

Exhibit No.: _____
Issues: Energy Efficiency
Witness: Nathaniel W. Hackney
Type of Exhibit: Direct Testimony
Sponsoring Party: The Empire District Gas
Company
Case No.: GR-2021-0320
Date Testimony Prepared: August 2021

**Before the Public Service Commission
of the State of Missouri**

Direct Testimony

of

Nathaniel W. Hackney

on behalf of

The Empire District Gas Company

August 2021



TABLE OF CONTENTS
FOR THE DIRECT TESTIMONY OF NATHANIEL W. HACKNEY
THE EMPIRE DISTRICT GAS COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. GR-2021-0320

SUBJECT	PAGE
I. INTRODUCTION AND QUALIFICATIONS	1
II. PURPOSE OF TESTIMONY	2
III. ENERGY EFFICIENCY PROGRAMS	3
IV. STIPULATED ITEMS FROM PREVIOUS CASE	9
IV. CONCLUSION	10

DIRECT TESTIMONY OF NATHANIEL W. HACKNEY
THE EMPIRE DISTRICT GAS COMPANY
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. GR-2021-0320

1 **I. INTRODUCTION AND QUALIFICATIONS**

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

3 A. My name is Nathaniel W. Hackney, and my business address is 602 S. Joplin Avenue,
4 Joplin, Missouri, 64801.

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

6 A. I am currently employed by Liberty Utilities Services Corp. (“LUSC”) as a Senior
7 Reporting and Systems Analyst for the Liberty Central Region, which includes The
8 Empire District Gas Company (“EDG” or “Company”).

9 **Q. On whose behalf are you testifying in this proceeding?**

10 A. I am testifying on behalf of EDG.

11 **Q. Please describe your educational background.**

12 A. In 2009, I received a Bachelor of Arts from the University of Minnesota’s Hubbard
13 School of Journalism and Mass Communication.

14 **Q. Please describe your professional experience.**

15 A. I began my employment with Empire in 2010, and I accepted the promotion to
16 Associate Energy Efficiency Coordinator in 2012. In 2014, I was promoted to Energy
17 Efficiency Coordinator. In 2018, I was promoted to Senior Energy Efficiency
18 Coordinator. In 2019, I was promoted to my current position of Central Region Senior
19 Reporting and Systems Analyst. In this job, I interface on behalf of the Company with
20 trade allies, Community Action Agencies, contractors, implementers, consultants,
21 evaluators, marketers, regulatory stakeholders, and customers in various matters related

1 to Empire’s active portfolios of electric and natural gas energy efficiency programs for
2 residential, commercial, and industrial customers in Arkansas, Iowa, and Missouri. I
3 process and approve payment of energy efficiency rebates and lead the regulatory
4 stakeholder reporting process and stakeholder relations. I represent the Company as an
5 expert witness in regulatory proceedings on topics related to energy efficiency,
6 including energy efficiency cost recovery and portfolio development filings. I also
7 assist with the development of the demand-side analysis for Empire’s Integrated
8 Resource Plan (“IRP”), and with the regulatory functions of solar and net metering, as
9 well as administration, payment, tracking, and reporting of Empire’s Solar Rebate and
10 various low-income programs in Missouri.

11 **Q. Have you previously testified before the Missouri Public Service Commission or**
12 **other regulatory agency?**

13 A. Yes. I have filed testimony with this Commission¹, with the Arkansas Public Service
14 Commission² and with the Kansas Corporation Commission³.

15 **II. PURPOSE OF TESTIMONY**

16 **Q. What is the purpose of your testimony?**

¹ File No. ER-2016-0023 (in support of Empire’s Energy Efficiency Programs), File No. GR-2018-0213 (in support of Liberty’s natural gas energy efficiency programs), File No. ER-2019-0374 (in support of Empire’s Energy Efficiency, Solar, and low-income programs), and Case No. ER-2021-0312 (in support of Empire’s Energy Efficiency programs).

² Arkansas Public Service Commission Docket No. 07-076-TF (in support of Empire’s annual Energy Efficiency Cost Recovery Riders for 2019, 2020, 2021, and 2022, and Empire’s Energy Efficiency portfolio designs for 2016-2019 and 2020-2022).

