MISSOURI PUBLIC SERVICE COMMISSION

STAFF AFFIDAVIT IN SUPPORT
OF NON-UNANIMOUS STIPULATION AND AGREEMENT

THE EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. EO-2018-0092

Jefferson City, Missouri

April 24, 2018

STAFF'S AFFIDAVIT IN SUPPORT

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EXECUTIVE SUMMARY

On October 31, 2017, The Empire District Electric Company ("Empire" or "EDE") filed an *Application of the Empire District Electric Company for Approval of its Customer Savings Plan and Application for Variance, and Motion for Waiver* with supporting direct testimony. On February 7, 2018 and March 13, 2018, various parties filed rebuttal and surrebuttal testimony, respectively. Since that time, Staff, Empire, and other parties have participated in extensive negotiations related to the Customer Savings Plan ("CSP") and potential commitments/conditions designed to address the concerns raised by parties to the case. As a result, the Non-Unanimous Stipulation and Agreement ("Agreement") contains several commitments that are grouped into the following categories: general provisions related to approval of the agreement, its effect as binding Signatories, clarifying it is not binding on the Commission, and requesting an order to be effective June 30, 2018, or as soon thereafter as practical; terms related to the acquisition of Wind Projects; terms related to depreciation; commitments related to future regulatory reviews; commitments related to customer protections; terms related to tax equity; commitments related to not retiring Asbury; a commitment for a tariff which implements a program for non-residential customers to be assigned renewable energy credits; commitments related to auditing and inspection of books and records; a recommendation that certain affiliate transaction rules be waived; a Most Favored Nations Clause; and terms related to the federal Tax Cuts and Jobs Act of 2017 ("TCJA"). The details of the commitments are more fully discussed below. Staff recommends the Commission approve the Agreement as it provides key protections for Missouri ratepayers while balancing the needs of Empire and its equity partners.

Expert Witness: Natelle Dietrich

Acquisition of Wind Projects

Staff supports the acquisition of 600 MW of new wind in or near Empire's service territory with ** **. In his surrebuttal testimony, James McMahon provides an update to the Generation Fleet Savings Analysis ("GFSA") as a result of responses to Empire's request for proposals ("RFP") for new wind projects:

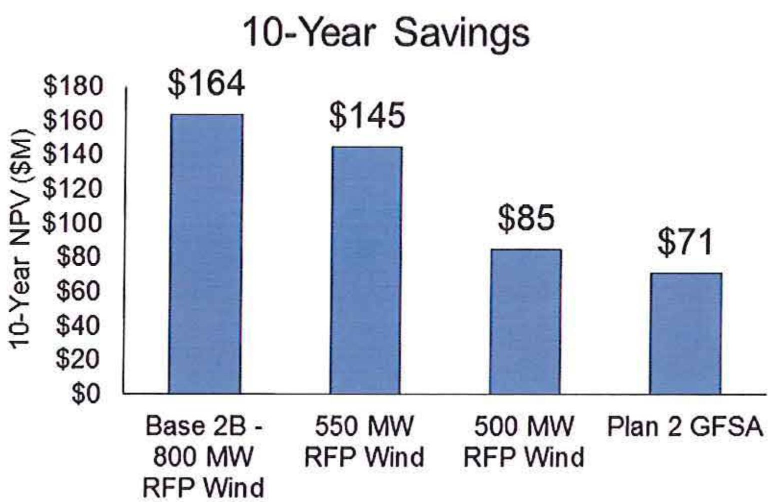
As explained further in Empire witness Wilson's Surrebuttal Testimony, Empire conducted an RFP to solicit proposals to build up to 800 MW of wind generation in or near Empire's service territory. Through this process, Empire received bids from 10 developers, reflecting 18 sites that were owned by the developer. Six of the bidders also bid on Empire's two sites in Missouri.[1]

Empire re-ran the GFSA analysis using preliminary RFP results in place of the hypothetical wind projects in the GFSA. Empire ran three cases, each involving unique combinations of proposed wind projects from the **

**.[2]

Mr. McMahon's surrebuttal testimony includes the following Figure 5,[3] which illustrates that Plan 2b (800 MW of new wind) results in customers saving $164 million (10-year PVRR) compared to the status quo, Plan 1 (IRP-Plan 5). Plan 550 MW results in customers saving $145 million (10-year PVRR) compared to the status quo, Plan 1 (IRP-Plan5), which is only $19 million lower than the savings from the more capital intensive and risky Plan 2b, as discussed below.

