

August 27, 2015

Daniel P. Wolf Executive Secretary Minnesota Public Utilities Commission 121 7th Place East, Suite 350 St. Paul, Minnesota 55101-2147

RE: Comments of the Minnesota Department of Commerce, Division of Energy Resources
Docket No. G004/M-15-645

Dear Mr. Wolf:

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

Demand Entitlement Filing (Petition) submitted by Great Plains Natural Gas Co., a Division of MDU Resources Group, Inc. (Great Plains or the Company), to the Minnesota Public Utilities Commission (Commission).

The Petition was submitted on July 1, 2015 by:

Tamie A. Aberle
Director of Regulatory Affairs
Great Plains Natural Gas Co., A Division of MDU Resources Group, Inc.
400 North 4<sup>th</sup> Street
Bismarck, North Dakota 58501-4092

The Department recommends that the Minnesota Public Utilities Commission (Commission) **accept** Great Plains' *Petition* pending Great Plains' response to various inquiries and the provision of additional information in *Reply Comments*.

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

Sincerely,

/s/ SACHIN SHAH Rates Analyst

SS/ja Attachment



### BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

# COMMENTS OF THE MINNESOTA DEPARTMENT OF COMMERCE DIVISION OF ENERGY RESOURCES

DOCKET NO. G004/M-15-645

#### I. SUMMARY OF THE UTILITY'S PROPOSAL

Pursuant to Minnesota Rules part 7825.2910, subpart 2, Great Plains Natural Gas Co., a Division of MDU Resources Group, Inc. (Great Plains or the Company), filed a petition on July 1, 2015 with the Minnesota Public Utilities Commission (Commission) to change the levels of demand for the Company's South District and North District (*Petition*).<sup>1</sup>

For the South District, Great Plains proposes to increase its seasonal capacity by 730 dekatherms (dk) per day for its South District customers served by Northern Natural Gas Company's (NNG or Northern) pipeline system. The Company projects a 6 percent reserve for the 2015-2016 heating season.

For the North District, Great Plains requests that the Commission accept its contracted 5,000 dk per day of forward haul on the Viking system with receipt point of Emerson and 10,000 dk per day of back haul capacity, which when combined with an incremental 1,200 dk per day forward haul on Viking, is expected to be sufficient to meet the estimated peak-day demand. The North District capacity for the 2015-2016 heating season will increase by 700 dk from the 2014-2015 heating season. The Company projects a 5.1 percent reserve for the upcoming heating season.

The Minnesota Department of Commerce, Division of Energy Resources (Department) discusses below the various effects on the Company's rates for different customer classes.

However, Great Plains estimated that its proposal would:

<sup>&</sup>lt;sup>1</sup> Great Plains' South District includes the following Minnesota communities: Belleview, Boyd, Clarkfield, Danube, Dawson, Echo, Granite Falls, Marshall, Montevideo, Redwood Falls, Renville, Sacred Heart, and Wood Lake. Great Plains' North District includes the following Minnesota communities: Breckenridge, Crookston, Fergus Falls, Pelican Rapids, and Vergas.

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- increase rates for South District residential customers by \$0.0409 per dk or approximately \$3.60 per year for customers using 88.2 dk; and
- decrease rates for North District residential customers by \$0.0037 per dk or approximately \$0.38 per year for customers using 103.8 dk.

Great Plains requested that the Commission allow recovery of the associated demand costs in the Company's monthly Purchased Gas Adjustment (PGA) for each district effective November 1, 2015.

In Section II below, the Department's analysis of the Company's requests for the South District and the North District includes the following areas:

- the proposed overall demand entitlement levels;
- the design-day requirements;
- the reserve margins; and
- the PGA cost recovery proposals.

#### II. THE DEPARTMENT'S ANALYSIS OF GREAT PLAINS' PROPOSAL

#### A. PROPOSED OVERALL DEMAND ENTITLEMENT LEVELS

#### 1. South District

For the South District, Great Plains stated that NNG's reallocation of TF-12B and TF-12V services are not known at this time and that the changes are not significant normally. The changes will be known by November 1, 2015 and will be in accordance with NNG's tariff approved by the Federal Energy Regulatory Commission (FERC).<sup>2</sup> According to Great Plains, there is no deliverability difference between TF-12B and TF-12V services, but TF-12B service is less expensive than TF-12V service. The Department recommends that Great Plains supplement its *Petition* once the final demand entitlement changes and the associated rate and bill impacts are known.

