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Issues: Economic Development, Need,  
Public Interest  
Witness: Martin R. Hyman  
Sponsoring Party: Missouri Department of  
Economic Development –  
Division of Energy  
Type of Exhibit: Rebuttal Testimony  
Case No.: EA-2019-0010

MISSOURI PUBLIC SERVICE COMMISSION

THE EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. EA-2019-0010

REBUTTAL TESTIMONY

OF

MARTIN R. HYMAN

ON

BEHALF OF

MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT

DIVISION OF ENERGY

Jefferson City, Missouri

February 5, 2019

Division of  
Energy Exhibit No. 400  
Date 4-9-19 Reporter Bjb  
File No. EA-2019-0010

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

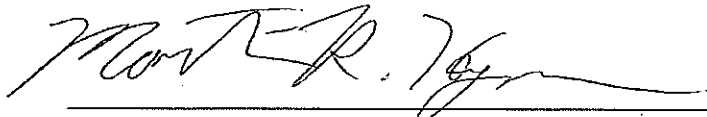
In The Matter of the Application of The )  
Empire District Electric Company for a ) File No. EA-2019-0010  
Certificates of Convenience and Necessity )  
Related to Wind Generation Facilities )

AFFIDAVIT OF MARTIN R. HYMAN

STATE OF MISSOURI )  
 ) ss  
COUNTY OF COLE )

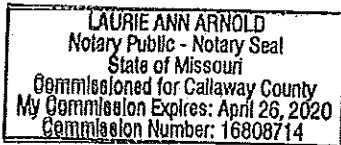
Martin R. Hyman, of lawful age, being duly sworn on his oath, deposes and states:

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 4<sup>th</sup> day of February, 2019.



My commission expires: 4/26/20



Notary Public

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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. Areas in which I have been an expert witness and/or  
22 participated in as a part of my duties in Commission regulatory proceedings and  
23 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 Certificate of  
9 Convenience and Necessity ("CCN") applications by The Empire District Electric  
10 Company ("Empire" or "Company") to purchase interests in holding companies that  
11 would construct three wind projects. My testimony addresses the economic  
12 development benefits that the proposed projects would create and the long-term  
13 benefits the projects offer by improving the diversity and security of Missouri's  
14 energy supply. All of these factors would support Missouri's ability to perform more  
15 competitively on the national economic stage. The projects would also be  
16 consistent with recent Commission orders and meet the Commission's criteria  
17 regarding "need" and "public interest."

18 **III. PROJECT DESCRIPTIONS**

19 **Q. Please describe Empire's proposals regarding in-state wind energy.**

20 **A.** The Company is requesting authority for a CCN, "... to acquire an interest in ...  
21 two holding companies that own ... Wind Project Companies that will be  
22 constructing and installing ... Wind Projects," and, "... to own, operate, maintain,  
23 and otherwise control and manage ... Wind Projects to be constructed in Barton,

1 Dade, Jasper, and Lawrence Counties in Missouri ....”<sup>1</sup> Empire’s proposal  
2 anticipates that the wind farms will be completed by the end of 2020 and eligible  
3 to receive the full value of the federal Production Tax Credit.<sup>2</sup> Empire will pursue  
4 the projects in conjunction with a tax equity partner.<sup>3</sup> Each project would be 149.4  
5 MW in size.<sup>4</sup> The projects effectuate and are consistent with the stipulation entered  
6 in the Company’s “Customer Savings Plan” as filed in Case No. EO-2018-0092;<sup>5</sup>  
7 DE was a signatory to that stipulation.<sup>6</sup>

8 **Q. Has Empire requested authority for any wind projects outside of Missouri?**

9 **A.** Yes. Empire has also applied for a CCN for a 301.0 MW<sup>7</sup> project in Neosho County,  
10 Kansas using a similar acquisition method as proposed for the Missouri projects.<sup>8</sup>  
11 Like the Missouri projects, the Kansas project is expected to be completed in time  
12 to utilize the full value of Production Tax Credits<sup>9</sup> and will be pursued in conjunction

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<sup>1</sup> Missouri Public Service Commission Case No. EA-2019-0010, *In The Matter of The Empire District Electric Company for a Certificates of Convenience and Necessity Related to Wind Generation Facilities*, Empire’s Application for Certificates of Convenience and Necessity, October 18, 2018, page 3.

