

Exhibit No.: _____
Issues: Interconnection Agreements and
Wildlife Permitting
Witness: Shaen T. Rooney
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Sponsoring Party: The Empire District
Electric Company
Case No.: ER-2021-0312
Date Testimony Prepared: December 2021

**Before the Public Service Commission
of the State of Missouri**

Rebuttal Testimony

of

Shaen T. Rooney

on behalf of

The Empire District Electric Company

December 2021



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FOR THE REBUTTAL TESTIMONY OF SHAEN T. ROONEY
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
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REBUTTAL TESTIMONY OF SHAEN T. ROONEY
THE EMPIRE DISTRICT ELECTRIC COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. ER-2021-0321

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Shaen T. Rooney, and my address is 602 Joplin Street, Joplin, Missouri,
4 64801.

5 **Q. Are you the same Shaen T. Rooney who provided Direct Testimony in this matter
6 on behalf of The Empire District Electric Company (“Empire” or the
7 “Company”)?**

8 A. Yes.

9 **Q. What is the purpose of your Rebuttal Testimony in this proceeding before the
10 Missouri Public Service Commission (“Commission”)?**

11 A. The purpose of my testimony is to respond to the direct testimony of Office of the
12 Public Counsel (“OPC”) witness Dr. Geoff Marke. My testimony is specifically in
13 response to Dr. Marke’s testimony regarding interconnection requests and wildlife
14 permit status for the wind projects.

15 **II. INTERCONNECTION REQUESTS**

16 **Q. On page 53, lines 24-26, of his Direct Testimony, Dr. Marke expresses concern
17 that Empire does “not know the costs associated with SPP generation
18 interconnections” and that the “amounts of these interconnections is still
19 unknown presently, and could significantly impact the calculations associated
20 with these investments.” Do you agree with OPC witness Marke’s concern about
21 cost uncertainty?**

1 A. No. While this may have been true at the time that Dr. Marke’s Direct Testimony was
2 filed, results of the Southwest Power Pool’s (SPP) Definitive Interconnection System
3 Impact Study (DISIS) have been received recently, and those results continue to
4 demonstrate that the interconnection of these projects does not have the magnitude of
5 system impact on either power flow or system stability that requires expensive network
6 upgrades for mitigation.

7 **Q. How does the posting of results increase confidence in cost certainty?**

8 A. The current SPP DISIS is conducted in three phases. After each of the first two phases,
9 study participants (interconnection customers) can see results and then decide whether
10 to withdraw their interconnection request or post security based on those results and
11 remain in the study. During these decision points, SPP also accepts feedback on model
12 inputs that can help improve the accuracy of results. This leads to greater certainty as
13 the study progresses – from least certain at the end of phase one to more certain at the
14 end of phase two to certain at the conclusion of phase three.

15 **Q. For what phase of the DISIS have each of the projects received results?**

16 A. Neosho Ridge has received results of phase two of the DISIS. Kings Point and North
17 Fork Ridge have received results of phase three of the DISIS, which means those results
18 are final.

19 **Q. In summary, what are the cost impacts of the most recent results for each project?**

20 A. For Neosho Ridge, the DISIS phase two results allocate no costs for network upgrades.
21 For Kings Point, final results of the DISIS allocate no costs for network upgrades.
22 Finally, for North Fork Ridge, the final results of the DISIS allocated \$6,649 to the
23 project for network upgrades. These network upgrade costs are for Evergy to study

1 relay settings at its Litchfield substation, which is connected to Empire’s Asbury
2 substation (where North Fork Ridge is interconnected) via 161 kV transmission.

3 **Q. What is the next step for these projects?**

4 A. Kings Point and North Fork Ridge received execution copies of their generator
5 interconnection agreements on December 7, 2021. Empire intends to execute these
6 documents on or before December 30, 2021. The execution version of the generator
7 interconnection agreements for Kings Point and North Fork Ridge are attached as
8 **Rebuttal Schedule SR-1** and **Rebuttal Schedule SR-2** respectively.

9 **Q. When does Empire expect to have final results from the DISIS for Neosho Ridge?**

10 A. According to SPP’s Generation Interconnection Queue Study Schedule, results for
11 DISIS phase 3 are expected to be posted on or before January 15, 2022.

12 **III. WILDLIFE PERMIT STATUS**

13 **Q. On page 54 of his Direct Testimony, Dr. Marke also describes his “concerns
14 surrounding forced curtailments due to excessive take rates (i.e. deaths) of
15 protected and endangered species” and his concern that “Empire has not secured
16 a long-or short-term incidental take permit (‘ITP’) for either of its wind projects
17 in Missouri, which operate within miles of known habitat caves for grey bats.” Do
18 you agree with OPC witness Marke’s concerns regarding forced curtailments due
19 to excessive takes of threatened and endangered species?**

20 A. I do not. These concerns appear to be based on a misunderstanding of the Company’s
21 decision to secure a 10(a)(1)(A) Recovery Permit and an imperfect comparison to other
22 wind projects in Missouri.

