

Minnesota Public Utilities Commission
Staff Briefing Papers

Meeting Date: November 19, 2015..... **Agenda Item #7****

Company: Greater Minnesota Gas, Inc. (GMG)

Docket No. **G-022/M-15-285**
In the Matter of a Petition by Greater Minnesota Gas, Inc. (GMG) for Approval of Changes in Contract Demand Entitlements for the 2015-2016 Heating Season Supply Plan effective November 1, 2015.

Issue: Should the Commission reopen its September 23, 2015 Order based on GMG’s October 29, 2015 compliance letter that states the actual number of new GMG customers placed in service as of October 23, 2015 was 766 and the number of additional GMG customer equivalents as of October 23, 2015 was 1,430?

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Relevant Documents

G-022/M-15-285
GMG Initial Petition March 25, 2015
Department of Commerce (Department) Comments and Attachments June 2, 2015
GMG Reply Comments June 11, 2015
GMG Letter..... June 23, 2015
Department Response to Reply Comments July 28, 2015¹
PUC staff briefing papers..... September 9, 2015
Commission Order September 23, 2015
GMG Compliance Letter – Informational Update.....October 29, 2015

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¹ This document was received in the eDockets system on July 29, 2015.

Table of Contents

Statement of the Issue	1
Background	1
Minnesota Rules.....	1
Greater Minnesota Gas, Inc. (GMG)	2
Actual Customer Count Increase	2
Reserve Margin.....	3
PUC Staff Analysis	4
Actual Increase in Customer Count	4
Customer Count.....	4
Customer Equivalents	5
DD Requirements and Demand Entitlements	5
Reserve Margin.....	7
Conclusions.....	7
Before Making its Decision	7
Decision Alternatives.....	8

Statement of the Issue

Should the Commission reopen its September 23, 2015 Order based on GMG's October 29, 2015 compliance letter that states the actual number of new GMG customers placed in service as of October 23, 2015 was 766 and the number of additional GMG customer equivalents as of October 23, 2015 was 1,430?

Background

On March 25, 2015, GMG filed its initial petition for changes to its 2015-2016 demand entitlement levels.

On June 2, 2015, the Department filed its *Comments* on GMG's initial petition where the Department recommended that the Commission withhold its decision until GMG submitted additional information.

On June 11, 2015, GMG filed its *Reply Comments* responding to the Department's concerns.

On June 23, 2015, GMG filed its *Letter* requesting a further change to its demand entitlement levels.

On July 29, 2015, Department filed its Response Comments recommending that the Commission approve GMG's 2015-2016 demand entitlement levels and costs effective November 1, 2015.

On September 23, 2015, the Commission issued its Order approving GMG's demand entitlement levels and costs effective November 1, 2015 with certain requirements. The Commission required GMG to file an informational letter (or an amended 2015-2016 demand entitlement petition if GMG proposes additional changes to its entitlements) on, or before, November 1, 2015, indicating the total number of actual new customers that started taking service at November 1, 2015. GMG's informational letter should include a revised estimate of its reserve margin for the 2015-2016 heating season.

On October 29, 2015, GMG submitted its informational letter ("letter") stating its actual customer increase and re-calculated its reserve margin.

Minnesota Rules

Minnesota Rule, part 7825.2910, subpart 2² requires gas utilities to make a filing whenever there is a change to the demand-related entitlement services provided to them by a supplier or transporter of natural gas.

² Filing upon a change in demand, is included in the Automatic Adjustment of Charges rule parts 7825.2390 through 7825.2920 and requires gas utilities to file to increase or decrease demand, to redistribute demand percentages among classes, or to exchange one form of demand for another.

Greater Minnesota Gas, Inc. (GMG)

Actual Customer Count Increase

In its September 23, 2015 Order, the Commission approved GMG's 2015-2016 demand entitlement petition, but conditioned its approval through Order Point 5 and required GMG to file an compliance (informational) letter stating actual new customers taking service at November 1, 2015:

5. Required GMG to file an informational letter (or an amended 2015-2016 demand entitlement petition if it proposes additional changes to its entitlements) on, or before, November 1, 2015, indicating the total number of actual new customers that started taking service this year (i.e. 2015). GMG's filing should also include a revised estimate of its reserve margin for the 2015-2016 heating season.

