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**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. EA-2018-0202**

**WRITTEN REBUTTAL TESTIMONY**

**OF**

**JENNIFER CAMPBELL**

**ON**

**BEHALF OF**

**MISSOURI DEPARTMENT OF CONSERVATION**

**\*\*\*DENOTES HIGHLY CONFIDENTIAL INFORMATION\*\*\***

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**REBUTTAL TESTIMONY OF JENNIFER CAMPBELL**  
**MISSOURI DEPARTMENT OF CONSERVATION**

**CASE NO. EA-2018-0202**

1 **I. INTRODUCTION**

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

3 A. Jennifer Campbell, Policy Coordinator, Missouri Department of  
4 Conservation, P.O. Box 180, Jefferson City, MO 65102

5 **Q. Please describe your current position, education, background,**  
6 **and training.**

7 A. I have worked for the Department of Conservation as a Policy  
8 Coordinator since 2011. My role on development projects is to work with project  
9 proponents and regulators to suggest ways to accomplish the project while reducing  
10 potential impacts to fish, forest, and wildlife. Apart from utility scale wind projects,  
11 other types of development projects have included: pipelines; transmission lines;  
12 roads; shopping centers; subdivisions; nuclear, hydropower, and coal facilities. Like  
13 other forms of development, consideration of fish and wildlife resources during  
14 project planning, siting, construction, and operation can produce a renewable  
15 energy project that is more environmentally friendly. I am Missouri's representative  
16 on the Association of Fish and Wildlife Agencies' Energy and Wildlife Policy  
17 Committee. I earned a Master of Science degree in Environmental Science/Applied  
18 Ecology from the School for Public and Environmental Affairs at Indiana

1 University-Bloomington. Prior to that, I earned a Bachelor of Arts in Earth and  
2 Planetary Sciences from Washington University in St. Louis.

3 **Q. What is the purpose of your testimony?**

4 A. The purpose of my testimony is to respond to Ameren Missouri  
5 (“Ameren”) witness Ajay Arora’s direct testimony, specifically where he identifies  
6 conservation of endangered species as one of the five main risks associated with  
7 development and construction of wind projects. (Arora Direct, 17:4-13). Specifically,  
8 I intend to describe the Department’s interest in the issuance of the Certificate of  
9 Convenience and Necessity (CCN) for the proposed High Prairie Wind Project (the  
10 “Project”), the public’s attitudes and interest in wildlife in Missouri, and how most,  
11 if not all, costs for the Department’s recommendations have already been accounted  
12 for by Ameren.

13 **II. DEPARTMENT OF CONSERVATION INTERESTS**

14 **Q. Why is the Department of Conservation intervening in this**  
15 **case?**

16 A. The Department of Conservation ("Department") has a constitutional  
17 mandate to conserve fish, forest, and wildlife in the state for Missourians to enjoy  
18 now and in the future. The Department was formed through an initiative petition  
19 approved by voters in 1936 to create a non-political Conservation Commission.  
20 Sportsmen protested earlier that decade that fees from hunting permit sales were  
21 used for projects other than wildlife preservation/management, plus the statewide  
22 wildlife populations were low (deer population not more than 2,000 animals and

1 perhaps 3,500 turkeys scattered across 45 counties). Voters passed another ballot  
2 initiative (“Design for Conservation”) in 1976 to fund increased research into  
3 forestry and all species of wildlife, and to expand recreational opportunities for the  
4 future.

5 As described by other Department witnesses, the Department has invested  
6 significant resources to recover species that could be impacted by the Project, for  
7 instance federally listed bats (Indiana bat, Northern long eared bat) and federally  
8 protected raptors (bald eagle). The Department has an interest in protecting the  
9 investment made by Missourians (through the Conservation Sales Tax) in  
10 conserving species that are rare or were once rare in our state. The Department also  
11 has interest in conserving other species, so they do not decline to the point of  
12 becoming federally listed.

13 While the Department is aware of efforts to obtain a Habitat Conservation  
14 Plan for federally-listed bats with the U.S. Fish and Wildlife Service (“USFWS” or  
15 “Service”) for this Project, the terms of that agreement are yet to be determined.  
16 Further, there is no guarantee that all species of interest to the Department would  
17 be addressed by the Habitat Conservation Plan. Typically, these plans are  
18 developed by project proponents and reviewed by the Service under the authority of  
19 the Endangered Species Act (ESA). Some species of interest to the Department are  
20 not currently protected by the Endangered Species Act, as explained further by Dr.  
21 Kathryn Womack in her Rebuttal Testimony.

1           Additionally, this project may have precedential value for wind development  
2 in the state of Missouri. According to Mr. Arora’s Direct Testimony, this will be a  
3 400MW project and “is expected to be the largest wind facility in Missouri.” (Arora  
4 Direct 4:10). It is also the first of a number of anticipated wind projects by the  
5 Company.

