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Issues: Endangered and Protected Species
Witness/Type of Exhibit: Marke/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: EA-2018-0202

SURREBUTTAL TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of
the Office of the Public Counsel

UNION ELECTRIC D/B/A AMEREN MISSOURI

CASE No. EA-2018-0202

September 28, 2018

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the Application of Union)
 Electric d/b/a Ameren Missouri for) Case No. EA-2018-0202
 Permission and Approval and a Certificate) Tariff No. YE-2018-0158
 of Convenience and Necessity Authorizing)
 it to Construct a Wind Generation Facility)

AFFIDAVIT OF GEOFF MARKE

STATE OF MISSOURI)
) ss
 COUNTY OF COLE)

Geoff Marke, of lawful age and being first duly sworn, deposes and states:

1. My name is Geoff Marke. I am a Regulatory Economist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal 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.




 Geoff Marke
 Chief Economist

Subscribed and sworn to me this 28th day of September 2018.



JERENA A. BUCKMAN
 My Commission Expires
 August 23, 2021
 Cole County
 Commission #13754037



 Jerene A. Buckman
 Notary Public

My commission expires August 23, 2021.

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SURREBUTTAL TESTIMONY

OF

GEOFF MARKE

UNION ELECTRIC COMPANY

d/b/a Ameren Missouri

CASE NO. EA-2018-0202

1 **I. INTRODUCTION**

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

3 A. Geoffrey Marke, PhD, Chief Economist, Office of the Public Counsel (“OPC”), P.O. Box
4 2230, Jefferson City, Missouri 65102.

5 **Q. Are you the same Geoff Marke that filed rebuttal testimony in EA-2018-0202?**

6 A. Yes.

7 **Q. What is the purpose of your surrebuttal testimony?**

8 A. The purpose of this testimony is to respond to the rebuttal testimony regarding the potential
9 impact on Missouri’s endangered and protected species (and subsequent impact on ratepayers),
10 proposed mitigation measures and post-mortality collection proposals from:

- 11 • Missouri Department of Conservation (“MDC”) witnesses: Jennifer Campbell, Dr.
12 Kathryn Womack and Dr. Janet Haslerig; and
- 13 • Missouri Division of Energy (“DE”) witness Martin R. Hyman.

14 **Q. Can you summarize the parties’ positions?**

15 A. The Missouri Public Service Commission Staff (“Staff”) entered into a nonunanimous
16 stipulation and agreement with Ameren Missouri before any rebuttal testimony was filed
17 and before the local public hearing occurred for this case. Staff has not filed any testimony
18 to date.

19 Renew Missouri (“Renew”) waited until after rebuttal testimony was filed and after the local
20 public hearing occurred to file its support. The Missouri Industrial Energy Consumers
21 (“MIEC”) joined onto a second unanimous stipulation and agreement four days ago in which

1 certain provisions were agreed to in regards to the recovery of the asset through a Renewable
2 Energy Standard Revenue Adjustment Mechanism (“RESRAM”).

3 The Sierra Club and the Natural Resources Defense Council (“NRDC”) have not taken a
4 position as of this filing.

5 The Missouri Department of Conservation (“MDC”), the Missouri Division of Energy
6 (“DE”) and the Missouri Office of the Public Counsel (“OPC”) all filed rebuttal testimony
7 supporting the general premise of acquiring additional wind generation but recommended
8 the Commission order certain operational and post-data collection actions to mitigate
9 fatalities of federally designated endangered species and state protected species of concern.

10 OPC filed additional testimony as it pertains to cost recovery in light of the passage of
11 Senate Bill 564.

12 **Q. Has OPC’s position changed?**

13 A. No. In light of the two nonunanimous stipulations filed, OPC is putting forward an additional
14 witness to address the proper valuation of depreciation of the wind asset (see OPC Robinett).

