COMMERCE DEPARTMENT

October 28, 2020

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 280
St. Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. G022/M-20-391

Dear Mr. Seuffert:

Attached are the *Comments* of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

> A Petition by Greater Minnesota Gas, Inc. (Greater Minnesota) for a Change in Contract Demand Entitlement for the 2020-2021 Heating Season.

The *Petition* was submitted on March 30, 2019 by:

> Kristine A. Anderson
> Corporate Attorney
> Greater Minnesota Gas, Inc.
> 1900 Cardinal Lane, P.O. Box 798
> Le Sueur, Minnesota 55021

The Department recommends that the Minnesota Public Utilities Commission (Commission) allow Greater Minnesota to recover associated demand costs through the monthly Purchased Gas Adjustment effective April 1, 2020.

The Department recommends that Greater Minnesota consider purchasing additional entitlements in preparation for the upcoming heating season or provide additional discussion in its reply comments substantiating its consumption figures or showing that customer additions are lower than previously forecasted.

The Department also requests limited additional information from Greater Minnesota.

The Department is available to answer any questions that the Commission may have.

Sincerely,

/s/ Adam J. Heinen
Rates Analyst

COMMERCE DEPARTMENT

Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. G022/M-20-391

I. BACKGROUND

Pursuant to Minnesota Rules 7825.2910, subpart 2, Greater Minnesota Gas, Inc. (Greater Minnesota or the Company) filed a *Petition for Approval of Changes in Contract Demand Entitlements* (Petition) on March 30, 2020 with the Minnesota Public Utilities Commission (Commission).[1] The Company proposed that the changes in its demand entitlements be effective on April 1, 2020 and that these rate changes would be recovered through the monthly Purchased Gas Adjustment (PGA).

In its Petition, Greater Minnesota requested that the Commission accept the following changes in the Company's overall level of contracted capacity.

Table 1: Greater Minnesota's Proposed Total Entitlement Changes

Type of Entitlement	Proposed Increase (Decrease) (Dekatherms (Dth))
TF-12 (Nov. – Oct.)	333

The Company's proposed design-day requirements increased by 815 Dth/day, from 14,244 Dth/day to 15,059 Dth/day.

The Company did not procure capacity specifically for non-peak periods (*e.g.,* summer months); however, the TF-12 contract that Greater Minnesota added is a 12-month contract, meaning these volumes are available for the entire calendar year, and the Company can call on these volumes to serve both peak and non-peak demand.

The Department discusses the various effects of the entitlement changes on the Company's rates for different customer classes below; however, Greater Minnesota's proposal would decrease demand rates for residential heating customers by $2.68 for customers using 80 Dth per year.

[1] The Department notes that, while it is customary for gas utilities to file their demand entitlements closer to the start of the next heating season in question, it is not unheard of for them to do so at an earlier time. Further, Minnesota Rules, part 7825.2910, subpart 2 requires gas utilities to make a filing whenever there is a change to its demand-related entitlement services. Since the Company proposed to make these changes effective April 1, 2020, Greater Minnesota was required to file its Petition on, or before, that date. The Company complied with this requirement.

The Company explained that a general increase in the demand entitlement is requested to enable Greater Minnesota to continue to provide sufficient reserve to meet its customers' needs. Greater Minnesota also noted that reserve margin levels over the past several years have satisfactorily balanced the necessity of a sufficient reserve margin against protection for its ratepayers from an unreasonable reserve cost.[2]

The Department reviews Greater Minnesota's Petition in greater detail below.

II. THE DEPARTMENT'S ANALYSIS OF THE COMPANY'S PROPOSAL

The Department's analysis of the Company's request includes the following sections:

- proposed overall demand entitlement level;
- design-day requirement;
- reserve margin; and
- Purchased Gas Adjustment (PGA) cost recovery proposal.

A. PROPOSED OVERALL DEMAND ENTITLEMENT LEVEL

As indicated above and in Department Attachment 1, the Company proposed to increase its total entitlement level in Dth as follows:

Table 2: Proposed Entitlement Changes

Previous Entitlement (Dth)	Proposed Entitlement (Dth)	Entitlement Changes (Dth)	% Change From Previous Year
15,275	15,608	333	2.18%

The Department analyzes below the proposed changes, the proposed design-day requirement, and the proposed reserve margin. The Department concludes that the Company's proposed recovery of overall demand costs is reasonable, because these entitlement levels are needed to serve firm customers; however, the Department did observe concerns with Greater Minnesota's design-day estimate which may require the procurement of additional capacity.

B. DESIGN-DAY REQUIREMENT

In past demand entitlement filings, Greater Minnesota employed a two-part design-day process to calculate its peak-day send-out, using an Ordinary Least Squares (OLS) regression model and a mathematical model. In its 2014-2015 and 2015-2016 demand entitlement proceedings (Docket Nos. G022/M-14-651 and G022/M-15-285, respectively), GMG relied upon regression analyses only. The Department recommended that the Company maintain, on a going-forward basis, a two-part

[2] Petition, Page 3.

design-day process involving both regression analysis and a mathematical analysis based on the Company's historical all-time peak-day send-out until such time that Greater Minnesota has sufficient historical load data beyond the 2012-2013 heating season. Additionally, the Department recommended that the Company explore segregating its linear regression modeling into two components for large and small firm customers. At that time, GMG did not address the Department's two-part design-day process recommendation; however, GMG and the Department agreed that there were insufficient data available at the time to conduct separate regression analyses for large and small firm customers. The Commission's September 23, 2015 Order in Docket 15-285 adopted the recommendations of the Department, including the recommendation to conduct both a regression analysis and a mathematical analysis to determine the Company's design-day requirements.

