

Exhibit No.:  
Issues: Energy Efficiency Services  
Witness: Laura Wolfe  
Sponsoring Party: Missouri Department of Natural  
Resources - Missouri Energy Center  
Type of Exhibit: Direct Testimony-Revenue Requirement  
Case No.: GR-2009-0434

**MISSOURI PUBLIC SERVICE COMMISSION**

**EMPIRE DISTRICT GAS COMPANY**

**CASE NO. GR-2009-0434**

**DIRECT TESTIMONY**

**OF**

**LAURA WOLFE**

**ON**

**BEHALF OF**

**MISSOURI DEPARTMENT OF NATURAL RESOURCES**

**ENERGY CENTER**

Jefferson City, Missouri  
October 20, 2009

## **TABLE OF CONTENTS**

I.	INTRODUCTION	2
II.	PURPOSE AND SUMMARY OF TESTIMONY	3
III.	EDG's CURRENT ENERGY EFFICIENCY PROGRAMS AND PROPOSED CHANGES TO THE CURRENT PROGRAMS	3
IV.	NEW ENERGY EFFICIENCY PROGRAMS PROPOSED BY EDG	5
V.	ENERGY EFFICIENCY PORTFOLIO BUDGET	8
IV.	ENERGY EFFICIENCY COLLABORATIVE	13

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, Energy Center, 1101 Riverside Drive, P.O. Box 176, Jefferson City, Missouri  
5 65102-0176.

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

7 A. I am employed by the Missouri Department of Natural Resources as an Energy Specialist in  
8 the Energy Policy and Analysis Program in the Missouri Energy Center (MEC). The MEC is  
9 located within the Missouri Department of Natural Resources, an agency of state government  
10 with its executive office located in Jefferson City, Missouri.

11 **R. What is the Missouri Energy Center?**

12 B. The Missouri Energy Center (EC) is a division within the Missouri Department of Natural  
13 Resources (DNR) and is the designated state energy office in Missouri responsible for the  
14 administration of the federal Low Income Weatherization Assistance Program (LIWAP) and  
15 the federal State Energy Program (SEP) established by the United States Congress in 1978,  
16 which is managed nationally by the United States Department of Energy (USDOE). The SEP  
17 consists of several statewide energy efficiency programs administered by the EC and funded  
18 by the USDOE.

19 The DNR is vested with the powers and duties set forth in Chapter 640.150, RSMo.

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

21 A. I am testifying on behalf of the Missouri Department of Natural Resources, an intervenor in  
22 these proceedings.

23 **Q. Please describe your educational background and business experience.**

1 A. I received a Bachelor of Science in Business Administration in 1985 from Central Methodist  
2 College (n.k.a., Central Methodist University) in Fayette, Missouri, and a Master's in Public  
3 Administration in 1990 from the University of Missouri-Columbia. I have worked in a  
4 variety of positions regarding utility regulation including as a Utility Regulatory Auditor III  
5 for the Commission from 1996 to 1999, a Costing Administrator and later Docket Manager  
6 for Sprint (n.k.a., Embarq) from 1999 to 2002, and as a Utility Regulatory Specialist in the  
7 Federal Gas Group at the Commission from 2002 to 2007. Details regarding these and other  
8 professional positions I have held appear in LW-1 attached to and incorporated by reference  
9 to this testimony.

## 11 **II. PURPOSE AND SUMMARY OF TESTIMONY**

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

13 A. The purpose of my testimony is to address natural gas related energy efficiency issues with  
14 respect to Empire District Gas Company ("EDG"). I will specifically offer testimony  
15 regarding the following items detailed in Ms. Sherrill McCormack's direct testimony:

16 (1) EDG's current energy efficiency programs and EDG's proposed changes to the current  
17 programs;

18 (2) The introduction of four new energy efficiency programs by EDG; and

19 (3) The total budgeted investment projected by EDG for the surviving low-income  
20 weatherization program and the new energy efficiency programs.

