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Conservation
Witness: Martin R. Hyman
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MISSOURI PUBLIC SERVICE COMMISSION

UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI

CASE NO. EA-2018-0202

REBUTTAL TESTIMONY

OF

MARTIN R. HYMAN

ON

BEHALF OF

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT

DIVISION OF ENERGY

Jefferson City, Missouri

August 20, 2018

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1 **I. INTRODUCTION**

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

3 A. My name is Martin R. Hyman. My business address is 301 West High Street, Suite
4 720, PO Box 1766, Jefferson City, Missouri 65102.

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

6 A. I am employed by the Missouri Department of Economic Development (“DED”) –
7 Division of Energy (“DE”) as a Planner III.

8 **Q. Please describe your educational background and employment experience.**

9 A. In 2011, I graduated from the School of Public and Environmental Affairs at Indiana
10 University in Bloomington with a Master of Public Affairs and a Master of Science
11 in Environmental Science. There, I worked as a graduate assistant, primarily
12 investigating issues surrounding energy-related funding under the American
13 Recovery and Reinvestment Act of 2009. I also worked as a teaching assistant in
14 graduate school and interned at the White House Council on Environmental
15 Quality in the summer of 2011. I began employment with DE in September, 2014.
16 Prior to that, I worked as a contractor for the U.S. Environmental Protection Agency
17 to coordinate intra-agency modeling discussions. Since joining DE, I have been
18 involved in a number of utility cases and other proceedings before the Missouri
19 Public Service Commission (“Commission”) as DE’s lead policy witness and have
20 assisted DE on legislative issues and the development of the Comprehensive
21 State Energy Plan. Topics that I address as a part of my duties include rate design,
22 demand-side programs, in-state energy resources, renewable energy, electric
23 vehicles, and grid modernization.

1 **Q. Have you previously filed testimony before the Commission on behalf of DE**
2 **or any other party?**

3 A. Yes. Please see Schedule MRH-Reb1 for a summary of my case participation.

4 **II. PURPOSE AND SUMMARY OF TESTIMONY**

5 **Q. What is the purpose of your Rebuttal Testimony in this proceeding?**

6 A. The purpose of my testimony is to provide DE's conditional support for the
7 Application by Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri"
8 or "Company") to purchase and operate a wind farm in northeastern Missouri. My
9 testimony addresses the economic development benefits that the proposed project
10 would bring to this area of the state and the benefits the project would bring to the
11 state by improving the diversity and security of Missouri's energy supply. I also
12 discuss conditions on the granting of the Company's Application that would be
13 based on evaluation of reasonable wildlife-related issues.

14 **Q. Will your Rebuttal Testimony address the Company's request for a**
15 **Renewable Energy Standard Rate Adjustment Mechanism?**

16 A. No.

1 **III. ECONOMIC DEVELOPMENT**

2 **Q. Please describe Ameren Missouri's proposal.**

3 A. The Company is requesting authority, via a "build transfer agreement,"¹ to
4 purchase an up to 400 MW wind farm in Schuyler and Adair Counties in
5 northeastern Missouri.² Ameren Missouri's proposal anticipates that the wind farm
6 will be completed by 2020 and eligible for the full federal Production Tax Credit.³

7 **Q. Does Ameren Missouri anticipate net benefits to ratepayers and the public**
8 **from its proposal?**

9 A. Yes, generally. Along with payments to landowners, the Company states that it
10 expects the project to create more than 400 construction jobs and 15-20
11 permanent jobs; the project would also increase state and local tax revenues and
12 provide other economic benefits to area businesses.⁴ Under most scenarios,
13 Ameren Missouri expects positive impacts on customers based on net present
14 value of revenue requirement estimates.⁵ However, as further discussed below,
15 such net benefits may be jeopardized to the extent that ratepayers would have to
16 pay for unanticipated measures in order to mitigate wildlife impacts.

¹ Missouri Public Service Commission Case No. EA-2018-0202, *In The Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Direct Testimony of Ajay K. Arora on Behalf of Union Electric Company d/b/a Ameren Missouri, May 21, 2018, page 3, lines 16-18.

² *Ibid*, page 4, lines 8-9.

³ *Ibid*, page 6, lines 9-13.

⁴ *Ibid*, page 26, lines 1-9.

⁵ *In The Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Public Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Direct Testimony of Matt Michels on Behalf of Union Electric Company d/b/a Ameren Missouri, May 21, 2018, page 9, lines 2-13.

