Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: **June 1, 2017** **Agenda Item # *5**

Companies: Great Plains Natural Gas Company (Great Plains)

Docket Nos. G-004/M-15-645
In the Matter of Great Plains' 2015-2016 Demand Entitlement Filing

G-004/M-16-557
In the Matter of Great Plains' 2016-2017 Winter Heating Season Demand

Issues: Should the Commission approve Great Plains' proposed level of demand entitlements effective November 1, 2015?

Should the Commission approve Great Plains' proposed level of demand entitlements and proposed recovery of associated demand costs effective November 1, 2016?

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Relevant Documents

Docket No. G-004/M-15-645
Great Plains Initial Filing .... July 1, 2015
Department Comments ....August 27, 2015
Great Plains Update Filing .... October 30, 2015
Great Plains Informational Update ....December 9, 2015
Department Response to Reply Comments ....August 31, 2016
Great Plains Reply Comments ....September 23, 2016
Department Supplemental Response to Reply Comments .... November 9, 2016

Docket No. G-004/M-16-557
Great Plains Initial Filing..June 30, 2016
Department Comments ....August 31, 2016
Great Plains Reply Comments ....September 23, 2016
Great Plains Information Filing .... October 31, 2016
Department Response to Reply Comments .... November 10, 2016
Great Plains Additional Informational Update Filing.. November 30, 2016

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Statement of the Issues

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Introduction

The purpose of these briefing papers is to summarize the changes Great Plains made to its demand entitlements, design day requirements, and reserve margins.

Relevant Minnesota Rule – Filing upon Change in Demand

Minnesota Rule, part 7825.2910, subpart 2[1] require gas utilities to make a filing whenever there is a change to its demand-related entitlement services provided by a supplier or transporter of natural gas.

Docket No. G-004/M-15-645

Changes in Contract Demand Entitlements (2015-2016)

North District

Great Plains

Great Plains purchased an additional 700 dk per day of seasonal (November through March) firm transportation (FT-A) on Viking replacing an expired 500 Dk per day firm gas purchase agreement with a gas supplier used to meet the 2014-2015 winter peak, for an overall net increase in peak day capacity of 200 dk per day. The North District peak day capacity increased from 15,500 dk/day in 2014-2015 to 15,700 dk/day for 2015-2016. Additionally, Great Plains entered into a contract for an additional 730 dk per day of firm gas to be delivered to Viking's Chisago receipt point from a current gas supplier (BP). According to Great Plains, this does not increase design day capacity available to meet peak demand,[2] "but does result in additional base load gas and provides additional capacity on the Northern pipeline to ensure gas is delivered to Viking."[3]

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

[2] Staff note: This does not increase peak day capacity available to meet peak demand because it is for delivery into Viking, rather than to Great Plains' North District distribution system. Capacity on Viking is necessary to get the gas to the North District distribution system. Since the capacity available to meet peak demand can only be counted once, the capacity to get it to the distribution system is what is counted.

[3] Great Plains October 29, 2015 *Informational Update* at page 1.

In response to the Department's request that Great Plains explain how it manages its non-heating season capacity in light of an apparent shortfall in the North District, Great Plains provided the following in its September 23, 2016 Reply Comments.

> Great Plains is able to meet its non-heating season capacity by obtaining gas in the day market to meet the peak day demand on a day-by-day basis should the need arise.
>
> The Viking system has adequate backhaul transportation capacity available from the Chisago interconnect with Northern Natural to allow daily flow from this point. Great Plains has firm capacity on Northern's system to ensure the gas will flow on a firm contract to the Chisago interconnect. In response to the Department's observation on page 2 of its Response Comments, Great Plains could seek additional capacity through the release capacity market; however, the Company would then be paying for this additional capacity every day regardless if the capacity is needed or not. By using the backhaul capacity that is available in the day market Great Plains only pays for this capacity on the day(s) it is required. Although unlikely, exceeding contracted capacity would be concentrated in the months of April and October and Great Plains has not acquired additional capacity to meet firm customers' demand during the past five years. Also, as noted in the Department's comments, the Company has requested that the Purchased Gas Adjustment districts be combined in Docket No. G004/GR-15-879 which was approved in the Commission's Order dated September 6, 2016 to be effective July 1, 2017. On a combined basis, no non-heating season capacity shortfall exists under the Company's current capacity arrangements.