Table 1 below provides a comparison of the Company's current and proposed overall level of entitlements for the South District.

<sup>&</sup>lt;sup>2</sup> Under its federally approved tariff, NNG is allowed to adjust a utility's assigned level of contracted capacity, based on the utility's usage of its NNG-based capacity over the previous five-month period (May through September).

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Table 1: A Comparison of Great Plains' Current and Proposed Entitlements for the South District							
Current Entitlement (dk/day) 17,145	Proposed Entitlement (dk/day) 17,875	Change (dk/day) 730	Percent Change 4.26%				

As indicated in Table 1, the Company's proposal would result in an increase in the overall demand entitlement level for the South District compared to the current entitlement level. Great Plains estimated an increase of demand charges to South District customers by approximately \$0.0409 per dk, or 3.2 percent, from the June 2015 PGA.

#### 2. North District

Table 2 below provides a comparison of the Company's current and proposed overall level of entitlements for the North District.

Table 2: A Comparison of Great Plains' Current and Proposed Entitlements for the North District							
Current	Proposed						
Entitlement	Percent						
(dk/day) (dk/day) Change							
15,500	16,200	700	4.52%				

As indicated in Table 2, the Company's proposal would result in an increase in the overall demand entitlement level for the North District compared to the current entitlement level. Great Plains estimated a slight decrease in demand charges to North District customers by approximately \$0.0037 per dk, or 0.2 percent, from the June 2015 PGA.

The Department notes that Exhibit A of the Company's *Petition*, appears to indicate a capacity shortage for the non-heating season. The Department recommends that Great Plains provide a detailed explanation in its *Reply Comments* of how it manages its non-heating season capacity given the fact that it appears to have a capacity shortfall.

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The Department analyzes below the proposed changes, the proposed design-day requirements, and the proposed reserve margins for the South District and the North District.

#### B. DESIGN-DAY REQUIREMENTS

The Company used the same basic design-day method in this docket that the Commission accepted in Docket No. G004/M-03-303. In more recent demand entitlement proceedings. 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.3 In response to these concerns, the Commission ordered the Company and the Department to work cooperatively on developing a design-day analysis that would address the concerns raised by the Department.<sup>4</sup> Subsequently, Great Plains submitted a Compliance Filing on June 27, 2012 in Docket No. G004/M-10-1164. In its Compliance Filing, Great Plains provided additional discussion and analysis regarding its design-day method using different scenarios (i.e., as filed 36 months, 36 winter months only, 60 winter months only) as requested by the Department. The Department concluded that, "As noted above, despite these concerns, the Department believes that the Company's design-day analysis does not appear to produce unreasonable results." 5 The Commission agreed with the Department's conclusion that, while concerns about sample size and changing weather patterns still exist, the Company's design-day methodology was acceptable because its results were not unreasonable.

While reviewing the data for the Company's design-day analysis, the DOC noticed differences in the historical data that was used by the Company in its regression models. The Department sought clarification and explanation from the Company in an email sent to the Company on August 7<sup>th</sup>, 2015. In its reply email of August 10<sup>th</sup>, 2015, the Company provided a reconciliation of the data and explanation for the differences. The Department appreciates Great Plains' reconciliation and explanation for the differences in data. Please see DOC Attachment 1.

<sup>&</sup>lt;sup>3</sup> The Department's concerns on this issue are discussed in detail in the following documents:

<sup>•</sup> 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

<sup>•</sup> 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.

<sup>&</sup>lt;sup>4</sup> See Ordering Paragraph No. 2 of the Commission's September 30, 2010 *Order* in Docket Nos. G004/M-07-1401, G004/M-08-1306, and G004/M-09-1262.

<sup>&</sup>lt;sup>5</sup> The Department's concerns on this issue are discussed in detail in the following documents:

<sup>•</sup> the Department's March 18, 2013 Comments in Docket No. G004/M-12-740; and

<sup>•</sup> the Department's August 19, 2013 Comments in Docket No. G004/M-13-566.

