EXHIBIT

Exhibit No.:	____________
Issue(s)	Certificate of Convenience and Necessity (CCN)
Witness/Type of Exhibit:	Riley/Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	EA-2019-0010

FILED
April 18, 2019
Data Center
Missouri Public
Service Commission

REBUTTAL TESTIMONY

OF

JOHN S. RILEY

Submitted on Behalf of the Office of the Public Counsel

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. EA-2019-0010

** **

Denotes Highly Confidential Information that has been Redacted

February 5, 2019

OPC Exhibit No. 204-P
Date 4-8-19 Reporter TT
File No. EA-2019-0010

PUBLIC

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of The Empire District Electric Company for Certificates of Convenience and Necessity Related to Wind Generation Facilities	))))	File No. EA-2019-0010

AFFIDAVIT OF JOHN S. RILEY

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

John S. Riley, of lawful age and being first duly sworn, deposes and states:

1. My name is John S. Riley. I am a Public Utility Accountant III for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

John S. Riley
John S. Riley, C.P.A.
Public Utility Accountant III

Subscribed and sworn to me this 5th day of February 2019.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI
JERENE A. BUCKMAN
My Commission Expires
August 23, 2021
Cole County
Commission #13754037

Jerene A. Buckman
Jerene A. Buckman
Notary Public

My Commission expires August 23, 2021.

REBUTTAL TESTIMONY

OF

JOHN S. RILEY

THE EMPIRE DISTRIC ELECTRIC COMPANY

CASE NO. EO-2019-0010

Q. What is your name and what is your business address?

A. John S. Riley, PO Box 2230, Jefferson City, Missouri 65102

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

A. I am employed by the Missouri Office of the Public Counsel ("OPC") as a Public Utility Accountant III.

Q. What is your educational background?

A. I earned a B.S. in Business Administration with a major in Accounting from Missouri State University.

Q. What is your professional work experience?

A. I was employed by the OPC from 1987 to 1990 as a Public Utility Accountant. In this capacity I participated in rate cases and other regulatory proceedings before the Public Service Commission ("Commission"). From 1994 to 2000 I was employed as an auditor with the Missouri Department of Revenue. I was employed as an Accounting Specialist with the Office of the State Court Administrator until 2013. In 2013, I accepted a position as the Court Administrator for the 19th Judicial Circuit until April, 2016 when I joined the OPC.

Q. Are you a Certified Public Accountant ("CPA") licensed in the State of Missouri?

A. Yes. I am also a member of the Institute of Internal Auditors ("IIA").

Q. Have you previously testified before the Missouri Public Service Commission ("Commission" or "PSC")?

A. Yes I have. A listing of my Case filings is attached as Schedule JSR-R-1.

Q. What of your experience and training is relevant to your testimony here?

A. My experience as an auditor and accountant provide the skills and knowledge to analyze the economics of these wind farms, and to identify the strengths and weaknesses of Empire's proposal in conjunction with Empire's stated purpose for building these wind farms (i.e. to satisfy a business requirement versus taking an opportunity to improve Empire's economics). My auditing and budgeting experience in both private and judicial settings enables me to apply the "smell test" to determine if factors outside the organization support the intended purpose of the project (i.e. complies with business opportunity or truly improves the enterprise economics).

Q. What is the purpose of your Rebuttal testimony?

A. I respond to the Empire District Electric Company ("Empire") requests for Certificates of Convenience and Necessity ("CCN") for three wind farms totaling up to 600 MW of wind generation.

Q. Would you summarize your testimony?

A. The OPC concludes that Empire does not need these wind farms to satisfy any current or near-term future Empire generation requirement. Empire asserts that the wind farms are an economic endeavor that will reduce Empire's business costs to its customers. These wind farms will likely cost Empire's ratepayers an extraordinary amount of money for power production they do not need, while Empire, and ultimately Algonquin and its shareholders, enjoy higher profits from the higher rates Empire charges its customers. OPC asserts that Empire's ratepayers should not be a backstop to wind farms that are unnecessary and that are not financially self-sustaining. OPC has found a great degree of speculation in Empire's revenue expectations from the Southwest Power Pool (SPP) over the next 30 years, and a lack of documentation for what Empire calls hedging and the finer points of the tax equity partnership agreements. The lack of documentation leaves OPC with an incomplete picture of all the costs of the wind farms and the extent to which Empire plans for its ratepayers to ultimately be responsible for these unknown costs.