15 **Q. Putting aside those two issues and OPC’s issue with appropriate recovery in light of**
16 **SB 564, please summarize OPC’s issue regarding mitigation of local conservation**
17 **impacts?**

18 A. OPC’s primary recommendation is that ratepayers should be held harmless from any future
19 costs related to violations of applicable federal or state protected species acts (e.g.,
20 Endangered Species Act (“ESA”), Migratory Bird Treaty Act (“MBTA”) State Species of
21 Concern (“SSOC”), etc...) and any future actions required to avoid noncompliance with
22 those laws. Ameren Missouri could have elected to acquire wind in any number of locations
23 that did not include the presence of endangered species maternity colonies (e.g., Indiana

1 bats)¹ and identified raptor nests (bald eagles).² And Ameren Missouri can still elect to adopt
2 the proposed mitigation measures (e.g, cut-in speed at 6.9 m/s or greater, only operating at
3 certain months/time, timely collection of carcasses, etc...) and reporting requests put
4 forward by MDC and OPC in rebuttal testimony.

5 However, at this point, Ameren Missouri has elected to remain silent on amending its
6 application even though such reasonable operational actions would diminish the potential
7 of future violations. As such, the risks of the unintended take (death) of protected species and
8 the associated costs from this inaction should be borne by Ameren Missouri's shareholders
9 alone.

10 As an alternative to Ameren Missouri's inaction, OPC requests that the Commission order
11 Ameren Missouri to:

- 12 1. Obtain an Incidental Take Permit ("ITP") prior to operation of its wind
13 facilities and/or require that Ameren Missouri set its turbines cut in speed at
14 6.9 to mitigate the unintentional take of endangered species;
- 15 2. Adopt MDC's specific recommendations regarding buffer zones and pre-site
16 selection mitigation efforts;³
- 17 3. Utilize an independent third-party contractor to collect post-mortality data
18 from the site to inform both the Commission and better educate the siting of
19 future wind projects; and
- 20 4. Actually file reports on mortality statistics and environmental mitigation
21 efforts with those results to be made available to the public for the sake of
22 good transparency and research value.

¹ See EA-2018-0202, Rebuttal Testimony of Dr. Kathryn Womack, p.25, 18-19 and p. 26,1 (describing the Project area as containing up to 15 endangered Indiana bat maternity colonies with an upper estimate of 1,200 female bats *per colony*).

² See EA-2018-0202 Rebuttal Testimony of Dr. Janet Haslerig p. 5, 13-20 (describing the number of bald eagle nests in her confidential version).

³ See EA-2018-0202 Rebuttal Testimony of Dr. Kathryn Womack p. 38-42 and the Rebuttal Testimony of Dr. Janet Haslerig p. 9-10.

1 OPC believes that those mitigating measures should be adopted from the onset out of an
2 abundance of caution, and not adopted only after some fatality threshold has been exceeded;
3 otherwise, ratepayers should be held harmless. As more information and technology
4 advances on mitigating avian and mammalian mortality, Ameren Missouri can learn and
5 adapt accordingly.

6 This preventative line of reasoning is made, in part, because there is no need for this project
7 from a resource or reliability standpoint. It is being acquired merely to meet Missouri's RES
8 requirement due in 2021. Ameren Missouri could meet that requirement under a variety of
9 other ways that do not involve probable liability of future costs to ratepayers as a result of
10 placing endangered species at risk.

11 There is simply no reason why this application cannot be modified to preserve state and
12 federal conservation efforts, support economic development and increase renewable
13 generation in a manner that is cost-effective for ratepayers.

14 Ignoring or dismissing OPC, DE and MDC's concerns has the potential to hinder future
15 renewable energy development, unnecessarily raise costs and undermine State conservation
16 policy. It will also most certainly result in the needless deaths of endangered and protected
17 species.

18 **II. Response to MDC**

19 **Q. What is MDC's primary concern?**

20 A. That Ameren Missouri's Project will damage Missouri citizens "public interest" by negatively
21 impacting local, state and federal conservation efforts as it pertains to endangered and protected
22 species of interest. MDC requests that the Commission order Ameren Missouri to adopt
23 operational mechanisms to mitigate fatalities, ensure appropriate buffers for protected
24 birds/bats and provide timely post-construction reports to MDC and the Missouri Public
25 Service Commission.