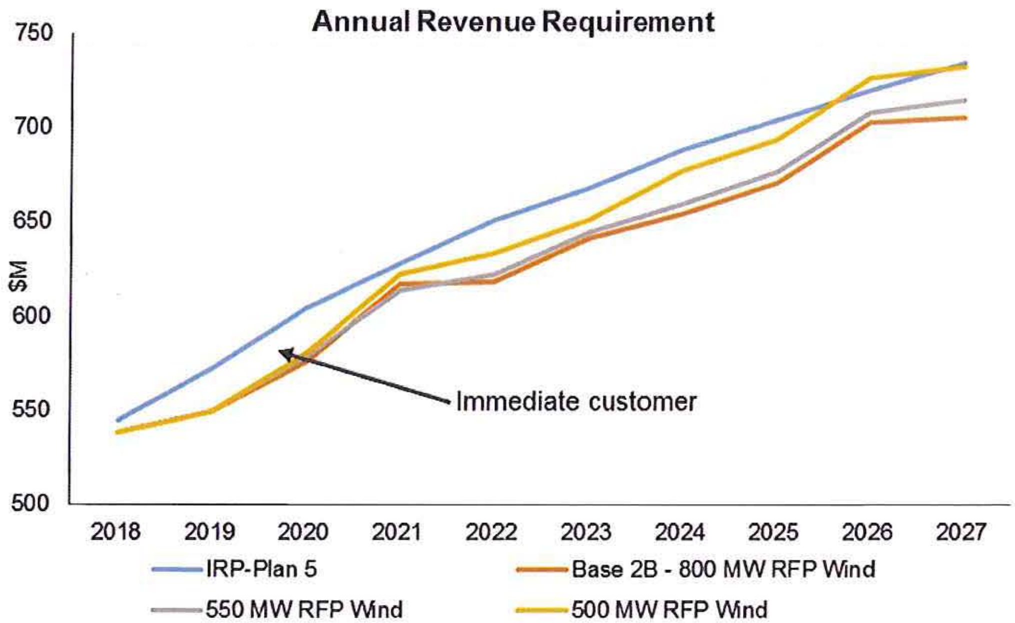
Figure 5: 10 Year Savings GFSA versus RFP



[1] Surrebuttal testimony of James McMahon at page 6 line 13 through page 7 line 3.
[2] Surrebuttal testimony of James McMahon at page 7 lines 12 – 19.
[3] Surrebuttal testimony of James McMahon at page 22 line 4.

Mr. McMahon's surrebuttal testimony also includes the following Figure 6, which illustrates that Plan 2b (800 MW of new wind) has annual revenue requirements during 2018 through 2027 which are approximately the same as the annual revenue requirements for Plan 550 MW over this same period.

Figure 6: Annual Revenue Requirement: Plan 1[4] vs. RFP Results Plans



Assuming that the 600 MW of new wind in the Agreement performs relatively the same as the Plan 550 MW in the surrebuttal testimony of James McMahon, it is reasonable to conclude that the 600 MW of new wind in the Agreement will have a 10-year PVRR which is only $15 million[5] greater than the 10-year PVRR of Plan 2b (800 MW of new wind). However, the estimated $15 million of savings due to a reduced 10-year PVRR for Plan 2b (800 MW of new wind) over the expected savings from the 600 MW of new wind in the Agreement is very uncertain due the changing dynamics of the competitive energy marketplace. Further, the estimated and uncertain $15 million of reduced 10-year PVRR will come at a very high upfront capital investment, since the All-In Capital Cost of the additional 200 MW of new wind is estimated to be $315 million.[6] Staff supports the investment of 600 MW of new wind and the conditions and commitments in the Agreement, including the customer protections as more fully discussed below.

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[4] In Empire's direct testimony, discussion of the GFSA Plan 1 is the same as IRP-Plan 5.

[5] $19 million X (200 MW / 250 MW) = $15.2 million

[6] 200,000 kW nameplate capacity X $1,573 per kW = $314.6 million, where $1,573 per kW is the All-In Capital Cost (2020 dollars) for the initial RFP results in Table 1 at page 9 line 11 of the surrebuttal testimony of James McMahon.

