

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

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) **CASE NO. 2020-00350**
METERING INFRASTRUCTURE,)
APPROVAL OF CERTAIN REGULATORY)
AND ACCOUNTING TREATMENTS, AND)
ESTABLISHMENT OF A ONE-YEAR)
SURCREDIT)

DIRECT TESTIMONY AND EXHIBITS OF

ANDREW D. TEAGUE

ON BEHALF OF

WALMART INC.

Filed: March 5, 2021

Contents

I. Introduction 1

II. Purpose of Testimony and Summary of Recommendations 3

III. Proposal for Advanced Metering Infrastructure 4

IV. Walmart's Access to Interval Data Through the Company's MyMeter Customer Portal 5

V. Recommendations 10

Exhibits

Exhibit ADT-1: Witness Qualifications Statement

Exhibit ADT-2: Louisville Gas and Electric Company's response to Walmart Supplemental Request 1-1

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. ("Walmart") as Senior Manager, Energy
5 Services.

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

7 A. I am testifying on behalf of Walmart.

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

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

17 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE**
18 **KENTUCKY PUBLIC SERVICE COMMISSION ("COMMISSION")?**

19 A. No, I have not.

1 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE OTHER**
2 **STATE REGULATORY COMMISSIONS?**

3 A. No, I have not.

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

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

6 **Q. PLEASE BRIEFLY DESCRIBE WALMART'S OPERATIONS IN**
7 **KENTUCKY.**

8 A. As shown on Walmart's website, Walmart operates 102 retail units and two distribution
9 centers and employs over 27,000 associates in the Commonwealth of Kentucky. In
10 fiscal year ending 2020, Walmart purchased \$506.1 million worth of goods and
11 services from Kentucky-based suppliers, supporting over 40,000 supplier jobs.¹

12 **Q. PLEASE BRIEFLY DESCRIBE WALMART'S OPERATIONS WITHIN**
13 **LOUISVILLE GAS AND ELECTRIC COMPANY'S ("LG&E" OR**
14 **"COMPANY") SERVICE TERRITORY.**

15 A. Walmart has approximately 17 stores and related facilities that take electric service
16 from LG&E primarily under rates Power Services Secondary ("PSS"), Time-of-Day
17 Primary ("TODP"), and Time-of-Day Secondary Service ("TODS").

18

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

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 respond to LG&E's request for approval of an
4 adjustment of the Company's electric rates and tariffs and for a Certificate of Public
5 Convenience and Necessity ("CPCN") to deploy advanced metering infrastructure
6 ("AMI") within its service territory as set forth in LG&E's Application ("Application")
7 filed with the Commission on November 25, 2020. My testimony explains the
8 perspective and needs of a large energy customer with multiple facilities in LG&E's
9 service territory as it relates to the accessibility and functionality of AMI data.

10 **Q. ARE THERE OTHER WITNESSES FILING TESTIMONY ON BEHALF OF**
11 **WALMART IN THIS CASE?**

12 A. Yes, Lisa Perry, Senior Manager, Energy Services, is also filing testimony on behalf of
13 Walmart. Her testimony address the Company's requested revenue requirement, the
14 requested return on equity, cost of service, revenue allocation and rate design.

15 **Q. PLEASE SUMMARIZE WALMART'S RECOMMENDATIONS TO THE**
16 **COMMISSION.**

17 A. Walmart's recommendations to the Commission are as follows:

- 18 1) The Commission should require the Company to include in its MyMeter
19 platform the option for a customer to retrieve and download its energy usage
20 interval data for multiple accounts, up to and including all accounts, through
21 one datafile; and
22 2) The Commission should require the Company to make customer data accessible
23 through means other than manual download.