Pursuant to Order Point 5, GMG filed its letter on October 29, 2015 stating its actual customer increase as of October 23, 2015 and its re-calculated reserve margin. In its initial March 25, 2015 petition, GMG estimated its customer base would increase by 1,888 customers and GMG appropriately calculated its Design Day requirements and demand entitlement levels to service its customer count increase. Based on its October 29, 2015 letter, GMG experienced a customer increase of 766 (residential of 713 and commercial/industrial of 53). GMG stated that it is continuing to add new customers, but it does not anticipate that it will exceed the number of new customers projected in its initial petition.

[Staff note: GMG did not provide an estimated timeline as to when the remaining new customers (customer difference between 1,888 and 766) will go in service.]

In its October 29, 2015 letter, GMG proposed to use *Customer Equivalents* in its modeling and forecasting. GMG converted its anticipated customer Dth use into *Customer Equivalents*.³ GMG stated that its modeling is based on *Customer Equivalents* rather than on actual customer numbers and that its reserve margin calculation is based on the actual number of new *Customer Equivalents*. GMG provided two different calculations (its Regression analysis and Mathematical methods) to support its revised design day (DD) requirements and reserve margin calculations.

³ For residential customers, GMG uses one CE is equal to 1 Dth/customer for peak-day usage. For commercial/industrial customers, GMG projected annual customer usage is multiplied by \$0.36161 per therm (or 3.6161/Dth) and then divided by \$545 to determine how many CEs GMG anticipates. PUC staff estimated that the commercial customer's annual usage is 1,507 Dth.

Table 1: GMG's Regression Analysis Method⁴

Line 1	Design Day Use Per CE Based on 2014-2015 Heating Season/customer ⁵	1.4646
Line 2	Residential CE Additions as of 10/23/15 ⁶	713
Line 3	Commercial & Industrial CE Additions as of 10/23/15 ⁷	717
Line 4	Total CE from initial petition per GMG	5,852
Line 5	Total revised CEs per GMG's informational letter at 10/23/15 ⁸	7,282
Line 6	Design Day Requirement (Dth) (Ln 4 * Ln 1)	10,665
Line 7	Approved Entitlement Per 9/23/15 Order	12,509
Line 8	Reserve Margin (Ln 7 - Ln 6 /Ln 6)	17.28%

Table 2: GMG's Mathematical Peak Day Analysis Model

Line 1	Use Per CE on All-time High Use Peak Day at 82 HDD	1.4854
Line 2	Commercial & Industrial CE Additions as of 10/23/15 ⁹	5,852
Line 3	Total CE from initial petition per GMG – residential customers	713
Line 4	Commercial & Industrial CE Additions as of 10/23/15	717
Line 5	Total CEs on System as of 10/23/15	7,282
Line 6	DD Requirement (Ln 5 * Ln 1)	10,817
Line 7	Adjusted for Commission –Prescribed DD at 90 HDD	751
Line 8	Total Requirement Level (Ln 6 + Ln 7)	11,568
Line 9	Approved Demand Entitlement Per 9/23/15 Order	12,509
Line 10	Reserve Margin (Ln 9 - Ln 8 /Ln 8)	8.14%

GMG stated that based on its revised calculations, its DD requirements and demand entitlements provided adequate resources for its firm customers during its coldest day for a winter heating season. Therefore, its 2015-2016 demand entitlements do not need to be adjusted.

Reserve Margin

GMG's October 29, 2015 letter re-calculated¹⁰ its reserve margin range between 8.14% (Table 2, Ln 10) and 17.28% (Table 1, Ln 8), which will ensure GMG's firm customers have reliable and safe service during its coldest day. Further, GMG believes that revised calculations in Table 1 and Table 2 will meet its firm customer's needs at an affordable rate. GMG did not propose any changes to its September 23, 2015 Order demand entitlement levels or costs.

