

I. Statement of the Issues

Should the Commission approve Great Plains' proposed demand entitlement levels and cost changes?

II. Introduction

Great Plains has various interstate pipeline transportation contracts (demand entitlements) to transport its natural gas supply for retail services to its customers. As a result, each year Great Plains reviews and updates these contracts as needed to assure continued reliability of firm natural gas supply deliveries to its customers.

Demand entitlements refer to the reservations Local Distribution Companies (LDC) have for the use of interstate natural gas pipeline capacity and services needed to store and transport the natural gas supply. The costs of these contracts are recovered through the LDC's base cost of gas and changes between rate cases are recovered through the LDC's PGA.

Great Plains in this annual demand entitlement petition requests Commission approval for capacity changes in these interstate pipeline transportation entitlements, certain demand-related contract costs and to implement the rate impact of these changes through its Purchased Gas Adjustment¹ (PGA) charges effective November 1, 2020.

The Department recommends the Commission accept Great Plains' proposed level of demand entitlement and allow Great Plains to recover associated demand costs through the monthly Purchased Gas Adjustment effective November 1, 2020.

This is the fourth Petition in which the Great Plains' South District and North District (PGA rate areas) were combined based on the Commission's Order in Great Plains 2015 rate case.² Great Plains' customers are supplied natural gas through Viking Gas Transmission Company (VGT) pipeline in the North District and Northern Natural Gas Company (NNG or Northern) pipeline in the South District.

III. Background

On July 1, 2020, Great Plains filed its annual Demand Entitlement Petition requesting Commission approval to change levels of demand for natural gas pipeline capacity and recovery of associated costs for the 2020 – 2021 heating season.

¹ The Purchased Gas Adjustment is a mechanism used by regulated utilities to recover its cost of energy. Minn. Rules 7825.2390 through 7825.2920 enable regulated gas and electric utilities to adjust rates on a monthly basis to reflect changes in its cost of energy delivered to customers based upon costs authorized by the Commission in the utility's most recent general rate case.

² See the Commission's September 6, 2016 Order in Docket No. 15-879, Findings of Fact, Conclusions, and Order, pp. 44-46 and Ordering Point 29, p. 57.

The Department of Commerce, Division of Energy Resources (Department) on September 30, 2020, filed Comments, and stated that the results produced by Great Plains' analysis are acceptable for planning the design--day, however it would wait and provide to the Commission its final recommendations after Great Plains filed its November 1, 2020, update.

On October 6, 2020, Great Plains filed Reply Comments accepting the Department's assessment of the Company's proposed demand entitlement levels used for planning its design- day.

Great Plains filed its Informational Update on October 30, 2020, which showed the Company's final demand entitlement volumes and costs that would be charged to ratepayers. Great Plains noted that there were changes to the capacity releases since its petition of July 1, 2020.

On March 4, 2021, the Department filed Supplemental Comments and recommended the Commission approve Great Plains' proposed level of demand entitlement, as amended, and allow recovery of associated demand costs.

On March 5, 2021, Great Plains filed Reply to the Department's Supplementary Comments accepting the Department's recommendations.

IV. Minnesota Rules

Minnesota Rule, part 7825.2910, subpart 2, requires gas utilities to make a filing whenever there is a change to demand-related entitlement services provided by a supplier or transporter of natural gas.³

V. Parties' Comments

A. Great Plains

Great Plain petitioned the Commission for approval of a 200 Dekatherm (Dk or Dth) per day decrease from 2,200 Dk to 2,000 Dk in its expected capacity release for forward haul on Vikings Gas Transmission Company (Viking or VGT) system. This would result in a capacity increase of 200 Dk/day on the VGT for the 2020-2021 heating season over the available capacity in 2019 - 2020 heating season.

³ Minn. Rules, part 7825.2910, subp. 2. Filings by Gas Utilities. Filing upon change in demand. Gas utilities shall file for a change in demand to increase or decrease demand, to redistribute demand percentages among classes, or to exchange one form of demand for another. A filing must contain:

- A. a description of the factors contributing to the need for changing demand;
- B. the utility's design-day demand by customer class and the change in design-day demand, if any, necessitating the demand revision;
- C. a summary of the levels of winter versus summer usage for all customer classes; and
- D. a description of design-day gas supply from all sources under the new level, allocation, or form of demand.