Because these wind farms are not necessary for Empire to serve its customers, and because they will increase Empire's rate base by 37%, the Commission should not treat these wind farms as an addition to Empire's rate base like it did Empire's ownership on Plum Point and Iatan 2. Instead, the Commission should condition its grant of CCNs for these wind farms on Empire's return on its investment in the wind farms be no greater than the tax equity partners' expected returns,

Q. What is tax equity financing?

A. Tax equity financing is a tax and financial partnership that allows two or more entities to pool their resources to finance a large project. These partnerships are common in renewable energy projects. The tax equity partner ("TEP") is usually a financial institution that can benefit from the particular tax advantages that are inherent in these tax partnerships. For these wind farms, the TEPs will provide a little more than half the required funds required to build the wind farms. In return, the TEPs will receive the use of the tax advantaged accelerated depreciation, the production tax credits ("TPC") (currently $24 per Megawatt generated and sold to the SPP) and the net operating loss that may come from the partnership. The TEPs also receive actual cash from the net proceeds from the sale of electrical energy into the SPP markets in years 6-10, and a buy-out price after year 10.

One of the concerns OPC has with this wind generation proposal is the fact that TEPs have not been positively identified and the parameters of the partnership agreement solidified. Our understanding of the situation is that Wells Fargo will commit up to $400 million in financing but that leaves approximately $200 million left to bankroll. The lack of a signed agreement leaves some aspects of this project in the dark. Given that Wells Fargo has $232 million exposed to PG&E's bankruptçy proceedings, causes concern that Wells Fargo may be inclined to back out of this deal.

Q. Have you calculated a revenue requirement from Empire's proposal?

A. Yes. Schedule JSR-R-2 is a spreadsheet of the first 11 years of the wind partnership revenue requirement and expected SPP revenues. The spreadsheet is very similar to the exhibits presented by Empire and myself in case EO-2018-0092 and in the work papers in this case. I inserted the known and measurable factors, and developed a conservative future cost of service. Since these wind farms are an economic project, the real problem is determining the accuracy of the projected SPP revenues from the wind energy, and how those revenues are affected by currently non-existent "hedging" agreements, and currently non-existent tax equity agreements.

Q. What initial revenue requirement did you calculate?

A. Using a rate base of ** ** with 51% equity and 49% debt, an ROE of 9.75%, and a debt cost of 4.47%,[1] I added depreciation and a tax gross-up, and then included Empire's forecast of the wind farm O&M expenses from a tab on Empire's LCOE (Levelized Cost of Energy) direct testimony workpapers in this case to complete the wind farm additions to Empire's cost of service. The resulting Empire revenue requirement is approximately $78.8 million in year one.

Q. How did you determine the SPP energy market revenues associated with the wind farms for year one?

A. I did not develop or calculate the revenue projections myself, I combined the projected annual revenues Empire developed for the three wind farm sites[2]. ,

Q. Have you calculated the net revenue requirement for these wind farms?

A. Yes. Some of the inputs have changed from what they were in Case No. EO-2018-0092, but the end results are the same. Empire's ratepayers are going to face rate increases from the moment the Commission allows recovery of the costs of these wind farms through Empire's rates. Even with Empire's increased SPP revenue expectations and decreased O&M expenses, Empire expects its ratepayers to foot the bill for ** ** million in the first 11 years these wind farms operate. That is a poor turnaround ratio when comparing net cost time period (11 years) to the total anticipated lives of these wind farms (i.e. 30 years). For over one-third of the life of these wind farms, they will be a net cost to Empire and its customers. Interestingly,

