

Exhibit No.:
Issues: KCP&L – GMO MEEIA
Application
Witness: Kenneth E. Baker
Sponsoring Party: Walmart
Type of Exhibit: Rebuttal Testimony
File No.: EO-2012-0009
Date of Testimony: March 20, 2012

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EO-2012-0009

REBUTTAL TESTIMONY

OF

KENNETH E. BAKER

ON BEHALF OF

**WAL-MART STORES EAST, L.P. AND
SAM'S EAST, INC.**

March 20, 2012

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

3 A. My name is Kenneth E. Baker. My business address is 2001 SE 10th St.,
4 Bentonville, AR 72716-0550. My title is Senior Manager for Sustainable
5 Regulation, for Wal-Mart Stores, Inc.

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

7 A. I am testifying on behalf of Wal-Mart Stores East, LP and Sam's East, Inc.
8 (collectively "Walmart").

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

10 A. My Witness Qualifications Statement is found on Exhibit KEB-1.

11 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE**
12 **MISSOURI PUBLIC SERVICE COMMISSION ("THE COMMISSION")?**

13 A. No.

14 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE OTHER**
15 **STATE REGULATORY COMMISSIONS?**

16 A. Yes. I have submitted testimony before Commissions in Arkansas, Texas,
17 New Mexico, North Carolina, South Carolina, Indiana, and Massachusetts.
18 In addition, I have submitted testimony before legislative committees in
19 Texas and Pennsylvania. My testimony has included topics concerning
20 demand response and other demand side management measures. I have
21 also submitted testimony concerning renewable energy issues.

1 **Q. HAVE YOU PREPARED EXHIBITS?**

2 A. Yes, I have prepared Exhibit KEB-1.

3 **Q. WHAT IMPACT DOES WALMART HAVE ON THE MISSOURI**
4 **ECONOMY?**

5 A. Walmart has a significant positive impact on the Missouri economy. As of
6 January, 2012, Walmart has 138 facilities and over 42,000 associates in
7 Missouri. Additionally, as of fiscal year ending 2011, Walmart spent over
8 \$7 billion for merchandise and services with 1,464 suppliers in Missouri,
9 supporting over 71,000 supplier jobs in the state.¹

10 **Q. DOES WALMART PROVIDE AN EXAMPLE OF HOW A LARGE**
11 **COMMERCIAL ENERGY CUSTOMER CAN MAKE SUBSTANTIAL**
12 **CONTRIBUTIONS TOWARDS THE GOAL OF DISTRIBUTED**
13 **GENERATION IMPLEMENTATION, RENEWABLE ENERGY, AND**
14 **INCREASED EFFICIENCY IN THE USE OF ENERGY?**

15 A. Yes. Walmart has made an operational commitment to environmental
16 stewardship in many aspects of its business, including the installation and
17 use of renewable energy and energy efficiency technologies.
18 At the time this testimony will be filed, Walmart will have approximately
19 227 renewable energy projects in the United States completed, under
20 construction, or in permitting.

¹ See <http://walmartstores.com/pressroom/StateByState/State.aspx?st=MO>.

1 On the energy efficiency side, in 2009, Walmart met its global goal to
2 design and open a viable store prototype that is up to 25 to 30 percent
3 more efficient than a store built in 2005 and produces up to 30 percent
4 fewer greenhouse gas emissions. Walmart's investment in energy
5 efficiency is one of the most significant means towards reaching the
6 company's environmental stewardship goals.

7 **Q. CAN YOU PROVIDE SPECIFIC EXAMPLES OF WALMART'S**
8 **DEPLOYMENT OF ENERGY EFFICIENCY AND DSM TECHNOLOGY?**

9 A. Yes. Walmart has deployed a number of technologies, including:

- 10 1) Our own advanced metering system, which we have installed in over
11 1,355 United States and 375 United Kingdom facilities to date;
- 12 2) Daylight harvesting systems, in which lighting intensity automatically
13 adjusts given the amount of incoming daylight from skylights;
- 14 3) Highly efficient HVAC units that exceed the most stringent energy code in
15 the United States;
- 16 4) White membrane roofs that lower cooling load;
- 17 5) Heat reclamation from our refrigeration equipment to meet approximately
18 seventy percent of the hot water needs of our Supercenters;
- 19 6) T8 and LED lighting;
- 20 7) Active dehumidification that enables stores to operate at higher
21 temperatures and use less electricity; and
- 22 8) Indirect evaporate cooling and radiant flooring.

1 Additionally, all of Walmart's United States stores are centrally monitored
2 through an energy management system installed in each store. Through
3 this system, Walmart has the ability to centrally monitor and control store
4 temperature, lighting, and refrigeration units. This system, in combination
5 with its advanced metering system, also allows Walmart to efficiently
6 implement demand response commands.

