

Exhibit No.:
Issues: Revenue Requirement
Witness: Laura Wolfe
Sponsoring Party: Missouri Department of Natural
Resources, Division of Energy
Type of Exhibit: Direct Testimony
Case No.: ER-2010-0130

DIRECT TESTIMONY
OF
LAURA WOLFE
ON
BEHALF OF
MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENERGY

February 26, 2010

TABLE OF CONTENTS

I.	INTRODUCTION	2
II.	PURPOSE AND SUMMARY OF TESTIMONY	3
III.	DEMAND SIDE MANAGEMENT PORTFOLIO	4
IV.	TARGET DEMAND AND ENERGY REDUCTIONS	7
V.	RECOVERY OF DSM COSTS	12
VI.	CUSTOMER PROGRAMS COLLABORATIVE	15
VII.	SUMMARY	15

1 I. INTRODUCTION

2 **Q. Please state your name and business address.**

3 A. My name is Laura Wolfe. My business address is Missouri Department of Natural
4 Resources, Division of Energy (MDNR-DE), 1101 Riverside Drive, P.O. Box 176,
5 Jefferson City, Missouri 65102-0176.

6 **Q. By whom and in what capacity are you employed?**

7 I am employed as an Energy Specialist in the Energy Policy and Resources Program
8 in the Missouri Department of Natural Resources, Division of Energy. The Missouri
9 Department of Natural Resources is an agency of state government with its executive
10 office located in Jefferson City, Missouri, and is vested with the powers and duties set
11 forth in Section 640.150, RSMo. The Division of Energy is the designated state
12 energy office in Missouri responsible for the administration of the federal Low
13 Income Weatherization Assistance Program (LIWAP) and the federal State Energy
14 Program (SEP) established by the United States Congress in 1978, which is managed
15 nationally by the United States Department of Energy (USDOE). The SEP consists of
16 several statewide energy efficiency programs administered by the MDNR-DE and
17 funded by the USDOE.

18 **Q. On whose behalf are you testifying?**

19 A. I am testifying on behalf of the Missouri Department of Natural Resources
20 (“MDNR”), an intervenor in these proceedings.

21 **Q. Please describe your educational background and professional experience.**

1 A. I received a Bachelor of Science in Business Administration in 1985 from Central
2 Methodist College (n.k.a., Central Methodist University) in Fayette, Missouri, and a
3 Master in Public Administration in 1990 from the University of Missouri-Columbia.
4 In addition to governmental accounting, purchasing, facilities management, and
5 regulatory compliance auditing experience, I have worked in a variety of positions
6 regarding utility regulation including as a Utility Regulatory Auditor III for the
7 Commission from 1996 to 1999, a Costing Administrator and later Docket Manager
8 for Sprint (n.k.a., CenturyLink) from 1999 to 2002, and as a Utility Regulatory
9 Specialist in the Federal Gas Group at the Commission from 2002 to 2007. I have
10 been an Energy Specialist with MDNR since 2007.

11 **Q. Have you previously testified before the Commission on behalf of the Missouri**
12 **Department of Natural Resources?**

13 A. Yes, I have. I testified on behalf of MDNR in Empire District Gas Company's recent
14 rate case, GR-2009-0434.

15 **II. PURPOSE AND SUMMARY OF TESTIMONY**

16 **Q. What is the purpose of your direct testimony in these proceedings?**

17 A. The purpose of my testimony is to address the current status of Empire District
18 Electric Company's ("Empire") Demand Side Management ("DSM") portfolio and the
19 proposed changes to the programs in the portfolio as described in the direct testimony of
20 Empire witness Ms. Sherrill L. McCormack. I will also address the target demand and
21 energy reductions, the proposed reduction to the amortization period for deferred DSM

1 costs, and the proposed change to the Customer Programs Collaborative (“CPC”), all also
2 as described in Ms. McCormack’s direct testimony.