1 **Q. Will such economic development impacts be particularly important in the**
2 **affected counties?**

3 A. Yes. Data from the U.S. Census Bureau indicate that the poverty rate in Schuyler
4 and Adair Counties is higher than in the state of Missouri as a whole.⁶ This part of
5 northeastern Missouri would particularly benefit from the positive economic
6 impacts of Ameren Missouri's proposal.

7 **Q. Are there other economic development-related reasons to pursue in-state**
8 **renewable resources?**

9 A. Yes. There is an emergence of corporate interest in renewable energy with the
10 creation of the Corporate Renewable Energy Buyers' Principles. Walmart Inc.,
11 Target, Bloomberg, General Motors, IKEA, Procter & Gamble, Intel, Sprint, and
12 many other companies have signed these Buyers' Principles. As noted in the
13 Missouri Comprehensive State Energy Plan ("CSEP"), "Efforts to help Missouri
14 utilities further diversify their portfolios and increase options for renewable power
15 purchasing coupled with low energy prices will ensure our businesses are well
16 positioned to meet future competition."⁷ Additionally, the CSEP states that, "As
17 major companies adopt corporate responsibility and renewable purchasing
18 requirements, Missouri businesses will need to be prepared to respond to
19 customer demands to remain competitive. Even government entities such as local

⁶ U.S. Census Bureau. 2012-2016 American Community Survey 5-Year Estimates. Table DP03 – Selected Economic Characteristics. https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_5YR/DP03/0400000US29|0500000US29001|0500000US29197.

⁷ Missouri Department of Economic Development – Division of Energy. 2015. "Missouri Comprehensive State Energy Plan." <https://energy.mo.gov/sites/energy/files/MCSEP.pdf>. Page 178.

1 cities with emissions reduction targets and the U.S. Department of Defense have
2 established sustainability goals.”⁸ As recently as August of 2016, support for
3 renewable energy was communicated through letters from interested companies
4 (General Mills, General Motors, Kellogg’s, Nestlé, Procter & Gamble, Target,
5 Unilever, General Electric, and Owens Corning).⁹

6 In the current Kansas City Power & Light Company (“KCP&L”) and KCP&L Greater
7 Missouri Operations Company rate cases, Missouri Energy Consumers Group
8 witness Mr. Steve W. Chriss states that his employer, Walmart Inc.,¹⁰ has a goal
9 of being supplied with 100 percent renewable energy, as well as a goal by 2025 to
10 be supplied by 50 percent renewable energy and to reduce emissions by 18
11 percent via renewable energy and energy efficiency;¹¹ Walmart Inc.’s economic
12 footprint in Missouri includes 157 retail units, four distribution centers, more than
13 42,000 employees, and recent purchases of \$7.3 billion in goods and services from
14 Missouri-based suppliers.¹² Additional renewable energy resources support a
15 business-friendly environment, both from the standpoint of supporting corporate

⁸ *Ibid*, page 185.

⁹ Missouri Public Service Commission Case No. EA-2016-0358, *In the Matter of the Application of Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity Authorizing it to Construct, Own, Operate, Control, Manage and Maintain a High Voltage, Direct Current Transmission Line and an Associated Converter Station Providing an Interconnection on the Maywood-Montgomery 345kV Transmission Line*, Direct Testimony of Michael P. Skelly on Behalf of Grain Belt Express Clean Line LLC, August 30, 2016, Schedule MPS-3.

¹⁰ Missouri Public Service Commission Case Nos. ER-2018-0145 and ER-2018-0146, *In the Matter of Kansas City Power & Light Company’s Request for Authority to Implement a General Rate Increase for Electric Service and In the Matter of KCP&L Greater Missouri Operations Company’s Request for Authority to Implement a General Rate Increase for Electric Service*, Direct Testimony and Exhibits of Steve W. Chriss on Behalf of Midwest Energy Consumers Group, July 6, 2018, page 1, lines 4-5.

¹¹ *Ibid*, page 3, lines 9-15.

¹² *Ibid*, pages 2-3, lines 19-21 and 1-2.

1 renewable energy goals, which may be demonstrative of corporate environmental
2 consciousness, and in order to support marketplace competitiveness; as the cost
3 of renewable energy continues to decline, it will become an even more attractive
4 option for limiting businesses' exposure to energy price increases.