Minn. Rules, part 7825.2400, subp. 13a. Definitions. Demand. "Demand" means the maximum daily volumes of gas that the utility has contracted with a supplier or transporter to receive.

Further, Great Plains proposes to decrease the amount of NNG capacity by 900 Dk/day. This decrease in capacity to customers served off Northern involves shifting the capacity from supplemental capacity to direct capacity, which in the past was used to support backhaul transportation for Great Plains' customers that were served off Viking pipeline.

Great Plain's demand entitlement levels showing capacity held by VGT and NNG pipelines, as extracted from Great Plains petition, Exhibit B, Page 1 is shown in Figure 1, below:

Figure 1: Great Plain' Demand Entitlement Levels

Pipeline Type	Previous Capacity (Dk) 2019-2020	Proposed Capacity (Dk) 2020-2021
Viking	17,800	18,000
NNG	19,145	18,245
Total	36,945	36,245

Also, Great Plains in the initial petition projected a Reserve Margin of 6.85% for the 2020-2021 heating season but this calculation was updated in its Supplementary information to 9.50%⁴ based on its winter design day (DD) estimated requirement of 33,922 Dk.

Great Plains indicated its compliance with the Commission's April 27, 2020 Order No. 5 in Docket No. G-004/M-19-430 to Commission Order requiring Great Plains to conduct for the present Petition, a design day analysis based on daily data and compare the results to its current design-day method.

B. Department

The Department reviewed and analyzed the reasonableness of Great Plains' proposed demand entitlement changes, design day requirements, compliance with Docket 19-430 Commission Order, reserve margins, and PGA cost recovery proposal.

The Department also requested Great Plains in its Supplemental update on November 1, 2020, to provide a comparison to the October PGA instead of the July PGA and including update of calculations in next demand entitlement filing to reflect the Commission's decisions in the rate case in Docket No. G004/GR-19-511.⁵

According to the Department, Great Plains proposes to release excess capacity of 2,900 Dk/day, out which 2,000 Dk/day relate to Viking Gas Transmission (VGT) pipeline and 900 Dk/day relate to Northern Natural Gas (NNG) pipeline. Great Plains notes that the 2,000 Dk capacity release on VGT has been contracted to a buyer at the rate of \$3.9200 per Dk for the period November 2020 to March 2021. However, there has not been any buyer for the 900 Dk capacity on NNG.

⁴ Great Plains' Informational Update, exhibit A, p. 1 of 1.

⁵ Department's Supplementary Comments, p. 5.

The Company intends to continue to post the release on NNG's electronic bulletin board for bids throughout the heating season.

The Department performed its analysis of Great Plains' proposal to change its demand entitlements levels as described below. Overall, staff reviewed this docket's record and does not view the Department's conclusions and recommendations as unreasonable.

1. Great Plains' Proposed Changes to Overall Entitlement Levels

Figure 2 below depicts Great Plains' proposed entitlement levels for VGT and NNG. Vikings' entitlement level is 18,000 Dk and NNG' entitlement level is 18,245 Dk. Also, figure 2 shows the percentage of change between current period and the proposed period (2020-2021 winter season).

Figure 2: Great Plains Total Demand Entitlement Levels

November 1, 2021	Current Entitlmt (Dk)	Proposed Entitlmt (Dk)	Entitlmt Level Changes (Dk)	% Change in Entitlmt Levels
Vikings (VGT)	17,800	18,000	200	1.12%
Northern (NNG)	19,145	18,245	(900)	(4.70%)
Total	36945	36,245	(700)	(1.89%)

The Department notes that there would be a decrease of 700 Dk on the overall demand entitlement level due to Great Plains' proposal, when compared to the current entitlement level. The Department observed that Great Plain is not acquiring any new capacity, but rather realigning its existing capacity with the proposed capacity releases.⁶

2. Design Day Requirements

The Department stated that Great Plains calculated a projected design-day (DD) requirement of 33,922 Dk/day, of which 16,576 Dk/day is for firm customers that receive natural gas from city gates interconnecting with Viking (VGT) and 17,436 Dk/day for firm customers on NNG system. The Department presents in figure 3 below, Great Plain' design-day levels as extracted from Great Plain' Petition, Exhibit A.⁷

