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Issue(s):  
Witness: Jeffrey R. Huber  
Sponsoring Party: Union Electric Company  
Type of Exhibit: Direct Testimony  
Case No.: EO-2023-0136  
Date Testimony Prepared: January 25, 2024

**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. EO-2023-0136**

**DIRECT TESTIMONY**

**OF**

**JEFFREY R. HUBER**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**d/b/a Ameren Missouri**

**St. Louis, Missouri**

**January, 2024**

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1           **Q.     Please describe your educational background and relevant work**  
2 **experience.**

3           A.     I received a Bachelor's degree in Anthropology and Criminology from the  
4 University of Florida in May 2001. In May 2004, I was awarded a Master of Arts degree  
5 in Anthropology, with a graduate minor in Statistics, from the University of Tennessee.  
6 Since joining GDS Associates in 2005, I have been involved primarily in planning and/or  
7 evaluating projects for energy efficiency and demand response programs for utility clients  
8 and/or state organizations. I have conducted energy efficiency potential market  
9 assessments in over a dozen states and across more than two dozen utility service areas  
10 focused primarily across the Midwest, South, and Northeast. I have formally presented  
11 results from these market potential assessments in front of Commissions and Commission  
12 staff in Indiana, Maine, Michigan, Missouri, Pennsylvania, and Vermont. In addition to  
13 market potential assessments, I have conducted market baseline studies for residential  
14 market rate, residential low-income, and nonresidential customers in several states,  
15 performed cost-effectiveness screening of utility programs, and engaged in regulatory  
16 oversight of energy efficiency programs for other organizations.

17   **II.     PURPOSE OF TESTIMONY**

18           **Q.     What is the purpose of your direct testimony in this proceeding?**

19           A.     My purpose is to review the scope of services included in the most recent  
20 DSM Market Potential Study ("2023 DSM MPS") for Ameren Missouri, and the timing of  
21 the deliverables as that relates to the March 27, 2023, filing.

22           **Q.     Are you sponsoring any exhibits in support of your testimony?**

23           A.     No.

1           **Q.     Please explain your involvement with Ameren Missouri's Plan.**

2           A.     Although an MPS is not intended to be a detailed portfolio and/or program  
3 plan document, GDS was tasked with verifying that the latest MEEIA Plan filing was  
4 generally consistent with the findings of the 2023 Market Potential Study in terms of  
5 overall savings impacts and costs. GDS also supported Ameren Missouri with developing  
6 a directory of all charts and tables (and corresponding source information) included in the  
7 Company's Plan.

8           **The 2023 DSM MPS**

9           **Q.     Please describe the deliverables you and your team provided to the**  
10 **Company, as part of your work on the 2023 DSM MPS.**

11          A.     The GDS Team conducted a market potential study for Ameren Missouri,  
12 which included a variety of tasks, sub-tasks, and deliverables. At the outset of the study,  
13 GDS conducted a historical performance variance analysis, which helped inform  
14 subsequent analyses by connecting historical results to estimates of future savings  
15 opportunities. This involved comparing the estimates of Ameren Missouri's 2020 potential  
16 study with actual costs and savings across 2019-2021 as identified in Evaluation,  
17 Measurement and Verification (EM&V) reports across that timeframe.

18          •     GDS then developed estimates of technical and economic potential for  
19 energy efficiency, demand response, and distributed energy resources measures.  
20 This required creating a sector-level load forecast disaggregation, creating a  
21 measure list and developing a measure assumptions database for each sector (and  
22 each element of the study – energy efficiency, demand response, and distributed  
23 energy resources) and creating models to calculate estimates of technical and  
24 economic potential.

1           •       Then the study developed maximum and realistic achievable potential by  
2           applying market adoption rates to the previously identified technical and economic  
3           potential. This step involved developing measure-level estimates of long-term  
4           market adoption or acceptance rates, which factored in customer willingness and  
5           likelihood to adopt measures considering variable incentive levels and barriers to  
6           adoption such as lack of information, time, awareness, access to capital, and other  
7           possible constraints.