1 **Q. Does MDC address the role that U.S. Fish & Wildlife (“USFWS”) has in this process?**

2 A. Yes. MDC witness Ms. Campbell states:

3 While the Department is aware of efforts to obtain a Habitat Conservation Plan
4 for federally-listed bats with the U.S. Fish and Wildlife Service (“USFWS” or
5 “Service”) for this Project, the terms of that agreement are yet to be determined.
6 Further, there is no guarantee that all species of interest to the Department would
7 be addressed by the Habitat Conservation Plan. Typically, these plans are
8 developed by project proponents and reviewed by the Service under the
9 authority of the Endangered Species Act (“ESA”). Some species of interest to
10 the Department are not currently protected by the Endangered Species Act, as
11 explained further by Dr. Kathryn Womack in her rebuttal testimony.⁴

12 I cannot imagine a scenario where USFWS would demand that the proposed wind farm operate
13 under conditions that pose greater risk to endangered and protected species.

14 **Q. Would adoption of MDC’s requests somehow make Missouri unattractive to wind
15 developers?**

16 A. No. First, and this point cannot be stressed enough, based on MDC witnesses Dr. Womack and
17 Dr. Haslerig rebuttal testimony, the site selected for the CCN is arguably one of the worst as it
18 pertains to potential violations of the ESA and state protections for SOCC. By no means does
19 OPC believe that MDC is somehow trying to punitively exert some arbitrary recommendation
20 that would apply to all future wind sites. To the contrary, MDC provides reasonable
21 recommendations to allow this specific site (despite the high-threat level) to move forward.
22 Again, to quote Ms. Campbell:

23 The Conservation Commission and the Department do not oppose wind energy.
24 The Department is interested in building understanding with respect to wildlife
25 impacts and other issues associated the siting and operation of wind energy
26 projects. While renewable energy can be very positive, there can be

⁴ EA-2018-0202 Rebuttal Testimony of Jennifer Campbell p. 3, 13-21.

1 consequences associated with these projects. It is the Department’s position that
2 consideration of fish and wildlife resources during project planning, siting,
3 construction, and operation can produce a renewable energy project that is even
4 more environmentally beneficial. Unfortunately, because of a lack of
5 monitoring, we are still learning about the actual impacts of wind projects on
6 certain wildlife species. Monitoring at wind projects is critical to understanding
7 and protecting wildlife in the future.⁵

8 Second, the recommendations put forward by MDC, DE and OPC are in line with accepted
9 best practices for other large wind projects in the Midwest.

10 **Q. Could you provide an illustrative example?**

11 A. Yes. MidAmerican Energy Company is currently seeking a multi-year incidental take permit
12 and Habitat Conservation Plan with specific curtailment mitigation measures. Speaking for
13 MidAmerican Energy Company, Geoff Greenwood elaborates:

14 **“We plan to modify the turbines activity so they stop during certain**
15 **times of the year if it is under that threshold speed where it begins to**
16 **generate energy.”** Greenwood says. “And we hope that that will be a
17 significant impact in reducing the number of bats that come into contact with
18 our turbines.” . . .

19 Bats are nocturnal, so **the adjustments would be during the nighttime**
20 **hours and other times identified when the bats are flying more often.**

21 When it comes to eagles, one of the measures would educate nearby
22 residents the importance of not putting out food sources that could cause the
23 birds to fly into the path of the turbines. . . .

24 We’ve submitted the plan to the U.S. Fish and Wildlife Service. The U.S.
25 Fish and Wildlife Service will have a public comment period, and we expect
26 them to take some type of action in the spring,” Greenwood says. **Some of**

⁵ Ibid. p. 5, 8-18.