7 **Q. CAN YOU PROVIDE EXAMPLES OF ESTIMATED ENERGY SAVINGS**
8 **FROM SOME OF THE MEASURES LISTED ABOVE?**

9 A. Yes. Each daylight harvesting system is estimated to save an average of
10 800,000 kWh per year and the total energy savings for LED refrigerator
11 case lighting is estimated to be more than 90,000 kWh per year.²

12 In conclusion, based on its experience, Walmart's efforts provide an
13 example of how one large commercial energy customer is already making
14 substantial contributions towards the goals of distributed generation
15 implementation, renewable energy, and increased efficiency in the use of
16 energy.

17 **Q. DID WALMART UNDERTAKE THESE ENERGY EFFICIENCY**
18 **EFFORTS INDEPENDENTLY OR AS PART OF A UTILITY ENERGY**
19 **EFFICIENCY PROGRAM?**

² 2009 Global Sustainability Report, Wal-Mart Stores, Inc., page 33.
http://walmartstores.com/media/resources/r_3722.pdf

1 A. Both. Walmart was undertaking energy efficiency efforts prior to similar
2 utility programs. Walmart has undertaken these efforts on its own by
3 investing its own capital dollars and to some extent, participation in rebate
4 programs offer by various parties and funded by ratepayers or taxpayers.

5 **Q. DOES WALMART PARTICIPATE IN A NUMBER OF DEMAND**
6 **RESPONSE PROGRAMS?**

7 A. Yes. Walmart has participated in at least seventeen utility and ISO/RTO
8 demand response programs nationwide.

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

10 A. The purpose of my testimony is to inform the Commission as to the energy
11 efficiency measures Walmart has implemented and to discuss demand
12 response, a totally separate and distinct action from energy efficiency.
13 Further, the purpose of my testimony pertains to demand response
14 programs proposed and how the programs requested by GMO are
15 perceived by Walmart as detrimental to the success of those efforts.
16 Specifically, I will be responding to the testimony of Allen D. Dennis and
17 Tim Rush of KCP&L Greater Missouri Operations Company ("GMO" or
18 "the Company"). Walmart is also sponsoring the testimony of Steve W.
19 Chriss, Senior Manager, Energy Regulatory Analysis, who will address
20 issues regarding GMO's proposed Demand-Side Program Investment
21 Mechanism Rider ("DSIM").
22

1 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

- 2 1. Missouri statute allows certain customers to opt-out of the utility's energy
3 efficiency programs and costs. That said, the statute also expressly
4 allows these opt-out customers to still participate in curtailable and
5 interruptible programs. Despite these statutory guarantees, GMO asks
6 that the Commission include the Mpower program, another curtailable rate
7 schedule, as part of its DSM programs. Because of this, GMO would
8 cause these opt-out customers to choose between participation in the
9 Mpower tariff and opting out of the utility's DSM costs. It is my
10 recommendation that the Commission treat MPower in the same manner
11 as other curtailable tariffs (i.e., the VLRR and CDR tariffs), and allow
12 customers who opt out of the DSM programs and DSIM to still participate
13 in the MPower program. This is not only consistent with the statutory
14 guarantees, it also ensures greater participation in this curtailable program
15 and places similar programs under the same set of conditions.
- 16 2. The Commission should consider the potential positive impact of
17 additional demand response opportunities within SPP. In markets that
18 allow customer participation with an ISO/RTO we find that we are able to
19 choose the program that best fits our needs and business objectives.
20 Additionally, when different entities compete for customers demand
21 response, it logically will spur advances in technology, and increase
22 attentive customer service. With a monopolistic system in place, there is a

1 tendency for innovation and customer satisfaction to become stagnant,
2 thereby causing demand response to lose the potential to be as
3 productive as possible. Competition for demand response and allowing
4 customers to aggregate their loads across several utility service areas all
5 operating within the same ISO region can greatly reduce congestion on
6 the grid, and also reduce the need for costly peaker plants among other
7 ratepayer benefits.

8 The fact that an issue is not addressed should not be construed as an
9 endorsement of any filed position.

10 **Q. WHAT IS YOUR UNDERSTANDING OF GMO'S MPOWER PROGRAM?**

11 A. My understanding is that GMO's MPower program is a curtailable /
12 interruptible tariff that, per the proposed tariff, is "designed to reduce
13 customer load during peak periods to help defer future generation capacity
14 additions and provide for improvements in energy supply." See Schedule
15 ADD-13, pdf page 45.

16 **Q. HOW DOES THE MPOWER TARIFF WORK?**

17 A. The tariff calls for the customer to be compensated for the number of
18 curtailments, the size of their curtailments and the number of years in the
19 Mpower contract. *Id.* Once signed up, the utility then has the right to
20 request the customer to curtail its load by providing the appropriate
21 notification. In this way, at times of seasonal or daily peaks or congestion
22 on the grid caused by other reasons, the utility is able to respond quickly

1 to a variety of conditions. By doing this, the utility can also avoid the cost
2 of building additional generation or accessing the wholesale power market
3 at times of high wholesale rates.