Department

According to the Department, the above changes result in the following annual demand cost impacts compared to Great Plains' June 2015 PGA:[4]

- Annual bill increase of approximately $1.42, or approximately 0.2 percent, for the average residential customer consuming 103.8 Dth annually; and

- Annual bill increase of $5.11, or approximately 0.2 percent, for the average firm general service customer consuming 375.7 Dth annually.

The Department agreed that Great Plains can meet its non-heating season capacity by obtaining gas in the day market on a day-by-day basis, if the need arises. The Department stated that Great Plains' clarification and explanation for how it manages its non-heating season capacity are reasonable.[5]

[4] Department August 31, 2016 *Response Comments* at page 4.
[5] Department November 9, 2016 *Supplemental Response Comments* at page 4.

South District

Great Plains

Great Plains initially proposed to increase the South District capacity by 730 dk per day with a TFX Seasonal contract from Northern Natural Gas Company (Northern). In its October 29, 2015 update, Great Plains stated:

> …Northern had additional capacity available as a result of pipeline system improvements. Great Plains took advantage of this newly available capacity and entered into a 10-year, 2,000 dk per day annual capacity contract effective November 1, 2015. Although this amount of capacity exceeds current requirements, Great Plains believes it will require this amount of capacity in the near future. Great Plains has released 1,300 dk per day of the 2,000 dk per day additional capacity for the upcoming heating season to a third party marketer, which results in a reserve margin for the South District for the 2015-2016 season of 5.9 percent, net of the released capacity.
>
> As stated in the July 1 DEQ filing, Great Plains agreed to update the Commission on the allocation of Northern's TF12 Base and TF12 Variable in place for the 2015-2016 season. Great Plains was informed that Northern is decreasing the TF12 Base by 496 dk to 4,604 dk per day, and increasing the TF12 Variable by 496 dk to 2,931 dk per day. This new allocation will be effective November 1, 2015. [Staff Note: The NNG adjustment does not impact Great Plains' demand entitlement level, but is a re-allocation of pre-existing demand entitlement levels.]

The 2,000 dk/day purchase increased the South District peak day capacity from 17,145 in 2014-2015 to 19,145 dk/day before the capacity release and to 17,845 dk/day after the capacity release.

In its September 23, 2016 Reply Comments, Great Plains responded to Department questions and concerns about the need for, and reasonableness of the purchase of 2000 dk per day annual capacity, in part, as follows:

> …Subsequent to the July submission and prior to the 2015-1016 heating season, the opportunity to secure incremental capacity on Northern was made available through an Open Season offering made by Northern on September 1, 2015. Great Plains participated in the Open Season offering and successfully secured incremental capacity for the South System and entered into a 10-year, 2,000 dk per day annual contract with Northern. Great Plains provided an update to its DEQ filing (Docket No. M-15-645) on October 29, 2015, updating its DEQ reserve margins to reflect the new contract and a capacity release of 1,300 per day.
>
> This update resulted in a 5.9 percent reserve margin on the South District, which Great Plains recognizes is above the targeted reserve margin preferred by the Commission of 5 percent and, in a perfect situation, Great Plains would request the exact incremental capacity as required of approximately 500 dk per day per year. However, Northern' s pipeline system that serves the South District customers is

fully subscribed and the Company determined that procuring capacity made available through the Open Season on September 1, 2015 was in the best long-term interest of its customers. In reaching this determination, Great Plains concluded that the only viable alternative to procuring additional pipeline capacity was constructing a propane air peaking system to ensure deliverability of firm gas to its customers.