⁴ GMG's informational letter did not provide an updated regression analysis to its calculations.

⁵ See GMG's initial petition, Attachment A, p. 1.

⁶ GMG added 713 residential customers.

⁷ Based on GMG's formula in calculating CE for new commercial/industrial customers.

⁸ Ln 2 + Ln 3 + Ln 4

⁹ Based on GMG's formula in calculating CE for new commercial/industrial customers.

¹⁰ Pursuant to the Commission's September 23, 2015 Ordering Point 5.

PUC Staff Analysis

Actual Increase in Customer Count

After reviewing GMG's compliance (informational) letter, PUC staff has concerns regarding GMG's revised DD requirements calculations, GMG's actual customer count increases, and GMG's use of "Customer Equivalents" in its revised calculation.

Customer Count

At the Commission's September 9, 2015 Agenda Meeting, GMG made customer count representations for the upcoming 2015-2016 heating season by indicating it believed that its customer count increase at November 1, 2015 would be close to its initial petitions' projection of 1,888. But, in its October 29, 2015 informational letter, GMG stated that its actual customer count was an additional 766 customers as of October 23, 2015. GMG added only 40% of its initial projection.¹¹ As mentioned above, GMG anticipates further additions in the future. GMG does not give the Commission a timeline as to when these new customers will be added.

In its initial petition, GMG used its customer count projection increase to support its acquisition of additional demand entitlements in its initial petition. GMG's initial petition estimated that it needed DD requirements of 11,336 Dth/day and demand entitlements of 12,509 Dth/day to support its firm customer peak-day use. GMG calculated its 10.35% reserve margin based on this information, see Table 3:

Table 3: GMG Initial Petition Calculated DD requirements¹² (Dth/day)

Line 1	DD requirements from GMG December 2014 regression analysis ¹³	8,571
Line 2	Customer Count at December 2014 ¹⁴	5,852
Line 3	Estimated DD requirement per customer at December 2014 (Ln 1/Ln 2)	1.4646
Line 4	Estimated Firm Customer at November 1, 2015 (2015/2016)	7,740
Line 5	Estimated DD requirements (Ln 4 * Ln 3)	11,336
Line 6	Approved Demand Entitlement Per 9/23/15 Order	12,509
Line 7	Reserve Margin (Ln 6 – Ln 5 / Ln 5)	10.35%

PUC staff believes that the Commission may wish to ask GMG for an explanation on why GMG fell short in achieving its projected customer count increase of 1,888. PUC staff believes that this explanation could be received from GMG at the Commission's November 19, 2015 Agenda Meeting.

¹¹ 766 actual customers divided by 1,888 projected customers.

¹² See GMG's initial petition, Attachment A, p. 2.

¹³ Total DD was calculated at 8,671 Dth/day less GMG estimated interruptible volume of 100 Dth at December 2014.

¹⁴ GMG's initial petition does not state which customer classes are included in this amount, but PUC staff assumes that the 5,852 number of customers include all GMG firm customers.

Customer Equivalents

From PUC staff's review of Docket No. 15-285, staff cannot find any reference to GMG's use of the term "*Customer Equivalents*" or its inclusion in GMG's DD requirement calculation until GMG filed its October 29, 2015 informational letter. GMG's initial petition reflected the December 2014 customer count at 5,582, which includes all of GMG's firm customers. But, GMG does not clearly state if the 5,852 customer count is all inclusive.^{15 16}

GMG's informational letter converted the initial petition's 5,852 customer count into "*Customer Equivalents*" for its adjusted DD requirements calculated above in Tables 1 and 2.¹⁷ GMG does not provide any support for its conversion to "*Customer Equivalents*." Further, in its compliance (informational) letter, GMG changed its DD requirements calculation methodology from that reflected in Table 3 to the calculations reflected in Tables 1 and 2.