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In addition, Great Plains' regression models [North 4 rate 60 and Wahpeton rate 01 (residential)] had autocorrelation present in the regression analysis. The presence of autocorrelation in an Ordinary Least Squares (OLS) regression analysis implies that the errors are not independent of each other. This would violate one of the basic assumptions in typical regression analysis which is that one normally assumes that the errors are all independent of one another. Hence, the presence of autocorrelation would affect the validity of the statistical tests that are typically applicable to OLS regression analysis such as, for example, the coefficient of determination ("R-squared") test statistic, and the t-statistic. When forecasting with an OLS regression model, absence of autocorrelation between the errors is very important. Thus, in the Company's future demand entitlement filings, Great Plains' should check and correct its regression models for autocorrelation.

The Department requests that in its future demand entitlement filings, Great Plains' check the regression models it ultimately uses for autocorrelation and correct the models if autocorrelation is present.

Consistent with the analysis presented by the DOC in Docket Nos. G004/M-11-1075, G004/M-12-740, and G011/M-13-566 the Department used two methods to gauge the reasonableness of the Company's design-day amounts for the South District and the North District: 1) using data from the previous five heating seasons; and 2) using data from the heating season with the overall greatest peak sendout per firm customer, which occurred before the previous five heating seasons. The Department identified several inconsistencies in the data contained in the Company's Exhibit D. For example for the North District, the Company shows 13,236 dk as the firm peak day sendout for the 2013-2014 heating season whereas in Docket No. G999/AA-14-580, the Company shows 13,109 dk for the firm peak day sendout. Please see DOC Attachment 2 that shows, for example, some of the highlighted cells where discrepancy in the data exists. The Department requests that Great Plains in its *Reply Comments* provide a reconciliation and explanation for all data discrepancies.

#### 1. South District

For the South District, the Department multiplied the peak sendout per firm customer for the 2014-2015 heating season of 1.2862 dk, which is the highest peak sendout per firm customer in the previous five heating seasons, by the expected number of firm customers for the 2015-2016 heating season of 12,039 to arrive at an estimated design-day amount of 15,485 dk/day. This amount is 1,373 dk/day less than the Company's proposed design day level of 16,858 dk/day.

<sup>&</sup>lt;sup>6</sup> The data used by the Department is taken from Exhibit D of the Company's Petition.

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Thus, using this method based on the highest firm peak sendout data for the previous five heating seasons, Great Plains appears to have a sufficient level of entitlements for the 2015-2016 heating season for the South District.

The Department also calculated an estimated design-day amount using data from the 1995-1996 heating season, which represents the highest peak sendout per firm customer in the South District in the previous 20 heating seasons. Specifically, the Department multiplied the peak sendout per firm customer for the 1995-1996 heating season of 1.5331 dk by the expected number of firm customers for the 2015-2016 heating season of 12,039 to arrive at an estimated design day amount of 18,457 dk. This amount is 1,599 dk more than the Company's proposed design day level of 16,858 dk/day. The Department addresses this situation further in Section II.B.3 below.

#### 2. North District

For the North District, the Department multiplied the peak sendout per firm customer for the 2014-2015 heating season of 1.1871 dk, which is the highest peak sendout per firm customer in the previous five heating seasons, by the expected number of firm customers for the 2015-2016 heating season of 11,843 to arrive at an estimated design-day amount of 14,059 dk. This amount is 1,350 dk less than the Company's proposed design-day level of 15,409 dk/day. Thus, using this method based on the highest firm peak sendout data for the previous five heating seasons, Great Plains appears to have sufficient level of entitlements for the 2015-2016 heating season for the North District.

As was done for the South District, the Department also used data from the 1999-2000 heating season, which represents the highest peak sendout per firm customer in the North District in the previous 20 heating seasons. Specifically, the Department multiplied the peak sendout per firm customer for the 1999-2000 heating season of 1.6321 dk by the expected number of firm customers for the 2015-2016 heating season of 11,843 to arrive at an estimated design day amount of 19,329 dk. This amount is 3,920 dk more than the Company's proposed design day level of 15,409 dk/day.

#### 3. Reasonableness of Great Plains' Design-Day Analyses

As noted above, when the all-time peak-day sendout is analyzed, it appears that Great Plains may not have sufficient capacity to serve firm customers, for each of its districts, on a Commission design day. However, in its 2010 demand entitlement proceeding, Great Plains stated that the peak-day use-per-customer figures during past heating seasons are no longer appropriate metrics because of the many changes (e.g., the movement of firm customers to interruptible service, customer losses due to natural disasters, customer growth and losses, energy conservation) that have occurred since 1995, resulting in a steadily declining use per customer. In that same proceeding, the Department observed that, in general, Great Plains'

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assertions about changes in use per customer over time appear to be plausible and should be reflected in estimates of use per customer.