Great Plains' decision to procure additional capacity on Northern was driven by increased peak demand. In particular, during the past three years the estimated peak day demand has increased approximately 516 dk per day per year. With this in mind, the 2,000 dk of additional capacity will be required to meet the peak day demands of its firm customers in only four years and Great Plains will then be required to secure additional capacity to meet its anticipated increase of demand. Such capacity may not be available on Northern at that time or may only be available at a prohibitively high cost. In the 2015-16 heating season Great Plains offset the cost of the new capacity by releasing 1,300 dk per day to an independent marketer. For the upcoming heating season, Great Plains will again release any unneeded capacity to help offset costs and bring its reserve margin to approximately five percent. [Staff Note: The revenue collected from the capacity release is credited back to Great Plains' customers who pay the PGA demand charge through a credit in the monthly PGA calculations and in the annual PGA true-up.]

…

The capacity was acquired to meet current and anticipated future growth requirements in its South District. During the four-year period between the 2012-2013 DEQ and the 2016-2017 DEQ filings, the Projected Design Day has increased from 14,850 dk to 16,842 dk. That represents an increase of 1,992 dk. Great Plains expects a similar growth rate in the Projected Design Day to continue.

…

Great Plains prepared a net present value comparison of the 10-year contract to a propane air peaking facility and determined the cost of the capacity contract was beneficial to the South District customers. The rate per dk/month, on a net present value basis, for the additional pipeline capacity is $66.19 versus a propane peaking facility of $85.84 based on the Company's analysis. …

Department

According to the Department, Great Plains' revised demand entitlement levels would result in the following annual demand cost impacts compared to the Company's June 2015 PGA:[6]

- annual bill increase of approximately $12.86, or approximately 2.6 percent, for the average residential customer consuming 88.2 Dth annually; and

[6] Department August 31, 2016 *Response Comments* at pages 5-6.

- annual bill increase of $49.71, or approximately 2.8 percent, for the average firm general service customer consuming 340.9 Dth annually.

The Department stated:[7]

> The 10-year TFX contract's annual costs are approximately $231,092 per year with a temporary revenue recovery through the short-term capacity release, in the amount of $43,186. In its June 2015 PGA, the annual costs were $1,674,996. Thus, without the capacity release the impact of the new contract would have been an annual increase of approximately 14 percent over the Company's prior annual demand costs for the South District.

In its November 9, 2016 Supplemental Response Comments, the Department made the following observations in regards to the new 10-year TFX 12-month 2,000 Dth/day contract.

> First, the Department notes that Great Plains' use of a propane-air peaking facility as a comparison to the new contract may not be appropriate. A propane-air peaking facility, as the name suggests, would typically be used in the winter (at system peak). Thus, the comparison to a 2,000 Dth/day contract that includes all months of the year may not necessarily be valid. Further, comparing the annual TFX 2,000 Dth/day contract to using a propane-air peaking facility for regular gas supply could potentially be favorably biased towards pipeline capacity since use of a propane-air peaking facility could potentially increase operations and maintenance (O&M) costs as well as fuel costs. The Department notes that, in reviewing Great Plains' Attachment B, which portrays the results of Northern' s open season, it is evident that the Company's bid for year-round capacity (2,000 Dth/day) was advantageous to NNG as opposed to the other bid NNG received for 2,000 Dth/day for winter and 500 Dth/day for summer capacity. In addition, Great Plains' bid was for a longer duration, with contract expiration in 2025 as opposed to the other bid that had contract expiration in 2022.
>
> In any event, the comparison to a propane-air peaking facility would not be valid given that Great Plains has expressed practical concerns in the past about blending propane-air with natural gas. …
>
> Second, Great Plains stated that during the last four demand entitlement filings, between the 2012-2013 filing and the current 2016-2017 filing in Docket G004/M-16-557 (Docket 16-557), the projected design day has increased from 14,850 Dth to 16,842 Dth. Great Plains further stated that it expected a similar growth rate in the projected design day to continue.
>
> In addition, Great Plains stated above that, "during the past three years the estimated peak day demand has increased approximately 516 dk per day per year. With this

