC DR 255	476,263	11,934	488,197	(1)	4.73%	23,101	(4,803)	18,299	21,236	(2,937)
32	316.06R	Misc Power Plant Equipment	KCC DR 255	25,758	-	25,758	(2)	0.00%	-		-	-	-
Production Plant - Iatan Common													
33	310.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
34	311.0	Structures and Improvements	KCC DR 255	1,176,140	-	1,176,140	(1)	4.73%	55,655	-	55,655	47,688	7,967
35	312.0	Boiler Plant Equipment	KCC DR 255	5,291,565	-	5,291,565	(1)	4.73%	250,396	(4,156)	246,239	229,858	16,382
36	314.0	Turbogenerator Units	KCC DR 255	135,838	-	135,838	(1)	4.73%	6,428		6,428	5,759	669
37	315.0	Accessory Electric Equipment	KCC DR 255	526,034	-	526,034	(1)	4.73%	24,892	-	24,892	22,223	2,669
38	316.0	Misc Power Plant Equipment	KCC DR 255	39,555	-	39,555	(1)	4.73%	1,872	(35)	1,836	1,504	333

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019										Pro-Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass (4)	Total Company Revised Ending Balance	Notes	Allocation Percentage	Kansas Ending Balance	Iatan and Plum Point Prudency Adjustment (3)	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Reserve Balance for Distribution Plant
(a)	(b)	(c)	(d)	(e)		(f) = (d) + (e)	(g)	(h)	(i) = (f) * (h)	(j)	(k) = (i) + (j)	(l) = Section 5 Plant WP	(m) = (k) - (l)
Production Plant - Plum Point													
39	310.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
40	311.0	Structures and Improvements	KCC DR 255	3,098,970	-	3,098,970	(1)	4.73%	146,643	(1,352)	145,291	133,547	11,744
41	312.0	Boiler Plant Equipment	KCC DR 255	8,318,758	-	8,318,758	(1)	4.73%	393,642	(3,788)	389,854	364,900	24,954
42	312.T	Unit Train	KCC DR 255	2,819,333	-	2,819,333	(1)	4.73%	133,410		133,410	124,230	9,181
43	314.0	Turbogenerator Units	KCC DR 255	2,625,996	-	2,625,996	(1)	4.73%	124,262	(679)	123,583	113,838	9,745
44	315.0	Accessory Electric Equipment	KCC DR 255	951,373	-	951,373	(1)	4.73%	45,019	(531)	44,488	41,704	2,784
45	316.0	Misc Power Plant Equipment	KCC DR 255	602,652	-	602,652	(1)	4.73%	28,517	(564)	27,953	26,651	1,302
46		Total Steam		215,340,340	(1,230,029)	214,110,311			8,366,015	(30,672)	8,335,342	7,998,846	336,496
Production Plant - Ozark Beach													
47	330.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
48	331.0	Structures and Improvements	KCC DR 255	325,911	-	325,911	(1)	4.73%	15,422		15,422	15,017	405
49	332.0	Reservoirs, Dams and Waterways	KCC DR 255	1,557,731	-	1,557,731	(1)	4.73%	73,712		73,712	72,057	1,655
50	333.0	Water Wheels, Turbines & Generators	KCC DR 255	767,620	-	767,620	(1)	4.73%	36,324		36,324	35,003	1,320
51	334.0	Accessory Electric Equip	KCC DR 255	428,389	-	428,389	(1)	4.73%	20,271		20,271	19,450	821
52	335.0	Miscellaneous Power Plant Equipment	KCC DR 255	229,071	-	229,071	(1)	4.73%	10,840		10,840	10,618	222
53		Total Hydro		3,308,721	-	3,308,721			156,568	-	156,568	152,145	4,423
Production Plant - Energy Center													
54	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
