

Exhibit No.:  
Issues: Economic Development  
Witness: Martin R. Hyman  
Sponsoring Party: Missouri Department of  
Economic Development –  
Division of Energy  
Type of Exhibit: Rebuttal Testimony  
Case No.: EA-2019-0021

**MISSOURI PUBLIC SERVICE COMMISSION**

**UNION ELECTRIC COMPANY d/b/a AMEREN MISSOURI**

**CASE NO. EA-2019-0021**

**REBUTTAL TESTIMONY**

**OF**

**MARTIN R. HYMAN**

**ON**

**BEHALF OF**

**MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT**

**DIVISION OF ENERGY**

Jefferson City, Missouri  
December 19, 2018

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

In the Matter of the Application of Union )  
Electric Company d/b/a Ameren Missouri for )  
Permission and Approval and a Certificate of )  
Convenience and Necessity Authorizing it to )  
Construct a Wind Generation Facility )

**File No. EA-2019-0021**

**AFFIDAVIT OF MARTIN R. HYMAN**

**STATE OF MISSOURI** )  
 ) **ss**  
**COUNTY OF COLE** )

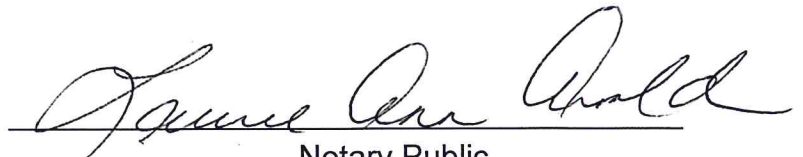
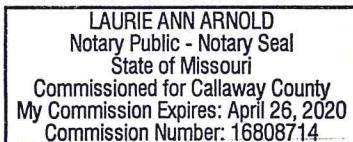
Martin R. Hyman, of lawful age, being duly sworn on his oath, deposes and states:

1. My name is Martin R. Hyman. I work in the City of Jefferson, Missouri, and I am employed by the Missouri Department of Economic Development as a Planner III, Division of Energy.
2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of the Missouri Department of Economic Development – Division of Energy.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge.



Martin R. Hyman

Subscribed and sworn to before me this 19<sup>th</sup> day of December, 2018.



Notary Public

My commission expires: 4/26/20

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**I. INTRODUCTION**

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

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

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

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

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

A. In 2011, I graduated from the School of Public and Environmental Affairs at Indiana University in Bloomington with a Master of Public Affairs and a Master of Science in Environmental Science. There, I worked as a graduate assistant, primarily investigating issues surrounding energy-related funding under the American Recovery and Reinvestment Act of 2009. I also worked as a teaching assistant in graduate school and interned at the White House Council on Environmental Quality in the summer of 2011. I began employment with DE in September, 2014. Prior to that, I worked as a contractor for the U.S. Environmental Protection Agency to coordinate intra-agency modeling discussions. Since joining DE, I have been involved in a number of utility cases and other proceedings before the Missouri Public Service Commission (“Commission”) as DE’s lead policy witness and have assisted DE on legislative issues and the development of the Comprehensive State Energy Plan. Areas in which I have been an expert witness and/or participated in as a part of my duties in Commission regulatory proceedings and other energy- and water-related forums include rate design, demand-side

1 programs, in-state energy resources, renewable energy, electric vehicles, and grid  
2 modernization.

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

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

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

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

8 A. The purpose of my testimony is to provide DE's support for the Application by  
9 Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company")  
10 to purchase and operate a wind farm in Atchison County, Missouri. My testimony  
11 addresses the economic development benefits that the proposed project would  
12 bring to this area of the state, along with the long-term benefits the project offers  
13 by improving the diversity and security of Missouri's energy supply and producing  
14 electricity with fewer air pollutant emissions than Company's existing portfolio. All  
15 of these factors would support Missouri's ability to perform more competitively on  
16 the national economic stage. The project would also be consistent with recent  
17 Commission orders on renewable energy projects.