1 **Q. DOES THE FACT THAT YOU MAY NOT ADDRESS AN ISSUE OR**
2 **POSITION ADVOCATED BY THE COMPANY INDICATE WALMART'S**
3 **SUPPORT?**

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

6

7 **III. Proposal for Advanced Metering Infrastructure**

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

10 A. There are approximately one million electric meters and 340,000 gas meters between
11 Kentucky Utilities Company ("KU") and LG&E, most of which are read monthly and
12 manually by meter readers who must be in close physical proximity to a customer's
13 meter to gather information. *See* Direct Testimony of Lonnie E. Bellar ("Bellar
14 Direct"), p. 54, lines 10-16. With respect to the electric meters, approximately 75% of
15 them are electromechanical with an average age of 32 years. *See id.* at Exhibit LEB-3,
16 p. 3. Since 2017, the Company has offered a pilot program known as the Advanced
17 Metering Systems ("AMS") Opt-In Program that, as of 2018, had a customer cap of
18 10,000 electric meters each for KU and LG&E. *See id.*, p. 56, lines 11-15. The pilot
19 program was fully subscribed as of May 2019, and currently over 5,200 customers are
20 on a waitlist to participate in the program. *Id.*, p. 56, line 14 to p. 57, line 6.

21 **Q. HOW DOES THE COMPANY PROPOSE TO DEPLOY AMI?**

22 A. It is my understanding that the Company proposes to deploy AMI infrastructure
23 throughout its service territory over a five-year period beginning in October 2021. *Id.*

1 at Exhibit LEB-3, p. 15. Customers who do not desire an AMI meter will have the
2 ability to opt-out. Direct Testimony of Robert M. Conroy ("Conroy Direct"), p. 12,
3 lines 3-4.

4 **Q. DOES WALMART OPPOSE THE COMPANY'S PROPOSAL TO INSTALL**
5 **AMI?**

6 A. Walmart does not oppose the Company's proposal to install AMI across its service
7 territory.

8
9 **IV. Walmart's Access to Interval Data Through the Company's MyMeter Customer Portal**

10 **Q. HOW DOES THE COMPANY PROPOSE TO IMPROVE A CUSTOMER'S**
11 **ACCESS TO INTERVAL ENERGY USAGE DATA THROUGH**
12 **DEPLOYMENT OF AMI?**

13 A. When a customer has an AMI meter, the Company will be able to retrieve interval data
14 from smart meters located at customer sites. *See* Direct Testimony of Kent W. Blake
15 ("Blake Direct"), p. 12, lines 4-7. The Company intends to give customers with AMI
16 meters access to that interval data through its existing MyMeter online portal, which
17 has historically only been available only to customers participating in the AMS Opt-in
18 Program. *See* Direct Testimony of Eileen L. Saunders ("Saunders Direct"), p. 26,
19 lines 8-11.

20 **Q. IS WALMART CURRENTLY ABLE TO ACCESS ITS INTERVAL DATA?**

21 A. No. Interval data is not currently available to Walmart for its stores and associated
22 facilities because it does not have AMI meters.

1 **Q. HOW DOES THE MYMETER ONLINE PORTAL ALLOW CUSTOMERS**
2 **ACCESS TO THEIR DATA?**

3 A. MyMeter allows customers to access their interval data along with the ability to
4 download that data either by exporting it to a spreadsheet or through Green Button
5 Download My Data ("DMD") enabled products. *See id.* at Exhibit ELS-1, p. 13.
6 Additionally, in the future it appears that the Company plans to implement a similar
7 Green Button Connect My Data ("CMD") functionality, which allows consumers to
8 enable third-party access to their meter data.² *See* Exhibit ADT-2.

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

11 A. The Green Button initiative was developed by the federal government to challenge
12 utilities to provide customers' energy usage information in a downloadable, standard,
13 and simple format.³ Green Button is a data standard for enabling utility customers or
14 third-parties access to energy usage information in a "consumer-friendly and computer-
15 friendly format."⁴ Essentially, a Green Button utility allows interval data to be accessed
16 by simply clicking a "Green Button" located on the utility's website.

17 **Q. IS CUSTOMER ACCESS TO INTERVAL ENERGY USAGE DATA**
18 **IMPORTANT TO WALMART?**

19 A. Yes.

² *See* <https://www.greenbuttondata.org/cmd.html>

³ www.greenbuttonalliance.org/about#what.

⁴ www.greenbuttondata.org

1 **Q. PLEASE EXPLAIN.**

2 A. Quite simply, easy and transparent access to interval data allows a customer to measure
3 its energy usage, make adjustments to its energy consumption in response to the data,
4 and reduce their bills. In addition, interval data allows customers to better target
5 facilities for certain kinds of energy projects and facilitate measurement and
6 verification of energy savings.