55	341.0	Structures and Improvements	KCC DR 255	1,650,582	-	1,650,582	(1)	4.73%	78,105		78,105	75,540	2,566
56	342.0	Fuel Holders, Producers & Accessories	KCC DR 255	1,439,032	-	1,439,032	(1)	4.73%	68,095		68,095	66,562	1,532
57	343.0	Prime Movers	KCC DR 255	18,236,100	-	18,236,100	(1)	4.73%	862,928		862,928	841,489	21,439
58	344.0	Generators	KCC DR 255	4,473,114	-	4,473,114	(1)	4.73%	211,667		211,667	207,620	4,047
59	345.0	Accessory Electric Equipment	KCC DR 255	1,482,371	-	1,482,371	(1)	4.73%	70,145		70,145	67,029	3,116
60	346.0	Miscellaneous Power Plant Equipment	KCC DR 255	2,079,512	-	2,079,512	(1)	4.73%	98,402		98,402	96,236	2,166
Production Plant - Energy Center FT8													
61	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
62	341.0	Structures and Improvements	KCC DR 255	259,565	-	259,565	(1)	4.73%	12,283		12,283	11,538	744
63	342.0	Fuel Holders, Producers & Accessories	KCC DR 255	490,971	-	490,971	(1)	4.73%	23,233		23,233	22,469	764
64	343.0	Prime Movers	KCC DR 255	9,596,969	-	9,596,969	(1)	4.73%	454,127		454,127	446,442	7,685
65	344.0	Generators	KCC DR 255	89,018	-	89,018	(1)	4.73%	4,212		4,212	3,707	505
66	345.0	Accessory Electric Equipment	KCC DR 255	1,019,445	-	1,019,445	(1)	4.73%	48,240		48,240	45,389	2,851
67	346.0	Miscellaneous Power Plant Equipment	KCC DR 255	312,063	-	312,063	(1)	4.73%	14,767		14,767	13,931	836
Production Plant - Riverton Common													
68	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
Production Plant - Riverton CT Units 9, 10, 11													
69	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
70	341.0	Structures and Improvements	KCC DR 255	2,612,988	-	2,612,988	(1)	4.73%	123,646		123,646	115,910	7,736
71	342.0	Fuel Holders, Producers & Accessories	KCC DR 255	273,397	-	273,397	(1)	4.73%	12,937		12,937	12,861	76
72	343.0	Prime Movers	KCC DR 255	2,451,711	-	2,451,711	(1)	4.73%	116,014		116,014	169,902	(53,888)
73	344.0	Generators	KCC DR 255	892,071	-	892,071	(1)	4.73%	42,213		42,213	47,948	(5,735)
74	345.0	Accessory Electric Equipment	KCC DR 255	548,921	-	548,921	(1)	4.73%	25,975		25,975	32,088	(6,113)
75	346.0	Miscellaneous Power Plant Equipment	KCC DR 255	399,536	-	399,536	(1)	4.73%	18,906		18,906	18,298	608
Production Plant - Riverton Unit 12													
76	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-		-	-	-
77	341.0	Structures and Improvements	KCC DR 255	1,330,323	-	1,330,323	(1)	4.73%	62,951		62,951	50,815	12,136
78	342.0	Fuel Holders, Producers & Accessories	KCC DR 255	227,665	-	227,665	(1)	4.73%	10,773		10,773	10,184	589
79	343.0	Prime Movers	KCC DR 255	11,013,858	-	11,013,858	(1)	4.73%	521,173		521,173	429,316	91,858
80	344.0	Generators	KCC DR 255	3,156,315	-	3,156,315	(1)	4.73%	149,356		149,356	137,065	12,291
81	345.0	Accessory Electric Equipment	KCC DR 255	3,117,535	-	3,117,535	(1)	4.73%	147,521		147,521	129,095	18,426
82	346.0	Miscellaneous Power Plant Equipment	KCC DR 255	532,377	-	532,377	(1)	4.73%	25,192		25,192	23,495	1,696