In its 2016-2017 heating season demand entitlement filing (Docket No. G022/M-16-522), Greater Minnesota reinstated its two-part analysis, but modified the assumptions used in the part of the design-day estimation analysis employing regression analysis. This updated analysis was based on three months of daily data from the 2015-2016 heating season and employed two separate regression models, one for residential customers and one for commercial customers. Greater Minnesota explained, in the 2016-2017 heating season demand entitlement docket, that it used a shorter data stream because its initial regression results, based on data from other heating seasons, were too low and relying on those results may harm firm ratepayers. The Company surmised that these low results were driven by the addition of higher use firm customers in recent years. The Department's September 20, 2016 Comments expressed concern with Greater Minnesota's design-day analysis but indicated that its concern would likely be alleviated over time as more data became available. The Department concluded that Greater Minnesota's new design-day analysis was acceptable at the time and would likely result in sufficient entitlements to serve firm customers on a peak day.

In its 2019-2020 heating season demand entitlement filing (Docket No. G022/M-19-318), Greater Minnesota conducted separate regressions for residential and commercial customers, based on historical daily consumption data from the 2016-2017, 2017-2018, and 2018-2019 heating seasons, and conducted a mathematical analysis as a check. On June 13, 2020, the Commission issued its Order for the 2019-2020 heating season demand entitlement filing. As part of this Order, the Commission required the Company to provide the following in future demand entitlement filings related to the design-day analysis:[3]

a. Perform separate regression analyses by service area, using area-specific weather stations, as soon as there is sufficient consumption and customer data for the results to be relied upon;

b. Estimate its design day using data from at least three heating seasons when appropriate. If the results of these calculations are not acceptable, the Company shall fully explain its decision to use a shorter estimation period in its initial filing;

[3] Ordering Point No. 3, January 13, 2020 Order, Docket No. G022/M-19-318.

c. Maintain, on a going-forward basis, a two-part design-day process involving both regression analysis and mathematical analysis based on its historical all-time peak-day send-out.

In this instant proceeding, the Company satisfied the regression-related ordering points in the Commission's Order in Docket No. G022/M-19-318. Greater Minnesota based its design-day analysis on a two-stage process, similar to what was employed in last year's filing. The first part of the analysis is based on OLS regression models. The Company developed separate residential and commercial models for each of the three regional areas of the Company's service area (Southern, Central, and Northern). This approach resulted in six separate models. Greater Minnesota then aggregated these results together to arrive at its total regression-based design-day number. All of the models were based on approximately three years of heating season data. The second part of the Company's analysis was based on a mathematical calculation.

Greater Minnesota relied on an aggregation of its three separate regional models and its residential and commercial regression models as a basis for its design day. The results of the regression-based design day analyses and the mathematical analysis were essentially equal – 15,059 Dth and 15,056 Dth, respectively.[4] In its aggregate residential and commercial regression models (upon which GMG's proposed design day is based), the Company used daily weather data from Minneapolis-St. Paul, which is the same weather station it used in last year's demand entitlement filing, to estimate use per customer (UPC) for each of its customer models. In its regional models, Greater Minnesota used weather data from weather stations associated with each region (*i.e.,* Faribault [South model], Little Falls [Central model], Detroit Lakes [North model]). In the 2018-2019 demand entitlement filing, the Company stated that it will continue to explore the use of geographically separate models, but that the use of Minneapolis weather is presently relevant and is consistent with the practice of larger natural gas utilities in the state.[2] It appears that Greater Minnesota is continuing to assess the reasonableness of using regional weather data; the Department appreciates this effort.

The Department reviewed the data and approach used by Greater Minnesota and does not oppose it at this time since the regional and service type models resulted in similar outputs. The Department continues to believe a movement toward the separate models using regionally separate data may result in the most appropriate outcomes. The Department notes that this method is used by most other natural gas utilities in the state. However, the Department also notes that the results of the Company's North Model (*i.e.,* negative baseload), and the small amount of consumption in the North and Central regions relative to the South region, may contribute to a degree of volatility in these results. As such, the Department requests that the Company continue analyzing both sets of models – those that use Minneapolis-St. Paul weather and those that use geographically specific weather – in future demand entitlement filings. The Department notes that, as additional years of data become available, and may be added to the regression analyses if needed, a clearer distinction between the regional models could arise. In terms of the final design-day estimate, the Department agrees with the use of the residential and commercial models that rely on Minneapolis-St Paul weather for

[4] Petition, Page 6 and Attachment A, page 2 of 8.

estimating the design day as those models exhibited a stronger goodness of fit when compared to the geographically separate models that relied on different weather station data.[5]