1 **the steps the company is proposing — such as stopping the blades at**
2 **certain times of the year — will lead to less energy production.**
3 **“We think that even though it’s a change that probably will cost us a**
4 **little bit in how much energy the turbines produce — it’s worth it**
5 **because it is protecting these species. And these are species that need to**
6 **be protected,”** Greenwood says.⁶

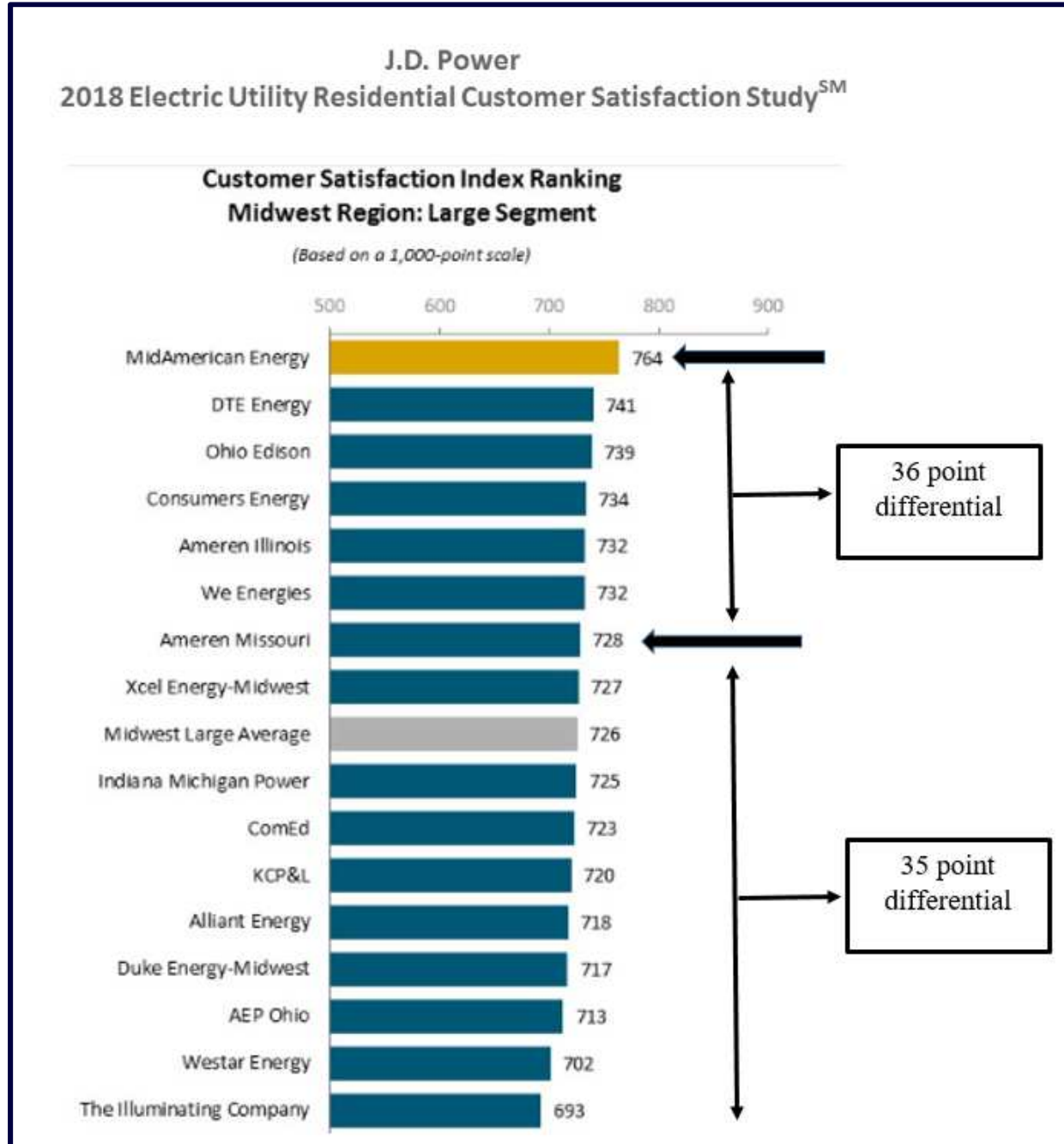
7 To be clear, MidAmerican Energy has committed publically to taking the proactive mitigation
8 efforts for its future wind farms that three of the four state agencies in this case endorse.