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019										Pro-Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass (4)	Total Company Revised Ending Balance	Notes	Allocation Percentage	Kansas Ending Balance	Iatan and Plum Point Prudency Adjustment (3)	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Reserve Balance for Distribution Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h)	(i) = (f) * (h)	(j)	(k) = (i) + (j)	(l) = Section 5 Plant WP	(m) = (k) - (l)
Production Plant - State Line CT (Unit 1)													
83	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-	-	-	-	-
84	341.0	Structures and Improvements	KCC DR 255	982,876	-	982,876	(1)	4.73%	46,509	46,509	46,509	46,100	410
85	342.0	Fuel Holders, Producers & Accessories	KCC DR 255	2,361,021	-	2,361,021	(1)	4.73%	111,723	111,723	111,723	110,141	1,582
86	343.0	Prime Movers	KCC DR 255	13,159,366	-	13,159,366	(1)	4.73%	622,699	622,699	622,699	615,014	7,684
87	344.0	Generators	KCC DR 255	2,668,061	-	2,668,061	(1)	4.73%	126,252	126,252	126,252	124,241	2,011
88	345.0	Accessory Electric Equipment	KCC DR 255	1,563,859	-	1,563,859	(1)	4.73%	74,001	74,001	74,001	72,359	1,642
89	346.0	Miscellaneous Power Plant Equipment	KCC DR 255	106,863	-	106,863	(1)	4.73%	5,057	5,057	5,057	4,953	104
Production Plant - State Line Common													
90	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-	-	-	-	-
91	341.0	Structures and Improvements	KCC DR 255	1,225,673	-	1,225,673	(1)	4.73%	57,999	57,999	57,999	56,161	1,838
92	342.0	Fuel Holders, Producers & Accessories	KCC DR 255	236,043	-	236,043	(1)	4.73%	11,170	11,170	11,170	11,036	134
93	343.0	Prime Movers	KCC DR 255	29,147	-	29,147	(1)	4.73%	1,379	1,379	1,379	1,029	350
94	344.0	Generators	KCC DR 255	-	-	-	(1)	4.73%	-	-	-	-	-
95	345.0	Accessory Electric Equipment	KCC DR 255	27,305	-	27,305	(1)	4.73%	1,292	1,292	1,292	1,195	97
96	346.0	Miscellaneous Power Plant Equipment	KCC DR 255	206,519	-	206,519	(1)	4.73%	9,772	9,772	9,772	8,715	1,057
Production Plant - State Line Combined Cycle													
97	340.0	Land and Land Rights	KCC DR 255	-	-	-	(1)	4.73%	-	-	-	-	-
98	341.0	Structures and Improvements	KCC DR 255	2,668,047	-	2,668,047	(1)	4.73%	126,251	126,251	126,251	122,351	3,900
99	342.0	Fuel Holders, Producers & Accessories	KCC DR 255	210,300	-	210,300	(1)	4.73%	9,951	9,951	9,951	9,799	152
100	343.0	Prime Movers	KCC DR 255	33,705,281	-	33,705,281	(1)	4.73%	1,594,927	1,594,927	1,594,927	1,561,871	33,056
101	344.0	Generators	KCC DR 255	7,366,805	-	7,366,805	(1)	4.73%	348,596	348,596	348,596	329,690	18,906
102	345.0	Accessory Electric Equipment	KCC DR 255	3,295,495	-	3,295,495	(1)	4.73%	155,942	155,942	155,942	151,034	4,908
103	346.0	Miscellaneous Power Plant Equipment	KCC DR 255	661,621	-	661,621	(1)	4.73%	31,308	31,308	31,308	29,499	1,809
104		Total Other		\$ 138,159,720	\$ -	\$ 138,159,720			\$ 6,537,690	\$ -	\$ 6,537,690	\$ 6,330,117	\$ 207,573
105		Disallowances (Taken out of Rate Base):	Section 5 WP				(4)					(58,205)	58,205
106		Total		\$ 356,808,781	\$ (1,230,029)	\$ 355,578,752			\$ 15,060,272	\$ (30,672)	\$ 15,029,600	\$ 14,422,903	\$ 606,696