Greater Minnesota used historical daily consumption data from the 2017-2018, 2018-2019, and 2019-2020 heating seasons in its analysis, with the exception of November months, as November usage tends to exhibit high variability due to grain drying customers.[6] Greater Minnesota explained in its Petition that its regression analyses are based on a 90 heating degree day (HDD) average design-day temperature for its planning objective. Greater Minnesota's regression model resulted in estimated design-day consumption for the 2020-2021 heating season, inclusive of customer additions, of 15,059 Dth/day. The Company's regression model output, based solely on historical data, results in a design-day estimate of 14,054 Dth/day for the 2020-2021 heating season. The discrepancy in the design-day throughput figures is in the use per customer. Instead of using the estimated design-day use per customer of 1.4447 Dth/day, the Company estimated its design-day by using the actual UPC, adjusted for 90 HDD, that was observed from the 2019-2020 heating season, which was 1.5480 Dth/day. It appears that the Company's decision to use the adjusted, actual use per customer from the 2019-2020 was driven by its decision to use the actual use per customer from the previous heating season (2018-2019) in last year's demand entitlement filing. It appears that Greater Minnesota mistakenly assumed that peak day consumption from the preceding heating season, regardless of temperature, represents the most appropriate method to estimate peak day consumption. However, as discussed further below, the Department supports calculations based on the UPC from the 2018-2019 heating season to estimate peak day consumption. The consumption data from the 2018-2019 heating season represents the Company's all-time peak day send and occurred on a day with weather conditions near the 90 HDD planning objective. This approach results in a more conservative design-day estimate, which appears necessary given Greater Minnesota's low reserve margin.

As noted above, in previous demand entitlement filings, the Department discussed various concerns with the strict use of linear regression to estimate design-day consumption for the Greater Minnesota system. Greater Minnesota is a small gas utility and can be significantly impacted by customer growth and changes in the make-up of its customer base. These issues, both unexpected customer growth and changes in customer base, have occurred in the recent past; as such, the Department has consistently recommended, and the Commission has required, that Greater Minnesota continue to include a mathematical design-day calculation in its demand entitlement analysis.

The use of a mathematical analysis, as an accuracy check, continues to be important, given the nature of GMG's operation and relatively small size, as well as the changes to its estimation process over the past heating seasons. The mathematical analysis uses firm use per customer on an all-time peak day multiplied by the projected number of firm customers in the upcoming heating season. The mathematical method is simple, easy to calculate, and is based on an actual, historical peak day. However, as it is based on an actual event (regardless of temperatures on that peak day), temperatures on the all-time peak day might not correspond with an exceptionally cold day. Further,

[5] Petition, Attachment A, page 2 of 8, compared to Attachment A, pages 3-5 of 8.
[6] Petition, Page 4.

if the all-time peak day happened years in the past, consumption on a present peak day may not be the same due to changes in technology and other factors affecting energy use. However, Greater Minnesota's peak day occurred on January 29, 2019 at 88 HDD, which also became the Company's new all-time peak day. This all-time peak day is in the recent past, and near the Company's 90 HDD planning objective, so the usage data from this day remains relevant when examining peak-day sendout in this proceeding.

Using the use-per-customer from Greater Minnesota's all-time peak day (1.603 Dth/customer), adjusted for consumption on a 90 HDD planning objective, and expected firm customer counts for the 2020-2021 heating season, the mathematical approach results in an estimated design-day of 15,590 Dth/day. This number is 551 Dth/day, or 3.5 percent, greater than Greater Minnesota's estimated result (15,059 Dth/day) based on its regression analysis. Of particular concern, the result using these assumptions is only 18 Dth/day less than the proposed total entitlement procured by the Company (15,608 Dth), which suggests that the Company has sufficient entitlements to serve firm customers but it has essentially no reserve margin for its whole system. Since the mathematical approach is based on relatively new data, the Department concludes that the mathematical calculation represents the most appropriate method of estimating the design-day in this proceeding.

In past demand entitlement filings,[7] the Commission was concerned regarding the accuracy of Greater Minnesota's estimate of customer additions, such that the accuracy of the design-day calculation could be called into question. In particular, if the Company overstates its projected customer additions, then it follows that it will overestimate design-day requirements. To the extent that these customer additions are over-projected to a point where a utility must procure additional capacity, it will result in demand costs that are too high. Furthermore, if the Company understates its projected customer additions, it may result in a situation where Greater Minnesota does not have sufficient capacity to serve firm customers on a peak day. Given these concerns, the Commission required Greater Minnesota to provide monthly compliance filings detailing customer additions in its Order in Docket No. G022/M-16-522.

In an effort to determine whether Greater Minnesota's projected customer additions are reasonable, the Department compared forecasted customer additions from last year's demand entitlement filing to actual customer additions provided in this demand entitlement. The customer count analysis is particularly important in this proceeding given the lack of a reserve margin as noted above. In last year's filing, Greater Minnesota forecasted that the customer additions during the 2019-2020 heating season would be 589, which is 27 customers greater than the 562 actual additions. Thus, the Company's 2019-2020 customer additions were approximately 4.80 percent lower than forecasted. Greater Minnesota forecasts adding 665 firm customers for the upcoming heating season, an approximately 7.34 percent increase. The average increase in customer base over the previous five heating seasons for the Company has been approximately 9.27 percent; however, the Department notes that over the past three years average growth has been steady at between 7 and 7.5 percent. The Department analyzed the Company's recent customer count forecasts in previous demand entitlement filings and did not observe a bias toward over- or under-forecasting firm customer

[7] See Docket Nos. G022/M-15-285 and G022/M-16-522.

additions. As such, given the fact that the forecasted customer growth is similar to what has occurred over the past three years, the Department concludes that Greater Minnesota's customer growth projection for the 2020-2021 heating season, as forecasted in March 2020, is not unreasonable.