DD Requirements and Demand Entitlements

PUC staff believes that the customer count increase of 766 may not support GMG's initial petition's demand entitlements of 12,509 Dth/day as GMG contends in its compliance (informational) letter's revised calculations reflected Tables 1 and 2, see the following justification.

As discussed in its September 9, 2015 briefing papers, both staff and the Department observed that GMG's load profile had changed from being heavily residential to a more even mix between residential and industrial customers, see Table 4:

Table 4: Comparison of GMG's Load Profile Before and After Recent Expansions¹⁸

Customer Class	2009-2010	2014-2015	Increase/(Decrease)	% Change
	(1)	(2)	(3)	(4)
Residential	82%	47%	(35%)	(43%)
Commercial	10%	8%	(2%)	(20%)
Industrial	8%	45%	37%	463 %

Further, GMG's peak-day per customer usage changed from its 2012-2013 demand entitlement petition to its 2013-2014 demand entitlement petition. Before the 2013-2014 heating season, staff believes that GMG experienced a peak-day per customer use of approximately 1 Dth/customer (see Table 5), which supports GMG's insertion in its informational letter that each firm residential customer's peak-day use was estimated at 1 Dth/customer. This phenomena would lead PUC staff to believe that residential firm customers peak-day per customer usage would equal its informational letter "*Customer Equivalents*."

As reflected in Table 5, GMG's peak-day per customer use increased in 2013-2014 from approximately 1 Dth/customer to 1.4 to 1.5 Dth/customer.

¹⁵ This would include residential, commercial, and industrial customers.

¹⁶ See GMG's initial petition Docket No. 15-285, Attachment A, pp. 1 and 2.

¹⁷ PUC staff also reminds the parties that DD requirements are not calculated using interruptible customers load requirements.

¹⁸ Originally included in staff's September 9, 2015 briefing papers as Table 9, p. 10.

Table 5: Comparison of Peak-Day Use per Customer¹⁹

Period	Peak-Day Per Customer Usage (Dth/customer)	Increase/(Decrease) (Dth/customer)	% Change
	(1)	(2)	(3)
2010-2011	1.0021		
2011-2012	0.8674	(0.1347)	(13.4%)
2012-2013	1.0526	0.1852	21.4%
2013-2014	1.4854	0.4329	41.1%
2014-2015	1.4301	(0.0533)	(3.7%)

PUC staff finds it difficult to believe that GMG's peak-day per customer usage increase from 1 Dth/customer to 1.4 to 1.5 Dth/per customer was caused by just residential customers. Based on GMG's current load profile reflected in Table 4, PUC staff believes that GMG's increase in peak-day per customer use was caused by larger firm customer, such as commercial or industrial customers.

PUC staff believes that the peak-day per customer usage increase in Table 5 illustrates GMG's load profile change from a residential customer based load profile to a more balanced mix between residential and commercial/industrial firm customers. The 1.4646 peak-day per customer usage factor and GMG's initial petition customer count of 5,852 should include all of GMG's firm customers, inclusive of residential and commercial/industrial customers.

PUC staff believes that GMG's October 29, 2015 compliance (informational) letter's revised DD calculations and demand entitlements may be overstated, thus potentially distorting GMG's revised reserve margin calculations. Based on GMG initial petition calculation, PUC staff believes that GMG's revised DD requirements could be calculated as follows:

Table 6: PUC staff's revised DD requirement for GMG (Dth/day)

Line 1	DD requirements from GMG regression analysis ²⁰	8,571
Line 2	Customer Count at December 2014	5,852
Line 3	Estimated DD requirement per customer at December 2014 (Ln 1 / Ln 2)	1.4646
Line 4	Estimated Firm Customers at November 1, 2015 (2015/2016) ²¹	6,618
Line 5	Estimated DD requirements (Ln 4 * Ln 3)	9,693
Line 6	Approved Entitlement Per 9/23/15 Order	12,509
Line 6	Revised reserve margin	29.05%

PUC staff believes the Commission may wish to require GMG to explain what customer classes are included in GMG's initial petition's number of customer of 5,852. Further, the Commission may wish to direct GMG to provide an explanation for its use of "*Customer Equivalents*" in its compliance (informational) letter for calculating its DD requirements. PUC believes that by

¹⁹ Originally included in staff's September 9, 2015 briefing papers as Table 10, p. 11.