23 **Q. In what way does it appear that Dr. Marke has misunderstood the Company’s
24 decision to secure a 10(A)(1)(a) Recovery Permit?**

1 A. On lines 19-21, page 54 of his Direct Testimony, Dr. Marke states that “[I]n effect, the
2 testing program permit places a greater level of scrutiny on the impact of wind farms
3 on protected species than what would necessarily exist if the Company had secured an
4 ITP.” The Company’s decision to pursue a 10(A)(1)(a) Recovery Permit was made
5 based upon the Company’s obligations and how those obligations could be fulfilled
6 with the least possible risk of customer impact. Given that this project is the first large-
7 scale wind farm in the range of the gray bat, it is impossible to say that it would not
8 have received a greater level of scrutiny if the Company had secured an ITP. As the
9 Company worked with the U.S. Fish and Wildlife Service (USFWS) on Habitat
10 Conservation Plans (HCP) and Incidental Take Permits (ITP) for Kings Point and North
11 Fork Ridge, the greatest hurdle to achieving progress was determination of a take
12 estimate for gray bats. This was the primary reason for opting to secure a 10(A)(1)(a)
13 Recovery Permit.

14 **Q. Why were the USFWS and the Company unable to settle on a gray bat take**
15 **estimate for the HCP and ITP for Kings Point and North Fork Ridge?**

16 A. As I noted in my prior response, Kings Point and North Fork Ridge are the first large
17 scale wind energy production facilities in the range of the gray bat, so no published
18 information exists on mortality rates experienced by the species in interaction with
19 wind energy production facilities. The Company’s consultant on wildlife permitting
20 used a number of different approaches to develop a take estimate based upon mortality
21 rates experienced by all bats at wind facilities or even using one or multiple proxy
22 species, resulting in a widely divergent range of estimates.

1 **Q. Why was having a wide range of calculated take estimates a problem?**

2 A. The wider the range of estimates one has to select from, the less certain one can be
3 about having made a good estimate. However, in this instance, an inaccurate estimate
4 can have significant adverse impacts on either the gray bat or those who depend on the
5 energy generated by the facility. If the take estimate is too high, the adaptive
6 management measures specified in the HCP may not be triggered early enough to
7 prevent population-level harm to the species. If the take estimate is too low, adaptive
8 management measures (potentially including forced curtailment) may be implemented
9 even though no population-level harm to the species has occurred or will imminently
10 occur.

11 **Q. How does securing a 10(A)(1)(a) Recovery Permit help with this problem?**

12 A. Because the 10(A)(1)(a) Recovery Permit provides coverage for take that occurs in the
13 course of activities to enhance the propagation or survival of the affected species, we
14 will be able to develop information about the mortality rates that gray bats experience
15 when encountering uncontrolled turbines (no mitigation), turbines under blanket
16 curtailment (curtailment based solely on windspeed), and turbines controlled by
17 activity-based intelligent curtailment (curtailment informed by monitoring of actual bat
18 activity). This information is consistent with enhancing the survival of the gray bat, as
19 it is likely that as wind turbine technology improves, wind energy development will
20 progress into more areas of the gray bat's range.

21 **Q. Has the Company received a 10(A)(1)(a) Recovery Permit for either project?**

22 A. Yes, the USFWS issued permit number ESPER0011726 on August 6, 2021. This
23 permit covers both Kings Point and North Fork Ridge. Annual reports of activities
24 conducted under this permit are due on January 31 and are required to be submitted to

1 the USFWS Midwest Regional Office, the USFWS Missouri Field Office, and the
2 Missouri Department of Conservation Endangered Species and Natural History
3 Division. The 10(A)(1)(a) Recovery Permit for Kings Point and North Fork Ridge is
4 attached as **Rebuttal Schedule SR-3**.

5 **Q. Are you aware of any other wind farms operating under a 10(A)(1)(a) permit?**

6 A. Yes, I am aware of at least one other wind farm in the USFWS Midwest Region that
7 operates under a 10(A)(1)(a) permit – the Radford’s Run Wind Farm in Illinois. That
8 wind farm has operated under a 10(A)(1)(a) permit for the northern long-eared bat and
9 the Indiana bat since June 2019.

10 **Q. Given that the Company has secured a 10(A)(1)(a) permit for the projects, will it**
11 **continue to pursue ITPs for the projects?**

12 A. Yes. – The Company views the 10(A)(1)(a) permit as a steppingstone to a long-term
13 ITP for the projects. The activities that take place under this permit will allow for the
14 development of an HCP that includes a take estimate developed through observation of
15 the species’ interaction with the facilities, greatly reducing the likelihood of adverse
16 impacts to the species or the production of the facilities as discussed previously. The
17 study conducted under the 10(A)(1)(a) permit will also provide information on how
18 effective different curtailment regimes are in preventing gray bat mortality, and which
19 may be appropriate adaptive management measures for inclusion in the HCP.

20 **Q. To what are you referring when you say the OPC concerns appear to be based on**
21 **imperfect comparisons to other wind projects in Missouri?**

22 A. On lines 24-26 on page 54 of his Direct Testimony, Dr. Marke says, “Look no further
23 than Ameren Missouri’s High Prairie Wind Farm that is not operating 25% of the year
24 currently to see how this could play out.” Dr. Marke’s statement is based on the

1 experience of another project in a different part of the state, dealing with different
2 endangered species, different habitats, and the management decisions of a different
3 company. However, Dr. Marke does not appear to take into consideration the proactive
4 steps Empire has taken: (a) a signed a stipulation regarding wildlife with the Missouri
5 Department of Conservation; (b) continues to perform biannual gray bat population
6 counts at Stinson Cave (a gray bat colony in the vicinity of Kings Point); and, (c) has
7 purchased an important gray bat maternity colony in southwest Missouri to support
8 recovery of the species.

9 **Q. Does this conclude your Rebuttal Testimony?**

10 A. Yes.

VERIFICATION

I, Shaen T. Rooney, under penalty of perjury, on this 20th day of December, 2021,
declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/Shaen T. Rooney