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[1] Empire used a cost of debt of 4% in its calculation however, a company with a BBB or Baa credit rating can expect to pay 4.47% for issued debt. please see Federal Reserve Bank of St. Louis website "ICE BofAML US Corporate BBB Effective Yield

[2] From the Company updated Kings Point, North Fork and Neosho Ridge workpapers. "Annual Pro Forma" tab

over that 11 years, Empire will have enjoyed nearly $240 million in ROE as its ratepayers support this albatross of wind farms through rates. These indicators show that these wind farms are uneconomic and unnecessary to the public interest. The only winners of this undertaking are Algonquin's shareholders and Empire's presently unknown tax equity partners.

Q. Could you describe the revenue section of Schedule JSR-R-2, and explain how these projections may affect Empire's revenue requirement associated with the wind farms?

A. As I stated before, I used annual revenue figures from Empire's direct testimony work papers in this case. Line 20 in the Schedule is a summation of the annual SPP revenues for each wind farm as presented on those work papers. This would be a reduction to Empire's cost of service associated with these wind farms.

Line 21 on the Schedule was originally labeled, "Contribution from the Tax Equity Partner" in its workpapers in Case No. EO-2018-0092; however, Empire now refers to this line in its workpapers as "Variable O&M" ("VOM"). I did not calculate this line; I took these amounts directly from Empire's workpapers. Empire described the SPP revenues associated with the wind farms in its response to data request 8005. That response is attached as Schedule JSR-R-3. A simple way to describe the VOM is that it is a combination of the payback of a predetermined over collection of production tax credits ("PTCs") and the distribution to the tax equity partners in years 6-10.

Q. What is the source of the data on line 22, "add back hedging costs," of Schedule JSR-R-2?

A. I developed this line from each wind farm spreadsheet. I created the difference between the hedge rate and the market rate and then multiplied that difference by the hedge volume. This presents the total amount of hedge costs that would be recorded each year.

The possible exposure to a large amount of hedging costs is an unknown factor that causes me the most concern. As mentioned earlier, Empire does not have a Hedge or Renewable Energy Credit ("REC")[3] agreement in place. OPC requested Empire's expected hedge price and was informed that the Company expects the price to be between ** **. Mr. Mooney in his direct testimony stated that

> "In order to finance renewable projects, banks insist on these agreements to be in place to provide a certain price for the commodity. The Hedge and REC Agreement provides that price certainty. These agreements should have no ratemaking implications and should not impact customers in any way. "[4]

Q. Do you agree with Mr. Mooney's statement that the Hedge and REC Agreements should have no ratemaking implications and should not impact customers in any way?

A. Absolutely not. First of all, hedge prices found in Company workpapers were ** ** for Neosho Ridge, ** ** for Kings Point and ** ** for North Fork yet the market price was between $19 and $23. What I found was that the hedge price was always built into the total revenues for each month even when the market prices exceeded the hedge price. OPC would recommend that in the event the Commission approves the CCN that the CCN be conditioned such that costs involving hedges and RECs will be not recoverable from EDE's customers.

If the prices paid by SPP for the generation falls below the expected hedge price then Empire will have to pay into the wind company an amount to make the expected MWh price. It would

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[3] Empire would be expected to purchase the RECs that are generated from the Wind Holdco. There are no agreements in place to calculate the cost

[4] Mooney direct. Page 21 line 5-8

appear that these payment end up being a wash due to Empire receiving all of the net income of the wind company for the first five years. However, it is Empires intention to record this hedge payment in account 555 as purchase power. If recorded in this manner, these costs are likely candidates to be funneled through the Fuel Adjustment Clause (FAC) as a purchase power cost resulting in an artificial increase in fuel costs. Even if it isn't applied to the FAC it would still be a revenue reduction that would eventually flow through rates.