The Department also reviewed information from Greater Minnesota's monthly customer count compliance filings in Docket No. G022/M-16-522. The monthly firm customer counts between March 2020 and August 2020 are presented in Table 3 below.

Table 3: Monthly Firm Customers

Monthly	Firm Customer Count	Monthly Change
March 2020	9,089	N/A
April 2020	9,089	0
May 2020	9,090	1
June 2020	9,103	13
July 2020	9,191	88
August 2020	9,265	74
Total Additions through August 2020		176

As noted above, Greater Minnesota forecasted 665 customer additions for the upcoming heating season. The information in the monthly compliance filings suggests slow customer growth during Summer 2020; however, the Department notes that the Company added only 128 firm customers during the same time period in 2019, when it ultimately added 562 customers last year.[8] If customer additions in Fall 2020 are similar to customer additions in Fall 2019, it is possible that the Company's total number of customers during the heating season will be close to its forecasted number included in the design-day analysis. Given the Department's concerns regarding the Company's overall design-day figure, and resulting reserve margin, the Department issued informal discovery requesting information regarding customer additions and Greater Minnesota's procurement plan for the upcoming heating season. Greater Minnesota responded that it does not plan to make any changes to its proposed entitlement level. The Company further responded that there have been slowing customer additions, primarily resulting from new construction slowing as a result of the coronavirus pandemic.[9]

The Department appreciates Greater Minnesota's discovery response and additional information regarding its expected customer growth heading into the upcoming heating season. If the Company's observations are accurate, and new customer additions are lower relative to the proposed customer forecast, then this will improve Greater Minnesota's reliability position going into the heating season. However, as noted above, the current level of customer additions in 2020 exhibits a similar pattern to what occurred in 2019.

[8] See April 2019 Compliance Filing (8,522 firm customers), September 2019 Compliance Filing (8,650 firm customers), and February 2020 Compliance Filing (9,072 firm customers), Docket No. G022/M-16-522.
[9] Department Attachment 3.

If Greater Minnesota adds the same number of customers (approximately 400) between August 2020 and January 2021 that it did during the same period in 2019, the Company will enter the coldest part of the heating season with approximately 9,650 customers. Using Greater Minnesota's all-time peak day sendout of 1.603 Dth/customer, this results in a total potential design day of approximately 15,470 Dth/day and a reserve margin of approximately 0.9 percent. On the other hand, if customer additions have slowed significantly, it is possible that Greater Minnesota will enter the coldest part of the heating season with approximately 9,400 customers. In this case, the Company would have a potential design day of approximately 15,070 Dth/day and a reserve margin of approximately 3.5 percent.

Based on its analysis, the Department concludes that Greater Minnesota's design-day analysis, particularly its regression models and mathematical approach, is acceptable. However, the Company's decision to use throughput assumptions from the 2019-2020 heating is inappropriate and likely will result in under-forecasted firm consumption in the event of a 90 HDD peak day. As described above, the use of throughput assumptions from the 2018-2019 heating, which represented the Company's all-time peak sendout that occurred on a day with weather conditions near the 90 HDD planning objective, is the most appropriate method of estimating firm consumption on 90 HDD peak day. The Department is concerned that Greater Minnesota's resulting reserve margin, when the issue of peak-day consumption is corrected, is too low. The Department discusses this in greater detail in Section II.C below.

C. RESERVE MARGIN

As indicated in Greater Minnesota's filing, the reserve margin, as proposed by the Company, is as follows:

Table 4: Greater Minnesota Reserve Margin

Total Entitlement (Dth)	Design-day Estimate (Dth)	Difference (Dth)	Reserve Margin %	2019-2020 Proposed Reserve Margin	2018-2019 Proposed Reserve Margin
15,608	15,056	552	3.70%	7.24%	11.06%

The figures in the above table include design-day estimates from the Company's regression models and its mathematical analysis. Greater Minnesota's proposed reserve margin is based on the peak sendout experienced during the 2019-2020 heating season.[10] The Department makes two observations regarding the Company's reserve margin. First, Greater Minnesota's reserve margin has decreased steadily over the past three demand entitlement petitions. Second, the Company's use of the peak sendout from the last heating season may result in an under-estimation of firm usage on 90 HDD peak day because it is based on a day with weather significantly warmer (75 HDD) than the planning objective. It appears that Greater Minnesota was aware of this fact because it also included a design-day estimate based on the Company's all-time peak sendout, which occurred

[10] Petition, Page 6.

recently during the 2018-2019 heating season.[11] When the Company modeled peak-day use based on data from the all-time peak sendout, it resulted in use per customer of 1.603 Dth/day and the following design-day results:

Table 5: Greater Minnesota Reserve Margin Based on 2018-2019 Heating Season Data

Total Entitlement (Dth)	Design-day Estimate (Dth)	Difference (Dth)	2020-2021 Proposed Reserve Margin %	2019-2020 Proposed Reserve Margin	2018-2019 Proposed Reserve Margin
15,608	15,590	18	0.10%	7.24%	11.06%

The Department reviewed Greater Minnesota's analysis and concludes that a design-day analysis based on the sendout from 2018-2019, which represented the Company's all-time peak day sendout, is the most appropriate estimate of firm consumption on a 90 HDD planning objective. Greater Minnesota's all-time sendout occurred recently, during the 2018-2018 heating, and at temperatures (88 HDD) near the planning objective; as such, this information remains relevant and appropriate when estimating design-day use. The reserve margin is necessary as it provides an extra cushion that helps ensure firm reliability on a peak day; however, in terms of the Company's current proposal, the Department is concerned that this cushion is insufficient to ensure firm reliability on a peak day because any deviation (*e.g.,* higher than expected use, customer additions above forecast) from Greater Minnesota's projections may result in a situation where design-day consumption exceeds available capacity.

Historically, Greater Minnesota's reserve margins have been greater than 5 percent. The Department has generally used a 5 percent reserve margin as an indicator of adequacy; however, for Greater Minnesota, the Department has recommended, in previous demand entitlement filings, that the Commission accept higher reserve margins given the system dynamics, the higher level of growth experienced by this utility, and the fact that Greater Minnesota is a small utility with limited operational history.[12] The Company explained in its Petition that it decided to pursue a lower reserve for the upcoming heating season given potential impacts to customers as a result of economic conditions.[13] Although the Department is sympathetic to Greater Minnesota's decision to control costs, especially in light of current conditions, it is important that cost control decisions do not jeopardize reliability on a peak day. The Department believes that Greater Minnesota's decision to procure less capacity than appears warranted was based in part on its mistaken assumption that its proposed reserve margin would be 3.7 percent. However, the 3.7 percent reserve margin is based on design-day consumption derived from peak sendout from the 2019-2020 heating season, rather than the Company's all-time peak sendout from the 2018-2019 heating season.

[11] Petition, Page 6.
[12] The Department notes that the issue of limited operational history has become less of concern now that the Company's system has experienced the weather during the 2018-2019 heating season.
[13] Petition, Page 3.

As suggested in the Department's customer count analysis in Section II.B above, it appears that Greater Minnesota's effective reserve margin for the upcoming heating season will hinge on the number of customers added prior to the coldest part of the heating season. If customer additions reach the Company's originally filed forecast, or approximate customer additions during the last part of 2019, then Greater Minnesota's reserve margin is too low. However, if the Company's implication from its discovery response is accurate, and there has been a significant slowdown in customer growth,[14] then Greater Minnesota's reserve margin may be on the low-end of acceptable for the Company but is likely sufficient to ensure firm customer reliability on a peak day.

The Department concludes that Greater Minnesota's total entitlement level, and associated reserve margin, as proposed, is too low and risks firm reliability on a 90 HDD peak day, which is the Company's planning objective. If consumption holds as forecasted by the Company, and Greater Minnesota adds customers at the rate forecasted for the 2020-2021 heating season, there is effectively no reserve margin for the Greater Minnesota system. Greater Minnesota suggested in its response to informal discovery that customer growth has slowed as a result of the pandemic, but the Department is unable to independently confirm this statement. The Department recommends that Greater Minnesota consider purchasing additional entitlements in preparation for the upcoming heating season or provide additional discussion in its reply comments substantiating its consumption figures or showing that customer additions are lower than previously forecasted. The Company explained in discovery that it does not intend to purchase additional capacity prior to the heating season. The Department notes that it is Greater Minnesota's responsibility to provide reliable firm service on a peak day.

D. THE COMPANY'S PGA COST RECOVERY PROPOSAL

The demand entitlement amounts listed in Department Attachment 2 represent the demand entitlements for which the Company's firm customers have paid since April 1, 2020. In Attachment D, page 1 of 5 to its Petition, the Company compared its March 2020 PGA to its expected April 2020 PGA with the Company's proposed changes as a means of calculating the bill impact. According to the Company, Greater Minnesota's demand entitlement proposal would result in the following annual rate impacts:

- Annual bill decrease of $2.67, or approximately 2.51 percent, for the average Residential customer consuming 80.0 Dth annually; and
- Annual bill decrease of $18.95, or approximately 2.51 percent, for the average Commercial and Industrial Firm customer consuming 567.5 Dth annually.

Despite the issues identified in Sections II.B and II.C above, the Department recommends that the Commission allow recovery of associated demand costs effective April 1, 2020 through the monthly PGA since these entitlements are necessary to serve firm need.

[14] Department Attachment 3.

III. THE DEPARTMENT'S RECOMMENDATIONS

The Department recommends that the Commission allow Greater Minnesota to recover demand costs associated with the Company's entitlements through the monthly Purchased Gas Adjustment effective April 1, 2020.

The Department also recommends that Greater Minnesota consider purchasing additional entitlements in preparation for the upcoming heating season or provide additional discussion in its reply comments substantiating its consumption figures or showing that customer additions are lower than previously forecasted.