**III. ECONOMIC DEVELOPMENT**

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

A. The Company is requesting authority, via a "build transfer agreement,"<sup>1</sup> to purchase an approximately 157 MW wind farm in Atchison County, Missouri.<sup>2</sup> Ameren Missouri's proposal anticipates that the wind farm will be completed by 2020 and eligible for the full federal Production Tax Credit.<sup>3</sup> The proposed wind farm will aid Ameren Missouri in meeting requirements for compliance with the Renewable Energy Standard ("RES").<sup>4</sup>

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

A. Yes, generally. Unless market prices reach relatively low levels, Ameren Missouri expects benefits to customers based on net present value of revenue requirement estimates.<sup>5</sup> Even if market prices reach relatively low levels,<sup>6</sup> the Company does

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<sup>1</sup> Missouri Public Service Commission Case No. EA-2019-0021, *In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Application, October 22, 2018, page 1.

<sup>2</sup> Missouri Public Service Commission Case No. EA-2019-0021, *In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of 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, October 22, 2018, page 4, lines 16-17.

<sup>3</sup> *Ibid*, pages 7-8, lines 15-22 and 1-3.

<sup>4</sup> EA-2019-0021, Application, page 3.

<sup>5</sup> Missouri Public Service Commission Case No. EA-2019-0021, *In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and a Certificate of 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, October 22, 2018, pages 8-9, lines 8-14 and 1-5.

<sup>6</sup> "Relatively low levels" refers to the power market and capacity price assumptions discussed in Company witness Mr. Matt Michels's Direct Testimony in this case at pages 6-7, lines 22-23 and 1-23 and page 8, lines 5-6, as well as his Schedule MRM-D2.

not anticipate its combined portfolio of new wind projects to exceed the one percent retail rate impact limitation of the RES.<sup>7</sup>

Along with payments to landowners, the Company states that it expects the project to create more than 200 construction jobs and between five to eight permanent jobs; the project would also increase state and local tax revenues<sup>8</sup> and provide other economic benefits to area businesses.<sup>9</sup>

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

A. In-state renewable energy development increases the diversity and security of the state's energy supply.<sup>10</sup> The Missouri Legislature has established a state policy of expanding the use of alternative energy sources and technologies in Missouri<sup>11</sup> – most recently demonstrated by the reinstatement of solar rebates for even larger non-residential system sizes in Senate Bill 564 (2018)<sup>12</sup> – yet approximately 81 percent of Missouri's electricity generation came from coal in 2017.<sup>13</sup> Only Texas used more coal for electricity generation.<sup>14</sup> Our state produces little coal, natural

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<sup>7</sup> EA-2019-0021, Michels Direct, pages 9-10, lines 8-22 and 1-2.

<sup>8</sup> DE's understanding is that there may be uncertainty as to the distribution of property tax revenues resulting from the wind project but that the project will nonetheless create a net tax benefit for local communities. At this time, DE takes no further position on the distribution of tax revenues.

<sup>9</sup> EA-2019-0021, Arora Direct, page 25, lines 1-12.

<sup>10</sup> See: Missouri Department of Economic Development – Division of Energy, 2015, *Missouri Comprehensive State Energy Plan*, <https://energy.mo.gov/sites/energy/files/MCSEP.pdf>, page 227.

<sup>11</sup> Section 620.035.1(4), RSMo.

<sup>12</sup> 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>.

<sup>13</sup> U.S. Energy Information Administration. 2018. *State Energy Data System*. "Missouri – State Energy Profile Overview." <https://www.eia.gov/state/?sid=MO>.

<sup>14</sup> 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&ltype=pin&rtype=s&pin=rse=0&maptype=0>.

1 gas, or oil, and much of the coal used for the state's power consumption is shipped  
2 from Wyoming by rail.<sup>15</sup> The state's only coal mine produced 244 thousand short  
3 tons of coal in 2017 (approximately 0.03 percent of total U.S. production),<sup>16</sup> but  
4 Missouri also exported 245 thousand short tons of coal to Kansas that same  
5 year.<sup>17, 18</sup>

6 In-state renewable energy resources can lower the state's dependence on  
7 imported fossil fuels, particularly as uneconomic coal-fired generation retires. In  
8 addition to improved energy security, the use of in-state generation retains  
9 consumer dollars within Missouri by avoiding the need for purchasing fuels from  
10 other states. Producing electricity from wind energy also leads to fewer air pollutant  
11 emissions than would be created from producing the same amount of power from  
12 fossil fuels.