A second concern about hedge payments arises the in years 6-10 after the wind farms start operating. Empire represents that the tax equity partner(s) will be able to receive between ** ** of the net cash of the Windco(s). That net cash could possibly include revenues from the hedge payments so that the hedge transaction(s) between Empire and the Windco(s) is/are no longer a wash because the TEP now receives a portion of the net cash, which may include hedge payment revenues. The fact that both the identity(ies) of the TEP(s) and the terms of their agreements is/are unknown at this time is another factor that causes OPC to recommend that the Commission condition any CCN it issues in this case to protect Empire's customers from these economic unknowns.

What revenues from the SPP for the electricity generated by these wind farms will yield in the future is nothing more than an estimate. OPC voiced its reservations about these estimates in Case No. EO-2018-0092 and is expressing them again in this case. OPC views that future negative pricing in the SPP markets is a real concern, and that SPP market prices being consistently lower than the hedge price is a definite possibility. If the market price ends up being just a $1 a MWh lower than the hedge price, then Empire's ratepayers could see the revenues by which Empire intends to offset the costs of these wind farms reduced by ** **. As you can see from line 22 of the spreadsheet, the ratepayer stands to be on the hook for over $41million. So, if the SPP market prices are lower than the hedge price, then

Empire's ratepayers suffer, as the fixed costs of the wind farms are in Empire's base rates, and will not be reduced as a result of actual SPP revenues from the wind farms being lower than the estimated revenues Empire is presenting to this Commission.

Q. Would you elaborate on OPC's rationale that the Commission condition any CCN it grants for these wind farms on the ROE for Empire's investment in them be lower than the ROE the Commission traditionally uses for ratemaking?

A. Empire does not need these wind farms to be able to provide safe and adequate electric service at just and reasonable rates. The Commission should view these wind farms as an economic opportunity primarily to benefit Empire and the TEPs, with any benefit to Empire's customers being ancillary. If Empire is allowed to recover its investment and costs for these wind farms in its customer rates, then at Empire's current ROE of 9.75%, the expected rate impact is nearly $26 million, except to the extent it is offset by SPP revenues. If a ** ** return is sufficient for the TEP(s), then why should Empire be allowed the opportunity to recover from its customers a higher return on its investment in these wind farms. Empire is asking for CCNs to allow it to build wind farms that it does not need to serve its customers, while expecting that its ratepayers bear the risk that the SPP market revenues are insufficient to make these wind farms sufficiently economic to repay Empire and the TEP(s) for their investment and a profit, and have excess revenues to benefit Empire's customers. If the economics of these wind farms are so attractive as Empire represents, then Empire, or one of its affiliates, should pursue building these wind farms as an independent power producer ("IPP"), and earn a return of and a return on its investment through sales of the electricity they generate. It is noteworthy that no IPP is engaging in a similar project nearby where the owners make their profits from SPP revenues exceeding the wind energy costs. As Schedule JSR-R-4 demonstrates, a lower ROE reduces the cost to the ratepayer down to a ** ** over the first 11 years. This will reduce the risks on EDE's customers if the Commission approves this CCN.

Q. Would you please summarize your testimony?

A. OPC, based on Empire's representations, concludes that these wind farms are unnecessary for Empire to provide safe and adequate electric service to its customers at just and reasonable rates. However, if the Commission conditions every CCN it issues in this case on Empire not receiving a return on its investment in the wind farms greater than the tax equity partners' expected returns, customers could be properly protected from harm.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

John S. Riley, CPA
Summary of Case Participation

ST LOUIS COUNTY WATER COMPANY	CASE NO. WR-88-5
SOUTHWESTERN BELL TELEPHONE COMPANY	CASE NO. TC-89-21
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. ER-2016-0023
KCP&L GREATER MISSOURI OPERATIONS COMPANY	CASE NO. ER-2016-0156
KANSAS CITY POWER & LIGHT COMPANY	CASE NO. ER-2016-0285
AMEREN MISSOURI	CASE NO. ER-2016-0179
EMPIRE DISTRICT ELECTRIC PRUDENCE REVIEW	CASE NO. EO-2017-0065
LACLEDE GAS COMPANY	CASE NO. GR-2017-0215
MISSOURI AMERICAN WATER COMPANY	CASE NO. WU-2017-0351
MISSOURI AMERICAN WATER COMPANY	CASE NO. WR-2017-0285
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. EO-2018-0092
LIBERTY (MIDSTATE NATURAL GAS)	CASE NO. GR-2018-0013
KANSAS CITY POWER AND LIGHT	CASE NO. ER-2018-0145
KCP&L GREATER MISSOURI OPERATIONS COMPANY	CASE NO. ER-2018-0146
EMPIRE DISTRICT ELECTRIC PRUDENCE REVIEW	CASE NO. EO-2018-0244
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. ER-2018-0228
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. ER-2018-0366