³ Kansas Corporation Commission Docket No. 13-EPDE-209-TAR (in support of Empire’s Energy Efficiency Rider). Note: Empire’s energy efficiency portfolio in Kansas is no longer active.

1 A. In this testimony, I will describe EDG’s current portfolio of energy efficiency programs
2 and recommend upgrades to the portfolio. These changes will not only improve EDG’s
3 energy efficiency offerings but will also synchronize EDG’s portfolio with that of
4 Liberty Utilities’ (Midstates Natural Gas) Corp. (“Liberty-Midstates”). I also address
5 ongoing compliance with one stipulation in MPSC File No. EM-2016-0213, which
6 finalized Liberty’s acquisition of EDG.

7 **III. ENERGY EFFICIENCY PROGRAMS**

8 **Q. Does EDG currently offer energy efficiency programs in Missouri?**

9 A. Yes. As originally approved in Commission File No. GR-2009-0434, EDG currently
10 offers Low-Income Weatherization, ENERGY STAR[®] Water Heating, ENERGY
11 STAR[®] Space Heating, Home Performance with ENERGY STAR[®], Large
12 Commercial Natural Gas Audit and Rebate Program, and Building Operator
13 Certification programs, as well as an annual commitment to Empire’s regional license
14 of the Apogee online energy calculator. EDG began offering these programs to its
15 natural gas customers on April 1, 2010.

16 **Q. Please provide a review of EDG’S program since the last rate proceeding.**

17 A. EDG has experienced varying results from its program offerings. The Low-Income
18 Weatherization program⁴, ENERGY STAR[®] Water Heating, and ENERGY STAR[®]
19 Space Heating, have achieved significant participation. The participation for these
20 programs is detailed in quarterly reports filed in the Commission’s Electronic Filing
21 Information System (“EFIS”). For a variety of reasons, The Home Performance with
22 ENERGY STAR[®], Large Commercial Natural Gas Audit and Rebate Program, and

⁴ The funds for the Low-Income Weatherization program are now administered to Community Action Agencies through Missouri Division of Energy (“DE”).

1 Building Operator Certification programs have struggled to gain traction and achieve
2 significant participation.

3 **Q. Please describe the proposed changes to EDG'S energy efficiency programs.**

4 A. EDG would like to propose the discontinuation of The Building Operator Certification
5 Program, Large Commercial Natural Gas Audit and Rebate Program, and the Home
6 Performance with ENERGY STAR[®] program. EDG proposes the budgets for these
7 programs be re-allocated to other programs with a higher likelihood of achieving their
8 budgets with the changes proposed later in this testimony. EDG proposes the
9 combination of the ENERGY STAR[®] Water Heating, and ENERGY STAR[®] Space
10 Heating into the re-branded High-efficiency Appliance Rebate Program. EDG proposes
11 continuing the commitments to the Low-Income Weatherization programs and the
12 Apogee online energy calculator. EDG also proposes the addition of two programs.
13 The two proposed programs will mimic programs of Liberty-Midstates that have a
14 documented record of success.

15 **Q. Please detail the reasoning for discontinuing the Building Operator Certification**
16 **program, Large Commercial Natural Gas Audit and Rebate Program, and the**
17 **Home Performance with ENERGY STAR[®] program.**

18 A. Due to varying design inadequacies, such as target demographics, narrow scope of
19 qualifying measures, administrative burden, and insufficient incentives, these programs
20 have failed to achieve more than a single participant in the last five years. EDG is eager
21 to repurpose these budgets for programs that have a demonstrated record of success in
22 other Liberty-Midstates territories and are better suited to the current climate of energy
23 efficiency in Missouri.

1 The tariff revisions necessary to effectuate these changes are presented as part of the
2 pre-filed testimony of Company witness James Young.