1           **III. EDG's CURRENT ENERGY EFFICIENCY PROGRAMS AND PROPOSED**  
2                           **CHANGES TO THE CURRENT PROGRAMS**

3   **Q. Describe the current energy efficiency programs offered by EDG.**

4   A. Currently, EDG provides funding for weatherization in two segments: low income  
5       weatherization funding to all of Empire's territory and an experimental low income program  
6       available only in Sedalia. In addition to weatherization services, EDG completed a one-time  
7       distribution of weatherization kits to the public.

8       EDG offers an Experimental Commercial Energy Audit Program that provides rebates to  
9       commercial customers at 50% of the cost of an energy audit, not to exceed \$500 per rebate.

10      EDG also currently offers two on-line energy calculators, one for residential customers and  
11      one for commercial customers.

12      In her testimony, Ms. McCormack also referred to an assistance program, Project Help,  
13      designed to assist elderly and disabled residents with emergency energy-related expenses.

14      This program does not qualify as an energy efficiency program because it assists in bill  
15      paying, but does not produce any energy efficiency.

16   **Q. Describe the changes EDG is proposing to the current energy efficiency programs.**

17   A. EDG proposes to eliminate the Experimental Low Income Program ("ELIP") and budget  
18       \$71,500 annually for the next two years and \$75,000 for the third year for the surviving Low  
19       Income Weatherization Assistance Program ("LIWAP"). EDG has spent \$141,364 of the  
20       budgeted \$205,000. The ELIP program used \$11,522 of the budgeted \$48,000 for those two  
21       years. In the two years EDG has managed the programs, seventy-nine (79) homes were

1 weatherized through LIWAP and six (6) through ELIP. EDG has based the proposed budget  
2 on this level of participation and spending.<sup>1</sup>

3 To date, EDG has had no customers take advantage of the Experimental Commercial Energy  
4 Audit Program. Because of this, EDG proposes to eliminate this program and implement a  
5 new program for commercial customers discussed in more detail below.<sup>2</sup> In her testimony,  
6 Ms. McCormack did not discuss the future of the two energy calculators or the possibility of  
7 future distributions of additional weatherization kits.

8 **Q. Do you support EDG's plans to eliminate the ELIP and the Experimental Commercial**  
9 **Energy Audit Program and continue the LIWAP program?**

10 A. Yes, I do. Neither the ELIP nor the Experimental Commercial Energy Audit Program have  
11 had sufficient participation to make any meaningful energy efficiency gains. Eliminating  
12 these programs, particularly in light of the programs that EDG proposes to implement (see  
13 Section IV), is reasonable and prudent. I also support continuing the LIWAP.

14  
15 **IV. NEW ENERGY EFFICIENCY PROGRAMS PROPOSED BY EDG**

16 **Q. What new energy efficiency programs is EDG proposing?**

17 A. EDG proposes four new energy efficiency programs:

18 (1) High Efficiency Natural Gas Water Heating Program

19 This program is designed to incent residential and small commercial customers to  
20 use less energy heating water by offering rebates for more efficient natural gas  
21 tank water heaters, as well as natural gas tankless water heaters.

22  
23 (2) High Efficiency Natural Gas Space Heating Rebate Program

24 This program is designed to incent residential and small commercial customers to  
25 use less energy heating space by offering rebates for more efficient natural gas

---

<sup>1</sup> Direct Testimony of Ms. Sherrill McCormack for Empire District Gas Company, page 5 and Schedule SLM-1, page 7.

<sup>2</sup> *Ibid.*

1 furnaces, boilers, combined heating/water heating systems, and programmable  
2 thermostats purchased in conjunction with a qualified space heating system.

3  
4 (3) Home Performance with Energy Star® Program

5 This is a national program from the U.S. Environmental Protection Agency (EPA)  
6 and U.S. Department of Energy (DOE) that offers a comprehensive, whole-house  
7 approach to improving energy efficiency and comfort at home, while helping to  
8 protect the environment. The program incents customers to use this approach by  
9 offering rebates on home energy audits and insulation installation.

10  
11 (4) Large Commercial Natural Gas Audit and Rebate Program

12 This program targets large commercial customers and incents them to have a  
13 business energy audit and to implement improvements identified in the energy  
14 audit by offering rebates for the audit as well as a variety of measures.