The Department recommends that the Commission continue to require Greater Minnesota to include the following in future demand entitlement filings:

- Use a constant annual average residential usage estimate based on weather normalized sales for the purpose of estimating customer rate impact;
- Perform separate regression analyses by service area, using area-specific weather stations;
- Estimate its design day using data from at least 3 heating seasons when appropriate. If the results of these calculations are not acceptable, the Department recommends that the Company fully explain its decision to use a shorter estimation period in its initial filing; and
- Maintain, on a going-forward basis, a two-part design-day process involving both regression analysis and mathematical analysis based on the Company's historical all-time peak-day send-out.

/ar

Department Attachment 1
Details of Greater Minnesota Gas's Demand Entitlements Historical and Current Proposal

2016-2017 Heating Season (FINAL)	Quantity (Mcf)	Change in Quantity
TF-7 (Apr.-Oct.)	0	0
TF12 (Nov.-Oct.)	710	500
TFX-5 (Nov.-Mar.)	0	0
TFX-5 (Nov.-Mar.)	6,344	0
Viking Zone 1	2,000	0
Delivery Contract	0	0
Non-Recallable Capacity Release	2,600	0
TFX (Apr. and Oct.)	665	0
Viking Forward Haul	1,200	0
TF5 (Nov.-Mar.)	90	0
Viking Forward Haul/Emerson	1,400	0
SMS	2,000	0
Total Demand Entitlement	13,009	500
Total Transportation	15,009	500
Total Annual Transportation		0
Total Seasonal Transport	15,009	500
Percent Annual on Greater Minnesota System	0.00%	0.00%
Percent Seasonal on Greater Minnesota System	100.00%	0.00%

2017-2018 Heating Season (FINAL)	Quantity (Mcf)	Change in Quantity
TF-7 (Apr.-Oct.)	0	0
TF12 (Nov.-Oct.)	710	0
TFX-5 (Nov.-Mar.)	0	0
TFX-5 (Nov.-Mar.)	6,344	0
Viking Zone 1	2,000	0
FT-1 Viking	2,200	2,200
Non-Recallable Capacity Release	0	2,600
TFX (Apr. and Oct.)	665	0
Viking Forward Haul	1,200	0
TF5 (Nov.-Mar.)	90	0
Viking Forward Haul/Emerson	1,400	0
SMS	2,000	0
Total Demand Entitlement	12,609	(400)
Total Transportation	12,609	(2,400)
Total Annual Transportation		0
Total Seasonal Transport	12,609	(2,400)
Percent Annual on Greater Minnesota System	0.00%	0.00%
Percent Seasonal on Greater Minnesota System	100.00%	0.00%

2018-2019 Heating Season (FINAL)	Quantity (Mcf)	Change in Quantity
TF-7 (Apr.-Oct.)	0	0
TF12 (Nov.-Oct.)	1,210	500
TFX-5 (Nov.-Mar.)	0	0
TFX-5 (Nov.-Mar.)	6,344	0
Viking Zone 1	2,000	0
FT-1 Viking	3,200	1,000
TFX (Apr. and Oct.)	665	0
Viking Forward Haul	1,200	0
TFX5 (Nov.-Mar.)	90	0
Viking Forward Haul/Emerson	1,400	0
SMS	2,500	500
Total Demand Entitlement	14,109	1,500
Total Transportation	14,109	1,500
Total Annual Transportation		0
Total Seasonal Transport	14,109	1,500
Percent Annual on Greater Minnesota System	0.00%	0.00%
Percent Seasonal on Greater Minnesota System	100.00%	0.00%

2019-2020 Heating Season (FINAL)	Quantity (Mcf)	Change in Quantity
TF-7 (Apr.-Oct.)	0	0
TF12 (Nov.-Oct.)	2,017	807
TFX-5 (Nov.-Mar.)	349	349
TFX-5 (Nov.-Mar.)	6,344	0
Viking Zone 1	2,000	0
FT-1 Viking	3,200	0
		0
TFX (Apr. and Oct.)	665	0
Viking Forward Haul	1,200	0
TFX5 (Nov.-Mar.)	90	0
Viking Forward Haul/Emerson	1,400	0
SMS	2,500	0
Total Demand Entitlement	15,265	1,156
Total Transportation	15,265	1,156
Total Annual Transportation		0
Total Seasonal Transport	15,265	1,156
Percent Annual on Greater Minnesota System	0.00%	0.00%
Percent Seasonal on Greater Minnesota System	100.00%	0.00%

2020-2021 Heating Season	Quantity (Mcf)	Change in Quantity
TF-7 (Apr.-Oct.)	0	0
TF12 (Nov.-Oct.)	2,350	333
TFX-5 (Nov.-Mar.)	349	0
TFX-5 (Nov.-Mar.)	6,344	0
Viking Zone 1	2,000	0
FT-1 Viking	3,200	0
		0
TFX (Apr. and Oct.)	665	0
Viking Forward Haul	1,200	0
TFX5 (Nov.-Mar.)	90	0
Viking Forward Haul/Emerson	1,400	0
SMS	2,500	0
Total Demand Entitlement	15,598	333
Total Transportation	15,598	333
Total Annual Transportation		0
Total Seasonal Transport	15,598	333
Percent Annual on Greater Minnesota System	0.00%	0.00%
Percent Seasonal on Greater Minnesota System	100.00%	0.00%