Expert Witness: John A. Rogers

Depreciation Rates

Staff supports the proposed depreciation rate and use of plant in service accounts recommended in in Empire witness Dane Watson's direct testimony for the reasons stated in Mr. Watson's testimony. The depreciation rate is intended to be applied to the wind projects from the point the projects are found to be in-service until Empire's next general rate proceeding. The stipulated depreciation rate will be subject to further review in Empire's next general rate case.

Expert Witness: Mark L. Oligschlaeger

Rate Case true-up period and rate case recommendations related to capital structure, etc.

This section requires the signatories to recommend that the true-up period in Empire's next general rate proceeding end no later than five months prior to the operation-of-law date in that case. Staff supports this provision in that it will help ensure that sufficient time will be available to verify the in-service status of the wind project(s) prior to reflection of those project costs in rates.

This section also requires that the capital structure and debt rate values to be used in Empire's next general rate proceeding must remain within reasonable parameters. Staff supports these provisions in that they will help ensure that customers do not bear the burden in rates of any negative financial impacts potentially resulting from the CSP.

Finally, this section requires that capital provided by outside entities (the tax equity partner(s)) in relation to the CSP will not be imputed into Empire's debt or equity capital structure components for purposes of setting customer rates.

Expert Witness: Mark L. Oligschlaeger

Future Regulatory Reviews

This section is consistent with the rebuttal testimony of Staff witness Natelle Dietrich and the surrebuttal testimony of Empire witness Christopher D. Krygier. In this section, EDE agrees to submit an application for a Certificate of Convenience and Necessity ("CCN") consistent with applicable Commission CCN rules. The Signatories to the Agreement agree not to contest the need for the Wind Projects and to make a good faith effort to process the application expeditiously and to request a Commission order within 120 days of filing. If EDE utilizes financing related to the acquisition of the Wind Projects that would encumber its franchise, works or system as described by Section 393.190, EDE shall request Commission authorization for that financing, and the Signatories shall make a good faith effort to process the application expeditiously and to request a Commission order within 120 days of filing.

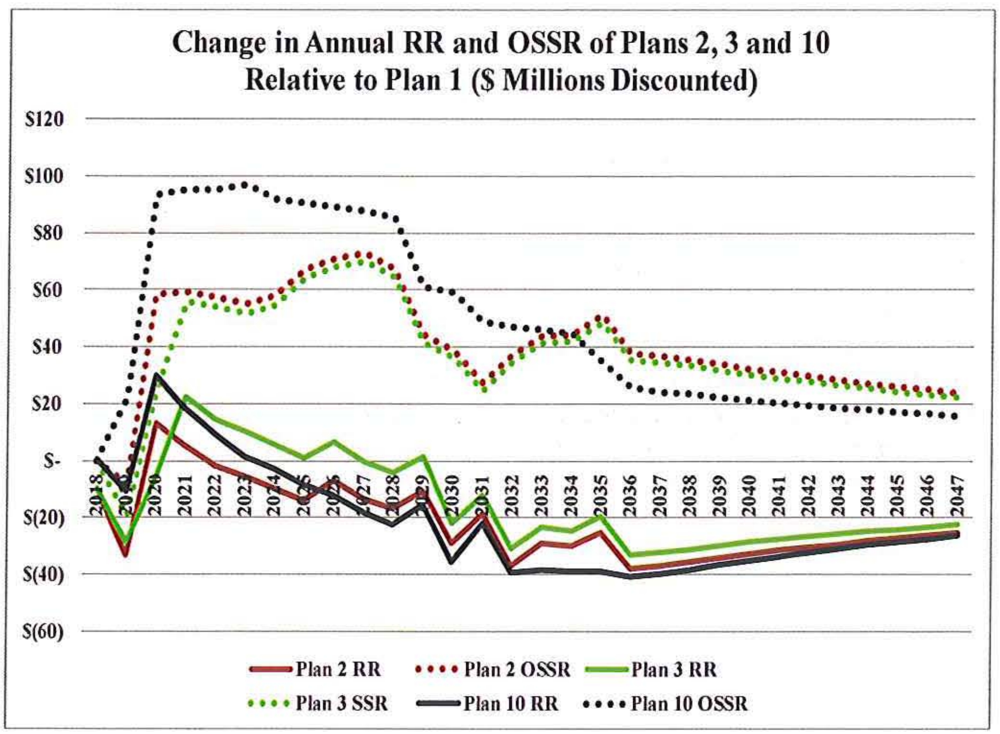
Staff Witness: Natelle Dietrich

Customer Protections

Because of the CSP's payments to the tax equity partner, little, if any, customers' savings are expected during most, if not all, of the first 10 years of the CSP, depending upon the levelized cost of electricity for the wind resources that are ultimately constructed.[7] The direct testimony of John Rogers summarized how customers' savings are expected to be at risk during the first 10 years of the CSP:

> The relationship of annual OSSR to annual customers' savings (lower annual RR) for Plans 1, 2, 3, and 10 is provided in Chart 3 in discounted dollars. Chart 3 demonstrates the mirror-like or direct relationship between annual OSSR and annual customers' savings (lower annual RR). *During the first 10 years, while higher levels of SPP sales and OSSR would typically also mean greater savings achieved through a lower RR, the OSSR offset much of the large amount of annual equity costs - due primarily to the tax equity partner payments - such that there are little, if any, expected customers' savings for this time period.* During years 11 through 30 - following full payment to the tax equity partner – there appears to be a very close relationship between the amount of annual OSSR and annual customers' savings for Plans 2, 3, and 10 relative to Plan 1.
> [Emphasis added]

Chart 3



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[7] Rebuttal testimony of John Rogers at page 17 lines 7 – 10.

The customer protection mechanism in the Agreement is designed to address the risk to customer savings during the first 10 years of the CSP.

The 600 MW of new wind and keeping Asbury in service in the Agreement should have a pattern of annual revenue requirements that is similar to the pattern of annual revenue requirements for Plan 4 relative to Plan 1 (IRP-Plan 5) in Chart 3 during the period 2018 – 2027. In other words, it is expected that for years 2020 – 2022, the revenue from the 600 MW of new wind in the Agreement will be less than the revenue requirement for the 600 MW of new wind, thus resulting in additional costs to customers for this period of time. After 2022 or 2023, the revenue from the 600 MW of new wind in the Agreement is expected to exceed the revenue requirement for the 600 MW of new wind. However, Chart 3 is based upon expected results from stochastic integrated resource analysis of the resource Plans 2, 3, and 10. If low market prices and/or low wind production level occur in the first 10 years of the CSP, customers are expected to pay more due to lower revenue from the 600 MW of new wind in the Agreement.

Paragraph 18 of the Agreement includes customer protections related to the 600 MW of new wind including: 1) a process for the Signatories and Empire to agree on in-service criteria for wind projects which are under contract for construction; 2) agreement that any offset received by Empire due to a decreased purchase price for the new wind projects will flow back to customers; 3) a market price protection mechanism which is described generally in paragraph 18 c of the Agreement and is specified in detail in Appendix A of the Agreement; and 4) agreement that Empire will not file its next general rate case until on or after April 1, 2019.

Staff Witness: John A. Rogers

Tax Equity

This section is consistent with the tax equity discussion found in the direct testimony of Empire witness Todd Mooney in this application. Mr. Mooney's direct testimony supports that tax equity partner financing has been used for many renewable energy projects in the past, including projects sponsored by Algonquin Power & Utilities Corp. affiliates. Based upon the testimony offered by Empire witnesses in this case, primarily Mr. Mooney, Staff supports use of tax equity financing for these specific projects as long as the customer protections found in other sections of the Agreement are ordered.