Footnote:

- (1) AllocationWP-12 Month Average Peak Allocator included in the Application: 4.73%
(2) Regulatory Amortization as stipulated in Missouri Docket No. ER-2011-0004.
(3) Order 11-EPDE-856-RTS - Prudence Issues Relating to Iatan 1 AQCS and Iatan 2: The Kansas Jurisdictional share of rate base amount attributed to Iatan1 AQCS, Iatan 2, and Plum Point shall be \$23,143,000. S&A,~14
(4) Empire's Disallowances (Added Back into Rate Base) were reclassified into the appropriate FERC Accumulated Depreciation Accounts in response to KCC DR 255: AD Update WP. Therefore, Staff is reversing these disallowances in Line No. 105 of the Production AD tab from Empire's Section 5 WP. In the Summary tab, Staff included the \$58,205 disallowance in Steam Production Plant found in Line No. 105 of Empire's Section 5: Accumulated Depreciation workpaper.

Sources:

Data Request No. 255: Accumulated Depreciation Update WP
Data Request No. 202: Iatan/Plum Point Prudency
Application - Section 5 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019									Pro Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage (1)	Kansas Ending Balance	TDC Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Reserve Balance for Transmission Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h) = (f) * (g)	(i)	(j) = (h) + (i)	(k) = Section 5 WP	(l) = (j) - (k)
1	Adjustment Number								RB-2(c)		RB-2	
Transmission Plant												
2	350.0	Land and Land Rights	KCC DR 255	\$ -	\$ -	\$ -	4.73%	\$ -	\$ -	\$ -	\$ -	\$ -
3	352.0	Structures and Improvements	KCC DR 255	1,482,851	-	1,482,851	4.73%	70,168	(70,168)	-	-	-
4	352.1	Structures and Improvements (latan)	KCC DR 255	45,366	-	45,366	4.73%	2,147	(2,147)	-	-	-
5	353.0	Station Equipment	KCC DR 255	46,566,351	-	46,566,351	4.73%	2,203,510	(2,203,510)	-	-	-
6	353.1	Station Equipment (latan)	KCC DR 255	540,351	-	540,351	4.73%	25,569	(25,569)	-	-	-
7	354.0	Towers & Fixtures	KCC DR 255	999,483	-	999,483	4.73%	47,295	(47,295)	-	-	-
8	355.0	Poles & Fixtures	KCC DR 255	29,981,060	-	29,981,060	4.73%	1,418,698	(1,418,698)	-	-	-
9	356.0	Overhead Conductors & Devices	KCC DR 255	28,152,989	-	28,152,989	4.73%	1,332,194	(1,332,194)	-	-	-
10	Total			\$ 107,768,452	\$ -	\$ 107,768,452		\$ 5,099,581	\$ (5,099,581)	\$ -	\$ -	\$ -

Footnote:

(1) Allocation 12 Month Average Peak Allocator included in the Application: 4.73%

Sources:

Data Request No. 255: Accumulated Depreciation Update WP
Application - Section 5 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019									Pro Forma Adjusted Update Period		As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage (1)	Kansas Ending Balance	Staff Adjustments	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Reserve Balance for Distribution Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h) = (f) * (g)	(i)	(j) = (h) + (i)	(k) = Section 5 WP	(l) = (j) - (k)
1	Adjustment Number											RB-2
Distribution Plant												
2	360.0	Land and Land Rights	KCC DR 255	\$ -	\$ -	\$ -	5.50%	\$ -	\$ -	\$ -	\$ -	\$ -
3	361.0	Structures and Improvements	KCC DR 255	5,657,901	-	5,657,901	5.50%	311,343	-	311,343	296,549	14,794
4	362.0	Station Equipment	KCC DR 255	39,907,905	-	39,907,905	5.50%	2,196,052	-	2,196,052	2,206,280	(10,229)
5	364.0	Poles, Towers & Fixtures	KCC DR 255	107,036,748	-	107,036,748	5.50%	5,890,017	-	5,890,017	5,754,032	135,985
6	365.0	Overhead Conductors & Devices	KCC DR 255	104,838,705	-	104,838,705	5.50%	5,769,063	-	5,769,063	5,556,323	212,740
7	366.0	Underground Conduit	KCC DR 255	20,552,982	-	20,552,982	5.50%	1,130,989	-	1,130,989	1,089,512	41,478
8	367.0	Underground Conduit & Device	KCC DR 255	37,792,161	-	37,792,161	5.50%	2,079,627	-	2,079,627	2,009,220	70,407
9	368.0	Line Transformers	KCC DR 255	46,244,514	-	46,244,514	5.50%	2,544,743	-	2,544,743	2,487,724	57,019
10	369.0	Services	KCC DR 255	63,930,315	-	63,930,315	5.50%	3,517,957	-	3,517,957	3,405,497	112,460
11	370.0	Meters	KCC DR 255	7,842,394	-	7,842,394	5.50%	431,551	-	431,551	421,590	9,962
12	371.0	Installation on Customers' Premises	KCC DR 255	13,745,929	-	13,745,929	5.50%	756,411	-	756,411	746,837	9,574
13	373.0	Street Lighting & Signal Systems	KCC DR 255	5,197,706	-	5,197,706	5.50%	286,019	-	286,019	295,245	(9,226)
14	375.0	Charging Stations	KCC DR 255	11,374	-	11,374	0.00%	(2)	-	-	-	-
15		Total		\$ 452,758,634	\$ -	\$ 452,758,634		\$ 24,913,773	\$ -	\$ 24,913,773	\$ 24,268,808	\$ 644,965

Footnote:

(1) Allocation per WP AD Distribution Plant Allocator as of January 31, 2019: 5.50%

(2) Direct assigned to the appropriate jurisdiction.

Sources:

Data Request No. 255: Accumulated Depreciation Update WP
Application - Section 5 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
Rate Base Adjustment No. 2
Accumulated Depreciation Adjustment
Update to Test Year Ending June 30, 2018

Updated to January 31, 2019										Pro Forma Adjusted Update Period			As of June 30, 2018	Total
Line No.	FERC	Description	Reference	Total Company Ending Balance	Reclass	Total Company Revised Ending Balance	Allocation Percentage ⁽¹⁾	Kansas Ending Balance	Wage & Salary Allocator from 2017 TFR ⁽²⁾	Common Property Gas Adjustment	TDC Adjustment	Staff Adjusted Kansas Ending Balance	Empire Pro Forma Adjusted Test Year Ending Balance	Staff Adjustment to Reserve Balance for General Plant
	(a)	(b)	(c)	(d)	(e)	(f) = (d) + (e)	(g)	(h) = (f) * (g)	(i)	(j)	(k) = -[(h) + (j)] * (i)	(l) = (h) + (j) + (k)	(m) = Section 5 WP	(n) = (l) - (m)
1	Adjustment Number									RB-2(b)	RB-2(c)	RB-2		
General Plant														
2	389.0	Land and Land Rights	KCC DR 255	\$ -	\$ -	\$ -	5.01%	\$ -	7.48%	\$ -	\$ -	\$ -	\$ -	\$ -
3	390.0	Structures and Improvements	KCC DR 255	7,283,074	-	7,283,074	5.01%	365,245	7.48%	(21,658)	(25,693)	317,894	300,279	17,615
4	391.1	Office Furniture & Equipment	KCC DR 255	2,935,236	-	2,935,236	5.01%	147,202	7.48%	(7,374)	(10,456)	129,371	118,932	10,439
5	391.3	Computer Equipment	KCC DR 255	12,285,423	-	12,285,423	5.01%	616,112	7.48%	(35,317)	(43,432)	537,363	510,587	26,776
6	392.0	Transportation Equipment	KCC DR 255	8,514,138	-	8,514,138	5.01%	426,983	7.48%		(31,930)	395,053	376,599	18,454
7	393.0	Stores Equipment	KCC DR 255	432,946	-	432,946	5.01%	21,712	7.48%		(1,624)	20,089	18,856	1,233
8	394.0	Tools, Shop & Garage Equipment	KCC DR 255	4,357,644	-	4,357,644	5.01%	218,535	7.48%		(16,342)	202,193	186,810	15,383
9	395.0	Laboratory Equipment	KCC DR 255	989,752	-	989,752	5.01%	49,636	7.48%		(3,712)	45,924	43,354	2,570
10	396.0	Power Operated Equipment	KCC DR 255	8,522,565	-	8,522,565	5.01%	427,405	7.48%		(31,961)	395,444	381,120	14,324
11	397.0	Communication Equipment	KCC DR 255	7,301,420	-	7,301,420	5.01%	366,165	7.48%	(11,366)	(26,532)	328,267	305,595	22,672
12	398.0	Misc. Equipment	KCC DR 255	199,245	-	199,245	5.01%	9,992	7.48%	(447)	(714)	8,831	8,661	170
13	Total			\$ 52,821,445	\$ -	\$ 52,821,445		\$ 2,648,987		\$ (76,162)	\$ (192,395)	\$ 2,380,430	\$ 2,250,794	\$ 129,636