7 **Q. WILL WALMART HAVE THE ABILITY TO ACCESS ITS INTERVAL DATA
8 THROUGH THE MYMETER CUSTOMER PORTAL AS A RESULT OF AMI
9 DEPLOYMENT?**

10 A. Yes, it is my understanding that Walmart will have access to its interval data if the AMI
11 deployment as proposed in the Company's Application is approved by the Commission.

12 **Q. IF THE COMMISSION AWARDS THE COMPANY A CPCN TO DEPLOY
13 AMI, DOES WALMART HAVE ANY RECOMMENDATIONS TO THE
14 COMMISSION?**

15 A. Yes. Walmart has recommendations regarding expanding customer access to interval
16 data.

17 **Q. PLEASE EXPLAIN.**

18 A. Although the Company intends to give customers access to their interval data through
19 MyMeter with the option to download that data via Green Button DMD functionality,
20 it is not clear whether Walmart will be able to download interval data for all of its
21 locations through a single download, or whether there are limitations on the number of
22 meters and accounts that can be downloaded at one time. Furthermore, without Green

1 Button CMD functionality, Walmart cannot provide interval data access to a third-
2 party.

3 **Q. HOW WOULD WALMART LIKE TO ACCESS ITS INTERVAL DATA?**

4 A. Ideally, Walmart would like to be able to obtain its interval data for all of its locations
5 for both KU and LG&E through a single download. Additionally, Walmart would like
6 the option to allow a third-party vendor to obtain that data directly from KU and LG&E
7 via Green Button CMD functionality.

8 **Q. IS IT IMPORTANT TO WALMART THAT INTERVAL DATA BE ACCESSED**
9 **THROUGH A SINGLE DOWNLOAD AND/OR THROUGH GREEN BUTTON**
10 **CMD FUNCTIONALITY?**

11 A. Yes, it is. Without this automation, data retrieval becomes an inefficient, time-
12 consuming process that hinders Walmart's ability to analyze and respond to its energy
13 usage.

14 **Q. WHAT ARE THE BENEFITS OF GREEN BUTTON CMD FUNCTIONALITY?**

15 A. Walmart currently engages a third-party vendor to ingest interval energy usage data for
16 its stores, distribution centers, and other facilities from a variety of applications
17 maintained by different utilities across the United States. Green Button CMD
18 functionality allows that third-party vendor to automatically "connect" and obtain
19 Walmart's usage data directly from the Company without having to obtain that
20 information from Walmart.

1 **Q. HAS THE COMPANY INDICATED THAT IT INTENDS TO OFFER GREEN**
2 **BUTTON CMD FUNCTIONALITY THROUGH MYMETER?**

3 A. Yes. The Company indicated that it "planned" to implement Green Button CMD
4 functionality in the future, but it provided no timeline or guarantee of deployment of
5 Green Button CMD functionality. *See* Exhibit ADT-2.

6 **Q. WHAT DOES WALMART RECOMMEND?**

7 A. Walmart recommends that the Commission require the Company to include in its AMI
8 deployment the option for a customer to retrieve and download its energy usage interval
9 data for multiple accounts, up to and including all accounts, through one datafile.
10 Walmart also recommends that the Commission require the Company to make
11 customer interval data available in the Green Button CMD format for the Company's
12 commercial and industrial customers. The steps for becoming CMD compatible are
13 detailed in the "Green Button Connect My Data (CMD)" Data Sheet found under Green
14 Button *Connect My Data (CMD)* Testing at www.Greenbuttonalliance.org/testing.

15 **Q. WOULD COMMISSION APPROVAL OF WALMART'S**
16 **RECOMMENDATIONS FURTHER THE COMPANY'S GOALS AS STATED**
17 **IN ITS PETITION?**

18 A. Yes. The Company has stated that a goal of its AMI deployment is to "capture more
19 detailed and near real-time energy usage information that will permit customers to
20 become better informed." *See* Application, p. 12. For commercial and industrial
21 customers who consume large amounts of electricity across multiple accounts,
22 providing these customers with access to their energy usage data on an interval basis
23 and through one online access point, combined with the ability to download this data

1 automatically, gives the customer the critical information needed to adjust its energy
2 usage at times when reduced energy use can be most impactful for the individual
3 customer and for the grid overall.