Figure 3: Great Plains' Design-Day Levels

Supplemental Filing	Previous Design-Day (Dk)	Proposed Design-Day (Dk)	Design-Day Changes (Dk)	% Change from Previous Year
Crookston	3,603	3,673	70	1.94%
North 4	10,185	9,774	(411)	(4.03%)
Wahpeton	3,148	3,129	(19)	(0.61%)
Total VGT	16,936	16,576	(360)	(2.13%)

⁶ Department's Comments, p. 5.

⁷ Id.

Supplemental Filing	Previous Design-Day (Dk)	Proposed Design-Day (Dk)	Design-Day Changes (Dk)	% Change from Previous Year
Total NNG	17,130	17,346	216	1.26%
Total	34,066	33,922	(144)	(0.42%)

Also, according to the Department, Great Plains used the same basic DD method in this docket that the Commission previously accepted in Docket No. G-004/M-03-303. In previous demand entitlement proceedings, both the Department and Commission Staff expressed concerns that Great Plains' design-day method might under-estimate the need for natural gas on a peak day for the South District and the North District.⁸

To allay these concerns, the Commission directed the Department and Great Plains to work together on developing a design-day analyses that would address the concerns raised by the Department. As result of the Commission's directive, Great Plains submitted a Compliance filing on June 27, 2012 in Docket No. G-004/M-10-1164, which provided further discussion and analysis of Great Plains' DD method using different scenarios (i.e. as filed 36 months, 36 winter months only and 60 winter months only)⁹ as requested by the Department. Thus, the Department reviewed Great Plains' compliance filing and stated that despite its expressed concerns above, "the Department believes the Company's design-day analysis does not appear to produce unreasonable results"¹⁰ And on this, the Commission agreed with the Department's conclusion that though concerns about sample size and changing weather patterns still exist, yet Great Plains' design-day methodology was acceptable since its results were not unreasonable.

Further, the Commission on June 8, 2018 issued its Order in Docket No. G-004/M-16-557 that stated the following:

Required Great Plains, in its future demand entitlement filings, to check the regression models it ultimately uses for autocorrelation, and correct the models if autocorrelation is present.

Thus, Great Plains in its next Demand Entitlement filing in Docket No. G-004/M-17-521 stated:

In addition, Great Plains monitored its data and regression models for the presence of autocorrelation and whether it has statistical significance to the projected design day requirement, as agreed to in Docket No. G-004/M-17-521.

⁸ The Department's concerns on this issue are discussed in detail in the following documents:

- the Department's July 2, 2008 Comments in Docket No. G004/M-07-1401;
- the Department's July 31, 2009 Comments in Docket No. G004/M-08-1306; and
- the Department's February 5, 2010 Comments in Docket No. G004/M-09-1262.

Commission Staff's concerns are discussed in detail in their September 9, 2010 Briefing Papers, which were contemporaneously submitted in each of these three dockets.

⁹ Department's Comments, p. 6.

¹⁰ Id.

While the results indicate autocorrelation is present, its effects are immaterial and Great Plains continues to support its current methodology, previously approved, as the modeling produces reasonable results.....

On serial correlation issue and its potential impact, the Department did not repeat the discussion offered previously in other dockets.¹¹ The Department notes that Great Plains partially complied with Commission Order in Docket No. G-004/M-17-557 by checking its models for autocorrelation, however, Great Plains did not correct the models for serial correlation. Additionally, the Department opined in the 2017 demand entitlement filing that “it does not believe Great Plains needs to purchase the statistical software for the sole purpose of addressing autocorrection in the Company’s models...” However, the Department would suggest corrections to the models for autocorrelation where appropriate. The Department’s corrected models result in a total system design-day estimate of 34,044 Dk/day.

Thus, the Department estimate is 122 Dk/day (GP’s DD of 33,922 Dk v. Department’s DD of 34,044 Dk), or 0.4%, greater than the Great Plains’ proposed design-day total system design-day estimate of 33,922 Dk/day, after correcting for autocorrelation.

