

**Exhibit No:**  
**Issue(s): AMI Data Access**  
**Witness: Andrew D. Teague**  
**Sponsoring Party: Midwest Energy Consumers Group**  
**Type of Exhibit:**  
**File No.: ER-2021-0240**  
**Date Testimony Prepared: September 17, 2021**

**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2021-0240**

**DIRECT TESTIMONY AND EXHIBITS OF**

**ANDREW D. TEAGUE**

**ON BEHALF OF**

**MIDWEST ENERGY CONSUMERS GROUP**

**SEPTEMBER 17, 2021**

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**Exhibits**

**Exhibit ADT-1:** Witness Qualifications Statement



1 **I. Introduction**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.**

3 A. My name is Andrew D. Teague. My business address is 2608 SE J Street, Bentonville,  
4 AR 72716. I am employed by Walmart Inc. as Senior Manager, Energy Services.

5 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?**

6 A. I am testifying on behalf of Midwest Energy Consumers Group (“MECG”), which is an  
7 incorporated association representing the interests of large commercial and  
8 industrial users of electricity. MECG members take electric service from Union  
9 Electric Company d/b/a Ameren Missouri (“Ameren” or “the Company”) primarily on  
10 Service Classification No. 3(M) Large General Service Rate (“LGS”), Service  
11 Classification No. 4(M) Small Primary Service Rate (“SP”), and Service Classification  
12 No. 11(M) Large Primary Service Rate (“LP”).

13 **Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.**

14 A. I received a Master's of Public Affairs in 2010 from the University of Indiana School  
15 of Public and Environmental Affairs. From 2011 to 2019, I was an energy  
16 management contractor working with the Army and the Air Force with primary  
17 duties in Texas and Oklahoma. My responsibilities included energy conservation  
18 projects, on-installation utility billing, management of relationships with utility  
19 providers, and other day-to-day energy and utility operations. I joined the energy  
20 department at Walmart in February 2019 as Senior Manager, Energy Services. My  
21 Witness Qualifications Statement is attached as Exhibit ADT-1.

1       **Q.     HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE MISSOURI PUBLIC**  
2       **SERVICE COMMISSION (“COMMISSION”)?**

3       A.     No, I have not.

4       **Q.     HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE OTHER STATE**  
5       **REGULATORY COMMISSIONS?**

6       A.     I have previously testified before the Kentucky Public Service Commission in Case  
7       Nos. 2020-00349 and 2020-00350, before the Michigan Public Service Commission in  
8       Case No. U-20963, before the Public Utility Commission of Texas in Case No. 52040,  
9       and before the Virginia State Corporation Commission in Case No. PUR-2021-00127.

10      **Q.     ARE YOU SPONSORING EXHIBITS IN YOUR TESTIMONY?**

11      A.     Yes. I am sponsoring the exhibits listed in the Table of Contents.

12      **Q.     DO MECG’S MEMBERS HAVE A SIGNIFICANT IMPACT ON MISSOURI’S ECONOMY?**

13      A.     Yes. For example, as shown on Walmart’s website, Walmart operates 156 retail  
14      units and four distribution centers and employs over 43,000 associates in Missouri.  
15      In fiscal year ending 2021, Walmart purchased \$6.9 billion worth of goods and  
16      services from Missouri-based suppliers, supporting over 68,000 supplier jobs.<sup>1</sup>

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<sup>1</sup> <http://corporate.walmart.com/our-story/locations/united-states#/united-states/missouri>

1 **II. Purpose of Testimony and Summary of Recommendations**

2 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3 A. The purpose of my testimony is to provide MECG's response to Ameren's Advanced  
4 Metering Infrastructure ("AMI") deployment in regards to data access to enable  
5 smart and efficient customer behavior changes.

6 **Q. PLEASE SUMMARIZE MECG'S RECOMMENDATIONS TO THE COMMISSION.**

7 A. MECG's recommendations to the Commission are as follows:

8 1) The Commission should require the Company to provide customers the  
9 ability to retrieve and download energy usage interval data for multiple  
10 accounts, up to and including all accounts, through one file; and

11 2) The Commission should require the Company to take the steps necessary to  
12 become Green Button Connect My Data ("CMD") compatible.

13 **Q. DOES THE FACT THAT YOU MAY NOT ADDRESS AN ISSUE OR POSITION**  
14 **ADVOCATED BY THE COMPANY INDICATE MECG'S SUPPORT?**

15 A. No. The fact that an issue is not addressed herein or in related filings should not be  
16 construed as an endorsement of, agreement with, or consent to any filed position.

17

18 **III. AMI Deployment Plan**

19 **Q. HOW DOES THE COMPANY DESCRIBE ITS CURRENT METER INFRASTRUCTURE?**

20 A. Ameren began installing AMI meters in July 2020. See Direct Testimony of Warren  
21 Wood, page 18, lines 8-9. Ameren's goal is to install 1.2 million AMI meters through  
22 2028 with 133,000 installed through 2020. *Id.* p. 16.