6           The Public Service Commission (“Commission”) is currently the only state  
7 entity with regulatory authority over the siting of wind farms in Missouri, even  
8 though its authority is limited to wind farms constructed by regulated utilities. The  
9 Commission has previously issued orders in cases where other agencies or entities  
10 have overlapping or concurrent jurisdiction on an issue. The Commission has  
11 previously considered environmental, wildlife and conservation concerns in its  
12 analysis of "public interest" in a certificate of convenience and necessity case. In  
13 fact, the Commission made a specific finding regarding the Indiana bat. These  
14 instances are referenced later in my testimony.

15           Through this case, the Department hopes its expertise in wildlife issues will  
16 be helpful to the Commission as they consider this and other projects in the future.

17           **Q.     What is the Department asking in this case?**

18           A.     It is the Department’s understanding that the Commission’s role is to  
19 balance a number of interests when ruling on this case ranging from economic  
20 development to ratepayer concerns. To the extent that public funds have been and  
21 will continue to be invested in bat and eagle research and conservation in or near  
22 the Project area, this project has the potential to impact those investments. The

1 Department is asking the Commission to consider these investments and impacts to  
2 protected species as part of this case and impose conditions within the CCN, as  
3 recommended by Department experts, to address these issues. The Department's  
4 investment in bats and bald eagles and associated recommendations are more fully  
5 described in the Rebuttal Testimony of Dr. Kathryn Womack and Dr. Janet  
6 Haslerig.


7 **Q. Does the Department oppose wind energy?**

8 A. The Conservation Commission and the Department do not oppose wind  
9 energy. The Department is interested in building understanding with respect to  
10 wildlife impacts and other issues associated the siting and operation of wind energy  
11 projects. While renewable energy projects can be very positive, there can be  
12 consequences associated with these projects. It is the Department's position that  
13 consideration of fish and wildlife resources during project planning, siting,  
14 construction, and operation can produce a renewable energy project that is even  
15 more environmentally beneficial. Unfortunately, because of a lack of monitoring, we  
16 are still learning about the actual impacts of wind projects on certain wildlife  
17 species. Monitoring at wind projects is critical to understanding and protecting  
18 wildlife in the future.

19 **Q. Is the Department concerned with the proposed High Prairie**  
20 **Wind Farm Project?**

1           A.     The project is in a “high risk” area<sup>1</sup> for the federally protected Indiana  
2 bat, as is discussed in detail in the testimony of Dr. Kathryn Womack. There are  
3 other bats also present in the project site that are susceptible to mortality from  
4 wind turbine strikes, for example the hoary bat. Also, the Department knows of  
5 eagle use within and near the Project area. These are examples of state species of  
6 conservation concern ("SOCC") identified by the Department, even though they may  
7 not be federally endangered. These risks are more fully described by the  
8 Department’s technical species experts Dr. Kathryn Womack and Dr. Janet  
9 Haslerig. Finally, even though not the focus of our testimony, I must note that there  
10 are numerous species of migratory birds that are likely using the project area which  
11 could be impacted.

12           **Q.     Are you familiar with the techniques suggested by the**  
13 **Department’s species experts to reduce the potential for wildlife**  
14 **mortality?**

15           A.     Yes. There are several recommendations related to the project. For  
16 example, one suggested operational measure to reduce bat mortality is curtailment  
17 (or “cut-in” speed). This increases the wind speed at which the turbines operate, but  
18 only during the active season for bats. Without any avoidance or minimization  
19 measures, of which curtailment is one example, it is estimated that \*\*\*\*\*\*

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<sup>1</sup> Missouri Department of Conservation (MDC). 2016. Guidelines for avoiding and minimizing impacts to federally-listed bats on Missouri Department of Conservation lands. Jefferson City, MO. 40 p.



1 bats will be killed each year by the project.<sup>2</sup> The testimony of Dr. Kathryn Womack  
2 describes how the different “cut-in” speeds result in observed mortality reductions  
3 at other projects. I emphasize that even cut-in speeds of 6.9 meters per second do  
4 not reduce bat mortality to zero. An example of a siting recommended for the project  
5 relates to the distance between eagle nests and individual turbines. There does not  
6 appear to be a cut-in speed that reduces eagle mortality.