8           •       The estimates of achievable potential were then used to conduct a range of  
9           sensitivity analyses and a related load flexibility analysis. Sensitivities assessed the  
10          impact on the results of alternative avoided costs (higher and lower), a hypothetical  
11          prolonged economic downturn, short-term impacts associated with the COVID-19  
12          pandemic, a range of potential attribution outcomes (NTG ratios), the potential  
13          impacts of higher impact program marketing, the inclusion of large customer opt-  
14          outs, changing weather patterns, technology improvements, program design  
15          changes such as increased funding to the income-qualified segment of the  
16          population and alternative delivery methods, among other scenarios.

17          •       The results of the technical, economic, and achievable potential analyses,  
18          sensitivity analysis and load flexibility analysis were then provided in a written  
19          report to Ameren Missouri. GDS also created sector-level IRP inputs for each  
20          element of the study (energy efficiency, demand response, and distributed energy  
21          resources) to support Ameren with its IRP planning. Finally, GDS provided  
22          documentation of how the study addressed each of the compliance checklist items  
23          pertinent to all applicable IRP rules, MEEIA rules and other stipulated  
24          commitments.

25          **Q.       Did the timing, order and nature of those deliverables adjust as the**  
26          **effort got underway? If so, why?**

27          A.       At the outset of the project, GDS provided an estimated project schedule  
28          with each of the associated tasks of the project. The timing and order of project delivery  
29          generally held true to the original plan. There were some adjustments to the nature of the

1 deliverables as the project proceeded. For example, the determination of the sensitivities  
2 to conduct, as well as the precise nature of the data inputs needs for the load flexibility  
3 analysis and IRP inputs required an iterative process. This meant that GDS provided the  
4 results in multiple draft forms before the results were finalized. GDS worked with Ameren  
5 Missouri and other stakeholders to ensure that the results produced by the study met future  
6 planning needs and met all applicable compliance checklist items.

7 **Q. Was your company able to produce the desired deliverables, when**  
8 **needed?**

9 A. To the best of my knowledge, GDS provided the desired deliverables in a  
10 timely manner as needed by Ameren Missouri.

11 **Q. Do you recall if the information your company produced was presented**  
12 **and discussed with stakeholders? Please provide relevant information.**

13 A. The GDS Team included as part of the scope of work a process by which  
14 stakeholders would be able to review study inputs and methodologies and draft results and  
15 have multiple opportunities to provide feedback and have the study address any concerns.  
16 This included four workshops across the study timeframe to provide an overview of the  
17 study, discuss options and general methodologies, suggest new sensitivity analysis in the  
18 2023 MPS, review and comment on the load flexibility approach, and review the study  
19 results (see summary table below). To the best of our knowledge, GDS incorporated  
20 stakeholder feedback, suggestions, and concerns, to ensure that the study was done in a  
21 collaborative manner that served the mutual interests of all interested parties.

1

### List of Stakeholder Workshops

<b>Stakeholder Workshop Dates</b>	<b>Topics</b>
Workshop #1 – April 2022	Project Overview
Workshop #2 – July 2022	Methodologies and Sensitivity Analysis Topics
Workshop #3 – September 2022	Load Flexibility Analysis
Workshop #4 – December 2022	Updated Results and Sensitivities
Workshop #5 – May 2023	MPS Study Results

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### III. CONCLUSION

3 **Q. Does this conclude your direct testimony?**

4 **A. Yes, it does.**



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

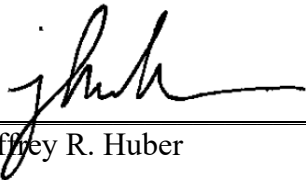
In the Matter of Union Electric Company                    )  
d/b/a Ameren Missouri's 4<sup>th</sup> Filing to                    )  
Implement Regulatory Changes in Furtherance            )     File No. EO-2023-0136  
of Energy Efficiency as Allowed by MEEIA.                )

**AFFIDAVIT OF JEFFREY R. HUBER**

STATE OF MISSOURI     )  
  )  
CITY OF ST. LOUIS     )

Jeffrey R. Huber, being first duly sworn on his oath, states:

My name is Jeffrey R. Huber on his oath declare that he is of sound mind and lawful age; that he has prepared the foregoing *Direct Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
Jeffrey R. Huber

Sworn to me this 24th day of January, 2024.