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

15 A. Yes. There is an emergence of corporate interest in renewable energy with the  
16 creation of the Corporate Renewable Energy Buyers' Principles. Seventy-eight  
17 companies, including Walmart Inc., Target, Bloomberg, General Motors, IKEA,

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<sup>15</sup> U.S. Energy Information Administration. 2018. *State Energy Data System*. "Missouri – State Energy Profile Analysis." <https://www.eia.gov/state/analysis.php?sid=MO>.

<sup>16</sup> U.S. Energy Information Administration. 2018. *Annual Coal Report 2017*. "Table 6. Coal Production and Number of Mines by State and Coal Rank, 2017." <https://www.eia.gov/coal/annual/pdf/table6.pdf>.

<sup>17</sup> U.S. Energy Information Administration. 2018. *Annual Coal Distribution Report 2017*. "Table OS-15. Domestic Coal Distribution, by Origin State, 2017." [https://www.eia.gov/coal/distribution/annual/pdf/o\\_17state.pdf](https://www.eia.gov/coal/distribution/annual/pdf/o_17state.pdf).

<sup>18</sup> DE acknowledges that there is a one-thousand short ton difference between the cited production and export figures, although the reason for this discrepancy is not clear.



1 Procter & Gamble, Intel, and Sprint, have signed these Buyers' Principles.<sup>19</sup> As  
2 noted in the Missouri Comprehensive State Energy Plan ("CSEP"), "Efforts to help  
3 Missouri utilities further diversify their portfolios and increase options for renewable  
4 power purchasing coupled with low energy prices will ensure our businesses are  
5 well positioned to meet future competition."<sup>20</sup> Additionally, the CSEP states that,  
6 "As major companies adopt corporate responsibility and renewable purchasing  
7 requirements, Missouri businesses will need to be prepared to respond to  
8 customer demands to remain competitive. Even government entities such as local  
9 cities with emissions reduction targets and the U.S. Department of Defense have  
10 established sustainability goals."<sup>21</sup> As recently as August of 2016, support for  
11 renewable energy was communicated through letters from interested companies  
12 (General Mills, General Motors, Kellogg's, Nestlé, Procter & Gamble, Target,  
13 Unilever, General Electric, and Owens Corning).<sup>22</sup>  
14 In the recent Kansas City Power & Light Company ("KCP&L") and KCP&L Greater  
15 Missouri Operations Company rate cases, Missouri Energy Consumers Group  
16 witness Mr. Steve W. Chriss stated that his employer, Walmart Inc.,<sup>23</sup> has a goal

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<sup>19</sup> World Wildlife Fund and World Resources Institute. 2018. *Corporate Renewable Energy Buyers' Principles*. "About Us." <https://buyersprinciples.org/about-us/>.

<sup>20</sup> CSEP, page 178.

<sup>21</sup> *Ibid*, page 185.

<sup>22</sup> 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.

<sup>23</sup> 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*

1 of being supplied with 100 percent renewable energy, as well as a goal by 2025 to  
2 be supplied by 50 percent renewable energy and to reduce emissions by 18  
3 percent via renewable energy and energy efficiency.<sup>24</sup> Walmart Inc.'s economic  
4 footprint in Missouri includes 157 retail units, four distribution centers, more than  
5 42,000 employees, and recent purchases of \$7.3 billion in goods and services from  
6 Missouri-based suppliers.<sup>25</sup> Additional renewable energy resources support a  
7 business-friendly environment, both from the standpoint of supporting corporate  
8 renewable energy goals, which may be demonstrative of corporate environmental  
9 consciousness, and in order to support marketplace competitiveness. As the cost  
10 of renewable energy continues to decline, it will become an even more attractive  
11 option for limiting businesses' exposure to energy price increases.

