

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

In the Matter of Missouri Gas Energy's )  
Filing of Revised Tariffs to Increase its Annual ) **Case No. GR-2014-0007**  
Revenues for Natural Gas Service )

**MISSOURI DIVISION OF ENERGY'S RESPONSE TO REPORT ON THE  
OPERATION AND IMPACT OF VARIOUS RATE DESIGNS**

**COMES NOW** the Missouri Division of Energy ("DE"), by and through the undersigned counsel, and for its comments on the "Report on the Operation and Impact of Various Rate Designs" ("Report") filed by Laclede Gas Company ("Laclede") states:

1. On May 5, 2016, Laclede submitted its Report following the conclusion of a stakeholder working group. Stakeholders in the working group included Laclede and its operating units (Missouri Gas Energy, or "MGE," and Laclede Gas), DE, the Staff of the Public Service Commission ("Staff"), and the Office of the Public Counsel.

2. The Stipulation in GR-2014-0007 which led to this working group required a report to be prepared collaboratively. However, as acknowledged by Laclede and Staff, a consensus on the matters in the Report could not be reached by the required filing date; indeed, DE was not directly involved in drafting the Report. Ultimately, Laclede filed its Report, and Staff requested time for stakeholders to respond.

3. DE appreciates the collaborative process undertaken by the stakeholders, particularly the cooperative manner in which the process proceeded up until the filing of the report. The comments provided below represent the perspective of DE on that process and the issues discussed by the stakeholders.

4. Laclede provided several regression analyses of average natural gas use per customer as a function of average household income, both for Laclede Gas and MGE (see

Exhibit 1 of the Report). These regressions used third-order polynomial (or “cubed”) equations to attempt to represent the function. Based on these regressions (provided in Exhibit 1 to the Report), Laclede highlights, “... a slightly pronounced ‘U’ shape where low income levels appear to be correlated with higher than average usage levels.”<sup>1</sup>

5. However, Laclede’s analysis has several shortcomings. First among these is the description of the regression equations as “U-shaped.” In fact, only two of the regressions – both for Laclede Gas – exhibit a “U” shape.<sup>2</sup> The result is that the equations do not all show higher use by lower income customers. It should also be noted that the equations produced by Laclede have fairly low  $R^2$  values, indicating relatively low correlations and predictive power from the regressions.

6. For the above reasons, Laclede’s suggestion that lower income customers use more natural gas is not supported by the statistical evidence. Similarly, the argument that, “...any rate design that places more of the system cost recovery on usage will have an adverse impact on the ‘low income, high use’ customer”<sup>3</sup> is not borne out by Laclede’s own data and analysis in the Report.

7. Laclede’s choice and use of data sets for this analysis is also problematic. The customer usage data ranges from 2013 to 2014, but the average household income data is from 2010. This results in a “mismatch” of the time periods for the two data sets, prohibiting substantive inferences. Additionally, Laclede uses income data by zip code – in one instance, classified into several “tranches” – to analyze customer use.<sup>4</sup> While the use of tranches in the one analysis begins to show some of the expected lower use for lower income customers, the use of

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<sup>1</sup> Report, page 4.

<sup>2</sup> *Ibid.*, Exhibit 1, page 2.

<sup>3</sup> *Ibid.*, page 12.

<sup>4</sup> *Ibid.*, pages 3-4.

zip code-affiliated data lacks granularity, since incomes could vary widely within a single zip code. Zip codes are also not necessarily representative of geographic or political subdivisions.

8. During the stakeholder process, DE communicated the importance of analyzing the correlation between usage and income based on individual-level data (rather than zip codes), and provided information regarding sample data from the U.S. Census. This data provides both income and usage data for the sampled population by individual, along with other statistics. Use of this data would allow for a more thorough analysis that addresses individual usage variations based on individual variations in income (rather than area-wide median incomes). Additionally, this data set would allow the Company to consider the influence of other demographic factors on usage, such as household size, residence ownership versus renting, and the receipt of billing assistance. DE recommends that Laclede examine this type of data.

9. Though Laclede presented several rate design alternatives in its report, the analysis of an exemplar “low-income rate” was based on a tariff used by Oklahoma Natural Gas Company (“ONG”) (see Exhibit 2 of the Report). However, the rate used by Laclede involved a high customer charge coupled with a charge for gas costs,<sup>5</sup> even though both of the ONG low-income tariffs supplied by Laclede involved low customer charges.<sup>6</sup>

10. A low-income rate which involves a high customer charge would not provide low-income customers with a price signal based on consumption. This could result in the higher use of natural gas by low-income customers under the rate. Low-use, low-income customers would fare worse under such a rate design, since the decreased emphasis on a volumetric charge over a customer charge would lead to relatively high bills regardless of consumption. This

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<sup>5</sup> *Ibid*, pages 7-8.

<sup>6</sup> *Ibid*, Exhibit 2, pages 7-10.

“straight fixed variable,” or “SFV,” type of rate design has proven to be unpopular with customers.

11. The stakeholder process represents a good “first step” towards analyzing the issues of income and natural gas usage; however, DE would urge the Commission to consider the resulting Report in the context of the aforementioned concerns. A more nuanced approach to this type of analysis, along with the associated policy questions, is required in order to correctly design low-income rates.

WHEREFORE, DE respectfully files these comments on the Report.

Respectfully submitted,

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#### **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of the foregoing have been emailed to the certified service list this 3<sup>rd</sup> day of June, 2016.

/s/ Alexander Antal