3
4 III. DEMAND SIDE MANAGEMENT PORTFOLIO

5 **Q. Describe, briefly, the programs that comprise Empire’s current DSM portfolio.**

6 A. Ms. McCormack provides a thorough description of Empire’s current programs.¹ I
7 will briefly recap them here:

8 Residential Energy Efficiency Programs:

9
10 Energy Star® Change a Light Program - encourages the replacement of
11 inefficient energy consuming lights by providing a rebate for a portion of the
12 cost of Energy Star® compact fluorescent light (CFL) bulbs.²

13
14 Residential Weatherization Program - provides energy education and
15 weatherization assistance, primarily for lower income customers and is
16 intended to assist customers through conservation, education and
17 weatherization in reducing their use of energy and to reduce the level of bad
18 debts experienced by Empire.³

19
20 Low-Income New Home Program - promotes energy efficiency in affordable
21 new homes for low income customers served under Empire’s Residential
22 Service Schedule RS and is intended as a partnership between Empire and non-
23 profit organizations, including Habitat for Humanity, and local government
24 community development organizations.⁴

25
26 High Efficiency Residential Central Air Conditioning Rebate Program -
27 encourages more effective utilization of electric energy through the use of
28 more energy efficient residential central air conditioning equipment and heat
29 pumps by providing a financial incentive to customers in the form of a rebate.⁵
30

¹ McCormack, Direct Testimony, pages 3 – 8.

² The Empire District Electric Company, P.S.C. MO No. 5, Section 4, Sheet 8b.

³ *Ibid.*, Sheets 8c – 8c.2.

⁴ *Ibid.*, Sheets 8d.

⁵ *Ibid.*, Sheets 8e – 8f.

1 ENERGY STAR® New Homes – encourages the construction of homes to
2 meet the ENERGY STAR® Homes guidelines.⁶

3
4 Home Performance with ENERGY STAR® - increases the awareness of the
5 opportunities for benefits to existing homes through audits which lead to
6 improvements ranging from improved levels of insulation to decreased air
7 leakage.⁷

8
9 **Commercial and Industrial Energy Efficiency Programs:**

10
11 Building Operator Certification – encourages building operator certification
12 through the Northwest Energy Efficiency Council’s Building Operator
13 Certification (“BOC”) curriculum that is geared toward the operators of
14 institutional, commercial, and industrial facilities. Empire offers this program
15 to its commercial and industrial customers in collaboration with the Missouri
16 Department of Natural Resources and the Midwest Energy Efficiency Alliance
17 (“MEEA”). Large Power (“LP”) class customers are excluded.⁸

18
19 Missouri Commercial and Industrial Facility Rebate Program – encourages
20 more effective utilization of electric energy through energy efficiency
21 improvements in the building shell or through the replacement of inefficient
22 electrical equipment with efficient electrical equipment, by providing a rebate
23 for a portion of the costs of the improvements and for energy audit and the
24 related upgrades that improve efficient use of electricity.⁹

25
26 **Demand Response Programs:**

27
28 Interruptible Service Rider and Voluntary Interruptible Service Rider- designed
29 to reduce customer load during peak periods upon request by Empire through
30 voluntary curtailment.¹⁰

31
32 Empire also offers an on-line energy calculator for customers as an educational tool to
33 promote energy efficiency. The tool is produced by Apogee.

34 **Q. Has Empire suggested any changes to the DSM portfolio with regards to**
35 **programs offered and eligible participants?**

⁶ *Ibid.*, Sheets 8h.

⁷ *Ibid.*, Sheets 8i – 8j.

⁸ *Ibid.*, Sheets 8g.

⁹ The Empire District Electric Company, P.S.C. MO No. 5, Section 4, Sheets 8a – 8a.1.

1 A. Yes. Ms. McCormack details three changes that Empire proposes to the DSM
2 portfolio: 1) eliminate the Change a Light program and introduce a new program to
3 promote the replacement of incandescent light bulbs with compact fluorescent light
4 bulbs; 2) expand the current High Efficiency Residential Central Air Conditioning
5 Rebate Program to also provide a \$50 rebate for a 12 point inspection and tune-up for
6 central air conditioning systems and heat pump systems; and 3) allow Large Power
7 (“LP”) customers to participate in the Building Operator Certification (“BOC”) and
8 Missouri Commercial and Industrial Facility Rebate (“C&I Rebate Program”)
9 programs.