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

13 A. Yes. Providing local governments with access to renewable energy is important  
14 both for allowing these localities to meet their own sustainability goals and for  
15 attracting businesses interested in sustainability. St. Louis<sup>26</sup> is one governmental  
16 example in the state of Missouri that is pursuing renewable energy, along with  
17 Columbia<sup>27</sup> and Kansas City.<sup>28</sup>

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*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.

<sup>24</sup> *Ibid*, page 3, lines 9-15.

<sup>25</sup> *Ibid*, pages 2-3, lines 19-21 and 1-2.

<sup>26</sup> 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](http://www.stltoday.com/business/local/aldermen-pass-resolution-for-st-louis-to-pursue-percent-clean/article_3dcd5d0c-38c6-5d10-ba7e-4a76b2f4ecff.html).

<sup>27</sup> City of Columbia Utilities. 2018. "Renewable Energy Portfolio." <https://www.como.gov/utilities/water-and-light/electric/renewable-energy-portfolio/>.

<sup>28</sup> 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

1 **Q. Would approval of this project be consistent with any recent Commission**  
2 **actions?**

3 A. Yes. On October 24, 2018, the Commission approved<sup>29</sup> the Company's requested  
4 authority to purchase (via another build transfer agreement) a 400 MW wind farm  
5 in Schuyler and Adair Counties, Missouri.<sup>30</sup> That project is also part of Ameren  
6 Missouri's RES compliance portfolio,<sup>31</sup> and DE provided support for the project in  
7 testimony<sup>32</sup> and as a Signatory to a stipulation and agreement.<sup>33</sup>  
8 Additionally, with regards to The Empire District Electric Company's recent  
9 "Customer Savings Plan" case and the stipulation filed therein, the Commission  
10 concluded that, "...the millions of dollars in customer savings and the addition of

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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%2FoWqkjtNDkyUlaNI6mdOfwqYjGvJHb50FjMIZOGCwrJvx>.

<sup>29</sup> 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 Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Order Approving Third Stipulation and Agreement, October 24, 2018.

<sup>30</sup> 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 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 and page 4, lines 8-9.

<sup>31</sup> 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 Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Application, May 21, 2018, pages 3-4.

<sup>32</sup> 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 Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Rebuttal Testimony of Martin R. Hyman on Behalf of Missouri Department of Economic Development – Division of Energy, August 20, 2018, page 2, lines 6-11.

<sup>33</sup> 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 Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Third Stipulation and Agreement, October 12, 2018.

1 renewable wind energy resulting from the [Customer Savings Plan] and the Joint  
2 Position could be of considerable benefit to Empire's customers and the entire  
3 state."<sup>34</sup> In so doing, the Commission noted the following:

4 It is the public policy of this state to diversify the energy supply through the  
5 support of renewable and alternative energy sources. In past decisions, the  
6 Commission has stated its support in general for renewable energy  
7 generation, which provides benefits to the public. Empire's proposed  
8 acquisition of 600 MW of additional wind generation assets is clearly aligned  
9 with the public policy of the Commission and this state. (Citations omitted.)<sup>35</sup>

10 DE was a party to the stipulation in the Customer Savings Plan case.<sup>36</sup>

#### 11 **IV. CONCLUSIONS**

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

13 A. DE supports Ameren Missouri's proposed wind project, which will provide  
14 economic benefits to the state of Missouri through direct and indirect economic  
15 impacts, as well as support business retention, attraction, and expansion. In  
16 addition, the project can improve the diversity and security of Missouri's energy  
17 supply and produce electricity with fewer air pollutant emissions than the existing  
18 portfolio. All of these factors would support Missouri's ability to perform more

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<sup>34</sup> Missouri Public Service Commission Case No. EO-2018-0092, *In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan*, Report and Order, July 11, 2018, page 22.

<sup>35</sup> *Ibid*, page 20.

<sup>36</sup> Missouri Public Service Commission Case Nos. EO-2018-0092 and ER-2018-0228, *In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan and In the Matter of the Propriety of the Rate Schedules for Electric Service of The Empire District Electric Company*, Non-Unanimous Stipulation and Agreement, April 24, 2018.

1 competitively on the national economic stage. The project would also be consistent  
2 with recent Commission orders on renewable energy.

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

4 A. Yes.