²⁰ Total DD was calculated at 8,671 Dth/day less GMG estimated interruptible volume of 100 Dth at December 2014.

²¹ GMG's customer count at December 2014 of 5,852 plus GMG's actual customer increase at November 1, 2015 of 766 firm customers.

using GMG's "Customer Equivalents" calculation and its 1.4646 peak-day per customer use factor may be double counting GMG's commercial/industrial customer usage; thus overstating the DD requirements and understating its actual reserve margin calculated by GMG.

Reserve Margin

GMG's initial 2015-2016 demand entitlement petition reflected a 10.35 percent reserve margin, the difference between its calculated DD requirements and demand entitlements. The Department generally considers a 5 percent reserve margin adequate.²²

GMG's compliance (informational) letter provided GMG's revised reserve margin calculated at 8.14 percent (Table 2) and 17.28 percent (Table 1) depending on which GMG DD requirements model is used to support the calculation. PUC staff has re-calculated GMG's reserve margin at 29.05 percent based GMG's initial petition's calculation methodology. (Table 6) PUC staff believes that GMG's revised calculations may be understating GMG's reserve margin.

Conclusions

PUC staff believes that the Commission needs to decide if GMG's calculations are acceptable or if the informational letter calculations incorrectly state GMG's DD requirements and reserve margin. Further, if the Commission decides that GMG's informational letter calculation are incorrect, the Commission may want to re-open and re-hear GMG's demand entitlement petition which was approved in the September 23, 2015 Commission Order.

Before Making its Decision

The Commission may want to:

- Request an explanation from GMG on why GMG fell short in achieving its projected customer count increase of 1,888.
- Request an estimated timeline from GMG on when it expects to reach the 1,888 customer count growth projection in its initial petition.
- Require GMG to explain what customer classes are included in GMG's projected customer count of 5,852.
- Direct GMG to provide an explanation for its use of "Customer Equivalents" in its compliance (informational) letter for calculating its DD requirements as opposed to its initial petition DD requirement calculation. Further, explain what implications GMG's revised calculations have on its cost recovery from its firm customers.

²² In its June 2, 2015 *Comments*, the Department stated that with GMG system dynamics, its higher growth rate, and its limited operational history, it concluded that GMG's proposed reserve margin is acceptable in this proceeding and recommended to the Commission that it approve the calculation. For comparison purposes, PUC staff's September 9, 2015 briefing papers incorporated the Department's Table G9 reflected in its May 5, 2015 AAA Report in Docket No. 14-580 that illustrates other Minnesota natural gas utilities' reserve margins which averaged 4.74%, with individual utility reserve margins ranging from a low 2.30% to a high of 9.08%. See PUC staff's September 9, 2015 briefing papers, Table 11.

This information could be requested from GMG at the Commission's November 19, 2015 Agenda Meeting or in a compliance filing within 30 days of the Commission issuing its Order.

Decision Alternatives

1. On its own motion, reopen and rehear the September 23, 2015 Order, in this docket, that approved GMG's DD requirements, demand entitlements, and reserve margin. or
2. Take no action and decide that the revised GMG informational letter DD requirement and reserve margin calculations are acceptable.

If the Commission decides to reopen and rehear the September 23, 2015 Order, the Commission may want to

3. Require GMG to submit a compliance filing within 30 days of the Commission issuing its Order, and
4. Request parties to submit comments on GMG's compliance filing within 30 days of GMG submitting its compliance filing, and
5. Delegate authority to the Commission's Executive Secretary to
 - a. vary time periods set forth in the Commission's Orders in this matter, and
 - b. approve on the Commission's behalf any new processes (including deadlines) that may be necessary to facilitate resolution of this matter.