[7] Id at page 6.

in mind, the 2,000 dk of additional capacity will be required to meet the peak day demands of its firm customers in only four years." The Department observes that while the above statements are true, it is also equally true that from the 2008-2009 filing to the 2012-2013 filing, the projected design day decreased by approximately 426 Dth. Thus, it is important to keep in mind that the actual historical firm peak day sendout is based on actual weather conditions that occurred during the corresponding heating season.

Third, and as noted above, Great Plains mentioned that, "Northern's pipeline system that serves the South District customers is fully subscribed and the Company determined that procuring capacity made available through the Open Season on September 1, 2015 was in the best long-term interest of its customers." The Department notes that Great Plains has previously stated the following:

> Initially, NNG is currently fully subscribed and additional firm capacity is not readily available to meet increased demand. While NNG could expand its facilities to meet growing demand, pipeline expansion projects on NNG are typically large and costly, depending on the amount and type of enhancements that are required to meet customer growth. Under Federal Energy Regulatory Commission [FERC] policy, the costs of pipeline expansions are allocated entirely to the customers using the expanded capacity through precedent agreements. If pipeline expansions are required to meet incremental growth, the cost of the expansion, whether it consists of additional compression or replacement of pipeline, could fall entirely to a single shipper requiring the capacity.

Fourth, the Department observes that during the Polar Vortex in January and March of 2014 when the Company had a firm peak-day sendout of 14,457 Dth, in the Company's *Petition*, Attachment D, under Column 14 for the South District, the excess entitlement per customer compared to the projected design day was the lowest since the 2002-2003 heating season. However, the peak-day send out per customer has been increasing since the 2011-2012 heating season. As mentioned above, Great Plains expects a growth of approximately 516 Dth per year in the design day; however, from the 2008-2009 to the 2012-2013 heating seasons, the Company experienced a reduction of approximately 426 Dth per year. As mentioned before, actual weather conditions will dictate the historical and future peak-day sendout.

…

Fifth, in assessing whether the new 2,000 Dth/day of NNG TFX capacity is reasonable, it is also helpful to consider Great Plains' expected reserve margin. The Commission has previously ordered Great Plains to reduce its reserve margin to approximately 5 percent. In the Company's *Petition*, Exhibit A in Docket 16-557, Great Plains shows some contracts that are currently scheduled to terminate on or around October 2017 for its North District, resulting in an approximately negative 100 percent reserve margin (although clearly Great Plains will address the deficit before then). As mentioned before, the reserve margin without the temporary capacity release is effectively 13.6 percent for the South District. As noted above, on September 6, 2016, the Commission in Docket No. G004/GR-15-879 approved the Company's request to combine its PGA districts (North and South districts), to be effective July 1, 2017. It is important to consider the PGA district consolidation since the new NNG TFX contract (currently for the South District) is for a ten-year period. Thus, on a combined basis, the Company's current capacity arrangements may change as a result of the approval of the Company's proposed PGA consolidation.

[Citations omitted.]

The Department concluded that the new 2,000 Dth/day of NNG's TFX capacity may be reasonable since:[8]

- There is no valid alternative such as a propane-air peak shaving facility;
- Great Plains' peak-day sendout has been increasing over the last three heating seasons;
- Future weather cannot be forecasted accurately and with precision;
- NNG is fully subscribed and will not sell capacity in a "just-in-time" fashion; rather, capacity must be added in larger "chunks;"
- Great Plains must plan for its design day; and
- Consolidation of the Company's PGA districts could result in changes to Great Plains' current and future capacity arrangements.