9 **Q. Does MidAmerican Energy produce positive customer satisfaction scores?**

10 A. Yes. That might be an understatement. MidAmerican Energy is routinely one of the best ranked
11 utilities in the nation in terms of J.D. Power Customer Satisfaction Scores. To provide some
12 context, Figure 1 reproduces the 2018 Midwest Region: Large Segment. Readers will note
13 that the point differential from Ameren Missouri to MidAmerican Energy is greater than the
14 point differential between Ameren Missouri and the lowest scoring large utility in the Midwest
15 (The Illuminating Company).

⁶ Danielson, D. (2018) MidAmerican offers plan to cut wind turbine deaths for bats and eagles. Radio Iowa.
<https://www.radioiowa.com/2018/08/31/midamerican-offers-plan-to-cut-wind-turbine-deaths-for-bats-and-eagles/>
see also: USFWS Illinois- Iowa Ecological Services Field Office: MidAmerican Energy Company Draft Habitat
Conservation Plan for Wind Energy Facilities in Iowa.
<https://www.fws.gov/midwest/rockisland/te/MidAmericanHCP.html>

1 Figure 1: J.D. Power Midwest Region, Large Segment Customer Satisfaction Ranking (2018)⁷



2

⁷J.D. Power (2018) Press Releases: Residential Customer Satisfaction Survey
<https://www.jdpower.com/business/press-releases/2018-electric-utility-residential-customer-satisfaction-study>

1 Ameren Missouri has taken a number of steps over the last few years to update its corporate
2 responsibility image.⁸ Clearly, a proactive adoption of mitigation efforts similar to those seen
3 by a top-ranked utility like MidAmerican Energy would complement those endeavors. The
4 inverse is just as likely an outcome if Ameren Missouri instead dismisses the recommendations
5 made by the State’s conservation and wildlife authority, the utility consumer advocate and the
6 energy office if projected fatalities were to come to light.

7 More importantly than Ameren Missouri’s image, failure to account for siting the largest wind
8 farm in Missouri in the same location as protected endangered species maternity colonies
9 (without suitable mitigation measures) will raise future costs, increase outside litigation risk
10 and will most certainly jeopardize future projects moving forward.

11 **III. Response to DE**

12 **Q. What was DE’s response?**

13 A. DE provided general testimony in support of more state renewables and then provided specific
14 recommendations endorsing MDC concerns. DE witness Hyman states:

15 [I]t is more than appropriate for the Commission to consider the effect of
16 potential risks associated with the possible wildlife impacts resulting from the
17 project, which could affect ratepayers. . . . Additionally, a poorly planned and
18 operated project could result in avoidable negative impacts on protected species;
19 such impacts could also jeopardize this project and the potential development of
20 future wind projects, especially if they result in a negative public perception of
21 wind generation or violate wildlife protection laws resulting in penalties or fines.
22 The Commission has broad statutory authority to consider the public interest as
23 it relates to utility regulation. Commission decisions should be mindful of the

⁸ Ameren (2018) 2018 Ameren Corporate Social Responsibility Report.
<https://www.amerencsr.com/home/default.aspx>

1 efforts of other state and federal agencies to further non-utility policies, such as
2 MDC's work conserving Missouri's wildlife⁹

3 **Q. Does OPC agree with DE's position regarding the Commission's discretion on this issue?**

4 A. Yes. OPC and DE are aligned with MDC on their concerns, recommendations and believe
5 that the Commission's authority clearly extends to public interests considerations such as
6 this due to the clear concerns expressed in rebuttal testimony and for the precedential impact
7 this high-profile site will no doubt have on future projects.

8 As an additional consideration, the Commission most definitely has the ability to restrict
9 future cost recovery and/or reduce rate of return due to managerial mismanagement from a
10 failure to adopt appropriate risk measures and to hold ratepayers harmless from the financial
11 fallout therefrom.

12 **Q. Does that conclude your testimony?**

13 A. Yes.

⁹ EA-2018-0202 Rebuttal Testimony of Martin R. Hyman p. 8, 10-12, 14-22.