<sup>2</sup> *Ibid.*

<sup>3</sup> *Ibid.*, page 7.

<sup>4</sup> Missouri Public Service Commission Case No. EA-2019-0010, *In The Matter of The Empire District Electric Company for a Certificates of Convenience and Necessity Related to Wind Generation Facilities*, Direct Testimony of Todd Mooney, October 18, 2018, page 10, line 15.

<sup>5</sup> Missouri Public Service Commission Case No. EA-2019-0010, *In The Matter of The Empire District Electric Company for a Certificates of Convenience and Necessity Related to Wind Generation Facilities*, Direct Testimony of Blake A. Mertens, October 18, 2018, page 5, lines 3-18.

<sup>6</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.

<sup>7</sup> Missouri Public Service Commission Case No. EA-2019-0118, *In the Matter of the Application of The Empire District Electric Company for a Certificate of Convenience and Necessity Related to Wind Generation Facilities in Kansas*, Direct Testimony of Todd Mooney, November 18, 2018, page 10, line 13.

<sup>8</sup> Missouri Public Service Commission Case No. EA-2019-0118, *In the Matter of the Application of The Empire District Electric Company for a Certificate of Convenience and Necessity Related to Wind Generation Facilities in Kansas*, Empire’s Application for a Certificate of Convenience and Necessity and Motion for Waiver, if Necessary, November 18, 2018, page 3.

<sup>9</sup> *Ibid.*, page 4.

1 with a tax equity partner.<sup>10</sup> The Kansas project is also consistent with the  
2 stipulation entered in the Customer Savings Plan case.<sup>11</sup>

3 **Q. What was the outcome of the stipulation in the Customer Savings Plan case?**

4 **A.** Although the Commission did not approve the stipulation, it did conclude that,  
5 "... the millions of dollars in customer savings and the addition of renewable wind  
6 energy resulting from the [Customer Savings Plan] and the Joint Position could be  
7 of considerable benefit to Empire's customers and the entire state."<sup>12</sup> In so doing,  
8 the Commission noted the following:

9 Empire requests a Commission determination that Empire's decisions to  
10 acquire wind generation using a tax equity partner and to keep Asbury open  
11 at this time are reasonable. It is the public policy of this state to diversify the  
12 energy supply through the support of renewable and alternative energy  
13 sources. In past decisions, the Commission has stated its support in general  
14 for renewable energy generation, which provides benefits to the public.  
15 Empire's proposed acquisition of 600 MW of additional wind generation  
16 assets is clearly aligned with the public policy of the Commission and this  
17 state. (Citations omitted.)<sup>13</sup>

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<sup>10</sup> *Ibid*, pages 5-6.

<sup>11</sup> Missouri Public Service Commission Case No. EA-2019-0118, *In the Matter of the Application of The Empire District Electric Company for a Certificate of Convenience and Necessity Related to Wind Generation Facilities in Kansas*, Direct Testimony of Blake A. Mertens, November 18, 2018, pages 4-5, lines 22-23 and 1-14.

<sup>12</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>13</sup> *Ibid*, page 20.

1 **IV. ECONOMIC DEVELOPMENT**

2 **Q. Will the projects provide benefits to ratepayers and the public?**

3 A. Yes. According to Empire witness Mr. Todd Mooney, "The economics of [the  
4 Missouri] projects are consistent with Empire's modeling in the Customer Savings  
5 Plan docket at this Commission, and as a result, these projects are poised to  
6 deliver significant savings to Empire's customers for many years to come,"<sup>14</sup> Mr.  
7 Mooney offers a similar assessment with regards to the Kansas project.<sup>15</sup>

8 Along with payments to landowners, the Missouri projects will create construction  
9 jobs, increase state and local tax revenues, and provide other economic benefits  
10 to area businesses. These are important considerations in this part of Missouri:  
11 Barton, Dade, Jasper, and Lawrence Counties generally have higher poverty rates  
12 than the state as a whole.<sup>16</sup>

13 **Q. Are there other economic development-related reasons to pursue renewable  
14 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. Walmart Inc.,  
17 Target, Bloomberg, General Motors, IKEA, Procter & Gamble, Intel, Sprint, and  
18 many other companies have signed these Buyers' Principles. As noted in the  
19 Missouri Comprehensive State Energy Plan ("CSEP"), "Efforts to help Missouri

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<sup>14</sup> EA-2019-0010, Mooney Direct, page 24, lines 2-5.