The Department believes that given the small difference between its design-day estimates and Great Plains’ estimates, it is acceptable for Great Plains to use its models in planning for its design-day and suggests the Commission accept GP’s proposed design-day methodology for the 2020-2021 winter heating season.

3. Compliance with Commission’s 19-430 Order

Commission’s 19-430 Order directed Great Plains to conduct in this case, a design-day analysis based on daily data and compare the results to its current design-day method. Accordingly, Great Plains stated thus:¹²

In compliance with the Commission’s April 27, 2020 Order in Docket No. G004/M-19-430, Great Plains conducted a design-day analysis based on daily data. These results are compared to the current design day methodology, based upon monthly data, and are included on Exhibit E. The daily design methodology shows a design day peak of 32,742 dk compared to Great Plains’ currently approved method design day peak of 33,922 dk.

Several communities with large interruptible loads and small firm loads have seen sporadic gaps in data which impact the quality of data. Many of these same communities have only been collecting daily usage information since November of 2018. This also affects the quality and reliability of data to be used in the daily design methodology. As daily data is gathered and

¹¹ See the Department’s August 27, 2015 Comments in Docket No. G004/M-15-645 at pages 4-5, and November 10, 2016 Response Comments in Docket No. G004/M-16-557 at page 8, and the Department’s November 29, 2017, Comments in Docket No. G004/M-17-521 at pages 4-8.

¹² Great Plains’ Petition, p. 2.

analyzed further, Great Plains will continue to evaluate the merits of transitioning to use of daily measurement data for use in design day forecasting. The two methodologies yield reasonably consistent results demonstrating two effective approaches to calculating a design day.

Also, Great Plains originally in this filing planned to release 2,900 Dk/day of firm, winter only capacity on Vikings and on Northern. This prompted the Department in its comments to state as follows:

The Commission's Ordering point 5 of its 19-430 Order requires Great Plains to file in the instant Petition and November 1 Update and Supplemental filing:

- a detailed explanation of excess reserve capacity, any impediments to efforts being made to release the excess capacity, and the impact on the Reserve Margin for the 2020 – 2021 heating season.
- a detailed description of marketing efforts when capacity releases were offered, amounts and prices offered but not accepted, and amounts released along with the payments received for those release.

In its Informational Update, Great Plains stated that it had released 2000 Dk/day of Viking capacity and further stated the following:

Pursuant to the April 27, 2020 in Docket No. G-004/M-19-430, the Company has provided information regarding its efforts to release capacity. Great Plains utilized the electronic bulletin boards in its marketing efforts for the respective suppliers to post the proposed capacity releases for bids during October 2020. The 2,000 dk capacity release on VGT has been contracted to a purchaser at a rate of \$3.9200 per dk for the period November 2020 through March 2021. The 900 dk capacity release on NNG received no bids. Great Plains will continue to post this release to NNG's electronic bulletin board throughout the heating season in the hopes of a purchaser placing a bid. The NNG capacity release would impact Great Plains' reserve margin from its currently proposed 9.5% to 6.8%, a decrease of approximately 28%.

The Department in its Supplemental Comments noted the Company's disclosure that it was able to secure a contract with a buyer for the release of the 2,000 Dk on Viking, however, there has not been a buyer for the 900 Dk on Northern. Further the Department noted that Great Plains indicated it encountered no impediments in releasing excess capacity, except for the inability to secure buyer bids on NNG Electronic Bulletin Board (EBB) for the release of the 900 Dk on Northern.

In view of the above discussed information, the Department concludes that the capacity release is reasonable, and that Great Plains complied with Commission order in Docket No. G004/M-19-430.

4. Proposed Reserve Margin

In its previous Orders in Docket Nos. 07-1401, 08-1306, and 09-1262, the Commission required:

“Great Plains shall reduce its reserve margin in Docket No. G-004/M- 09-1262 to approximately five percent or explain why it is not reasonable to do so.”¹³

The Department noted that Great Plains Reserve Margin for the 2019-2020 Winter Heating Season was 8.45 percent, and in this case, Great Plains proposes a Reserve Margin of 6.8 percent, as depicted in figure 4 below.