1       **Q.       DOES MECG OPPOSE THE COMPANY'S AMI DEPLOYMENT?**

2       A.       MECG does not oppose the Company's AMI deployment plan, however, MECG does  
3       believe that the interval data provided by AMI meters should be made available to  
4       Ameren's customers in a customer-friendly, easy-to-access format, which includes  
5       the availability of Green Button Connect My Data functionality. Otherwise,  
6       customers, especially commercial and industrial customers with multiple locations,  
7       cannot access one of the primary benefits of smart meter technology.

8

9       **IV. Access to Interval Data Through the Company's Customer Portals**

10       **Q.       WHAT IS "INTERVAL DATA?"**

11       A.       Interval data is the metered consumption data for electricity delivered at a given  
12       meter over a stated period of time. In general, the interval period is fifteen minutes  
13       and the delivery units are either kilowatts or kilowatt-hours. This information can be  
14       aggregated over a period of time to determine the consumption and demand at the  
15       meter, which provides the customer with billing information that is needed to  
16       evaluate energy consumption and identify savings opportunities.

17       **Q.       DOES THE COMPANY CURRENTLY PROVIDE CUSTOMERS WITH ACCESS TO THEIR**  
18       **INTERVAL DATA?**

19       A.       No, the company does not.

20       **Q.       IS CUSTOMER ACCESS TO INTERVAL ENERGY USAGE DATA IMPORTANT TO MECG**  
21       **MEMBERS?**

22       A.       Yes.

1       **Q.     PLEASE EXPLAIN.**

2       A.     Easy and transparent access to interval data allows a customer to measure its energy  
3           usage and make data-driven adjustments to its energy consumption. In addition,  
4           interval data allows customers to better target facilities for energy reduction  
5           projects. Interval data also facilitates measurement and verification of energy  
6           savings and an emissions footprint of energy usage.

7       **Q.     DOES MECG ADVOCATE FOR A SPECIFIC INTERVAL DATA ACCESS METHOD?**

8       A.     Yes, it does. For large energy users with multiple sites like Walmart and other MECG  
9           members, it is important that data access is automated, accessible by a third party,  
10          and provided in a standardized format. In MECG's experience, this is best met  
11          through a customer portal that is "Green Button" Connect My Data compatible.

12      **Q.     IN GENERAL, WHAT DOES IT MEAN TO BE "GREEN BUTTON" COMPATIBLE?**

13      A.     The Green Button initiative was developed by the federal government to challenge  
14          utilities to provide customers' energy usage information in a downloadable,  
15          standard, and simple format.<sup>2</sup> Green Button is a data standard for enabling utility  
16          customers or third-parties access to energy usage information in a "consumer-  
17          friendly and computer-friendly format."<sup>3</sup> Essentially, a Green Button utility allows  
18          interval data to be accessed by simply clicking a "Green Button" located on the  
19          utility's website. There are two types of Green Button compatibility: Download My  
20          Data ("DMD") and Connect My Data ("CMD"). Under either option, customers would

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<sup>2</sup> [www.greenbuttonalliance.org/about#what](http://www.greenbuttonalliance.org/about#what).

<sup>3</sup> [www.greenbuttondata.org](http://www.greenbuttondata.org)



1 be able to obtain interval data for all of its locations through a single file, however,  
2 CMD provides better functionality.

3 **Q. WHAT DOES IT MEAN TO BE GREEN BUTTON CMD COMPATIBLE?**

4 A. While DMD compatibility allows the customer to download their interval data  
5 through a single file, with CMD compatibility, it gives the customer the option to  
6 allow a third-party vendor to obtain that data directly from the customer portal  
7 without ongoing involvement from the customer.

8 **Q. ARE THERE OTHER BENEFITS TO THE GREEN BUTTON CMD FUNCTIONALITY?**

9 A. Yes. For example, Walmart currently engages a third-party vendor to access interval  
10 energy usage data for its stores, distribution centers, and other facilities from a  
11 variety of applications maintained by different utilities across the United States.  
12 Green Button CMD functionality allows that third-party vendor to automatically  
13 "connect" and obtain usage data directly from the Company without the extra step  
14 of having to obtain that information from Walmart. This added functionality allows  
15 Walmart and other MECG customers to manage their energy usage more efficiently  
16 and effectively.

17 **Q. WHAT IS MECG'S RECOMMENDATION TO THE COMMISSION?**

18 A. MECG recommends that the Commission require the Company to include the option  
19 for customers to retrieve and download energy usage interval data for multiple  
20 accounts, up to and including all accounts, through one datafile. MECG also  
21 recommends that the Commission require customer interval data for commercial  
22 and industrial customers be available in the Green Button CMD format. The steps

1 for becoming CMD compatible are detailed in the "Green Button Connect My Data  
2 (CMD)" Data Sheet found under Green Button *Connect My Data (CMD)* Testing at  
3 [www.Greenbuttonalliance.org/testing](http://www.Greenbuttonalliance.org/testing).