4 **Q. IS IT YOUR UNDERSTANDING THAT GMO HAS INCLUDED THE**
5 **MPOWER PROGRAM AS PART OF THEIR PROPOSED DSM**
6 **PROGRAM PORTFOLIO?**

7 A. Yes. My understanding is that GMO proposes to include the MPower
8 program as part of their proposed DSM program portfolio. See Direct
9 Testimony of Allen D. Dennis, page 19, line 1.

10 **Q. IS IT YOUR UNDERSTANDING THAT THE PROPOSED DSM**
11 **PROGRAM PORTFOLIO COSTS WOULD BE COLLECTED THROUGH**
12 **THE DSIM?**

13 A. Yes. See Schedule TMR-1. As such, it appears that customers who
14 participate in the MPower program would be required to pay the DSIM
15 rate.

16
17 **Q. ARE CERTAIN CUSTOMERS ALLOWED TO OPT OUT OF THE DSIM?**

18 A. Yes. Per 4 CSR 240-20.094(6)(A), a customer meeting one or more of
19 the following criteria may opt out of the DSIM:

20 "1. The customer has one (1) or more accounts within the service territory
21 of the electric utility that has a demand of the individual accounts of
22 five thousand (5,000) kW or more in the previous twelve (12) months;

- 1 2. The customer operates an interstate pipeline pumping station,
2 regardless of size; or
- 3 3. The customer has accounts within the service territory of the electric
4 utility that have, in aggregate across its accounts, a coincident demand
5 of two thousand five hundred (2,500) kW or more in the previous
6 twelve (12) months, and the customer has a comprehensive demand-
7 side or energy efficiency program and can demonstrate an
8 achievement of savings at least equal to those expected from utility-
9 provided programs."

10 **Q. DOES 4 CSR 240-20.094(6) ALSO PROVIDE THAT CUSTOMERS**
11 **THAT OPT OUT STILL BE ABLE TO PARTICIPATE IN**
12 **INTERRUPTIBLE OR CURTAILABLE RATE SCHEDULES OR**
13 **TARIFFS?**

14 A. Yes. 4 CSR 240-20.094(6)(J) states:

15 "(J) A customer electing not to participate in an electric utility's
16 demand-side programs under this section shall still be allowed to
17 participate in interruptible or curtailable rate schedules or tariffs offered
18 by the electric utility."

19 **Q. ARE YOU CONCERNED WITH GMO'S PROPOSAL TO INCLUDE**
20 **MPOWER AS PART OF THEIR DSM PROGRAM PORTFOLIO?**

21 A. Yes, customers who would otherwise opt out of the DSIM would now be
22 required to pay the DSIM in order to participate in the MPower program.
23 As indicated, the statute expressly allows certain customers to both opt-
24 out of DSM costs and still participate in curtailable / interruptible programs.
25 By including the Mpower curtailable rate schedule in its portfolio of
26 demand response programs, GMO seeks to negate this statutory
27 provision. Under GMO's proposal, customers that would otherwise be

1 allowed to opt-out of DSM costs would now be required to pay such costs
2 in order to participate in this curtailable rate schedule. This is contrary to
3 the express provisions of the statute as well as what I believe to be the
4 intent of the statute.

5 **Q. WHAT DO YOU BELIEVE IS THE INTENT OF THE MEEIA**
6 **STATUTE?**

7 A. I believe that the General Assembly wrote the statute with the clear
8 understanding that certain commercial and industrial customers have
9 already made heavy investments in energy efficiency. Walmart is a clear
10 example of such a customer. Given this, I believe the General Assembly
11 felt that it would be inequitable to require these same customers to pay for
12 their own energy efficiency programs as well as those of the utility. As
13 such, they provided a provision for these customers to opt-out of the
14 utility's energy efficiency costs.

15 That said, it may be inferred that the General Assembly, given the size
16 these opt-out customers are they could well be the same entities that
17 make interruptible / curtailable tariffs successful. Therefore, the General
18 Assembly provided a provision to ensure the continued participation of
19 these same large customers in these interruptible / curtailable programs.

1 Is it in the best interest of the customer for the Commission not to allow
2 GMO to undermine the potential positive impact of the Mpower tariff by
3 limiting the scope of that tariff to only those customers that have not
4 opted-out of energy efficiency costs? The larger customers that are
5 eligible to opt-out of these costs are the entities that have the potential to
6 make the Mpower tariff (and other curtailable /interruptible tariffs) a real
7 tool in managing the utilities operations.