Department Attachment 2
Details of Greater Minnesota Gas's Demand Entitlements Historical and Current Proposal

	Number of Firm Customers			Design Day Requirement			Total Entitlement + Peak Shaving + Peak Shaving			Reserve Margin
	(1)	(2)	(3)	(4)	(5)	(6)	2016-2017 Heating Season	(8)	(9)	(10)
Heating Season	Number of Design Day Customers	Change from Previous Year	% Change From Previous Year	Design Day (Mcf)	Change from Previous Year	% Change From Previous Year	Total Entitlement (Mcf)	Change from Previous Year	% Change From Previous Year	% of Reserve Margin [(7)-(4)]/(4)
2020-2021^	9,728	665	7.34%	15,590	1,346	9.45%	15,608	333	2.18%	0.12%
2020-2021	9,728	665	7.34%	15,059	815	5.72%	15,608	333	2.18%	3.65%
2019-2020	9,063	562	6.61%	14,244	1,540	12.12%	15,275	1,166	8.26%	7.24%
2018-2019	8,501	591	7.47%	12,704	755	6.32%	14,109	1,500	11.90%	11.06%
2017-2018	7,910	532	7.21%	11,949	1,131	10.45%	12,609	(400)	-3.07%	5.52%
2016-2017	7,378	735	11.06%	10,818	(308)	-2.77%	13,009	500	4.00%	20.25%
2015-2016	6,643	791	13.52%	11,126	2,157	24.05%	12,509	2,850	29.51%	12.43%
2014-2015	5,852	547	10.31%	8,969	52	0.58%	9,659	100	1.05%	7.69%
2013-2014	5,305	531	11.12%	8,917	3,953	79.63%	9,559	4,350	83.51%	7.20%
2012-2013	4,774	558	13.24%	4,964	514	11.55%	5,209	165	3.27%	4.94%
2011-2012	4,216	296	7.55%	4,450	0	0.00%	5,044	0	0.00%	13.35%
2010-2011	3,920	198	5.32%	4,450	239	5.68%	5,044	500	11.00%	13.35%
2009-2010	3,722	162	4.55%	4,211	(71)	-1.66%	4,544	300	7.07%	7.91%
2008-2009	3,560	182	5.39%	4,282	566	15.23%	4,244	244	6.10%	-0.89%
2007-2008	3,378	170	5.30%	3,716	166	4.68%	4,000	350	9.59%	7.64%
2006-2007	3,208	237	7.98%	3,550	583	19.65%	3,650	350	10.61%	2.82%
2005-2006	2,971	290	10.82%	2,967	270	10.01%	3,300	300	10.00%	11.22%
2004-2005	2,681	336	14.33%	2,697	697	34.85%	3,000	600	25.00%	11.23%
2003-2004	2,345	181	8.36%	2,000	(200)	-9.09%	2,400	(200)	-7.69%	20.00%
2002-2003	2,164	300	16.09%	2,200	400	22.22%	2,600	400	18.18%	18.18%
2001-2002	1,864	301	19.26%	1,800	400	28.57%	2,200	500	29.41%	22.22%
2000-2001	1,563	393	33.59%	1,400	300	27.27%	1,700	300	21.43%	21.43%
1999-2000	1,170	279	31.31%	1,100	250	29.41%	1,400	150	12.00%	27.27%
1998-1999	891	289	48.01%	850	350	70.00%	1,250	750	150.00%	47.06%
1997-1998	602	339	128.90%	500	200	66.67%	500	200	66.67%	0.00%
1996-1997	263	263		300	300		300	300		
Average Change Per Year:			18.11%			19.63%			21.25%	12.62%