10 **Q. Do you have any concerns with these proposed changes?**

11 A. I have no concerns with the first and second proposed changes. Empire worked in
12 conjunction with the Midwest Energy Efficiency Alliance (“MEEA”) to provide the
13 Change a Light program to Empire’s customers. MEEA is no longer administering
14 the Change a Light program, and Empire is working with the CPC to design an
15 appropriate replacement program. I also support the addition of a rebate for central
16 air conditioning / heat pump tune-ups. Keeping these units running efficiently and
17 properly will save energy.

18 I do have concerns with declaring the LP customers eligible for both the BOC
19 program and the C&I Rebate Program. Ms. McCormack duly noted the Stipulation
20 and Agreement from a previous case, EO-2005-0263, that states that LP customers
21 would not pay for the cost of programs and would not participate in programs that

¹⁰ *Ibid.*, Sheets 4 – 4d.

1 have Ratepayer Impact Measure (“RIM”) test results of less than 1.0.¹¹ Neither the
2 BOC program nor the C&I Rebate Program meet the RIM test standard established in
3 the Stipulation and Agreement from EO-2005-0263. The RIM test result for the BOC
4 is 0.51, and for the C&I Rebate Program it is 0.47.¹² These programs should not be
5 offered to a class of customers that is not obligated to pay for the programs.

6 **Q. Is there any way to allay your concerns with declaring the LP customers as**
7 **eligible for the BOC program and the C&I Rebate Program?**

8 A. Yes, by clearly stating that the LP customers are required to take part in paying for
9 the two programs.

10
11 IV. TARGET DEMAND AND ENERGY REDUCTIONS

12 **Q. Did Empire project the savings in demand (kW) and energy (kWh) from the**
13 **DSM portfolio?**

14 A. Yes. Ms. McCormack included a document titled “Empire District Electric Company
15 Missouri DSM Portfolio for 2011-2015.” This document provides a summary of each
16 program in the portfolio, including projected peak demand and energy savings. The
17 annual peak demand savings for the portfolio is stated as 1,049 kW, and the annual
18 energy savings for the portfolio is stated as 2,565,755 kWh.¹³ I should note that
19 these projections are not totally complete. Since Empire plans to revamp the Change

¹¹ Case No. EO-2005-0263, *In the Matter of The Empire District Electric Company’s Application for Certificate of Public Convenience and Necessity and Approval of an Experimental Regulatory Plan Related to Generation Plant*, Order Approving Stipulation and Agreement, Effective August 12, 2005, Stipulation and Agreement page 30.

¹² McCormack, Direct Testimony, Schedule SLM-1, pages 26 and 29.

¹³ McCormack, Direct Testimony, Schedule SLM-1, page 36.

1 a Light Program into a Residential Lighting Program, as discussed above, Empire did
2 not include any projected savings amounts for that program.

3 **Q. What percentage of energy sold does the projected annual energy savings**
4 **represent?**

5 A. A rough estimate can be based on the Missouri Public Service Commission's Annual
6 Report for Fiscal Year 2009 ("Annual Report"). According to the Annual Report,
7 Empire sold 4,223,367 MWhs, i.e., approximately 4,223,367,000 kWhs, in 2008.¹⁴
8 The projected annual energy savings of 2,565,755 kWhs is 0.061% of the energy sold
9 by Empire in 2008. This is a rough estimate in that it does not include projected
10 savings for the planned Residential Lighting Program, nor does it account for any
11 change in load from 2008.

12 **Q. Do you believe the projected savings in both demand and energy are good targets**
13 **for Empire?**

14 A. No. The Missouri Department of Natural Resources ("MDNR") believes that electric
15 utilities with established DSM programs in Missouri, such as Empire's, should set
16 much higher targets for energy savings than this, and MDNR believes that recent state
17 legislation supports a more aggressive approach to energy efficiency for Missouri's
18 regulated electric utilities.