The extreme weather in the 2013-2014 heating season offers further insight into reliance on the all-time versus the 5-year peak-day sendout to evaluate the Company's design day estimate. Great Plains experienced an outage in January 2014 when the TransCanada pipeline, which supplied gas to the Viking Gas Transmission Company that serves Great Plains customers in the North District, exploded. Further, Great Plains experienced some extremely cold weather during the months of January through March 2014.<sup>7</sup> Despite these challenges, the peak send out of 13,236 dk<sup>8</sup> was below Great Plains' estimated design day of 14,140 dk and the Company appears to have had sufficient levels of entitlements.

As noted above, the Commission in its January 9, 2014 *Order* in Docket No. G004/M-13-566, accepted the Company's proposed design-day method for the South and North District, as recommended by the Department.

The Department recommends that the Commission accept the Company's same proposed design-day method for the South District and the North District.

#### C. PROPOSED RESERVE MARGINS

In the Company's 2007, 2008, and 2009 demand entitlement proceedings, the Commission stated the following:

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.<sup>9</sup>

Table 3 below compares Great Plains' authorized and proposed reserve margins for the South District and the North District.

<sup>&</sup>lt;sup>7</sup> See pages 3 through 5 of the Company's August 29, 2014 Filing in Docket No. E,G999/AA-14-580.

<sup>&</sup>lt;sup>8</sup> This is one of the numbers that the Department is seeking reconciliation on from the Company as seen in DOC Attachment 2.

 $<sup>^9</sup>$  See Ordering Paragraph No. 4 of the Commission's September 30, 2010 {\it Order} in Docket Nos. G004/M-07-1401, G004/M-08-1306, and G004/M-09-1262.

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# Table 3: Great Plains' Authorized Reserve Margins for the 2014-2015 Heating Season and Proposed Reserve Margins for the 2015-2016 Heating Season

2014-2015	Proposed
Reserve	Reserve
Margin	Margin
5.1%	6.0%
4.6%	5.1%
	Reserve Margin 5.1%

As indicated in Table 3, Great Plains proposed to increase its reserve margin for the South District from 5.1 percent to 6 percent, and to increase its reserve margin for the North District from 4.6 percent to 5.1 percent. Both of the Company's proposed reserve margins are near the 5 percent reserve margin preferred by the Commission. The Department concludes that Great Plains' reserve margins are reasonable, given the 5 percent rule of thumb that is typically used.

#### D. THE COMPANY'S PGA COST RECOVERY PROPOSAL

The demand entitlement amounts listed above and in the Company's *Petition* represent the demand entitlements for which Great Plains' firm customers would pay. In its *Petition*, the Company used its June 2015 PGA to compare its proposed changes.<sup>10</sup> Great Plains presented an analysis indicating that the Company's demand entitlement proposal would result in the following estimated annual rate impacts for customers in the South District:

- an annual bill increase of \$3.60 or approximately 0.7 percent, for the average residential customer consuming 88.2 dk annually; and
- an annual bill increase of \$13.95, or approximately 0.8 percent, for the average firm general service customer consuming 340.9 dk annually.

Great Plains also presented an analysis indicating that the Company's demand entitlement proposal would result in the following estimated annual rate impacts for customers in the North District:

 an annual bill decrease of \$0.38 or approximately 0.1 percent, for the average residential customer consuming 103.8 dk annually; and

<sup>&</sup>lt;sup>10</sup> See Exhibit C of the Company's Petition.

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• an annual bill decrease of \$1.39, or approximately 0.1 percent, for the average firm general service customer consuming 375.7 dk annually.

As mentioned earlier, Great Plains is filing its demand entitlement petition before the NNG TF 12 Base and Variable reallocation is known. The Department recommends that Great Plains supplement its *Petition* once the final demand entitlement changes and the associated rate and bill impact are known.

The Department recommends that the Commission accept the Company's proposed PGA recovery of its demand entitlement proposals for the South District and the North District.