Figure 4: Reserve Margin Comparison for 2019-2020 and 2020-2021

Reserve Margin for 2020-2021	Reserve Margin for 2019-2020
6.85%	8.45%

The Department in its Supplementary Comments observed that because of Great Plains proposed capacity releases the reserve margin has increased to 9.5%, which is even higher than the 2019-2020 heating season’s reserve margin of 8.45%.¹⁴

Also, the Department opined that if there were no capacity release the Company’s entitlement would be 39,145 Dk/day with reserve a margin of 15.4%.¹⁵

The Department concluded that the 2020-2021 reserve margin is acceptable, and that Great Plain has complied with the Commission Order.

5. Great Plains PGA Cost Recovery

On October 30, 2020, Great Plains filed its Informational Update and disclosed its total cost of demand is \$26,137¹⁶ less than proposed in its July 1 filing, despite not being able to contract with any buyer for its NNG capacity release.

The Department in Supplementary Comments pointed out that the above amount is incorrect, because the Company’s proposed changes in demand entitlement in total resulted in total

¹³ See Ordering Paragraph No. 4 of the Commission’s September 30, 2010 Order in Docket Nos. G004/M-07-1401, G004/M-08-1306, and G004/M-09-1262.

¹⁴ Department’s Supplementary Comments, p. 5.

¹⁵ Id.

¹⁶ Great Plains’ Informational Update, p. 2.

demand cost from all sources of \$4,644,325.¹⁷ Further, the Department noted that Great Plains disclosed in its Informational Update, that as a result of changes in Viking capacity release and the annual NNG reallocation of TF-12B and TF-12V services, total demand costs equal to about \$4,639,972.¹⁸ Thus, comparing the two figures resulted in \$4,353¹⁹ less than the initial proposed amount.

Further, Great Plains in its October 30, 2020 Supplement compared its October 2020 PGA rates to the projected November 2020 PGA rates to highlight the changes in demand costs.²⁰ The Department reviewed Great Plains' analysis indicating that the Company's demand entitlement proposal would result in rate impacts for customers in both its former North and South District areas, as follow:

- An annual bill increase of approximately \$0.33, or 0.7 percent, for the average residential customer consuming 77.9 Dk annually; and
- An annual bill increase of approximately \$1.83, or 0.3 percent, for the average firm general service customer consuming 434.4 Dk annually.²⁰

The Department by virtue of its review of Great Plains' PGA Informational Update held that the Company's proposal is not unreasonable. Also, the Department noted that the Commission on March 1, 2021 issued its Order in Docket G-004/GR-19-511, Great Plains' 2019 rate case, that authorized the Company to implement its final rates, effective April 1, 2021. The Department recommends that in Great Plains next demand entitlement filing, Great Plains reflect the authorized new rates from the rate case (i.e. the new base cost of gas etc.) in its calculations.²¹

VI. Department Comment on February 2021 Cold Weather Event

A highly significant cold weather event occurred in Minnesota in February 2021. This event was not discussed by the Department or Great Plains in their initial comments in this docket, because it occurred after both parties have already submitted initial comments. However, the Department in its March 4, 2021 Supplemental Comments included the following:

As a result of the recent cold weather event, on February 18, 2021, the Commission issued its Notice of Commission Special Planning Meeting (February 18, 2021 Notice) to be held on February 23, 2021 in order to provide the Commission with information about the impacts of the February 2021 cold weather event and the increase in natural gas prices.

Questions listed in the in the February 18, 2021 Notice included:

1. Why did natural gas prices go up in February 2021 and what

¹⁷ Id.

¹⁸ Id.

¹⁹ Department's Supplemental Comments, p. 4.s

²⁰ Id., at p. 4.

²¹ Id., at pp. 4-5.

were the natural gas spot and index prices before and after this cold weather event?

2. How will this affect customer bills now and in the future?

3. Were any firm customers interrupted during this time period due to natural gas system issues, including low pressure, need to reinforce specific areas of the distribution system, inability to get delivery from suppliers, use of storage and peak shaving? And, if so, in what order were customers interrupted and why?