4

5 **V. Recommendations**

6 **Q. WHAT ARE WALMART'S RECOMMENDATIONS TO THE COMMISSION?**

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

8 1) The Commission should require the Company to include in MyMeter the option
9 for a customer to retrieve and download its energy usage interval data for
10 multiple accounts, up to and including all accounts, through one datafile; and

11 2) The Commission should require LG&E to take the steps necessary to become
12 Green Button CMD compatible.

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

14 A. Yes.

VERIFICATION

In the Matter of:

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ELECTRIC AND GAS RATES, A)
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CERTAIN REGULATORY AND)
ACCOUNTING TREATMENTS, AND)
ESTABLISHMENT OF A ONE-YEAR)
SURCREDIT)

CASE NO. 2020-00350

STATE OF ARKANSAS)
COUNTY OF WASHINGTON)

The undersigned, Andrew D. Teague, being duly sworn, deposes and says that he is Senior Manager, Energy Services for Walmart Inc., and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained herein are true and correct to the best of his information, knowledge, and belief.



Andrew D. Teague

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 5 day of March 2021.

 (SEAL)

Notary Public

My Commission Expires: August 31, 2028

ALEXIS TAVARES
BENTON COUNTY
NOTARY PUBLIC – ARKANSAS
My Commission Expires Aug. 31, 2028
Commission No. 12705010

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EXHIBIT ADT-1 OF
ANDREW D. TEAGUE
ON BEHALF OF
WALMART INC.

Andrew D. Teague, CEM

Senior Manager, Energy Services
Walmart Inc.

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

Business Phone: (479) 258-6267

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.

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.

Walmart Inc.
Exhibit ADT-1
Kentucky Public Service Commission Case No. 2020-00350

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.

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EXHIBIT ADT-2 OF
ANDREW D. TEAGUE
ON BEHALF OF
WALMART INC.

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Walmart Inc.'s Supplemental Request for Information
Dated February 5, 2021

Case No. 2020-00350

Question No. 1

Responding Witness: Eileen L. Saunders

- Q-1. Please refer to the Direct Testimony of Eileen L. Saunders. At Ex. ELS-1, p. 13, the document states in reference to tools available to customers with an AMI meter that customers will be able to "[d]ownload or export data to spreadsheets to Green Button Download enabled products to facilitate additional review or analysis." Further, at Ex. ELS-2, p. 12, the Company states that it will create a portal that "[p]rovides customers the ability to download usage data in various formats, including Green Button format, which is the national standard."
- a. Do the phrases "Green Button Download" or "Green Button format" as set forth in the exhibits to Ms. Saunders' testimony mean a broader system that would enable "Connect My Data," or does the Company only intend to provide Green Button "Download My Data" capabilities?
- b. Is there a plan to enable third-party access to customer usage data such as through API or through Green Button Connect My Data?
- A-1. Green Button Download and Green Button Connect My Data are two separate capabilities as shown below and discussed in more detailed on the Green Button website: <https://www.greenbuttondata.org/residential.html>



- a. "Green Button Download" and "Green Button format" are both in relation to the existing Green Button "Download My Data" capability, which is currently available for customers with an AMI meter through MyMeter web portal. If the Companies' AMI proposal is approved, "Download My Data" will be available to any customer receiving an AMI meter upon meter installation. Additionally, the Companies plans to implement Green Button "Connect My

Walmart Inc.
Exhibit ADT-2

Kentucky Public Service Commission Case No. 2020-00349

Page 2 of 2

Response to Question No. 1
Page 2 of 2
Saunders

Data” to give customers additional flexibility to use the usage data for their unique needs.

- b. Yes, see the response to part a. Additionally the Companies currently support enabling third-party access by allowing customers to identify third-parties and provide them with a unique account to access the MyMeter portal. This functionality is shown on page A-12 of Exhibit ELS-1.