Design Day Requirements

<u>Great Plains</u>

In compliance with the determinations made in Docket No. G004/M-03-303 and its Agreement with the Department, Great Plains performed a regression analysis using 36 months of history in its design day methodology. This produces an estimate of the design day demand for firm gas service and supports the required pipeline capacity levels. Due to the different weather patterns in its service area, Great Plains performed regressions for the South District, Crookston and Fergus Falls areas in the North District, and Wahpeton, North Dakota in the North District. The calculations are consistent with the design day methodologies accepted by the Commission in its Order dated January 9, 2014 in Docket No. G004/M-13-566. …[9]

[8] Department November 9, 2016 *Supplemental Response Comments* at page 13.

[9] Great Plains' July 1, 2015 Petition at page 2.

Based on its analysis, Great Plains proposed design days of:

- 15,409 dk/day for the North District, an increase of 597 dk/Day from the 2014-2015 design day requirements of 14,812 dk/day; and
- 16,858 dk/day for the South District, an increase of 546 dk/day from the 2014-2015 requirements of 16,312 dk/day.

Department

The Department analyzed Great Plains' proposed design days. The Department noted that Great Plains' regression models had autocorrelation present in the regression analysis and requested that Great Plains check the regression models it uses in future demand entitlement filings for autocorrelation and correct the models if autocorrelation is present.[10]

The Department noted that "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 again recommended that the Commission accept Great Plains' same proposed design-day method for the South District and the North District in this proceeding.

Reserve Margins

Great Plains

Great Plains initially proposed reserve margins of 5.1 percent in the North District and 6.0 percent in the South District for a total combined reserve margin of 5.6 percent.

However, after updates, Great Plains is proposing reserve margins of 1.9 percent in the North District and 5.9 percent, net of released capacity, for the South District as follows:

Table 1 – DD requirements, Demand Entitlements (net of capacity release for the South District), and Reserve Margin by District:

PGA Area	DD Requirements	Demand Entitlements net of capacity release	Difference	Reserve Margin
	(1)	(2)	(3)	(4)
North District	15,409	15,700	291	1.9%
South District	16,858	17,845[11]	987	5.9%
Total	32,267	33,545	1,278	4.0%

Department

As noted by the Department, the TFX capacity released by Great Plains is short-term in nature (from November 1, 2015 to March 31, 2016) and the annual contract is long-term in nature (10

[10] Department August 27, 2015 *Comments* at page 5.

[11] The Demand entitlements for the South District are shown net of the 1,300 dk capacity release.

Years).[12] Without netting the short-term capacity release, the reserve margin in the South District is effectively 13.6 percent as shown below.

Table 2 – DD requirements, Demand Entitlements (without netting released capacity) and Reserve Margin by District:

PGA Area	DD Requirements	Demand Entitlements	Difference	Reserve Margin
	(1)	(2)	(3)	(4)
North District	15,409	15,700	291	1.9%
South District	16,858	19,145[13]	2,287	13.6%
Total	32,267	34,845	2,578	8.0%

DOC Recommendations for 15-645

In its November 9, 2016 Supplemental Response Comments, the Department recommended that the Commission:[14]

- approve Great Plains' peak-day analysis; and
- approve Great Plains' level of demand entitlements.

Docket No. G-004/M-16-557

Changes in Contract Demand Entitlements (2016-2017)

North District

Great Plains purchased an additional 1,400 dk per day of FT-A seasonal (November through March) capacity from Viking to replace the capacity and delivered gas provided under the 2015-2016 contracts (700 dk per day of seasonal capacity from Viking along with the contract for 730 dk of firm gas delivered to Vikings' Chisago receipt point from a current gas supplier.[15] The 730 dk of firm gas delivered to Vikings' Chisago receipt point that expired was not included in the current design-day capacity. Thus, the 1,400 dk per day purchase of seasonal Viking FT-A capacity increases the North District design-day capacity by 700 dk per day over the 2015-2016 heating season capacity. The North District peak day capacity increased from 15,700 dk/day in 2015-2016 to 16,400 dk/day for 2016-2017.