<sup>15</sup> EA-2019-0118, Mooney Direct, page 24, lines 3-6.

<sup>16</sup> U.S. Census Bureau. 2019. "Table DP03 – Selected Economic Characteristics." *2013-2017 American Community Survey 5-Year Estimates*.

[https://factfinder.census.gov/bkmk/table/1.0/en/ACS/17\\_5YR/DP03/0400000US29|0500000US29011|0500000US29057|0500000US29097|0500000US29109](https://factfinder.census.gov/bkmk/table/1.0/en/ACS/17_5YR/DP03/0400000US29|0500000US29011|0500000US29057|0500000US29097|0500000US29109). See data in rows for "All families" and "All people."



1 utilities further diversify their portfolios and increase options for renewable power  
2 purchasing coupled with low energy prices will ensure our businesses are well  
3 positioned to meet future competition.”<sup>17</sup> Additionally, the CSEP states that, “As  
4 major companies adopt corporate responsibility and renewable purchasing  
5 requirements, Missouri businesses will need to be prepared to respond to  
6 customer demands to remain competitive. Even government entities such as local  
7 cities with emissions reduction targets and the U.S. Department of Defense have  
8 established sustainability goals.”<sup>18</sup> As recently as August of 2016, support for  
9 renewable energy was communicated through letters from interested companies  
10 (General Mills, General Motors, Kellogg’s, Nestlé, Procter & Gamble, Target,  
11 Unilever, General Electric, and Owens Corning).<sup>19</sup>

12 In the recent Kansas City Power & Light Company (“KCP&L”) and KCP&L Greater  
13 Missouri Operations Company rate cases, Missouri Energy Consumers Group  
14 witness Mr. Steve W. Chriss stated that his employer, Walmart Inc.,<sup>20</sup> has a goal  
15 of being supplied with 100 percent renewable energy, as well as a goal by 2025 to

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<sup>17</sup> 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.

<sup>18</sup> *Ibid*, page 185.

<sup>19</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>20</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 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.

1 be supplied by 50 percent renewable energy and to reduce emissions by 18  
2 percent via renewable energy and energy efficiency;<sup>21</sup> Walmart Inc.'s economic  
3 footprint in Missouri includes 157 retail units, four distribution centers, more than  
4 42,000 employees, and recent purchases of \$7.3 billion in goods and services from  
5 Missouri-based suppliers.<sup>22</sup> Additional renewable energy resources support a  
6 business-friendly environment, both from the standpoint of supporting corporate  
7 renewable energy goals, which may be demonstrative of corporate environmental  
8 consciousness, and in order to support marketplace competitiveness; as the cost  
9 of renewable energy continues to decline, it will become an even more attractive  
10 option for limiting businesses' exposure to energy price increases.

11 **Q. Why else should the Commission support these projects?**

12 A. These projects would increase the diversity and security of the state's energy  
13 supply.<sup>23</sup> Our state produces limited coal, natural gas, or oil, and much of the coal  
14 used for the state's power consumption is shipped from Wyoming by rail.<sup>24</sup> The  
15 state's only coal mine produced 244 thousand short tons of coal in 2017  
16 (approximately 0.03 percent of total U.S. production),<sup>25</sup> but Missouri also exported  
17 245 thousand short tons of coal to Kansas that same year.<sup>26</sup>

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<sup>21</sup> *Ibid*, page 3, lines 9-15.

<sup>22</sup> *Ibid*, pages 2-3, lines 19-21 and 1-2.

<sup>23</sup> See CSEP, page 227.

<sup>24</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>25</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>26</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).

1 In-state alternative energy resources can lower the state's dependence on  
2 imported fuels, particularly as uneconomic and aging generation retires. In addition  
3 to improved energy security, the use of in-state generation retains consumer  
4 dollars within Missouri by avoiding the need for purchasing fuels from other states.  
5 Producing electricity from wind energy also leads to fewer air pollutant emissions.