4 **Q. WOULD COMMISSION APPROVAL OF MECG'S RECOMMENDATIONS FURTHER THE**  
5 **COMPANY'S GOALS AS STATED IN ITS PETITION?**

6 A. Yes. The Company stated that the more granular information that AMI can provide  
7 customers will "allow them to shift their energy usage and potentially save on their  
8 bills." *Id.* at p. 18, lines 15-18. These benefits are not fully realized by commercial  
9 and industrial customers without the increased functionality of Green Button CMD.

10 For large customers with multiple accounts across multiple utilities, manual  
11 access to interval data is not practical and the data is not timely. It is only the ability  
12 to automate the dataflow from the utility to the customer that makes the data  
13 usable. Without providing large customers with multiple sites like Walmart with  
14 automated access to usage data such as is provided by Green Button CMD, by the  
15 customer or an authorized third-party, then these customers are limited in their  
16 ability to analyze and respond to this data in way that enables the realization the  
17 Company's stated benefit to promote customer-driven energy conservation.

18

19 **V. Recommendations**

20 **Q. WHAT ARE MECG'S RECOMMENDATIONS TO THE COMMISSION?**

21 A. MECG's recommendations to the Commission are as follows:

- 1           1) The Commission should require the Company to provide customers the  
2           ability to retrieve and download energy usage interval data for multiple  
3           accounts, up to and including all accounts, through one file; and  
4           2) The Commission should require the Company to take the steps necessary to  
5           become Green Button CMD compatible.

6       **Q.     DOES THIS CONCLUDE YOUR TESTIMONY?**

7       A.     Yes.

# Andrew D. Teague, CEM

Senior Manager, Energy Services  
Walmart Inc.

Business Address: 2608 SE J Street, Bentonville, Arkansas 72716

Business Phone: (479) 258-6267

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## EXPERIENCE

February 2019 – Present  
Walmart Inc., Bentonville, AR  
Senior Manager, Energy Services

March 2011 – March 2019  
AGEISS, Inc., Fort Sill, OK  
Energy Conservation Program Support

## EDUCATION

2010	University of Indiana	MPA, Environmental Policy and Natural Resource Management; Sustainable Development
2008	Emory University	B.S., Environmental Studies
2006	Oxford College of Emory University	A.A.

## FILED TESTIMONY

### 2021

Virginia State Corporation Commission Case No. PUR-2021-00127: Petition of the Virginia Electric and Power Company, for approval of a plan for electric distribution grid transformation projects pursuant to §56-585.1 A 6 of the Code of Virginia.

Issue: Approval of a Customer Information Platform and Phase II AMI deployment.

Public Utility Commission of Texas Docket No. 52040, SOAH Docket No. 473-21-2607: Application of El Paso Electric Company for Advanced Metering System (AMS) Deployment Plan, AMS Surcharge, and Non-Standard Metering Service Fees.

Issue: Approval to implement AMS and recover costs through an additional surcharge.

Michigan Public Service Commission Case No. U-20963: In the matter of the application of Consumers Energy Company for authority to increase its rates for the generation and distribution of electricity and for other relief.

Issue: General rate case.

Commonwealth of Kentucky Public Service Commission Case No. 2020-00350: Electronic Application of Louisville Gas and Electric Company for an Adjustment of its Electric and Gas Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Metering Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit.

Issue: General rate case.

Commonwealth of Kentucky Public Service Commission Case No. 2020-00349: Electronic Application of Kentucky Utilities Company for an Adjustment of its Electric Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Metering Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit.

Issue: General rate case.

### **PRESENT MEMBERSHIPS**

Association of Energy Engineers, Member

### **INDUSTRY TRAINING**

- 2020 Practical Regulatory Training for the Electric Industry, Center for Public Utilities, New Mexico State University College of Business
- 2020 IPU Accounting and Ratemaking Course, Michigan State University

### **KEY ACCOMPLISHMENTS**

Oversaw the roll out of the Meter Data Management System at Fort Sill.

Performed meter audits and surveys at Joint Base San Antonio.

Managed meter data for natural gas, electric, wastewater, and water for Joint Base San Antonio and Fort Sill. Developed customer utility rates and managed billing for Joint Base San Antonio and Fort Sill.

Supported utility management for natural gas, electric, wastewater, and water billing with city, public utility, and privatized utility providers.

Supported energy savings performance contract endeavors at Fort Sill and Joint Base San Antonio, including a \$143 million contract.

Audited historic energy savings performance contracts for compliance for the Air Force Civil Engineering Center.

Maintained and expanded Walmart's Rate Engine with the addition of dozens of utilities' and distributed generation providers' interval data and cataloging and modeling hundreds of different utility rates.