15  
16 There is no need for me to go into any greater detail regarding these programs in my  
17 testimony. Ms. McCormack provides a thorough description of each program, which  
18 includes estimated annual peak demand and energy savings, cost effectiveness estimates,  
19 projected annual participation, project budget and evaluation plan.<sup>3</sup>

20 **Q. Are the energy efficiency programs proposed by EDG unique?**

21 A. No. Similar, and in some instances identical, programs have been implemented by other  
22 utilities in the State of Missouri. For example, Missouri Gas Energy (“MGE”) offers a High-  
23 Efficiency Natural Gas Water Heating and Space Heating Incentive Program which offers  
24 rebates for tank water heating systems, tankless water heating systems, natural gas furnaces,  
25 combination furnace/water heater systems, and natural gas boiler systems that meet current  
26 Energy Star® criteria, as well as programmable thermostats if purchased in conjunction with  
27 a space heating system that meets current Energy Star® criteria.<sup>4</sup> As another example,  
28 Laclede Gas Company (“Laclede”) offers a Residential High Efficiency Rebate Program

---

<sup>3</sup> Direct Testimony of Ms. Sherrill McCormack for Empire District Gas Company, Schedule SLM-1.

<sup>4</sup> Missouri Gas Energy, P.S.C. MO No. 1, Sixth Revised Sheet No. 98 – Sixth Revised Sheet No. 100.

1 which offers rebates for natural gas furnaces, natural gas boiler systems, and programmable  
2 thermostats.<sup>5</sup>

3 Home Performance with Energy Star® (“HPwES”) is available to residential customers of  
4 several Missouri utilities, both natural gas and electric. For example, MGE implemented its  
5 HPwES program effective August 6, 2009<sup>6</sup>. Kansas City Power and Light Company  
6 (“KCPL”) implemented HPwES January 23, 2008<sup>7</sup>, Kansas City Power and Light Greater  
7 Missouri Operations, formerly, Aquila Inc., (“KCPL-GMO”) implemented April 30, 2009<sup>8</sup>,  
8 and, notably, Empire District Electric Company (“EDE”) implemented it August 28, 2009<sup>9</sup>.

9 EDG’s proposed Large Commercial Natural Gas Audit and Rebate Program is similar to the  
10 Commercial/Industrial Rebate Program offered by Laclede. Although not identical, the  
11 concept of rebates to incent commercial and industrial customers to have a business energy  
12 audit and to implement improvements identified in the energy audit is also used by Missouri  
13 electric utilities. Some examples are KCPL’s Energy Audit and Energy Savings Programs<sup>10</sup>;  
14 Union Electric Company, d/b/a AmerenUE’s, Business Energy Efficiency Standard Incentive  
15 Program and Business Energy Efficiency Custom Incentive Program<sup>11</sup>, and EDE’s Missouri  
16 Commercial and Industrial Facility Rebate Program<sup>12</sup>.

---

<sup>5</sup> Laclede Gas Company, P.S.C. MO No. 5, First Revised Sheet No. R-45.

<sup>6</sup> Missouri Gas Energy, P.S.C. MO No. 1, Third Revised Sheet No. 101 – Original Sheet No. 102.1.

<sup>7</sup> Kansas City Power and Light Company, P.S.C. MO No. 7, Original Sheet No. 43T – Original Sheet 43V.

<sup>8</sup> Kansas City Power and Light Greater Missouri Operations (formerly, Aquila, Inc.), P.S.C. MO No. 1, Original Sheet R-64.01 - Original Sheet R-64.03.

<sup>9</sup> Empire District Electric Company, P.S.C. MO No. 5, Section 4, Original Sheet 8i - Original Sheet 8j.

<sup>10</sup> Kansas City Power and Light Company, P.S.C. MO No. 7, First Revised Sheet No. 43L – First Revised Sheet 43M.