#### III. THE DEPARTMENT'S RECOMMENDATIONS

In the instant *Petition,* Great Plains' analysis produces results that are acceptable for planning for the design day. Therefore, the Department recommends that the Commission:

- 1. accept the Company's proposed design-day method for the South District and the North District;
- request Great Plains to provide a detailed explanation in its Reply Comments of how it manages its non-heating season capacity given the fact that it appears to have a capacity shortfall in the North District;
- 3. request 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;
- 4. accept the Company's proposed reserve margins for the South District and the North District;
- 5. accept the Company's proposed PGA recovery of its demand entitlement proposals for the South District and the North District;
- 6. request that Great Plains in its *Reply Comments* provide a reconciliation and explanation for all data discrepancies in the Company's Exhibit D; and
- 7. request Great Plains to supplement its *Petition* once the final demand entitlement changes and the associated rate and bill impacts are known.

#### Anani, Jeanette (COMM)

From:

Jacobson, Travis <travis.jacobson@mdu.com>

Sent:

Monday, August 10, 2015 5:14 PM

To:

Shah, Sachin (COMM)

Cc:

Aberle, Tamie

Subject:

FW: Docket No. G004-M-15-645

#### Sachin,

I completed an analysis of the data presented. Great Plains made a minor change in the method of gathering volumes for the preparation of the 2015 filing. In the past, the volumes were accumulated based on the end use category (i.e. residential, commercial, etc.) whereas in this year's report the volumes are accumulated based on rate code (i.e. Rate 60, 70, etc.). This accounts for a majority of the <u>shift in volumes</u> you are noticing when comparing Residential to Rate 60 for example. This is the methodology we will employ into the future and will use for historical data provided in the rate case. The difference between end use and rate class is best explained with the example of a multi-unit apartment building with five or more units. Under the tariff, this is billed Rate 70 but is considered residential end use.

Also, in the prior year's report, volumes consumed by company owned buildings were not included. During the preparation of this year's report, these volumes are appropriately included as they are firm volumes. The majority of the differences can be accounted for as a result of this change as noted in the table below:

3	2015 MN	2014 MN	2014-15	Company	
Year/Mo	Volumes	Volumes	Variance	Consumption	Variance
Nov-12	179,211.8	178,537.3	674.5	626.9	47.6
Dec-12	307,761.5	306,870.7	890.8	890.8	(0.0)
Jan-13	461,593.7	460,322.9	1,270.8	1,270.8	(0.0)
Feb-13	472,056.2	470,695.9	1,360.3	1,360.3	(0.0)
Mar-13	388,958.7	387,923.9	1,034.8	1,034.8	(0.0)
Арг-13	331,355.5	330,224.6	1,130.9	1,098.9	32,0
May-13	203,115.1	201,945.0	1,170.1	1,170.1	(0,0)
Jun-13	72,290.8	68,828.0	3,462.8	462.8	3,000.0
Jul-13	45,545.8	58,776.2	(13,230.4)	285.3	(13,515.7)
Aug-13	39,258.3	38,735.8	522.5	424.2	98.3
Sep-13	37,728.6	37,531.2	197.4	197,4	0.0
Oct-13	69,350.0	69,013.6	336.4	336.4	(0.0)
Nov-13	194,981.6	194,315.9	665.7	665.7	(0.0)
Dec-13	392,686.3	391,717.6	968.7	968.7	(0.0)
Jan-14	600,924.3	599,357.3	1,567.0	1,567.0	25,953871 VIII.
Feb-14	524,550.3	523,098.3	1,452.0	1,336.1	115.9
Mar-14	451,588.3	450,204.7	1,383.6	1,308.3	75.3

The remaining differences are primarily due to billing adjustments and are small in nature, except June and July of 2013. June was a typing error in the prior year's report and was corrected in this submission. The July information had billing adjustments in the North and South columns; however, the amounts were slightly different between the two reports. In addition, last year's Crookston commercial volumes were reported incorrectly. The volume used last year was 14,232.0 and should have been reported as 1,423.2 which accounts for a majority of this change.

Please let me know if you have questions.

Travis

From: Shah, Sachin (COMM) [mailto:sachin.shah@state.mn.us]

**Sent:** Friday, August 07, 2015 12:19 PM

**To:** Jacobson, Travis **Cc:** Aberle, Tamie

Subject: RE: Docket No. G004-M-15-645

\*\*\* This is an EXTERNAL email. Exercise caution. \*\*\*

Hello Travis and Tamie,

I have some questions on the data as follows:

- For example, in the GPNG
   Normalized file for last year
   (Docket G004/M-14-563) in the
   Crookston commercial class for Jul
   2013 shows 14,232 Dth; AND
- For the same month/year in the current docket shows 1,529.2
   Dth.