7 **Q. What does Missouri Wildlife Code say about taking wildlife**  
8 **without a permit?**

9 A. The Missouri Wildlife Code is found at 3 CSR Chapter 10. It has been  
10 adopted by the Missouri Conservation Commission pursuant to its constitutional  
11 authority found in Article IV, Section 40(a), which states that the “control,  
12 management, restoration, conservation and regulation of the bird, fish, game,  
13 forestry and all wildlife resources of the state . . . shall be vested in a conservation  
14 commission . . . . The Wildlife Code specifically prohibits the molesting, pursuing,  
15 taking, hunting, killing, or possession of any wildlife species without express  
16 authority granted by the Commission in the Wildlife Code. 3 CSR 10-4.110.  
17 Furthermore, with respect to state endangered species, the Code prohibits the  
18 taking of any endangered species of wildlife. 3 CSR 10-411. See also Section 252.240  
19 RSMo. State endangered species which are relevant in this case include the gray  
20 bat, Indiana bat, and northern long-eared bat. Any person violating this provision of  
21 the Wildlife Code is guilty of a class B misdemeanor. Section 252.240.6 RSMo.

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1           **Q.    Would public uses at Department conservation area lands be**  
2 **affected by the Project?**

3           A.    The project is situated between several conservation areas owned and  
4 managed by the Department of Conservation: Big Creek; Indian Hills; and Rebels  
5 Cove (Figure 1). At this time, we have no way of knowing whether the near-by  
6 presence of wind turbines would adversely affect the public’s use and enjoyment of  
7 these conservation areas. A statistically robust traffic count study before and after  
8 construction of the proposed project could be conducted to understand part of the  
9 answer. The Department has requested other wind project developers to conduct  
10 these studies to measure the impact of a wind project on Conservation Area use and  
11 would want Ameren to do so in this case.

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1           **Q.     What area uses are known from the Departments' lands**  
2 **proximate to the Project area?**

3           A.     Big Creek Conservation Area is a 1,064-acre property in Adair County,  
4 located 6.8 miles southwest from the proposed Project. Public uses of the area  
5 include: deer, turkey, rabbit and squirrel hunting; fishing; camping. Indian Hills  
6 Conservation Area is a 3,975-acre property in Scotland County. It is located 2.5  
7 miles east from the propose High Prairie project. Public uses include: waterfowl,  
8 deer, dove, quail, rabbit, squirrel, turkey hunting; fishing; camping. Rebels Cove  
9 Conservation Area is a 4,225-acre property located in Schuyler and Putnam  
10 Counties. It is located 7.2 miles northwest of the proposed High Prairie project.  
11 Public uses of the area include: waterfowl, dove, quail, pheasant, deer, turkey, and  
12 small game hunting; bird watching; camping and canoeing; fishing; and nature  
13 viewing.

14 **III.   MISSOURIANS AND CONSERVATION OF WILDLIFE**

15           **Q.     What is known about public attitudes towards wildlife in**  
16 **Missouri?**

17           A.     A survey conducted in 2013 for the Department, by the University of  
18 Missouri, included results that most Missourians report interest in Missouri's fish,  
19 forests, and wildlife (95 percent). Additionally, Missourians were active in a variety  
20 of outdoor recreation pursuits in the 12 months before the survey: 74 percent  
21 watching birds or wildlife; 60 percent hiking in the outdoors; 56 percent feeding  
22 birds or other wildlife near their homes; 52 percent photographing wildlife,

1 wildflowers, or other natural things; 45 percent fishing; and 24 percent hunting.  
2 Furthermore, 55 percent of Missourians reported using Department Conservation  
3 Areas within the last 12 months. Over three-quarters of Missourians agree that  
4 “The Missouri Department of Conservation is a name I can trust” (76 percent).<sup>3</sup>

5         Missourians support conservation activities and agree that the Department  
6 should assist landowners and communities with conservation and management  
7 efforts. Most Missourians agree that “It is important for outdoor places to be protected  
8 even if you don’t plan to visit the area” (89 percent); and “The Missouri Department  
9 of Conservation should designate “natural areas” to protect Missouri’s best examples  
10 of forests, prairies, marshes and glades” (82 percent). Over three-quarters agree that  
11 “The Missouri Department of Conservation should help private landowners who want  
12 to restore native communities of plants and animals” (77 percent); “The Missouri  
13 Department of Conservation should conserve and restore rare and endangered  
14 plants” (77 percent); “The Missouri Department of Conservation should assist  
15 communities that want to include trees and green spaces in housing, business, and  
16 shopping developments” (77 percent); and “The Missouri Department of Conservation  
17 should make an effort to restore animals that once lived or currently are very rare in  
18 Missouri” (76 percent).” Almost three-quarters agree that “Land should be acquired  
19 in Missouri for fish, forest, and wildlife conservation” (71 percent).<sup>4</sup>

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<sup>3</sup> Rikoon, S. et al., University of Missouri-Columbia (January 2014), “Your Ideas Count!: Report of Results of the 2013 Conservation Opinion Survey for the Missouri Department of Conservation.”