<sup>11</sup> Union Electric Company, MO P.S.C. Schedule No. 5, 2<sup>nd</sup> Revised Sheet 225 – Original Sheet 235

<sup>12</sup> Empire District Electric Company, P.S.C. MO No. 5, Section 4, Third Revised Sheet 8a - Original Sheet 8a.1.



1 **Q. Do you and the Energy Center support the programs proposed by EDG?**

2 A. Yes. EDG should be commended for voluntarily pursuing a much more robust energy  
3 efficiency portfolio of energy efficiency programs than it currently has in place. The  
4 portfolio of proposed programs listed above, plus continuing the Low Income Weatherization  
5 Assistance Program, appears to provide opportunities for improved energy efficiency for  
6 every class of customer: residential, small commercial, and large commercial. The programs  
7 also cover most of the limited array of opportunities that natural gas companies have for  
8 energy efficiency improvements: low income weatherization, water heating, space heating,  
9 home energy audit, building-shell improvements, commercial energy audit, and commercial  
10 equipment improvements.

11 **Q. Is EDG's proposed DSM portfolio comprehensive?**

12 A. While it is rather thorough, adding the Building Operator Certification Program (“BOC®”) to  
13 EDG’s portfolio would enhance the proposed portfolio. The Building Operator Certification  
14 Program is a nationally recognized training and certification program for building operators  
15 that improves job skills that lead to more comfortable, energy-efficient facilities. The Energy  
16 Center of the Missouri Department of Natural Resources has contracted with the Midwest  
17 Energy Efficiency Alliance to provide BOC training in Missouri and coordinates with  
18 Missouri utilities to provide the training across the state. Many of Missouri’s energy utilities  
19 support this program and include it in their energy efficiency portfolios, including Empire  
20 District Electric Company.<sup>13</sup>

---

<sup>13</sup> Kansas City Power and Light Company, P.S.C MO No. 7, Original Sheet No. 43N – Original Sheet 43O.  
Empire District Electric Company, P.S.C. MO No. 5, Section 4, Original Sheet 8g.  
Kansas City Power and Light Greater Missouri Operations (formerly, Aquila, Inc.), P.S.C. MO No. 1, Original  
Sheet R-62.08.  
Laclede Gas Company, P.S.C. MO No. 5, First Revised Sheet No. R-48.

**V. ENERGY EFFICIENCY PORTFOLIO BUDGET**

**Q. Did EDG propose funding amounts for the proposed new energy efficiency programs?**

A. Yes. Per Ms McCormack's testimony, the four proposed programs would be funded as follows for the first three years of the programs:<sup>14</sup>

	1st Year	2nd Year	3rd Year
High Efficiency Natural Gas Water Heating Program	\$ 28,500	\$ 28,500	\$ 29,925
High Efficiency Natural Gas Space Heating Program	51,750	51,750	54,338
Home Performance with Energy Star®	25,250	25,250	26,513
Large Commercial Natural Gas Audit and Rebate Program	40,000	40,000	42,000
Total Per Year	\$ 145,500	\$ 145,500	\$ 152,776

**Q. Does this represent EDG's total funding committed to energy efficiency programs?**

A. No. The total amount EDG is proposing to commit to energy efficiency also includes low income weatherization:<sup>15</sup>

	1st Year	2nd Year	3rd Year
Low Income Weatherization	\$ 71,500	\$ 71,500	\$ 75,000
High Efficiency Natural Gas Water Heating Program	28,500	28,500	29,925
High Efficiency Natural Gas Space Heating Program	51,750	51,750	54,338
Home Performance with Energy Star®	25,250	25,250	26,513
Large Commercial Natural Gas Audit and Rebate Program	40,000	40,000	42,000
Total Per Year	\$ 217,000	\$ 217,000	\$ 227,776

**Q. Do you believe this is an adequate amount of funding for energy efficiency programs for EDG?**

A. No.

---

<sup>14</sup> Direct Testimony of Ms. Sherrill McCormack for Empire District Gas Company, Schedule SLM-1.