Please see attached file where I found the differences. Would you please reconcile and explain in detail the differences observed? I would appreciate it if you would please provide your reconciliation at the earliest, as I am trying to get the comments done soon. Let me know if you have any questions.

Thank you,
Sachin Shah
Rates Analyst
Minnesota Department of Commerce
85 7th Place East, Suite 500, Saint Paul, MN 55101
P: 651-539-1834



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**From:** Jacobson, Travis [mailto:travis.jacobson@mdu.com]

**Sent:** Wednesday, July 15, 2015 10:37 AM

## GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT ANALYSIS NORTH DISTRICT

	Nι	ımber of Firm Cu	stomers	Des	sign Day Requiren	nent	Total Entitlement + Storage + Peak			k Shaving		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
Heating	Number of	Change From	% Change From	Design Day	Change From	% Change From	Total Entitlement	Change From	% Change From	% of Reserve		
Season	Customers	Previous Year	Previous Year	(dk)	Previous Year	Previous Year	(dk)	Previous Year	Previous Year	Margin [(7)-(4)]/(4)		
2015-2016	11,843	161	1.38%	15,409	597	4.03%	16,200	700	4.52%	5.13%		
2014-2015	11,682	103	0.89%	14,812	672	4.75%	15,500	500	3.33%	4.64%		
2013-2014	11,579	172	1.51%	14,140	(104)	-0.73%	15,000	0	0.00%	6.08%		
2012-2013	11,407	177	1.58%	14,244	176	1.25%	15,000	159	1.07%	5.31%		
2011-2012	11,230	48	0.43%	14,068	(96)	-0.68%	14,841	(1,000)	-6.31%	5.49%		
2010-2011	11,182	(12)	-0.11%	14,164	(248)	-1.72%	15,841	0	0.00%	11.84%		
2009-2010	11,194	8	0.07%	14,412	(37)	-0.26%	15,841	(1,000)	-5.94%	9.92%		
2008-2009	11,186	41	0.37%	14,449	(413)	-2.78%	16,841	0	0.00%	16.55%		
2007-2008	11,145	28	0.25%	14,862	(289)	-1.91%	16,841	0	0.00%	13.32%		
2006-2007	11,117	(64)	-0.57%	15,151	(673)	-4.25%	16,841	0	0.00%	11.15%		
2005-2006	11,181	81	0.73%	15,824	(49)	-0.31%	16,841	0	0.00%	6.43%		
2004-2005	11,100	25	0.23%	15,873	(121)	-0.76%	16,841	0	0.00%	6.10%		
2003-2004 1/	11,075	2,375	27.30%	15,994	2,559	19.05%	16,841	4,154	32.74%	5.30%		
2002-2003	8,700	180	2.11%	13,435	(1,231)	-8.39%	12,687	(2,780)	-17.97%	-5.57%		
2001-2002	8,520	19	0.22%	14,666	212	1.47%	15,467	0	0.00%	5.46%		
2000-2001	8,501	304	3.71%	14,454	0	0.00%	15,467	0	0.00%	7.01%		
1999-2000	8,197	82	1.01%	14,454	618	4.47%	15,467	0	0.00%	7.01%		
1998-1999	8,115	227	2.88%	13,836	244	1.80%	15,467	0	0.00%	11.79%		
1997-1998	7,888	215	2.80%	13,592	2,415	21.61%	15,467	3,950	34.30%	13.79%		
1996-1997	7,673	267	3.61%	11,177	379	3.51%	11,517	1,459	14.51%	3.04%		
1995-1996	7,406			10,798			10,058			-6.85%		
Annual Avera	ge		2.58%			1.90%			2.93%	6.89%		