6 **Q. Would approval of the three wind projects be consistent with any recent**  
7 **Commission actions?**

8 **A.** Yes. In addition to the previously described Commission action in the Customer  
9 Savings Plan case, on October 25, 2018, the Commission approved<sup>27</sup> Union  
10 Electric Company d/b/a Ameren Missouri's ("Ameren Missouri") requested  
11 authority to purchase (via a "build transfer agreement") a 400 MW wind farm in  
12 Schuyler and Adair Counties, Missouri.<sup>28</sup> DE provided support for that project in  
13 testimony<sup>29</sup> and as a Signatory to a stipulation and agreement.<sup>30</sup>

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<sup>27</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 Public Convenience and Necessity Authorizing it to Construct a Wind Generation Facility*, Order Approving Third Stipulation and Agreement, October 24, 2018.

<sup>28</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 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 and page 4, lines 8-9.

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

1 **V. NEED FOR THE PROJECTS AND PUBLIC INTEREST**

2 **Q. How has the Commission traditionally evaluated CCN applications?**

3 A. Although not required by the CCN statute (Section 393.170, RSMo.), the  
4 Commission often relies on the "Tartan factors." These factors consist of  
5 evaluating: 1) the "need" for the project; 2) the qualifications of the CCN applicant;  
6 3) the financial ability of the applicant; 4) the economic feasibility of the application;  
7 and, 5) the public interest.<sup>31</sup> In general, an application that meets the first four  
8 criteria is found by the Commission to be in the public interest.<sup>32</sup>

9 **Q. How is "need" defined in this context?**

10 A. My understanding is that "need" is not defined as a project being absolutely  
11 required (e.g., to meet peaking capacity needs or environmental mandates), but  
12 that a project would bring an improvement justifying its cost.<sup>33</sup>

13 **Q. Based on this understanding, are the projects proposed by Empire needed?**

14 A. Yes. As described above, the projects are projected to provide long-term savings  
15 to customers, support business retention, attraction, and expansion, improve the  
16 diversity and security of Missouri's energy supply, and produce electricity with  
17 fewer air pollutant emissions.

18 **Q. Are the projects in the public interest?**

19 A. Without speaking as to the three remaining Tartan criteria, yes. In addition to the  
20 meeting the needs discussed above, the Missouri projects will provide economic

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<sup>31</sup> *In the Matter of the Application of Tartan Energy Company, L.C., d/b/a Southern Missouri Gas Company*, 3 Mo. P.S.C. 3d, 173 (1994).

<sup>32</sup> *Ibid.*, 189.

<sup>33</sup> *State ex rel. Intercon Gas, Inc. v Pub. Serv. Comm'n*, 848 S.W.2d 593, 597-598 (Mo. App. W.D. 1993).

1 development benefits in the form of payments to landowners, construction jobs,  
2 increased state and local tax revenues, and other benefits to area businesses.  
3 Since the Kansas project also meets the needs described previously, it is also in  
4 the public interest to the extent that it meets the other Tartan criteria. Further, the  
5 projects become even more economically viable for Missouri with cost-offsetting  
6 Production Tax Credits.

7 **VI. CONCLUSIONS**

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

9 A. DE supports Empire's proposed wind projects, which will provide economic  
10 benefits to the state of Missouri through direct and indirect economic impacts, as  
11 well as support business retention, attraction, and expansion. In addition, the  
12 projects can improve the diversity and security of Missouri's energy supply. All of  
13 these factors would support Missouri's ability to perform more competitively on the  
14 national economic stage. The projects would also be consistent with recent  
15 Commission orders and meet the Commission's criteria regarding "need" and  
16 "public interest."