EA-2019-0010
Riley Rebuttal

Schedule JSR-R-2

has been deemed

"Highly Confidential"

in its entirety

The Empire District Electric Company
Missouri Public Service Commission
Case No. EA-2019-0010
Response to Office of Public Counsel's Data Request 8001-8009, 8010HC & 8011HC

Response provided by:	Todd Mooney
Title:	Vice President, Finance & Administration
Company Response Number:	OPC 8005
Date of Response:	December 11, 2018

Question:
Regarding the workpaper spreadsheet "HC Empire Project LCOE Workpapers – HIGHLY CONFIDENTIAL," sheet "Expense Support" - please provide a detailed explanation of what constitutes Variable O&M.

Response:

Per page 23 of J. McMahon's Direct Testimony from October 2017 for MPSC File EO-2018-0092 under "Operating Costs" -

> "*the variable operating and maintenance costs include payments that would be required under the tax equity financing structure.*"

These cash flows are made up of two portions: "pay-as-you-go" contributions ("PAYGO") from the tax equity partner and cash equity distributions to the tax equity investor. The variable O&M ("VOM") is calculated in the individual financial models; please refer to the following documents:

- *Empire Kings Point Workpapers – CONFIDENTIAL*
- *Empire Neosho Ridge Workpapers – CONFIDENTIAL*
- *Empire North Fork Ridge Workpapers – CONFIDENTIAL*

The overall VOM for each project, which is referenced in lines 24-26 of the "Expense Support" tab of the work paper "*Empire Project LCOE Workpapers – CONFIDENTIAL,*" can be tied back directly to the aforementioned financial models.

Please refer to line 184 of the "*Annual Pro Forma*" tabs of each project's financial model. The financial model will provide a detailed breakdown of the calculation of the specific components of VOM (which is in lines 182-184 of "*Annual Pro Forma*" tab).

Specific Components of VOM
"PAYGO" Cash Payments – As per footnote 7 on page 27 of the aforementioned testimony:

> *"Pay-as-you-go (PAYGO) tax equity structure enables the tax equity investor to pay an upfront amount, with continuing payments being made to the sponsor over a period of time. The PAYGO payments are a percentage of the production tax credits the tax equity investor receives."*

These would be represented as cash inflows to Empire and its customers, as the tax equity investor is providing additional cash to Empire.

They are calculated in the aforementioned project-specific work papers. If you refer to the "Tax Equity" tab for each model, the section from line 248-264 provides the calculation of the PAYGO contributions.

Cash Equity Distributions: The tax equity investor, by way of its investment in the Wind Project Co, will also receive the right to receive a pre-determined % of cash flow distributions from the Project Co as part of its return on and recovery of capital invested. The % of distributions is negotiated as part of the *Equity Capital Contribution Agreement* between the Wind Project Co and the tax equity investor.

As per T. Mooney's Direct Testimony from October 2018 associated with File EA-2019-0010, the table on page 20 demonstrates that Empire has modelled distributions of 0% for the first 5 years and 25-40% in years 6-10, following which it is assumed the tax equity partner will be bought out.

They are calculated in the aforementioned project-specific work papers. If you refer to the "Tax Equity" tab for each model, line 114 calculates the cash flows to the tax equity partner associated with its ownership in the project.

Responsible person(s): Todd Mooney

EA-2019-0010
Riley Rebuttal

Schedule JSR-R-4

has been deemed

"Highly Confidential"

in its entirety