	F	irm Peak Day Se	endout				
	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	Firm			Excess Per	Design Day	Entitlement	Peak Day
Heating	Peak Day	Change From	% Change From	Customer	per Customer	per Customer	Sendout per
Season	Sendout (dk)	Previous Year	Previous Year	[(7)-(4)]/(1)	(4)/(1)	(7)/(1)	Customer (11)/(1)
2015-2016				0.0668	1.3011	1.3679	
2014-2015	13,868	632	4.77%	0.0589	1.2679	1.3268	1.1871
2013-2014	13,236	1,530	13.07%	0.0743	1.2212	1.2954	1.1431
2012-2013	11,706	3,265	38.68%	0.0663	1.2487	1.3150	1.0262
2011-2012	8,441	(2,617)	-23.67%	0.0688	1.2527	1.3215	0.7516
2010-2011	11,058	2,134	23.91%	0.1500	1.2667	1.4167	0.9889
2009-2010	8,924	(769)	-7.93%	0.1277	1.2875	1.4151	0.7972
2008-2009	9,693	(348)	-3.47%	0.2138	1.2917	1.5055	0.8665
2007-2008	10,041	451	4.70%	0.1776	1.3335	1.5111	0.9009
2006-2007	9,590	43	0.45%	0.1520	1.3629	1.5149	0.8626
2005-2006	9,547	(923)	-8.82%	0.0910	1.4153	1.5062	0.8539
2004-2005	10,470	(942)	-8.25%	0.0872	1.4300	1.5172	0.9432
2003-2004	11,412	1,606	16.38%	0.0765	1.4442	1.5206	1.0304
2002-2003	9,806	(3,572)	-26.70%	(0.0860)	1.5443	1.4583	1.1271
2001-2002	13,378	1,699	14.55%	0.0940	1.7214	1.8154	1.5702
2000-2001	11,679	(1,699)	-12.70%	0.1192	1.7003	1.8194	1.3738
1999-2000	13,378	2,196	19.64%	0.1236	1.7633	1.8869	1.6321
1998-1999	11,182	(748)	-6.27%	0.2010	1.7050	1.9060	1.3779
1997-1998	11,930	267	2.29%	0.2377	1.7231	1.9608	1.5124
1996-1997	11,663	551	4.96%	0.0443	1.4567	1.5010	1.5200
1995-1996	11,112			(0.0999)	1.4580	1.3581	1.5004
Annual Avera	age		2.40%	0.0989	1.4447	1.5436	1.1483

<sup>1/</sup> Crookston was consolidated with the North District in 2003.