The impact of the updated demand profile for the North District compared to rates effective June 1, 2016 is a decrease of $0.0143 per dk.[16]

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[12] Department August 31, 2016 *Response Comments* at page 7.
[13] The Demand entitlements without netting the 1,300 dk capacity release.
[14] Department November 9, 2016 *Supplemental Response Comments* at page 14.
[15] Great Plains October 31, 2016 *Informational Update* at page 1.
[16] Id at page 2 and at Attachment C page 1.

According to Great Plains, its updated October 31, 2016 demand entitlement proposal would result in the following estimated annual rate impacts for customers in the North District:[17]

- an annual bill decrease of $1.48 or approximately 0.9 percent, for the average residential customer consuming 103.8 dk annually; and

- an annual bill decrease of $5.38, or approximately 0.9 percent, for the average firm general service customer consuming 375.7 dk annually.

South District

In its October 31, 2016 update, Great Plains stated that Northern Natural Gas is increasing the TF12 Base entitlements by 817 dk to 5,421 dk per day, while decreasing the TF12 Variable entitlements by 817 dk to 2,114 dk per day. This new allocation is effective November 1, 2016 and has no effect on the overall capacity, but decreases costs since TF12 Base is cheaper than TF12 Variable.

The short-term capacity release of 1,300 dk per day that Great Plains had for the 2015-2016 heating season expired. For the 2016-2017 heating season, Great Plains released 1,000 dk per day at a price of $0.17 per dk from November 1, 2016 through March 31, 2017.[18] Great Plains was later able to release an additional 300 dk per day at a price of $0.17 per dk from December 1, 2016 through March 31, 2017.[19]

Without netting the capacity releases, there was no change in the South District peak day capacity from 2015-2016 to 2016-2017. It remains at 19,145 dk per day. After netting the capacity releases, the South District had peak day capacity of 18,145 dk per day for the month of November 2016 compared to 17,845 dk per day for the month of November 2015. For December 2016 through March 2017 the South District had 17,845 dk per day of capacity, the same as for December 2015 through March 2016.

The impact of the changes in demand entitlements in the South District compared to rates effective May 1, 2016 is a decrease of $0.0024 per dk.[20]

According to Great Plains, the Company's November 30, 2016 demand entitlement proposal would result in the following estimated annual rate impacts for customers in the South District:[21]

- an annual bill decrease of $0.21 or approximately 0.2 percent, for the average residential customer consuming 88.2 dk annually; and

- an annual bill decrease of $0.82 or approximately 0.2 percent, for the average firm general service customer consuming 340.9 dk annually.

[17] Id at page 2.
[18] Great Plains October 31, 2016 *Informational Update* at page 3.
[19] Great Plains November 30, 2016 *Additional Informational Update* at page 1.
[20] Great Plains November 30, 2016 *Additional Informational Update* at page 2.
[21] Id at page 3, Updated Table 6.

Summary

Below is a comparison of the 2015-2016 and 2016-2017 peak day entitlements net of the South District capacity releases in both years.

Table 3 – 2015-2016 and 2016-2017 Demand Entitlements (net of capacity releases):

PGA area	2015-2016	2016-2017	Difference	% increase/ (decrease)
	(1)	(2)	(3)	(4)
North District	15,700	**16,400**	700	4.46%
South District	17,845	**17,845**	0	0.00%
Total	33,545	**34,245**	700	2.09%

Design Day Requirements

Great Plains

Great Plains used the same design-day methodology as it used in Docket 15-645, however, during the period between the initial filings in Docket Nos. 15-645 and 16-557, Great Plains implemented a change in the analysis of customer usage from a billing period basis to a calendar month basis. Great Plains calculated 2016-2017 design-day demand as follows:

- 15,556 dk/day for the North District, an increase of 147 dk/day from the 2015-2016 design day requirements of 15,409 dk/day; and

- 16,842 dk/day for the South District, a decrease of 16 dk/day from the 2015-2016 design-day requirements of 16,858 dk/day.