8 **Q. INSTEAD OF PARTICIPATING IN THE MPOWER PROGRAM, COULD**
9 **A CUSTOMER JUST CHOOSE TO OPT OUT AND SIGN UP FOR THE**
10 **VOLUNTARY LOAD REDUCTION RIDER (“VLRR”) OR THE**
11 **CURTAILABLE DEMAND RIDER (“CDR”)?**

12 A. Yes. It appears that GMO does not intend to make its other interruptible /
13 curtailable tariffs a part of its DSM portfolio. As such, it would appear that
14 these programs would still be available to opt-out customers. However,
15 there are limits to a customer’s ability to participate in those programs and
16 in the case of the VLRR, uncertainty regarding the economic benefit to the
17 customer of participation.

18 **Q. PLEASE EXPLAIN.**

19 A. The VLRR requires a customer to have a peak demand that exceeds 500
20 kW and the CDR requires a minimum curtailment of 200 kW. See Aquila
21 Networks P.S.C. MO. No. 1, Original Sheet No. 96 and KCP&L Greater

Missouri Operations Company P.S.C. MO. No. 1, 3rd Revised Sheet No. 99. The uncertainty regarding the economic value of participation in the VLRR is tied to the very limited before-the-fact knowledge of the customer regarding how much compensation, through a bill credit, they would receive for their actions. As such, there is no way for a customer to develop the economics for a business case to support participation. See Aquila Networks P.S.C. MO. No. 1, Original Sheet No. 96. In contrast, the MPower program does not have a minimum customer size level (though it does have a minimum curtailment requirement of 25 kW) and the ability to build a business case to support participation through the program participant payment information in the tariff. See Schedule ADD-13, pdf page 45 to page 47.

Q. IS THE DSIM RATE ALSO INTEGRAL TO A CUSTOMERS BUSINESS CASE TO SUPPORT PARTICIPATION IN THE MPOWER PROGRAM?

A. Yes. As discussed in more detail in the testimony of Walmart witness Chriss, the DSIM rate, as a cost of participation, can impact a customer's decision to participate in the MPower program and deliver demand response benefits to the grid.

Q. IS THERE AN ADDITIONAL REASON WHY THE INCLUSION OF MPOWER IN THE DSM PROGRAM PORTFOLIO IS A CONCERN?

A. Yes. As a result of the Commission's March 31, 2010, order in File No. EW-2010-0187, GMO has essentially been granted a monopoly in the

1 provision of demand response in its territory, so inclusion of MPower in the
2 DSM program portfolio further limits the ability of customers, who choose
3 to opt out but are willing and able to do demand response in order to
4 provide benefit to the grid, to participate.

5 **Q. WHY IS THIS A CONCERN?**

6 A. This is a concern because it ignores federal policy and movement towards
7 greater demand response opportunities for customers and greater grid
8 benefits from broader participation. See FERC Order 719; pages 1-3.
9 The language in FERC Order 719, at minimum, suggests that they would
10 prefer that there be as much competition for demand response as
11 possible. Additionally, though GMO operates in a non-competitive market,
12 there is simply no nexus to their ability to sell electricity free from
13 competition and other entities ability to offer demand side management
14 programs including demand response.

15 **Q. WHAT ARE YOUR RECOMMENDATIONS TO THE COMMISSION ON**
16 **THESE ISSUES?**

17 A. First, the Commission should treat MPower in the same manner in which
18 VLRR and CDR are treated, and allow customers who opt out of the DSM
19 programs and DSIM to participate in the MPower program. Second, the
20 Commission, in this docket, should consider the impact of the proposed
21 provision of demand response through the Company's proposed MPower

1 program on the development of additional demand response opportunities
2 within SPP.

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

4 **A. Yes.**

KENNETH E. BAKER

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EMPLOYMENT HISTORY

1999-present – Wal-Mart Stores, Inc., Senior Manager of Sustainable Regulation

Other Titles: **Senior Manager Real Estate, and Senior Real Estate Manager**

Duties:

- Locate sites and negotiate agreements for distribution centers
- Negotiate interconnection agreements for renewable generation projects
- Review and analyze proposed state legislation concerning energy efficiency, demand response, EPAct2005 and Renewable Portfolio Standards

1992-1999 – Center for Arkansas Legal Services, Staff Attorney

Managed firm intake process; represented over 150 clients at a time

1986-1999 – Rebsamen Regional Medical Center, Clinical Laboratory Technologist

Performed chemical and bacterial analysis

EDUCATION

1992, Juris Doctorate, University of Arkansas School of Law at Little Rock

1985, Bachelor of Science in Health Science, College of St. Frances

1979, Associate of Science in Medical Laboratory Technology, Garland County Community College

ORGANIZATIONS

Clinical Laboratory Technologist registered with the Department of Human Services

Arkansas Bar Association