Footnote:

- (1) Allocator-Intangible/General Plant Allocator in the Application: 5.01%
(2) Wage & Salaries Allocator from TFR: 7.48%

Sources:

Data Request No. 255: Accumulated Depreciation Update WP
Data Request No. 292: Common Property WP
Empire's 2017 Transmission Formula Rate - Wage and Salaries Allocator
Application - Section 5 Workpaper

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
AECR/AERR True-up Calculation
Update to Test Year Ending June 30, 2018
For Informational Purposes Only

Line No.	Time Period	Revenue Collected - AECR	Revenue Collected - AERR	Total Revenue Collected (3)	Revenue Approved - AECR (1)	Revenue Approved - AERR (2)	Over/(Under) Collection	Cumulative Over/Under
	(a)	(b)	(c)	(d) = (b) + (c)	(e)	(f)	(g) = (d) - (e) or (f)	(h)
1	TME 5/31/2016	703,164		703,164	782,479		(79,315)	(79,315)
2	TME 5/31/2017	745,889		745,889	782,479		(36,589)	(115,904)
3	6/1/2017 - 6/30/2017	57,269		57,269	65,207		(7,937)	(123,842)
4	TME 6/30/2018	28,031	1,766,949	1,794,980		1,736,912	58,069	(65,773)
5	7/1/2018 - 7/31/2018	-	182,121	182,121		144,743	37,378	(28,395)
6	8/1/2018 - 8/31/2018	-	175,299	175,299		144,743	30,556	2,161
7	9/1/2018 - 9/30/2018	-	162,623	162,623		144,743	17,880	20,041
8	10/1/2018 - 10/31/2018	-	111,792	111,792		144,743	(32,951)	(12,909)
9	11/1/2018 - 11/30/2018	-	125,049	125,049		144,743	(19,694)	(32,603)
10	12/1/2018 - 12/31/2018	-	158,200	158,200		144,743	13,457	(19,146)
11	1/1/2019 - 1/31/2019	-	163,701	163,701		144,743	18,958	(188)
Total:		1,534,353	2,845,733	4,380,086	1,630,164	2,750,110	(188)	

(1) Amount approved per Commission Order in Docket No. 15-EPDE-233-TAR.

(2) Staff Adjusted AERR Revenue Requirement calculated in Exhibit CCU-3(a) correcting error from Docket No. 17-EPDE-280-TAR

(3) Amount collected per respective Revenue Reports.