3 **Q. Please detail EDG'S plan to combine the ENERGY STAR® Space Heating and**
4 **ENERGY STAR® Water Heating programs into the High-Efficiency Appliance**
5 **Rebate program.**

6 A. EDG has been offering these rebates for more than a decade with consistent
7 performance. This means that these programs pre-date the acquisition of The Empire
8 District Electric Company by Liberty⁵. Re-branding these two programs as the High-
9 efficiency Appliance Rebate program is a huge stride toward EDG's goal of unifying
10 its offerings with Liberty-Midstates. In doing so, EDG is able to better serve its
11 customers with clearer and more understandable qualifications for the rebate, and equal
12 treatment of customers in different areas of Missouri.

13 **Q. Which types of equipment will qualify for a rebate under the new program?**

14 A. For the reasons listed above, EDG recommends that the new High-efficiency Appliance
15 Rebate program offer the exact same rebates for the exact same pieces of equipment as
16 the Liberty-Midstates program of the same name. The participation and thresholds are
17 found below in Table NWH-1:

⁵ Finalized via MPSC Order on September 7, 2016, in File No. EM-2016-0213. Effective on January 1, 2017

1

Table NWH-1

Natural Gas Air Furnace		
Efficiency Level	BTU Input	Rebate
92% - 93% AFUE	30,000 or greater	\$200.00
94% - 95% AFUE	30,000 or greater	\$250.00
96% AFUE or greater	30,000 or greater	\$300.00
Natural Gas Boiler		
Efficiency Level	BTU Input	Rebate
85% - 89% AFUE	30,000 or greater	\$200.00
90% AFUE or greater	30,000 or greater	\$300.00
Natural Gas Combination Water and Space Heating		
Efficiency Level	BTU Input	Rebate
0.62 EF or greater	40 gallon or greater	\$450.00
85% AFUE or greater	30,000 or greater	\$450.00
Natural Gas Storage Water Heater		
Efficiency Level	BTU Input	Rebate
0.67-0.81 EF	40 gallon or greater	\$125.00
Natural Gas Tankless and Condensing Water Heater		
Efficiency Level	BTU Input	Rebate
0.82 EF or greater	N/A	\$200.00
Programmable Thermostat		
Efficiency Level	BTU Input	Rebate
N/A	N/A	\$25.00

2

3 **Q. Please list the new programs EDG plans to introduce.**

4 A. With repurposed budgets from the three programs the Company seeks to discontinue,
5 EDG would like to begin implementing two programs currently offered to customers
6 by Liberty-Midstates. The first program is the EDG Energy Education program. The
7 second is the Energize EDG Homes program.

8 **Q. Please describe the EDG Energy Education program.**

9 A. EDG plans to team up with Earthways Center of the Missouri Botanical Garden
10 (“Earthways”) to offer the EDG Energy Education program. Earthways will partner

1 with EDG to offer Energy Educator Workshops. These workshops aim to continue
2 empowering educators in EDG service territories to create greener, healthier schools
3 and incorporate the best practices of sustainability; particularly in the field of energy
4 efficiency and conservation. The teachers are equipped with a series of low- or no-cost
5 lesson plans that pair conventional teaching tools and methods with hands-on activities
6 that encourage a wide range of students to think critically about the various processes
7 and systems used to produce, deliver, and optimize energy usage, and the potential
8 impacts of these processes and systems on the environment. These workshops, and the
9 subsequent lessons to the students, will empower the next generation of energy users
10 to be educated and responsible stewards of the environment. In the seven years Liberty-
11 Midstates has offered this program, hundreds of teachers were equipped with lesson
12 plans and teaching materials, and the teachers have educated hundreds more students.

13 **Q. Please describe the Energize EDG Homes program.**

14 A. With the help of the Earthways Center, EDG will seek to offer rebates on
15 comprehensive building shell upgrades, as well as HVAC replacement for qualifying
16 customers. The program also aims to do so with a lesser administrative burden and a
17 simpler application process for the customers and contractors. The program is aimed at
18 comprehensive energy efficiency improvements for a select group of customers at a
19 lower cost.