1 **Q. Why do you believe the funding proposed by EDG is not adequate?**

2 A. Investments in energy efficiency can play a role in keeping the natural gas we use affordable.

3 According to a recent study by the American Council for an Energy-Efficient Economy  
4 (“ACEEE”), reductions in natural gas consumption can result in wholesale natural gas price  
5 reductions. The study estimated that a reduction of approximately 1 percent per year in total  
6 U.S. natural gas demand could potentially result in wholesale natural gas price reductions of  
7 10 to 20 percent.<sup>16</sup> However, the study concluded that not only new energy policies are  
8 needed to achieve significant reductions to the wholesale price of natural gas and to generate  
9 direct cost savings to natural gas consumers, but also additional funding for energy efficiency  
10 programs is necessary. Energy efficiency measures can create downward pressure on the  
11 wholesale natural gas prices, which will result in lower gas costs for consumers.

12 **Q. How much should be invested in energy efficiency for Missouri?**

13 A. ACEEE included in the study an estimated annual energy efficiency investment for each of  
14 the Midwest states<sup>17</sup> based on each state's proportional allocation of total projected regional  
15 natural gas savings in 2010. From a regional perspective, to reduce natural gas demand  
16 sufficiently to place downward pressure on wholesale prices, the study roughly estimated that  
17 Missouri would be required to expend approximately \$12 million per year for natural gas  
18 energy efficiency programs through the year 2020.<sup>18</sup> The study estimates that the dollar  
19 savings impact of the associated natural gas price reductions from this level of investment

---

<sup>15</sup> Ibid.

<sup>16</sup> Examining the Potential for Energy Efficiency To Help Address the Natural Gas Crisis in the Midwest, January 2005, Report Number U051, American Council for an Energy-Efficient Economy, page 5.

<sup>17</sup> Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

<sup>18</sup> Examining the Potential for Energy Efficiency To Help Address the Natural Gas Crisis in the Midwest, January 2005, Report Number U051, American Council for an Energy-Efficient Economy, page 35.

1 would be approximately \$921 million for Missouri by 2015 and an additional \$847 million  
2 by the year 2020.<sup>19</sup>

3 **Q. How do we equate this to the amount of investment a Missouri natural gas company**  
4 **should make in energy efficiency programs?**

5 A. The National Action Plan for Energy Efficiency (“NAPEE”) provides us with an excellent  
6 benchmark for energy efficiency investment for natural gas utilities. The NAPEE is a study  
7 that was sponsored by the United States Department of Energy and the United States  
8 Environmental Protection Agency. Fifty leading organizations, including a variety of natural  
9 gas companies, came together to create the NAPEE. NAPEE states that the most effective  
10 energy efficiency projects were funded at a level equal to a minimum range of 0.5 percent to  
11 1.5 percent of a natural gas utility’s annual operating revenue.<sup>20</sup>

12 **Q. Can you state EDG’s proposed level of funding as a percent of total operating revenues?**

13 A. Yes, I can roughly. EDG responded to a data request<sup>21</sup> stating that its total operating revenues  
14 for 2008, including revenue from the PGA, was \$65,437,968. Therefore, a total energy  
15 efficiency portfolio budgeted at \$217,000 for the first and second years is 0.332 percent, and  
16 a portfolio budgeted \$227,776 for the third year is 0.348 percent, of EDG’s 2008 total  
17 revenue.

18 **Q. Do you think EDG is committing enough funds to energy efficiency?**

19 A. No. As I said earlier, EDG should be commended for voluntarily pursuing a much more robust  
20 portfolio of energy efficiency programs than it currently has in place. However, the financial

---

<sup>19</sup> Examining the Potential for Energy Efficiency To Help Address the Natural Gas Crisis in the Midwest, January 2005, Report Number U051, American Council for an Energy-Efficient Economy, pages 28-32.

<sup>20</sup> National Action Plan for Energy Efficiency, July 2006, page 6-5.