19 **Q. To what legislation do you refer?**

20 A. Yes. I am referring to Senate Bill 376, particularly § 393.1124.4, RSMo, which
21 provides:

1 The commission shall permit electric corporations to implement
2 commission-approved demand-side programs proposed pursuant to this
3 section with the goal of achieving all cost-effective demand-side savings.
4

5 The point of emphasis here is “the goal of achieving all cost-effective demand-side
6 savings.” In order to identify “all cost-effective demand-side savings”, the electric
7 utility must be very diligent in seeking out demand-side measures in the integrated
8 resource planning process.

9 **Q. Is there information regarding energy savings levels that Missouri electric
10 utilities should aim to achieve?**

11 A. Yes. A good source for information is the American Council for an Energy Efficient
12 Economy (“ACEEE”). In March of 2009, ACEEE published a very informative
13 report entitled Meeting Aggressive New State Goals for Utility-Sector Energy
14 Efficiency: Examining Key Factors Associated with High Savings.¹⁵ In particular,
15 this report provides a review of the states that a panel of experts consider the top
16 energy efficiency states: Minnesota, Texas, Iowa, Wisconsin, California,
17 Massachusetts, Connecticut, Vermont, New York, Oregon, New Jersey, Washington,
18 Rhode Island, and Nevada. This study should give Empire an understanding of what
19 can be achieved. Many of these states achieved annual energy savings of 0.70% to
20 over 1.0% of total annual energy sales in 2006 and 2007.

21 In addition, ACEEE provides a database of state energy efficiency efforts. A
22 quick review of that database revealed several states (Illinois, Iowa, Michigan,

¹⁴ Missouri Public Service Commission Annual Report, FY 2009, page 56.

1 Minnesota, Ohio and Wisconsin) currently have policies or regulatory proceedings
2 under way to ramp up to achieve energy savings between 1 and 2 percent of annual
3 energy sales.¹⁶

4 Another good resource is the National Action Plan for Energy Efficiency
5 (“NAPEE”). The NAPEE was developed by more than 60 leading organizations that
6 joined together to develop a plan with a goal to achieve all cost-effective energy
7 efficiency by the year 2025.¹⁷ Many of the energy efficiency programs that have been
8 operating successfully for several years were examined during the preparation of the
9 NAPEE. A key finding of this research is that:

10 Many state and regional studies have found that pursuing economically
11 attractive, but as yet untapped energy efficiency could yield more than 20
12 percent savings in total electricity demand nationwide by 2025. These
13 savings could help cut load growth by half or more, compared to current
14 forecasts. Savings in direct use of natural gas could similarly provide a 50
15 percent or greater reduction in natural gas demand growth. Potential varies
16 by customer segment, but there are cost-effective opportunities for all
17 customer classes.¹⁸

18
19 **Q. What other tools can Missouri electric utilities use to set energy savings goals to**
20 **achieve?**

21 A. Energy efficiency potential studies are exceptional tools for setting energy savings
22 goals. Studies and data like the ACEEE and the NAPEE studies and database cited
23 above are good measuring sticks of what has been, and therefore can be, achieved.

¹⁵ *Meeting Aggressive New State Goals for Utility-Sector Energy Efficiency: Examining Key Factors Associated with High Savings*; Martin Kushler, Dan York, and Patti White; American Council for Energy Efficient Economy, ACEEE Report Number U091, March 29, 2009.

¹⁶ <http://www.aceee.org/energy/state/index.htm>

¹⁷ <http://www.epa.gov/RDEE/energy-programs/napee/leadership.html>

¹⁸ National Action Plan for Energy Efficiency, July 2006, page 6-5.

1 They provide data regarding what has been successful in a variety of states in a
2 variety of regulatory climates. This is useful as a vision of what is possible in
3 Missouri. This data becomes even more useful in guiding utilities in setting energy
4 efficiency goals and designing energy efficiency programs to meet those goals when
5 paired with studies that gauge the potential for energy efficiency determined through a
6 localized study. This information is not so readily available and often is not available
7 at all.

8 MDNR encourages Empire to conduct a potential study. A properly performed
9 potential study will provide a valuable resource to Empire in setting aggressive and
10 achievable goals for energy savings for its future energy efficiency portfolio of
11 programs.