Source:

KCC Data Request No. 262: AECR/AERR True up Calculation WP

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
AECR/AERR True-up Calculation
Update to Test Year Ending June 30, 2018
For Informational Purposes Only

**The Empire District Electric Company
the Asbury Environmental and Riverton Rider (AERR) Revenue Requirement**

Line No.	Description	Amount (\$)
I.	AERR Costs	
	Rate Base	
1	Plant and Equipment In Service at February 28, 2017	\$ 303,924,684
2	Accumulated Depreciation	7,836,365
3	Total Rate Base (Line 3 - Line 4)	\$ 296,088,319
4	Kansas Jurisdiction Allocation Percentage	5.06%
5	Kansas Jurisdictional Rate Base (Line 5 x Line 7)	\$ 14,982,069
6	Rate of Return on Rate Base	6.90%
7	Return on Rate Base (Line 9 x Line 10)	\$ 1,033,047
	Expenses	
8	Depreciation Expense	\$ 310,675
9	Income Taxes*	393,189
10	Total Expenses (Sum Lines 14 - 15)	\$ 703,865
11	Total AERR Revenue Requirement (Line 11 + Line 16)	\$ 1,736,912
II.	True-Up Adjustment	
12	Prior Year Actual AERR Revenue Requirement	\$ -
13	Prior Year Actual AERR Revenue	-
14	Current Year True-Up Adjustment (Line 21 - Line 22)	\$ -
15	III. Total AERR Revenue Requirement (Line 18 + Line 23)	\$ 1,736,912
16	IV. Kansas Retail Revenue Sales - kWh (for the Twelve Months Ending June 30, 2016)	218,064,176
17	V. Kansas AERR Rate per kWh	\$ 0.00797

*Staff found an error in the calculation of the Gross Revenue Conversion Factor included in the revenue requirement for the AERR Surcharge Rider approved in Docket No. 17-EPDE-280-TAR. The approved revenue requirement of \$1,740,667 used a conversion factor of 1.6605 and was calculated using an incorrect state income tax rate for Kansas. As part of the AERR/AECR true-up, Staff is updating the revenue requirement calculation with the corrected Gross Revenue Conversion Factor of 1.65426. The AECR revenue requirement approved in Docket No. 15-EPDE-223-TAR included the correct conversion factor.

Source:

Revenue Requirement Calculation WP from Empire 17-280 Docket.

Empire District Electric - Rate Case Application: Kansas
Docket No. 19-EPDE-223-RTS
AECR/AERR True-up Calculation
Update to Test Year Ending June 30, 2018
For Informational Purposes Only

**The Empire District Electric Company
Proforma Capital Structure and Weighted Cost of Capital**

Line No.	Description	Q1 Ending			Gross Revenue Conversion Factor*	Total
		Percent of Total	Cost Rate	Weighted Cost		
1	First Mortgage Bonds/Unsecured Debt	56.87%	5.07%	2.88%	1.00000	2.88%
2	Common Equity	43.13%	9.30%	4.01%	1.65426	6.64%
3	Total	100.00%		6.90%		9.52%

Notes:

The above capital structure uses the lowest cost capital structure of Alonquin with the debt costs of Empire District Electric pursuant to the stipulation and agreement calculation as it relates to this surcharge in Docket No. 16-EPDE-410-ACQ.

*Staff found an error in the calculation of the Gross Revenue Conversion Factor included in the revenue requirement for the AERR Surcharge Rider approved in Docket No. 17-EPDE-280-TAR. The approved revenue requirement of \$1,740,667 used a conversion factor of 1.6605 and was calculated using an incorrect state income tax rate for Kansas. As part of the AERR/AECR true-up, Staff is updating the revenue requirement calculation with the corrected Gross Revenue Conversion Factor of 1.65426. The AECR revenue requirement approved in Docket No. 15-EPDE-223-TAR included the correct conversion factor.

Source:

Revenue Requirement Calculation WP from Empire 17-280 Docket.