Firm Peak Day Sendout

Heating Season *	(11) Firm Peak Day Send out (Mcf)	Change from Previous Year	% Change From Previous Year	Excess per Customer [(7) - (4)]/(1)	Design Day per Customer (4)/(1)	Entitlement per DD Customer (7)/(1)	Peak Day Sendout per DD Customer (11)/(1)
2020-2021^				0.0019	1.6026	1.6044	
2020-2021				0.0564	1.5480	1.6044	
2019-2020	11,689	(1,634)	-12.26%	0.1138	1.5717	1.6854	1.2897
2018-2019	13,323	2,963	28.60%	0.1653	1.4944	1.6597	1.5672
2017-2018	10,360	1,114	12.05%	0.0834	1.5106	1.5941	1.3097
2016-2017	9,246	(249)	-2.62%	0.2970	1.4663	1.7632	1.2532
2015-2016	9,495	1,126	13.45%	0.2082	1.6748	1.8830	1.4293
2014-2015	8,369	489	6.21%	0.1179	1.5326	1.6505	1.4301
2013-2014	7,880	2,855	56.82%	0.1210	1.6809	1.8019	1.4854
2012-2013	5,025	1,368	37.41%	0.0513	1.0398	1.0911	1.0526
2011-2012	3,657	(248)	-6.35%	0.1409	1.0555	1.1964	0.8674
2010-2011	3,905	251	6.87%	0.1515	1.1352	1.2867	0.9962
2009-2010	3,654	(374)	-9.29%	0.0895	1.1314	1.2208	0.9817
2008-2009	4,028	(72)	-1.76%	(0.0107)	1.2028	1.1921	1.1315
2007-2008	4,100	550	15.49%	0.0841	1.1001	1.1841	1.2137
2006-2007	3,550	738	26.24%	0.0312	1.1066	1.1378	1.1066
2005-2006	2,812	285	11.28%	0.1121	0.9987	1.1107	0.9465
2004-2005	2,527	185	7.90%	0.1130	1.0060	1.1190	0.9426
2003-2004	2,342	587	33.45%	0.1706	0.8529	1.0235	0.9987
2002-2003	1,755	747	74.11%	0.1848	1.0166	1.2015	0.8110
2001-2002	1,008	(180)	-15.15%	0.2146	0.9657	1.1803	0.5408
2000-2001	1,188	291	32.44%	0.1919	0.8957	1.0877	0.7601
1999-2000	897	95	11.85%	0.2564	0.9402	1.1966	0.7667
1998-1999	802	397	98.02%	0.4489	0.9540	1.4029	0.9001
1997-1998	405	233	135.47%	0.0000	0.8306	0.8306	0.6728
1996-1997	172	172		0.0000	1.1407	1.1407	0.6540
Average Change Per Year:			24.36%	0.1357	1.1941	1.3298	1.0461

^ Department corrected values.

From: Kristine Anderson
To: Heinen, Adam (COMM)
Subject: RE: Design Day Files
Date: Wednesday, September 30, 2020 9:03:56 AM
Attachments: image001.png

Good morning, Adam,

GMG does not plan to make any changes to its currently proposed entitlement. We believe that the current plan is sufficient. There has been some slowing in customer additions, primarily resulting from new builds slowing as a result of the pandemic. We are confident in our plan, even given the current pandemic-related issues. Thanks for checking in!

Kristine

From: Heinen, Adam (COMM) <adam.heinen@state.mn.us>
Sent: Friday, September 25, 2020 8:58 AM
To: Kristine Anderson <kanderson@greatermngas.com>
Subject: RE: Design Day Files

No worries, thank you! Also, I am reviewing your petition and I am a little concerned regarding your total entitlement level going into the heating season. Do you know whether you guys plan on procuring any additional entitlements going into the heating season or whether forecasted customer additions are on target or have slowed down due to the coronavirus?

Adam Heinen
Public Utilities Rates Analyst
651-539-1825
mn.gov/commerce
Minnesota Department of Commerce
85 7th Place East, Suite 280 | Saint Paul, MN 55101

From: Kristine Anderson <kanderson@greatermngas.com>
Sent: Friday, September 25, 2020 8:52 AM
To: Heinen, Adam (COMM) <adam.heinen@state.mn.us>
Subject: RE: Design Day Files

Here you go, Adam. Sorry about the delay. I had to connect with our guy and we have been on different schedules. Thanks! Have a good weeknd!

Kristine

From: Heinen, Adam (COMM) <adam.heinen@state.mn.us>
Sent: Tuesday, September 15, 2020 10:06 AM
To: Kristine Anderson <kanderson@greatermngas.com>
Subject: Design Day Files

Could you please send me all of the files and information necessary to replicate the Company's analysis in this year's demand entitlement? If you have any questions, let me know. Thanks!

Adam Heinen
Public Utilities Rates Analyst
651-539-1825
mn.gov/commerce
Minnesota Department of Commerce
85 7th Place East, Suite 280 | Saint Paul, MN 55101

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

Minnesota Department of Commerce
Comments

Docket No. G022/M-20-391

Dated this **8th** day of **October 2020**

/s/Sharon Ferguson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Kristine	Anderson	kanderson@greatermngas.com	Greater Minnesota Gas, Inc.& Greater MN Transmission, LLC	1900 Cardinal Lane PO Box 798 Faribault, MN 55021	Electronic Service	No	OFF_SL_20-391_M-20-391
Cody	Chilson	cchilson@greatermngas.com	Greater Minnesota Gas, Inc. & Greater MN Transmission, LLC	1900 Cardinal Ln PO Box 798 Faribault, MN 55021	Electronic Service	No	OFF_SL_20-391_M-20-391
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_20-391_M-20-391
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_20-391_M-20-391
Brian	Gardow	bgardow@greatermngas.com	Greater Minnesota Gas, Inc. & Greater MN Transmission, LLC	1900 Cardinal Ln PO Box 798 Faribault, MN 55021	Electronic Service	No	OFF_SL_20-391_M-20-391
Nicolle	Kupser	nkupser@greatermngas.com	Greater Minnesota Gas, Inc. & Greater MN Transmission, LLC	1900 Cardinal Ln PO Box 798 Faribault, MN 55021	Electronic Service	No	OFF_SL_20-391_M-20-391
Greg	Palmer	gpalmer@greatermngas.com	Greater Minnesota Gas, Inc. & Greater MN Transmission, LLC	1900 Cardinal Ln PO Box 798 Faribault, MN 55021	Electronic Service	No	OFF_SL_20-391_M-20-391
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_20-391_M-20-391
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th Pl E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_20-391_M-20-391