20 **Q. Will EDG be requesting an increase to the overall portfolio budgets at this time?**

21 A. No. EDG is requesting reallocation of existing budgets to fund the new programs.

22 **Q. What are the program budgets under the currently-approved service tariffs?**

23 A. Table NWH-2 below details the current budgets.

1

Table NWH-2

Program	Annual Program Costs
Low-Income Weatherization	\$ 71,500.00
Water Heating	\$ 28,500.00
Space Heating	\$ 51,750.00
Home Performance with Energy Star	\$ 25,250.00
Comm. & Industrial Large Volume	\$ 40,000.00
Building Operator Certification	\$ 4,775.00
Apogee Online Energy Calculator	\$ 9,425.00
Total Portfolio Budget	\$ 231,200.00

2

3

Program	Annual Program Costs
Low-Income Weatherization	\$ 71,500.00
Water Heating	\$ 28,500.00
Space Heating	\$ 51,750.00
Home Performance with Energy Star	\$ 25,250.00
Large Commercial Natural Gas Audit and Rebate Program	\$ 40,000.00
Building Operator Certification	\$ 4,775.00
Apogee Online Energy Calculator	\$ 9,425.00
Total Portfolio Budget	\$ 231,200.00

4

5 **Q. Please share the proposed program budgets.**

6 A. Table NWH-3 below details the proposed budgets, featuring the discontinuation of
7 three existing programs (Home Performance with ENERGY STAR[®] program, Large
8 Commercial Natural Gas Audit and Rebate Program, and Building Operator
9 Certification), the combination and rebranding of two existing programs (the ENERGY
10 STAR[®] Space Heating and ENERGY STAR[®] Water Heating programs into the High-
11 efficiency Appliance Rebate Program), and the introduction of two programs (Energize
12 Homes and Energy Education).

1

Table NWH-3

Program	Annual Program Costs
Low-Income Weatherization	\$ 76,750.00
High-efficiency Appliance Rebate Program	\$ 75,000.00
Energize EDG Homes	\$ 35,000.00
EDG Energy Education	\$ 35,000.00
Apogee Online Energy Calculator	\$ 9,450.00
Total Portfolio Budget	\$ 231,200.00

2

3 **IV. STIPULATED ITEMS FROM PREVIOUS CASE**

4 **Q. Are there any stipulated items from File No. EM-2016-0213 (the merger docket)**
5 **that you would like to address at this time?**

6 A. Yes. One stipulated provision from the merger docket is discussed below.

7 **Q. Please address the treatment in File No. EM-2016-0213 of the administration of**
8 **the Low-Income Weatherization program by the Division of Energy (“DE”).**

9 A. Paragraph 24 of the *Stipulation and Agreement* between the Applicants and the Office
10 of Public Counsel filed on August 23, 2016, in File No. EM-2016-0213, and approved
11 by Commission Order on September 7, 2016, stated the following regarding
12 administration by DE:

13 *Empire and The Empire District Gas Company agree to provide DE an annual*
14 *payment totaling up to 5% of the agreed to weatherization funds for a pilot*
15 *program concerning the administration and monitoring of the funds (not to*
16 *exceed an annual cap of \$12,500) to the extent DE is utilized for the*
17 *management of those funds. Said funds, will be provided for a period of five*
18 *years and be considered below the line and not recovered in future rates.*
19 *Nothing in this paragraph will affect Staff’s and OPC’s ability to oppose*
20 *funding for DE in future cases whether for Empire or any other utility. DE shall*
21 *work with the OPC, Staff, and Empire to develop reporting standards for its*
22 *administration and monitoring activities to be presented at the annual meetings*
23 *with each local Community Action Agency.*

24
25 **Q. Please provide an update on EDG’s progress toward full compliance with this**
26 **item.**

1 A. The Company is in its fourth year of the partnership with DE as outlined by this item,
2 with continued success and ever-improving results. Since January 2018, EDG's
3 partnership with DE allowed Community Action Agencies to utilize more than
4 \$190,000 of Empire funds to weatherize more than 65 homes of gas customers in
5 EDG's service territory.

6 **IV. CONCLUSION**

7 **Q. Does this conclude your Direct Testimony?**

8 A. Yes.

VERIFICATION

I, Nathaniel W. Hackney, under penalty of perjury, on this 23rd day of August, 2021, declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/ Nathaniel W. Hackney