Staff Witness: Mark L. Oligschlaeger

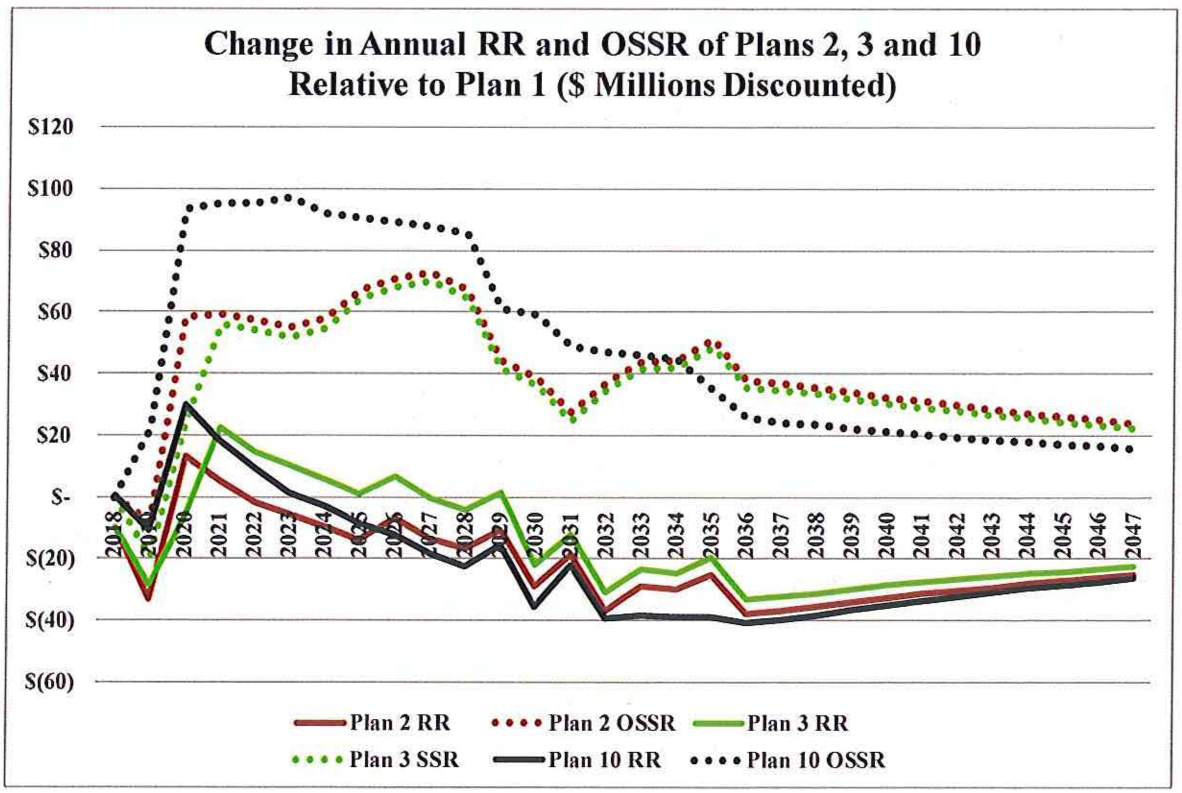
Asbury

Staff supports keeping the 186 MW Asbury coal plant in service for as long as its current planned retirement of 2035, or appropriate retirement date as indicated through Chapter 22 analysis, by investing approximately $20 to $30 million by 2019 to install a dry bottom ash conveyor and a new ash landfill. This will ensure continued compliance with the Coal

Combustion Residual ("CCR") rule and the Effluent Limitation Guidelines ("ELG").[8] Although these Asbury capital investments will cause an increase in annual revenue requirement for about 2 – 3 years, keeping Asbury (Plan 10 Corrected Keep Asbury) is expected to have value in the Southwest Power Pool ("SPP") and to result in a lower annual revenue requirement in every year from 2026 to 2047.[9]

Chart 3 from John Rogers' rebuttal testimony at page 14 line 13 (provided below) illustrates that Plan 10 (Corrected Keep Asbury) is expected to result in increased annual off-system sales revenue ("OSSR") each year compared to Plan 2 (800 MW of New Wind) until its retirement in 2035. During 2020 through 2031, most years are expected to have from \$20 million to \$40 million more OSSR as a result of Plan 10 (Corrected Keep Asbury) through 2035. Chart 3 also illustrates that the annual revenue requirement for Plan 10 (Corrected Keep Asbury) is lower than the annual revenue requirement of Plan 2 (800 MW of New Wind) each year from 2026 through 2035 when Asbury is retired.

Chart 3



Keeping Asbury in service until 2035 will 1) result in Empire having another 186 MW of reliable and dispatchable generating resource as a hedge against the uncertain performance of

[8] Page 6 of 44 in DIRECT ATTACHMENT JM-2 of the direct testimony of James McMahon.
[9] Rebuttal testimony of John Rogers at page 9 lines 1 -6.

the 600 MW of new wind resources in the Agreement, and 2) avoid creating a stranded asset by retiring Asbury 15 years earlier than its current planned retirement.

Expert Witness: John A. Rogers

Auditing, Inspection of Books and Records

Staff supports this section of the Agreement in that it requires both Empire and its non-regulated affiliates to open their books and records to the signatories as necessary to ensure compliance with applicable Commission rules and this Agreement. This section also requires Empire to provide access to such books and records at one or more locations in Missouri.

Expert Witness: Mark L. Oligschlaeger

Affiliate Agreements

Staff supports granting the variances from the Commission affiliated transactions rule recommended in the Agreement as the terms of the variances are consistent with the discussion found in the rebuttal testimony of Staff witness Mark L. Oligschlaeger.

