

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the Matter of the Application of The Empire )  
District Gas Company d/b/a Liberty for an ) **Case No. GE-2023-0196**  
Order Granting a Variance from 20 CSR 4240- )  
10.030(19) to Revise its Meter Testing Plan )

**STAFF RECOMMENDATION**

**COMES NOW** the Staff of the Missouri Public Service Commission (“Staff”), through counsel, and files its *Staff Recommendation* regarding the application filed by The Empire District Gas Company d/b/a Liberty (“EDG” or “Company”) seeking a variance from Commission Rule 20 CSR 4240-10.030(19) and a waiver from Commission Rule 20 CSR 4240-4.017(1). Staff states as follows:

1. On December 13, 2022, EDG filed an *Application for Variance and Request for Waiver* (“Application”) with the commission seeking a variance of the requirement to implement a new Sample Meter Testing Plan in lieu of any meter testing plans currently in place. EDG is requesting a variance from 20 CSR 4240-10.030(19) which states:

(19) Unless otherwise ordered by the commission, each gas service meter installed shall be periodically removed, inspected and tested at least once every one hundred twenty (120) months, or as often as the results obtained may warrant to insure compliance with the provisions of section (18) of this rule.

In its Application, EDG included a proposed Sample Meter Testing Plan.

2. On December 15, 2022, the Commission ordered Staff to either file a recommendation or a request for additional time no later than February 17, 2023.

3. On February 17, 2023, Staff filed its *Request for Additional Time*. On February 28, 2023, the Commission granted Staff’s *Request for Additional Time* and

ordered Staff to submit its recommendation, or request an additional extension, on or before April 25, 2023.

4. In response to information requests from Staff, EDG filed a *Notice of Amended Proposal* (“Notice”) on March 10, 2023. In its Notice, EDG included an amended and corrected Sample Meter Testing Plan.

5. On April 25, 2023, Staff requested an extension of time of one day in order to address issues that arose internally. On April 26, 2023 the Commission granted Staff’s request.

6. Staff has reviewed EDG’s Application and submits its Recommendation in the accompanying Memorandum as Appendix A. As reflected in Staff’s Memorandum, Staff recommends that the Commission grant EDG’s Application with the following conditions:

1. That EDG conduct a 5-year pilot program to gather data concerning the effectiveness of meter sampling for meters of capacity greater than 450 and less than or equal to 2,200 cubic feet per hour;
2. For gas meters in the sample meter testing plan, if a meter location has had neither a turn-on or a meter test performed in the previous 30 years, EDG will send the customer an offer of a courtesy safety inspection as described in Condition 3. To the extent that it is practical to do so, EDG will send these offers early in the non-heating season, so that any resulting courtesy safety inspections can be scheduled during the non-heating season;
3. If the customer accepts the offer made under Condition 2, EDG will perform a leakage test of each segment of fuel line under 20 CSR 4240-40.030(12)(S)1.A, and perform a visual inspection and a gas leak check of the accessible fuel line using gas detection equipment under 20 CSR 4240-40.030(12)(S)1.B;
4. EDG will notify the Commission once the processes for customer offers and courtesy safety inspections outlined in Conditions 2 and 3 are developed;
5. The Commission will order EDG to complete a two-year catchup program encompassing all untested meters; and

6. EDG will file a yearly catch-up program report with the Commission to show their progress in completing scheduled meter inspection containing at least:

- a. The number of remaining meters required to be tested to complete catch-up program;
- b. A summary of test results by Group as defined by in the Application appendix C; and
- c. A description of any impacts to the annual meter testing target, including but not limited to supply-chain issues, internal constraints, and third-party testing.

7. Staff does not oppose EDG's request for a waiver of the 60-day notice requirement in Commission Rule 20 CSR 4240-4.017(1), as long as the above-listed conditions are imposed.

**WHEREFORE**, Staff recommends that the Commission grant EDG's requested variance from 20 CSR 4240-10.030(19) and waiver of the 60-day notice requirement in 20 CSR 4240-4.017(1), subject to the conditions set out above and in Staff's memorandum.

Respectfully submitted,

**/s/ Ron Irving**

Ron Irving  
Senior Counsel  
Missouri Bar No. 56147  
Attorney for the Staff of the  
Missouri Public Service Commission  
P.O. Box 360  
Jefferson City, MO 65102  
573-751-8702 (Voice)  
573-751-9285 (Fax)  
[Ron.Irving@psc.mo.gov](mailto:Ron.Irving@psc.mo.gov)

### **CERTIFICATE OF SERVICE**

I hereby certify that copies of the foregoing have been electronically mailed to all parties and/or counsel of record on this 26<sup>th</sup> day of April, 2023.