5 **Q. Is there local government interest in renewable energy?**

6 A. Yes. Providing local governments with access to renewable energy is important
7 both for allowing these localities to meet their own sustainability goals and for
8 attracting businesses interested in sustainability. St. Louis¹³ is one governmental
9 example in the state of Missouri that is pursuing renewable energy, along with
10 Columbia¹⁴ and Kansas City.¹⁵

11 **Q. Why else should the Commission support in-state renewable energy
12 development?**

13 A. In-state renewable energy development increases the diversity and security of the
14 state's energy supply.¹⁶ The Missouri Legislature has established a state policy of
15 expanding the use of alternative energy sources and technologies in Missouri¹⁷ –
16 most recently demonstrated by the reinstatement of solar rebates for even larger

¹³ Gray, Bryce. 2017. "Aldermen pass resolution for St. Louis to pursue 100 percent clean energy by 2035." *St. Louis Post-Dispatch*. October 27. http://www.stltoday.com/business/local/aldermen-pass-resolution-for-st-louis-to-pursue-percent-clean/article_3dcd5d0c-38c6-5d10-ba7e-4a76b2f4ecff.html.

¹⁴ City of Columbia Utilities. 2018. "Renewable Energy Portfolio." <https://www.como.gov/utilities/water-and-light/electric/renewable-energy-portfolio/>.

¹⁵ City of Kansas City, Mo. 2017. "Resolution No. 170586, as amended - Directing the City Manager to evaluate the feasibility of implementing certain methods to advance the City's environmental goals related to the Paris Climate Agreement, to be known as the Renewable Energy Now Resolution, and to report back to the Council by March 1, 2018." <http://cityclerk.kcmo.org/LiveWeb/Documents/Document.aspx?q=DfoUSXu7pUSJTU5A5Zt%2FoWgkjtNDkyUlaNI6mdOfwqYjGvJHb50FjMIZ0GCwrJvx>.

¹⁶ CSEP, page 227.

¹⁷ Section 640.150.1(4), RSMo. (to be moved to Section 620.035.1(4), RSMo. effective August 28, 2018).

1 non-residential system sizes in Senate Bill 564 (2018)¹⁸ – yet Missouri continues
2 to be heavily dependent on coal, fueling approximately 81 percent of Missouri's
3 electricity generation in 2017.¹⁹ Only Texas used more coal for electricity
4 generation.²⁰ Our state produces little coal, natural gas, or oil, and much of the
5 coal used for the state's power consumption is shipped from Wyoming by rail.²¹
6 The state's only coal mine produced 234 thousand short tons of coal in 2016
7 (approximately 0.03 percent of total U.S. production),²² but Missouri also exported
8 230 thousand short tons of coal to Kansas that same year.²³
9 In-state renewable energy resources can lower the state's dependence on
10 imported fossil fuels, particularly as uneconomic coal-fired generation retires. In
11 addition to improved energy security, the use of in-state generation retains
12 consumer dollars within Missouri by avoiding the need for purchasing fuels from
13 other states.

¹⁸ See Section 393.1670, RSMo. The full text of the bill is available at

<https://www.senate.mo.gov/18info/pdf-bill/tat/SB564.pdf>.

¹⁹ U.S. Energy Information Administration. 2018. *State Energy Data System*. "Missouri – State Energy Profile Overview." <https://www.eia.gov/state/?sid=MO>.

²⁰ U.S. Energy Information Administration. 2018. *Electricity Data Browser*. "Consumption for electricity generation for coal, annual."

<https://www.eia.gov/electricity/data/browser/#/topic/3?agg=1,2,0&fuel=8&geo=vvvvvvvvvvvo&sec=g&freq=A&start=2016&end=2017&ctype=linechart<ype=pin&rtype=s&pin=&rse=0&maptype=0>.

²¹ U.S. Energy Information Administration. 2018. *State Energy Data System*. "Missouri – State Energy Profile Analysis." <https://www.eia.gov/state/analysis.php?sid=MO>.

²² U.S. Energy Information Administration. 2017. *Annual Coal Report 2016*. "Table 6. Coal Production and Number of Mines by State and Coal Rank, 2016." <https://www.eia.gov/coal/annual/pdf/table6.pdf>.

²³ U.S. Energy Information Administration. 2017. *Annual Coal Distribution Report 2016*. "Table OS-15. Domestic Coal Distribution, by Origin State, 2016."

https://www.eia.gov/coal/distribution/annual/pdf/o_16state.pdf.