12 **Q. Does MDNR have a suggested energy savings goal for Empire?**

13 A. Based on the ACEEE database of state energy efficiency efforts that details several
14 Midwestern states that currently have policies or regulatory proceedings under way to
15 achieve energy savings between 1 and 2 percent of annual energy sales, MDNR
16 recommends Empire set an aggressive energy savings goal that is consistent with
17 these states, is consistent with what it learns from its own potential study, and will
18 achieve all cost effective DSM savings consistent with the goal established in SB 376.
19 To identify all cost effective DSM savings, MDNR recommends that in addition to
20 being informed by its potential study, Empire model DSM measures that can achieve
21 1% and 2% of annual energy savings in its next IRP.

22

V. RECOVERY OF DSM COSTS

1
2
3 **Q. Has Empire suggested any changes to recovery of the costs associated with the**
4 **DSM portfolio?**

5 A. Yes. Currently, Empire records its expenditures for its DSM programs in a regulatory
6 asset account. Those expenditures are then recovered over a ten year amortization
7 period. Empire has asked that the amortization period be shortened to 5 years. Ms.
8 McCormack states that the shorter amortization period “would make Missouri DSM
9 recovery more like our other states”; the other states being Arkansas and Oklahoma.¹⁹
10 Ms. McCormack states that Arkansas and Oklahoma allow utilities to concurrently
11 recover DSM costs through a rider based on projected budgets.²⁰ In other words,
12 Empire is allowed in Arkansas and Oklahoma to place the budgeted DSM costs in rate
13 base for recovery concurrent with the delivery of the DSM programs. A true-up
14 mechanism is then used to correct for discrepancies between the budgeted amount
15 recovered in rates and the actual DSM expenditures. In short, this allows the utility to
16 expense the costs of DSM programs rather than capitalize the DSM costs over a
17 period of time after the program delivery has occurred.

18 **Q. Which method do you think is preferable: capitalization or expensing?**

19 A. MDNR supports removing disincentives for electric utilities to invest in DSM
20 programs. Electric utilities face several economic disincentives to mounting
21 comprehensive DSM programs. These disincentives affect both the programs

¹⁹ McCormack, Direct Testimony, page 11.

1 proposed by electric utilities, and their willingness to pursue aggressive DSM goals.
2 Removing disincentives for utilities is critical for delivering cost effective energy
3 efficiency programs that achieve meaningful levels of savings. The current
4 capitalization and amortization approach (which places DSM costs into a regulatory
5 asset account and applies a ten-year amortization for recovery) delays the recovery of
6 DSM program costs and also increases the uncertainty that costs will be recovered.
7 These are both critical disincentives for the utility to aggressively pursue DSM
8 program delivery. MDNR supports and recommends policies that reduce these
9 disincentives.

10 An expensing approach allows a utility to recover DSM costs in the rate period
11 that they occur and directly links DSM cost recovery to utility actions. An expensing
12 approach to cost recovery for DSM programs allows the utility to recover costs in the
13 same year in which they occur. A utility spends program funds in a given year, and
14 the next year's rates are adjusted to account for these expenses. This adjustment
15 occurs in an annual "true up" of a rate surcharge. During the "true up" period DSM
16 program expenditures are verified and apportioned by rate class. This true up period
17 allows regulators to conduct a review of program activities, to reconcile planned
18 expenditures with actual expenditures, and to adjust the rate surcharge to insure a
19 proper level of recovery. It is MDNR's policy to encourage the expensing of DSM
20 program costs and shareholder incentives to utilities for exemplary performance of

²⁰ *Ibid.*

1 DSM programs as the best approaches to encourage utility investments in DSM. This
2 position is consistent with Senate Bill 376, which states:

3 It shall be the policy of the state to value demand-side investments equal to
4 traditional investments in supply and delivery infrastructure and allow
5 recovery of all reasonable and prudent costs of delivering cost-effective
6 demand-side programs. In support of this policy, the commission shall:

- 7 (1) Provide timely cost recovery for utilities;
- 8 (2) Ensure that utility financial incentives are aligned with helping
9 customers use energy more efficiently and in a manner that sustains or
10 enhances utility customers' incentives to use energy more efficiently; and
- 11 (3) Provide timely earnings opportunities associated with cost-effective
12 measurable and verifiable efficiency savings. (§ 393.1075.3, RSMo)

13
14 **Q. What is your position on Empire's recommendation for reducing the
15 amortization period for DSM cost recovery?**

16 A. While, as I stated above, it is MDNR's policy to encourage the expensing of DSM
17 program costs and shareholder incentives, this is for utilities that have shown
18 exemplary performance of DSM programs. Empire is growing its portfolio, but it is
19 still quite short of the recommended energy savings as discussed in Section IV above.
20 As an effort to encourage Empire to be more aggressive in pursuing DSM programs,
21 it is appropriate to alleviate disincentives. Shortening the recovery period for accrued
22 DSM expenses doesn't totally alleviate the disincentive caused by delayed recovery,
23 but it does lessen it. If Empire commits to model energy and demand savings of 1 and
24 2% annually as recommended by MDNR and increase its commitment to
25 implementation of cost-effective DSM programs, MDNR is supportive of Empire's
26 recommendation to shorten the amortization period from 10 years to five years.

1 VI. CUSTOMER PROGRAMS COLLABORATIVE

2 **Q. Do you support Empire’s suggested change to the CPC?**

3 A. Yes, I do. Previously, MDNR supported the CPC as a voting group. However, given
4 Empire’s desired expansion of its DSM portfolio to include several programs, and the
5 Commission’s recently stated preference that collaboratives keep the Commission
6 informed of developments and bring disputes within the group to the Commission²¹, I
7 support Empire’s suggestion that the CPC become an advisory group rather than a
8 group with voting rights. This will also make the CPC an advisory group much like
9 the advisory groups employed by a variety of other regulated electric and natural gas
10 utilities in Missouri.

11
12 VII. SUMMARY

13 **Q. Please summarize your recommendations.**

14 A. With regards to the proposed DSM portfolio changes:

15 1) I support and recommend approval for Empire’s request to eliminate the
16 Change a Light program and introduce a new program to promote the replacement
17 of incandescent light bulbs with compact fluorescent light bulbs. However, I do
18 not believe it is necessary for the Commission to order Empire to do so. Empire
19 should continue to pursue this change with the CPC and then file appropriate tariff
20 revisions with the Commission.

²¹ GR-2009-0355, *In the Matter of Missouri Gas Energy and its Tariff Filing to Implement a General Rate Increase for Natural Gas Service*, Report and Order, Issued February 10, 2010, page 63.

1 2) I support and recommend that Empire expand the current High Efficiency
2 Residential Central Air Conditioning Rebate Program to also provide a \$50 rebate
3 for a 12 point inspection and tune-up for central air conditioning systems and heat
4 pump systems. Again, I do not believe it is necessary for the Commission to order
5 Empire to do so, and Empire should continue to pursue this change with the CPC
6 and then file appropriate tariff revisions with the Commission.

7 3) I support allowing the Large Power (“LP”) customers to participate in the
8 Building Operator Certification (“BOC”) and Missouri Commercial and Industrial
9 Facility Rebate (“C&I Rebate Program”) programs only if they are also required to
10 assist in paying for those programs. This should be ordered by the Commission.

11 With regards to target demand and energy reductions:

12 1) I recommend that Empire be required to model DSM measures that can
13 achieve 1% and 2% of annual demand savings and energy savings in its next IRP.

14 As to DSM cost recovery:

15 1) I recommend that Empire be allowed reduce the amortization period from
16 ten years to five years as Empire has proposed if Empire commits to the target
17 demand and energy reductions recommendation above and increasing its
18 commitment to implementation of cost-effective DSM programs.

19 And, as to the change to the CPC:

20 1) I recommend that the CPC be declared by the Commission an advisory
21 group and no longer a voting group.

1 **Q. Does this conclude your testimony?**

2 A. Yes. Thank you.

3