<sup>4</sup> Id.

1           **Q.     Please describe the survey methods for the 2013 Conservation**  
2 **Opinion Survey.**

3           A.     The 2013 Conservation Opinion Survey was conducted for the  
4 Department by the University of Missouri. Survey questionnaires were mailed to a  
5 random sample of Missouri households with 16,173 forms successfully delivered and  
6 4,743 useable responses. The survey had an overall response rate of 29.3 percent. A  
7 stratified sampling methodology was used to ensure representation across all  
8 counties and the city of St. Louis, including metropolitan, micropolitan, and rural  
9 areas as defined by the U.S. Census Bureau. The survey used a standard mailing  
10 methodology with five mailings. Survey respondents could respond by mail or  
11 through an online form with unique identification. Results were weighted by age,  
12 sex, and geographic region to appropriately represent the Missouri population. A  
13 complete description of the methodology is available in the report of results.<sup>5</sup>

14           **Q.     Generally, can you describe the economics associated with**  
15 **migratory birds and raptors (including bald eagles)?**

16           A.     Hundreds of migratory birds and raptors are of interest to wildlife  
17 watchers in our state. There are 1.7 million Missourians and visitors who  
18 participate in wildlife viewing on an annual basis.<sup>6</sup> There is a \$1.7 billion economic  
19 impact of wildlife viewing in Missouri, supporting 18,000 jobs, and generating

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<sup>5</sup> Id.

<sup>6</sup> U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

1 \$153.7 million in state and local taxes.<sup>7</sup> Some migratory bird species are of interest  
2 to waterfowl hunters. More than 576,000 Missourians and visitors participate in  
3 hunting (including waterfowl and other types) annually.<sup>8</sup> These hunting activities  
4 enrich the economy and quality of life. Hunting has a \$1.7 billion impact on the  
5 Missouri economy, supporting more than 23,000 jobs and generating \$164 million in  
6 state and local sales taxes.<sup>9</sup>

7 **Q. Why should Missourian’s attitudes about wildlife inform the**  
8 **Commission in this case?**

9 A. Missourians value the wildlife around their homes and where they  
10 hunt and recreate. They value the boost to local economy from wildlife recreation, as  
11 well as quality of life benefits. The citizens of Missouri expect the Department of  
12 Conservation to make efforts to recover species that are rare in the state, and  
13 protect species they hunt, and protect species they enjoy watching at the birdfeeder  
14 and elsewhere. Missourians have invested millions of dollars of their Conservation  
15 Sales Tax in the recovery of threatened species (including but not limited to bats  
16 and eagles).

17 The Commission has previously issued orders in cases where other agencies  
18 or entities have overlapping or concurrent jurisdiction on an issue.<sup>10</sup> The

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<sup>7</sup> ENVIRON International Corporation. 2014. The 2011 Economic Impacts of Fishing, Hunting, and Wildlife Viewing in Missouri. Environ International Corporation, Clackamas OR. 67 pp.

<sup>8</sup>*Supra*, n. 6.

<sup>9</sup>*Supra*, n. 7.

<sup>10</sup> See Report and Order, In the Matter of Missouri-American Water Company's Request for Authority to Implement General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas, May 2, 2018 (where the commission decided lead-service line issues despite the Company also being in talks with the CDC, EPA and other agencies).

1 Commission has previously considered environmental, wildlife and conservation  
2 concerns in its analysis of "public interest" in a certificate of convenience and  
3 necessity case. In fact, the Commission made a specific finding regarding the  
4 Indiana bat. <sup>11</sup>

5 **IV. AMEREN'S ACCOUNTING FOR COSTS ASSOCIATED WITH**  
6 **WILDLIFE ISSUES**

7 **Q. Are the costs of addressing risks associated with conservation**  
8 **of endangered species, as described by Mr. Arora, already accounted for in**  
9 **the Build Transfer Agreement between High Prairie Holdings, LLC and**  
10 **Ameren?**

11 A. \*\*\* [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED]  
15 [REDACTED]  
16 [REDACTED]  
17 [REDACTED]  
18 [REDACTED]  
19 [REDACTED]

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<sup>11</sup> See Report and Order, In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line from Palmyra, Missouri, to the Iowa Border and Associated Substation Near Kirksville, Missouri (April 27, 2016), 26-27.

1 [Redacted]  
2 [Redacted]  
3 [Redacted]  
4 [Redacted]  
5 [Redacted]  
6 [Redacted]  
7 [Redacted]  
8 [Redacted]  
9 [Redacted]  
10 [Redacted]  
11 [Redacted]  
12 [Redacted]  
13 [Redacted]  
14 [Redacted] \*\*\*

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

16 A. Yes