Empire District Electric - Rate Case Application: Kansas

Docket No. 19-EPDE-223-RTS

AECR/AERR True-up Calculation

Update to Test Year Ending June 30, 2018

For Informational Purposes Only

The Empire District Electric Company			
Gross Revenue Conversion Factor - Calculation			
Kansas			
Line No.	Description	Rate	Factor
1	State Income Tax	7.00%	7.00%
2	Federal Taxable Income		93.00%
3	Federal Income Tax	35.00%	32.55%
4	Operating Income		60.45%
5	Gross Revenue Conversion Factor		1.65425972

Source:

Revenue Requirement Calculation WP from Empire 17-280 Docket.

STATE OF KANSAS)
) ss.
COUNTY OF SHAWNEE)

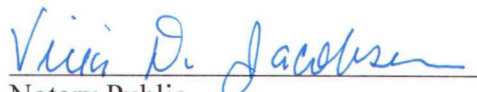
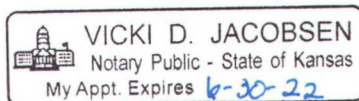
VERIFICATION

Chad Unrein, being duly sworn upon his oath deposes and states that he is Managing Auditor/FERC Affairs Specialist for the Utilities Division of the Kansas Corporation Commission of the State of Kansas, that he has read and is familiar with the foregoing *Direct Testimony*, and attests that the statements contained therein are true and correct to the best of his knowledge, information and belief.



Chad Unrein
Managing Auditor/FERC Affairs Specialist
State Corporation Commission of the
State of Kansas

Subscribed and sworn to before me this 13th day of May, 2019.


Notary Public

My Appointment Expires: 6-30-22

CERTIFICATE OF SERVICE

19-EPDE-223-RTS

I, the undersigned, certify that a true and correct copy of the above and foregoing Direct Testimony was served via electronic service this 13th day of May, 2019, to the following:

JAMES G. FLAHERTY, ATTORNEY
ANDERSON & BYRD, L.L.P.
216 S HICKORY
PO BOX 17
OTTAWA, KS 66067
Fax: 785-242-1279
jflaherty@andersonbyrd.com

JOSEPH R. ASTRAB
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD ROAD
TOPEKA, KS 66604
Fax: 785-271-3116
j.astrab@curb.kansas.gov
Hand Delivered

TODD E. LOVE, ATTORNEY
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3116
t.love@curb.kansas.gov

DAVID W. NICKEL, CONSUMER COUNSEL
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3116
d.nickel@curb.kansas.gov

SHONDA RABB
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3116
s.rabb@curb.kansas.gov

DELLA SMITH
CITIZENS' UTILITY RATEPAYER BOARD
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3116
d.smith@curb.kansas.gov

JILL SCHWARTZ, SR. MGR, RATES & REGULATORY
AFFAIRS
EMPIRE DISTRICT ELECTRIC COMPANY
602 S JOPLIN AVE
JOPLIN, MO 64801
Fax: 417-625-5169
jill.schwartz@libertyutilities.com

COLE BAILEY, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3354
c.bailey@kcc.ks.gov

BRIAN G. FEDOTIN, DEPUTY GENERAL COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3354
b.fedotin@kcc.ks.gov

ROBERT VINCENT, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
Fax: 785-271-3354
r.vincent@kcc.ks.gov

CERTIFICATE OF SERVICE

19-EPDE-223-RTS

JANET BUCHANAN, DIRECTOR- REGULATORY AFFAIRS
KANSAS GAS SERVICE, A DIVISION OF ONE GAS, INC.
7421 W 129TH ST
OVERLAND PARK, KS 66213-2713
Fax: 913-319-8622
janet.buchanan@onegas.com

JUDY JENKINS HITCHYE, MANAGING ATTORNEY
KANSAS GAS SERVICE, A DIVISION OF ONE GAS, INC.
7421 W 129TH ST
OVERLAND PARK, KS 66213-2713
Fax: 913-319-8622
judy.jenkins@onegas.com

SARAH B. KNOWLTON, GENERAL COUNSEL
LIBERTY UTILITIES CORP
116 North Main Street
Concord, NH 03301
sarah.knowlton@libertyutilities.com

/s/ Vicki Jacobsen

Vicki Jacobsen