1 **IV. WILDLIFE CONSERVATION**

2 **Q. Are you aware of any concerns about Ameren Missouri’s proposal related to**
3 **wildlife conservation?**

4 A. Yes. My understanding is that the Missouri Department of Conservation (“MDC”)
5 is concerned about potential impacts on sensitive bird and bat habitats and
6 populations in the proposed area of development.

7 **Q. Why should the Commission be concerned about wildlife impacts?**

8 A. DE recognizes that agencies such as MDC and the U.S. Fish and Wildlife Service
9 have the appropriate authority and capabilities to address wildlife-related matters.
10 However, it is more than appropriate for the Commission to consider the effect of
11 potential risks associated with the possible wildlife impacts resulting from the
12 project, which could affect ratepayers. For example, a sustained curtailment of
13 wind operations due to wildlife concerns could result in a substantive reduction in
14 generation, which might lead to lower revenues from a wind project. Additionally,
15 a poorly planned and operated project could result in avoidable negative impacts
16 on protected species; such impacts could also jeopardize this project and the
17 potential development of future wind projects, especially if they result in a negative
18 public perception of wind generation or violate wildlife protection laws resulting in
19 penalties or fines. The Commission has broad statutory authority to consider the
20 public interest as it relates to utility regulation. Commission decisions should be
21 mindful of the efforts of other state and federal agencies to further non-utility
22 policies, such as MDC’s work conserving Missouri’s wildlife and DED’s work to

1 develop Missouri's economy, and should implement utility policy that recognizes
2 all interests.

3 **Q. Are there other economic issues related to MDC's potential concerns?**

4 A. Yes. MDC has already spent over \$1 million to protect bat species that may be
5 impacted by the project and has a long-term landscape-level project in northern
6 Missouri with an expected cost of \$2.7 million; additionally, MDC has planned for
7 millions of dollars in potential bat-related projects, and the proposed wind farm
8 could affect MDC's future conservation efforts.²⁴ MDC's investments in wildlife
9 habitat conservation are likely to have resulted in economic activity in northern
10 Missouri (e.g., through increased spending at local businesses from visitors and
11 MDC-affiliated personnel), and such outcomes could be diminished without
12 appropriate consideration. There are also other economic impacts that could result
13 from the loss of bats' ecosystem services²⁵ if appropriate mitigation actions are not
14 taken.

15 **Q. What is DE's position regarding potential wildlife impacts in this case?**

16 A. DE recognizes that it is appropriate for the Commission to evaluate and place
17 conditions on its approval of Ameren Missouri's application based on consideration
18 of reasonable wildlife-related issues. Additionally, DE recommends that Ameren
19 Missouri ensure closer coordination with MDC in the early stages of developing
20 any future energy projects that may have significant wildlife impacts, with a goal of
21 minimizing possible conflicts before the Commission over wildlife issues, to the

²⁴ Missouri Department of Conservation Response to Data Request DED-DE No. 5.

²⁵ *Ibid.* "Ecosystem services" refers to the positive impact bats have on Missouri, especially Missouri farms, due to their high insect diet.

1 extent that MDC wants to be consulted with on such other projects. To the extent
2 that a developer (rather than Ameren Missouri) would need to consult with MDC,
3 DE's recommendation would include assurance by the Company for future projects
4 that it has considered whether a project developer has consulted with MDC as a
5 part of Ameren Missouri's project selection process.

6 **V. CONCLUSIONS**

7 **Q. Please summarize your conclusions and the positions of DE.**

8 A. DE supports Ameren Missouri's proposed wind project given adequate
9 consideration is provided to reasonably reduce potential ratepayer and taxpayer
10 risks, including evaluating appropriate conservation-related conditions. The project
11 will provide economic benefits to the state of Missouri through direct and indirect
12 economic impacts, as well as support business retention, attraction, and
13 expansion. In addition, the project can improve the diversity and security of
14 Missouri's energy supply.

15 DE recognizes that it is appropriate for the Commission to evaluate and place
16 conditions on its approval of Ameren Missouri's Application based on consideration
17 of reasonable wildlife-related issues, and recommends that Ameren Missouri
18 ensure closer coordination with MDC in the early stages of developing any future
19 energy projects that may have significant wildlife impacts (to the extent that MDC
20 wants to be consulted with on such projects).

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

22 A. Yes.