Expert Witness: Mark L. Oligschlaeger

Most Favored Nations Clause

The Agreement requires Empire, within 10 days of receiving a final order from the public utility commissions in Arkansas, Kansas, and Oklahoma (to the extent an order would significantly change conditions/commitments contained in a pending agreement) to submit to the Signatories, copies of those orders. The Agreement further provides that, upon agreement of the Signatories, or as ordered by the Commission, if applicable, any concessions or conditions related to the CSP that are favorable to customers shall be appended to the Agreement in this case. Such conditions do not include location preferences of the wind farms, treatment of the TCJA, the length of a rate moratorium, or the magnitude of Empire's maximum exposure under the market protections provisions of this Agreement. Staff supports the Most Favored Nations Clause as providing additional customer protections should Missouri, Kansas, or to an extent Oklahoma, order additional conditions or concessions that would be favorable to Missouri customers

Expert Witness: Natelle Dietrich

Provisions Stemming from ER-2018-0228 (Tax Rate Reduction – EDE)

On January 1, 2018, the TCJA became effective. The TCJA has two primary impacts on Missouri regulated utilities: (1) a reduction in the federal corporate income tax rate from 35% to 21%, and (2) a required flow-back to customers of "excess" accumulated deferred income taxes ("EADIT"), which were previously deferred at the higher 35% corporate income tax rate. Both of these impacts will result in reductions to cost of service for major utilities.

In early 2018, the Commission opened Case No. AW-2018-0174 to investigate the general impacts of the TCJA on Missouri utilities. Subsequent to that case, the Commission issued "show cause" orders to a number of utilities, including Empire District Electric in Case No. ER-2018-0228, regarding cost of service impacts of the TCJA.

In conjunction with the negotiated settlement of Empire's Customer Savings Plan application, the signatories also have reached an agreement to resolve some of the issues raised in Case No. ER-2018-0228.[10]

Regarding the reduction in the federal corporate income tax rate, the Agreement requires Empire to reduce its base electric rates by $17,837,022 effective October 1, 2018. The rate decrease amount was taken from an Empire filing in Case No. AW-2018-0174, and represents its current quantification of the electric cost of service reduction associated with the lowered TCJA federal tax rate. Staff has reviewed Empire's quantification, and concurs that this amount is a reasonable estimation of the cost of service impact of the corporate income tax rate reduction brought about by the TCJA.

Regarding EADIT, as of the time of this agreement, Empire has not completed all of the analysis necessary to quantify and flow back in rates an amortization of EADIT. Therefore, in lieu of an immediate rate reduction for this TCJA item, the signatories have agreed that Empire will defer on its books and records an estimation of the amount of the EADIT flow-back starting January 1, 2018, with such deferral to be included in Empire's base rates at the time of its next general rate case.

Staff supports the provisions of this Agreement regarding TCJA impacts as being reasonable, and notes that it results in a rate reduction for Empire's customers at an earlier point in time than might otherwise be feasible if Case No. ER-2018-0228 had continued to follow a separate course.

Staff Witness: Mark L. Oligschlaeger

[10] The issues remaining in Case No. ER-2018-0228 are the appropriate allocation of the rate reduction to individual customer classes and the design of rates intending to provide the benefit of the corporate tax rate reduction to customers.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan	)))	**Case No. EO-2018-0092**

AFFIDAVIT OF NATELLE DIETRICH

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW, Natelle Dietrich and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Staff's Affidavit in Support of Non-Unanimous Stipulation and Agreement; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Natelle Dietrich

Natelle Dietrich

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 24th day of April, 2018.

Dianna L. Vaught

Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan	)))	**Case No. EO-2018-0092**

AFFIDAVIT OF MARK L. OLIGSCHLAEGER

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW, Mark L. Oligschlaeger and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff's Affidavit in Support of Non-Unanimous Stipulation and Agreement; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Mark L. Oligschlaeger
Mark L. Oligschlaeger

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 24th day of April, 2018.

Dianna L. Vaught
Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan	)))	**Case No. EO-2018-0092**

AFFIDAVIT OF JOHN A. ROGERS

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

COMES NOW, John A. Rogers and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Staff's Affidavit in Support of Non-Unanimous Stipulation and Agreement; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

John A Rogers
John A. Rogers

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 24th day of April, 2018.

Dianna L. Vaught
Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 28, 2019
Commission Number: 15207377