Department

Initially, the Department noted data discrepancies between Great Plains' filing in 15-645 and its filing in 16-557. The Department asked Great Plains to explain the historical data differences between the 2015 Petition and the 2016 Petition. Great Plains addressed the noted data discrepancies in response to an Information Request and included a copy of the Company's response as Attachment C to its September 23, 2016 Reply Comments.

The Department analyzed Great Plains' proposed design days in its November 10, 2016 Response Comments. The Department again noted that Great Plains' regression models had autocorrelation present in the regression analysis and requested that Great Plains check the regression models it uses in future demand entitlement filings for autocorrelation and correct the models if autocorrelation is present.[22]

The Department again recommended that the Commission accept Great Plains' proposed design-day method for the South District and the North District.

[22] Department August 27, 2015 *Comments* at page 5.

Reserve Margins

As of its October 31, 2016 Update, Great Plains was proposing the reserve margins shown below in Table 4. This is net of the 1,000 dks of seasonal capacity release in the South District it was able to obtain by that date.

Table 4 – DD requirements, Demand Entitlements (net of 1,000 dk/day capacity release for the South District), and Reserve Margin by District:

PGA Area	DD Requirements	Demand Entitlements net of capacity released by 11/1/16	Difference	Reserve Margin
	(1)	(2)	(3)	(4)
North District	15,556	16,400	844	5.4%
South District	16,842	18,145[23]	1,303	7.7%
Total	32,398	34,545	1,278	6.6%

The Department recommended that the Commission approve the reserve margins.[24]

On November 30, 2016, in its *Additional Informational Update*, Great Plains informed the Commission that it was able to release an additional 300 dk per day of South District capacity from December 1, 2016 through March 31, 2017 for a total capacity release of 1,300 dk per day. Net of the total released capacity of 1,300 dk per day, the South District reserve margin for the 2016-2017 heating season is 6.0 percent as shown below:

Table 5 – DD requirements, Demand Entitlements (net of 1,300 dk/day capacity release for the South District), and Reserve Margin by District:

PGA Area	DD Requirements	Demand Entitlements net of capacity released by 12/1/16	Difference	Reserve Margin
	(1)	(2)	(3)	(4)
North District	15,556	16,400	844	5.4%
South District	16,842	17,845[25]	1,003	6.0%
Total	32,398	34,245	1,847	5.7%

[23] The Demand entitlements for the South District are shown net of the 1,000 dk capacity release.
[24] Department November 10, 2016 *Response Comments* at page 11.
[25] The Demand entitlements for the South District are shown net of 1,300 dk capacity release.

DOC Recommendations for 16-557

In its November 10, 2016 *Response Comments*, the Department recommended that the Commission:[26]

- accept the Company's proposed design-day method for the South District and the North District;
- require 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; and
- approve Great Plains proposed level of demand entitlement and proposed recovery of associated demand costs effective November 1, 2016.

Decision Alternatives

Docket No. G-004/M-15-645

1. Approve Great Plains' peak-day analysis; and
2. Approve Great Plains' proposed level of demand entitlements effective November 1, 2015. or
3. Do not approve Great Plains' proposed level of demand entitlements effective November 1, 2015.

Docket No. G-004/M-16-557

1. Accept Great Plains' proposed design-day method for the South District and the North District.
2. Require 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; and
3. Approve Great Plains' proposed level of demand entitlement and proposed recovery of associated demand costs effective November 1, 2016. or
4. Do not approve Great Plains' proposed level of demand entitlement and proposed recovery of associated demand costs effective November 1, 2016.

[26] Department November 10, 2016 *Response Comments* at page 12.