**/s/ Ron Irving**



## DISCUSSION

EDG proposes several modifications to its meter sampling program:

- Implementation of a single sampling method rather than the currently approved double sampling method;
- Expansion of the sampling program to meters rated at 2,200 cubic feet per hour or less; and
- Elimination of the maximum permissible sampling period of 30-years.

### Single Sampling Method vs. Double Sampling Method

In EDG's Application, the company proposed a single sampling method to be used instead of the double sampling method currently in use. The key difference between these two methods is that double sampling includes an inconclusive range<sup>3</sup> in the initial test results, which would cause another sample to be taken if the sample falls into the inconclusive range. This second sample does not have the inconclusive range and instead has only acceptance and non-acceptance ranges<sup>4</sup>. If the sample does not fall into the inconclusive range of the first test, the second sampling is not done. Single sampling methods do not include this inconclusive range, and thus are nearly identical to the latter half of the double sampling method, where the testing result is either accepted or non-accepted. In both the current and proposed meter testing plan, any lot that has more than 6.5% of meters fall outside the 2% tolerance for the test will be non-accepted and all meters of that lot will be removed for testing. The single sampling method is reasonable as it will reduce the number of meter tests each year. This will save the company, and by extension its customers, time and money by eliminating the inconclusive result option while still providing a statistically significant result.

### Meters to be Included in Sample Plan

Another change to the testing program, made in the Amended Proposal, concerns the size range of meters included in the testing plan. Currently, the plan applies only to meters rated for 450 cubic feet per hour or less. This size range are a majority of EDG's meters and are generally residential meters. The

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<sup>3</sup> The inconclusive range, in this case, is a range close to the 6.5% Acceptance Quality Limit (AQL). The exact percentages vary based off the sample size, but its intent is to double the sample size and create a statistically more significant test if approximately 6.5% of meters in a lot fail.

<sup>4</sup> For this variance, the acceptance range is 6.5% or fewer meters in a lot falling outside the 2% tolerance given in the meter test while the non-acceptance range is more than 6.5% of meters fall outside the 2% tolerance.

Company has proposed to expand the program to include all meters rated at 2,200 cubic feet per hour or less. These larger sized meters are often for commercial and industrial usage, though some are categorized as residential usage. All meters larger than 2,200 cubic feet are not included in the testing plan and EDG plans to continue this in the future. These larger meters are tested once every three years in the field.

In its Application, the company claims that the proposed testing program would align it with the Commission approved Midstates testing program<sup>5</sup>. EDG and Midstates are both natural gas utilities and subsidiaries of Liberty Utilities Co. Upon review, there are similarities in testing practices between the current Midstates and proposed EDG variances, as both use similar single sampling programs instead of the double sampling currently used by EDG; however, the variances are not identical. The Midstates meter testing program is limited to hard case diaphragm type gas meters with a flow capacity of less than 450 cubic feet per hour instead of the 2,200 cubic feet per hour capacity EDG is currently requesting. Further, other utility sample plans generally exclude these larger-sized meters. As such, Staff has reservations about recommending approval at this time. Staff recommends a five-year pilot program where EDG can sample meters between 450 and 2,200 cubic feet, as proposed in the Application, after which Staff can review the effectiveness of the pilot and determine whether the change should be made permanent. This pilot program is detailed in Condition 1:

1. EDG conduct a 5 year pilot program to gather data concerning the effectiveness of meter sampling for meters of capacity greater than 450 and less than or equal to 2,200 cubic feet.

#### Elimination of the Maximum 30-year Testing Interval

The final change to the testing program is the elimination of the 30 year limit. The currently approved variance includes a provision that for each lot, the maximum permissible sampling period will be listed to thirty (30) years. The schedule of proposed sample testing submitted with the application in the current case, GE-2023-0196 as Appendix C, omits the 30-year maximum permissible sampling period. The maximum sampling period for Midstates is 30 years, while EDG is attempting to remove this limit from their testing program. This does however, align with Ameren Missouri's current meter testing program, for which Staff made similar inspection recommendations as Conditions 2 through 4.