4. Were any interruptible customers curtailed during this time period and in what order were they curtailed?

The Department also noted that on February 18, 2021, Commission Staff issued a Memorandum (Memo)²² identifying the dockets that gas companies' gas costs are reviewed in and expanding on the list of questions in the February 18, 2021 Notice.²³ The Department stated that while one of the questions above refers to customers who fail to curtail or interrupt their use of natural gas supplies when requested to do so by a utility, it does not directly impact Great Plains' need to procure entitlements or calculate the design-day as those calculations are based on firm requirements and interruptible usage is not included.²⁴

According to the Department, some and/or, all the questions raised in the February 18, 2021 Notice and Memo will be followed up on by the Department in the upcoming AAA report in Docket No. G999/AA-21-114 and/or in Docket No. E, G999/CI-21-135 (Docket 21-135) wherein the Commission has opened an investigation to learn about each utility's operational experiences and the natural gas price impacts during the recent February 2021 Cold Weather Event.

VII. Additional Reserve Margin Information

Generally, reserve margin is a risk protection and reliability tool employed by utilities to protect against the risk that actual consumer demand exceeds the design-day. In the case of Great Plains, it has aimed to lower its reserve margin towards the five percent (5%) threshold established as general guidance in prior demand entitlement proceedings.

For informational purposes, staff presents in figure 5 below a comparison of Great Plains' reserve margin in its demand entitlement filing with that of other Minnesota Utilities filings for the 2020-2021 winter heating season.

²² Department's Supplementary Comments, Attachment 3, p. 3 of 8.

²³ Id., at p. 2 of 8.

²⁴ Department's Supplementary Comments, p. 5.

Figure 5: Informational Comparison of Reserve Margins in Demand Entitlement Filings by Minnesota Utilities for 2020-2021 Winter Heating Season²⁵

Company Name	Docket	Reserve Margin (%)	Docket Status
Great Plains	M-20-562	9.5%	Ag. Mtg. 4-22-2021
CenterPoint Energy	M-20-565 & M-21-102	3.24% & 4.8%	Pending
Greater Minn. Gas	M-20-391	3.7%	Comm. Order 3-12-2021
MERC	M-20-636 & M-20-637	2.70% & 11.95%	Comm. Order 1-25-2021
Xcel Energy	M-20-633	5.5%	Ag. Mtg. 4-22-2021

Staff notes that just on the surface without ascribing any economic significance or otherwise to the reserve margins above due to the disparate circumstances/factors that touch and concern each utility, Great Plains' reserve margin appears higher than all utilities, except for that of MERC of 11.95% in docket 20-637.

VIII. Staff Comment

In the instant case, the Commission needs to determine whether to approve or deny Great Plains' proposed demand entitlement levels and cost changes.

Staff reviewed this docket's record and observed no discernable area of disagreement between Great Plains and the Department. Staff appreciates the department's thorough analysis in covering all the relevant issues in this docket and those issues resulting from previous demand entitlement dockets and including discussing the February 2021 cold weather event in Minnesota.

Staff agrees with the Department's conclusions and the following overall Department's recommendations:

- Accept Great Plains' proposed design-day method.
- Approve Great Plains' proposed change in demand entitlement levels; and
- Allow Great Plains' to recover associated demand costs through the monthly Purchased Gas Adjustment (PGA), effective November 1, 2020.

²⁵ See Docket G00-M-20-361 Staff Briefing papers, p. 12., and Department's Supplemental Comments, Attachment 3, p. 5 of 8.

IX. Decision Alternatives

1. Accept Great Plains' proposed design-day method for its consolidated PGA areas.²⁶ (Great Plains, Department)
2. Approve Great Plains' proposed level of demand entitlements for the 2020-2021 winter heating season as amended by Great Plains in its Supplemental Filing. (Great Plains, Department)
3. Allow Great Plains to recover associated demand costs through the monthly Purchased Gas Adjustment (PGA), effective November 1, 2020. (Great Plains, Department)
4. Direct Great Plains, in its future demand entitlement filings, to continue to check the regression models it ultimately uses for autocorrelation, and correct the models, if autocorrelation is present.²⁷ (Department)

²⁶ Department, Comments, p. 11, this docket (September 30, 2021)

²⁷ Continuation of requirement from PUC Order, In the Matter of Great Plains' 2016-2017 Winter Heating Season Demand, Docket No. G-004/M-16-557 (June 8, 2017)