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

18 A. Yes.

**Case Involvement of Martin R. Hyman**

<b>Case No.</b>	<b>Utility</b>	<b>Case Type</b>	<b>Testimony Round(s)</b>	<b>Issue(s)</b>
EO-2015-0055	Ameren Missouri	MEEIA	Rebuttal, Surrebuttal, Rebuttal to Supp. Direct	Program modifications, settlement
ER-2014-0370	KCP&L	Rate	Rebuttal, Surrebuttal	Residential rate design, demand response rates, Clean Charge Network
WR-2015-0301 (SR 2015-0302)	MAWC	Rate	Direct, Rebuttal, Surrebuttal	Rate design, demand-side efficiency
EA-2015-0256	GMO	CCN	Live	Tartan criteria
ER-2016-0023	Empire	Rate	Direct, Rebuttal, Surrebuttal	Residential rate design, DSM
EM-2016-0213	Empire/Liberty	Merger	Rebuttal, Surrebuttal	Energy efficiency, renewable energy, CHP, microgrids
ER-2016-0156	GMO	Rate	Direct, Rebuttal, Surrebuttal	Residential rate design, demand response rates, DSM, AMI, solar costs
EA-2016-0208	Ameren Missouri	CCN	Rebuttal, Surrebuttal	Settlement
ET-2016-0246	Ameren Missouri	Tariff	Rebuttal, Surrebuttal	EV-related policy and rate design considerations
ER-2016-0285	KCP&L	Rate	Direct, Rebuttal, Surrebuttal	Residential rate design, Commission questions, value of solar, EVs/Clean Charge Network, DSM
ER-2016-0179	Ameren Missouri	Rate	Direct, Rebuttal	Residential rate design, Commission questions, value of solar, DSM
WU-2017-0296	MAWC	AAO	Rebuttal (for DED)	Lead service line replacement
GR-2017-0215 and GR-2017-0216	Spire	Rate	Direct, Rebuttal, Surrebuttal	Revenue Stabilization Mechanism, energy efficiency, residential rate design

(Continued on next page)

### Case Involvement of Martin R. Hyman

(Continued from previous page)

Case No.	Utility	Case Type	Testimony Round(s)	Issue(s)
WR-2017-0285	MAWC	Rate	Direct, Rebuttal, Surrebuttal	Residential rate design, Revenue Stabilization Mechanism, inclining block rates, lead service line replacement, special contract rate
EM-2018-0012	GPE	Merger	Rebuttal, Surrebuttal	Economic development, equal outcome provision, renewable energy, energy efficiency
EO-2015-0055	Ameren Missouri	MEEIA	Rebuttal	Pre-pay
EO-2018-0092	Empire	Customer Savings Plan	Rebuttal	Customer Savings Plan, economic development considerations
GR-2018-0013	Liberty	Rate	Direct, Rebuttal, Surrebuttal	Low-income energy assistance, Red-Tag Repair Program, energy efficiency, Volume Balancing Adjustment rider, district consolidation, residential rate design
ET-2018-0063	Ameren Missouri	Tariff	Surrebuttal	Support for non-unanimous stipulation and agreement
ER-2018-0145 and ER-2018-0146	KCP&L and GMO	Rate	Direct, Rebuttal, Surrebuttal	Rate design, generating unit retirements, Restoration Charges, EV charging stations, renewable energy tariff programs, distributed energy resource data
EA-2018-0202	Ameren Missouri	CCN	Rebuttal	Economic development, wildlife conservation
EO-2018-0211	Ameren Missouri	MEEIA	Rebuttal, Surrebuttal	Support for programs, savings targets, cost-effectiveness testing, portfolio design, policy, alternative proposals, other parties' recommendations
EA-2019-0021	Ameren Missouri	CCN	Rebuttal	Economic development

(Acronyms, abbreviations, and short-hand notation explained on next page)

### Case Involvement of Martin R. Hyman

As used above, the following terms are referred to by acronyms, abbreviations, or short-hand notation:

Accounting Authority Order	AAO
Union Electric Company d/b/a Ameren Missouri	Ameren Missouri
Advanced Metering Infrastructure	AMI
Certificate of Public Convenience and Necessity	CCN
Department of Economic Development	DED
Demand-Side Management	DSM
Combined Heat and Power	CHP
The Empire District Electric Company	Empire
Electric Vehicle	EV
KCP&L Greater Missouri Operations Company	GMO
Great Plains Energy Incorporated	GPE
Liberty Utilities	Liberty
Kansas City Power & Light Company	KCP&L
Missouri Energy Efficiency Investment Act	MEEIA
Missouri-American Water Company	MAWC
Spire Missouri Inc. d/b/a Spire	Spire