Staff has a safety related concern regarding deletion of the 30-year maximum testing interval without any compensatory actions. Missouri Public Service Commission Pipeline Safety Regulations

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<sup>5</sup> Variance was granted in case number GE-2003-0007 to Atmos Energy, currently Midstates.

require that whenever the operator physically turns on the flow of gas to a customer, each segment of fuel line must be tested for leakage to at least the delivery pressure and a visual inspection of the exposed, accessible customer gas piping, interior and exterior, and all connected equipment shall be conducted. Under the currently approved variance, if the flow of gas has not been turned off or on for any other reason, at least once each 30 years the customer owned fuel lines would be tested for leakage and inspected during the work associated with the meter test. To address this concern, Staff submitted Data Request MPSC 0011 asking if EDG would be willing to take certain actions that would address Staff's concern associated with the deletion of the 30-year maximum testing interval. EDG responded to Data Request MPSC 0011 that they would be willing to send an offer and schedule a visual inspection of accessible piping and leak check using gas detection equipment. To address Staff's safety concerns with the removal of the 30-year interval, it recommends approval of EDG's Application subject to the conditions:

2. For gas meters in the sample meter testing plan, if a meter location has had neither a turn-on or a meter test performed in the previous 30 years, EDG will send the customer an offer of a courtesy safety inspection as described in Condition 3. To the extent that it is practical to do so, EDG will send these offers early in the non-heating season, so that any resulting courtesy safety inspections can be scheduled during the non-heating season.;
3. If the customer accepts the offer made under Condition 2, EDG will perform a leakage test of each segment of fuel line under 20 CSR 4240-40.030(12)(S)1.A, and perform a visual inspection and a gas leak check of the accessible fuel line using gas detection equipment under 20 CSR 4240-40.030(12)(S)1.B; and
4. EDG will notify the Commission once the processes for customer offers and courtesy safety inspections outlined in Conditions 2 and 3 are developed.

#### Compliance with Existing Sampling Plan

Staff inquired into EDG's past meter testing and found that it is currently behind by 1,502 meters. The following table shows the number of meters that remain to be tested by year and what testing category they fall under:

Year	30 year meters	Testing Program meters
2019	115	
2020	176	
2020		108
2021		775
2022		328

EDG cited the COVID pandemic and related issues for a majority of the missing meter inspections. This is not an uncommon issue currently<sup>6</sup>, but EDG failed to file a waiver request concerning meter testing. Staff recommends the Commission order a 2-year catch-up program for EDG to complete these tests. Two years is a reasonable proposal because the new meter testing program reduces the number of tests each year by approximately 1,300. This should allow EDG to test at least 751 meters per year without additional burden placed upon it. As part of this catch-up program, Staff recommends the Commission order EDG to submit a report by September 30, 2024 and another in 2025. The catchup program is summarized in the following conditions:

5. The Commission order EDG to complete a two-year catchup program encompassing all untested meters; and
6. EDG files a yearly catch-up program report with the Commission to show their progress in completing scheduled meter inspection.
  - a. Number of remaining meters required to be tested to complete catch-up program ;
  - b. Summary of test results by Group as defined by in the Application appendix C; and
  - c. Description of any impacts to annual meter testing target, including but not limited to supply-chain issues, internal constraints, and third-party testing.

## CONCLUSION

Staff recommends the Commission grant EDG's request for a new sample meter testing plan program for meters of capacity less than or equal to 450 cubic feet, with the following conditions:

1. EDG conduct a 5-year pilot program to gather data concerning the effectiveness of meter sampling for meters of capacity greater than 450 and less than or equal to 2,200 cubic feet;

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<sup>6</sup> EDG did request a variance concerning Covid-19 in AO-2020-0335, however, no variances to meter testing were requested in this case.



2. For gas meters in the sample meter testing plan, if a meter location has had neither a turn-on or a meter test performed in the previous 30 years, EDG will send the customer an offer of a courtesy safety inspection as described in Condition 3. To the extent that it is practical to do so, EDG will send these offers early in the non-heating season, so that any resulting courtesy safety inspections can be scheduled during the non-heating season;
3. If the customer accepts the offer made under Condition 2, EDG will perform a leakage test of each segment of fuel line under 20 CSR 4240-40.030(12)(S)1.A, and perform a visual inspection and a gas leak check of the accessible fuel line using gas detection equipment under 20 CSR 4240-40.030(12)(S)1.B;
4. EDG will notify the Commission once the processes for customer offers and courtesy safety inspections outlined in Conditions 2 and 3 are developed.
5. The Commission order EDG to complete a two-year catchup program encompassing all untested meters.
6. EDG files a yearly catch-up program report with the Commission to show their progress in completing scheduled meter inspection.
  - a. Number of remaining meters required to be tested to complete catch-up program ;
  - b. Summary of test results by Group as defined by in the Application appendix C; and
  - c. Description of any impacts to annual meter testing target, including but not limited to supply-chain issues, internal constraints, and third-party testing.

These conditions will ensure the continuous safety of residences and businesses connected to the EDG gas system while also reducing EDG's cost to provide natural gas services.