<sup>21</sup> MDNR DR 002

1 commitment to energy efficiency is falling short of levels being recommended for natural gas  
2 utilities. The budgeted amounts will likely not result in sufficient savings to contribute to  
3 lower wholesale natural gas prices, and a more significant level of investment in energy  
4 efficiency is required to potentially put downward pressure on natural gas wholesale prices. I  
5 am not suggesting that EDG all alone can have a significant impact on wholesale prices  
6 through its energy efficiency programs, but EDG can and should contribute in a meaningful  
7 way toward a regional reduction in natural gas consumption. As stated above, reductions in  
8 wholesale natural gas prices can lead to meaningful reductions on consumers' natural gas  
9 bills.

10 **Q. What amount of investment in energy efficiency do you recommend for EDG?**

11 A. Recognizing that EDG is proposing new programs and that all programs need time to ramp up  
12 to availability to all customers, the EC recommends that EDG maintain its planned  
13 investment of 0.332 percent for 2010 (approximately \$217,000), increase the investment ratio  
14 to 0.5 percent in 2011 (approximately \$327,000), and then increase the investment ratio to  
15 1.0 percent (approximately \$655,000) for 2012. The increased investment should be in the  
16 form of adding the BOC and planning for more aggressive participation levels than what  
17 appears in EDG's current plan.<sup>22</sup> This plan allows EDG to ramp up the proposed new energy  
18 efficiency programs and invest at least the minimum recommended amount of investment by  
19 2011. By 2012, EDG would invest in energy efficiency at a reasonable 1.0 percent of total  
20 annual revenue.

21 **Q. Has the Commission used energy efficiency program funding based on utility operating**  
22 **revenue?**

1 A. Yes. The Commission used utility operating revenue as a basis to fund energy efficiency  
2 initiatives in Case No. GR-2006-0387, Atmos Energy Corporation's last rate case. In the  
3 Report and Order in this case, the Commission stated, "... the Commission finds that it  
4 would be just and reasonable and in the public interest to implement a fixed delivery charge  
5 rate design as proposed by Staff on the condition that Atmos contribute annually, one percent  
6 (1%) of its annual gross revenues (currently, approximately \$165,000) to be used for an  
7 energy efficiency and conservation program."<sup>23</sup>

#### 8 9 **IV. ENERGY EFFICIENCY COLLABORATIVE**

##### 10 **Q. Is EDG recommending the creation of an Energy Efficiency Collaborative?**

11 A. Yes. EDG does not currently have an energy efficiency collaborative. Many of Missouri's  
12 regulated energy utilities have collaboratives that advise utilities on cost effective energy  
13 efficiency program selection, implementation, evaluation, and adjustment.<sup>24</sup> EDG suggests  
14 an advisory group be created consisting of representatives from the Staff of the Commission,  
15 Office of Public Counsel, Missouri Department of Natural Resources, industrial customers,  
16 and EDG.<sup>25</sup>

##### 17 **Q. Do you support the creation of an advisory group, a.k.a. an energy efficiency** 18 **collaborative?**

---

<sup>22</sup> Direct Testimony of Ms. Sherrill McCormack for Empire District Gas Company, Schedule SLM-1.

<sup>23</sup> Missouri Public Service Commission Case No. GR-2006-0387, *In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Consolidate Rates and Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company*, Report and Order, February 22, 2007, page 21.

<sup>24</sup> Missouri energy utilities with collaboratives: Kansas City Power and Light, KCP&L-Greater Missouri Operations, Atmos Energy Corporation, Missouri Gas Energy, Empire District Electric, Laclede Gas Company,

<sup>25</sup> Direct Testimony of Ms. Sherrill McCormack for Empire District Gas Company, page 8.

1 A. Yes, I do. I want to emphasize that I support an *advisory* group. The final decisions  
2 regarding EDG's energy efficiency programs should be EDG's. I do suggest that EDG plan  
3 to schedule advisory group meetings in conjunction with advisory group meetings of Empire  
4 District Electric Company, and report on the progress of the EDG programs in the same  
5 fashion as Empire District Electric Company. Many of the same individuals who serve on  
6 Empire District Electric Company's advisory group will serve on the proposed EDG advisory  
7 group. Joint meetings and consistent reporting will be much more efficient than separate  
8 schedules.

9  
10  
11 **Q. Does this conclude your testimony?**

12 A. Yes. Thank you.