#### GREAT PLAINS NATURAL GAS CO. DEMAND ENTITLEMENT ANALYSIS SOUTH DISTRICT

	Nui	mber of Firm Cus			gn Day Requiren				Storage + Peak Sha	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Heating	Number of	Change From	% Change From	Design Day	Change From	% Change From	Total Entitlement	Change From	% Change From	% of Reserve
Season	Customers	Previous Year	Previous Year	(dk)	Previous Year	Previous Year	(dk)	Previous Year	Previous Year	Margin [(7)-(4)]/(4)
2015-2016	12,039	197	1.66%	16,858	546	3.35%	17,875	730	4.26%	6.03%
2014-2015	11,842	193	1.66%	16,312	1,019	6.66%	17,145	1,500	9.59%	5.11%
2013-2014	11,649	118	1.02%	15,293	443	2.98%	15,645	0	0.00%	2.30%
2012-2013	11,531	(13)	-0.11%	14,850	(18)	-0.12%	15,645	0	0.00%	5.35%
2011-2012	11,544	(8)	-0.07%	14,868	(297)	-1.96%	15,645	(380)	-2.37%	5.23%
2010-2011	11,552	10	0.09%	15,165	(267)	-1.73%	16,025	(1,170)	-6.80%	5.67%
2009-2010	11,542	77	0.67%	15,432	156	1.02%	17,195	(170)	-0.98%	11.42%
2008-2009	11,465	8	0.07%	15,276	(301)	-1.93%	17,365	0	0.00%	13.68%
2007-2008	11,457	(27)	-0.24%	15,577	(117)	-0.75%	17,365	0	0.00%	11.48%
2006-2007	11,484	(224)	-1.91%	15,694	(699)	-4.26%	17,365	0	0.00%	10.65%
2005-2006	11,708	(92)	-0.78%	16,393	(336)	-2.01%	17,365	0	0.00%	5.93%
2004-2005	11,800	`60 <sup>′</sup>	0.51%	16,729	` 92 <sup>´</sup>	0.55%	17,365	0	0.00%	3.80%
2003-2004	11,740	40	0.34%	16,637	(413)	-2.42%	17,365	0	0.00%	4.38%
2002-2003	11,700	76	0.65%	17,050	(2,058)	-10.77%	17,365	(2,600)	-13.02%	1.85%
2001-2002	11,624	189	1.65%	19,108	7	0.04%	19,965	0	0.00%	4.49%
2000-2001	11,435	(41)	-0.36%	19,101	0	0.00%	19,965	0	0.00%	4.52%
1999-2000	11,476	280	2.50%	19,101	340	1.81%	19,965	0	0.00%	4.52%
1998-1999	11,196	(25)	-0.22%	18,761	374	2.03%	19,965	0	0.00%	6.42%
1997-1998	11,221	306	2.80%	18,387	431	2.40%	19,965	2,000	11.13%	8.58%
1996-1997	10,915	235	2.20%	17,956	353	2.01%	17,965	1,008	5.94%	0.05%
1995-1996	10,680	200	2.2070	17,603	000	2.0.70	16,957	.,000	0.0 170	-3.67%
	•			11,000			10,007			
Annual Ave	rage		0.55%			-0.34%			0.18%	5.59%
	Fi	irm Peak Day Se	ndout	(14)	(15)	(16)	(17)			
	(11)	(12)	(13)	Excess Per	Design Day	Entitlement	Peak Day			
Heating	Firm Peak Day	Change From	% Change From	Customer	per Customer	per Customer	Sendout per			
Season	Sendout (dk)	Previous Year	Previous Year	[(7)-(4)]/(1)	(4)/(1)	(7)/(1)	Customer (11)/(1)			
2015-2016				0.0845	1.4003	1.4848				
2014-2015	15,231	774	5.35%	0.0703	1.3775	1.4478	1.2862			
2013-2014	14,457	1,941	15.51%	0.0302	1.3128	1.3430	1.2411			
2012-2013	12,516	2,248	21.89%	0.0689	1.2878	1.3568	1.0854			
2011-2012	10,268	(1,652)	-13.86%	0.0673	1.2879	1.3552	0.8895			
2010-2011	11,920	(692)	-5.49%	0.0744	1.3128	1.3872	1.0319			
2009-2010	12,612	(962)	-7.09%	0.1527	1.3370	1.4898	1.0927			
2008-2009	13,574	888	7.00%	0.1822	1.3324	1.5146	1.1840			
2007-2008	12,686	401	3.26%	0.1561	1.3596	1.5157	1.1073			
2006-2007	12,285	(789)	-6.03%	0.1455	1.3666	1.5121	1.0697			
2005-2006	13,074	(996)	-7.08%	0.0830	1.4002	1.4832	1.1167			
2004-2005	14,070	(626)	-4.26%	0.0539	1.4177	1.4716	1.1924			
2003-2004	14,696	425	2.98%	0.0620	1.4171	1.4791	1.2518			
2002-2003	14,271	2,151	17.75%	0.0269	1.4573	1.4842	1.2197			
2001-2002	12,120	(2,724)	-18.35%	0.0737	1.6438	1.7176	1.0427			
2000-2001	14,844	(1,921)	-11.46%	0.0756	1.6704	1.7460	1.2981			
1999-2000	16,765	828	5.20%	0.0753	1.6644	1.7397	1.4609			
1998-1999	15,937	(133)	-0.83%	0.1075	1.6757	1.7832	1.4235			
1997-1998	16,070	115	0.72%	0.1406	1.6386	1.7793	1.4321			
1996-1997	15,955	(418)	-2.55%	0.0008	1.6451	1.6459	1.4617			
1995-1996	16,373	( 0)	2.0070	(0.0605)	1.6482	1.5877	1.5331			
									Doolist	No COO4/N4 45 4
Annual Ave	rage		0.14%	0.0793	1.4626	1.5420	1.2210		роскет	No. G004/M-15-6 DOC Attachmer

#### **CERTIFICATE OF SERVICE**

I, Linda Chavez, hereby certify that I have this day served copies of the following document on the attached list of persons by electronic filing, 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 Nos.	G004/M-15-645
Dated this 27	th day of August, 2015.
/s/Linda Chav	/ez

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Tamie A.	Aberle	tamie.aberle@mdu.com	Great Plains Natural Gas Co.	400 North Fourth Street  Bismarck, ND 585014092	Electronic Service	No	OFF_SL_15-645_M-15-645
Julia	Anderson	Julia.Anderson@ag.state.m n.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_15-645_M-15-645
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_15-645_M-15-645
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_15-645_M-15-645
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_15-645_M-15-645