Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: April 17, 2014 ..... Agenda Item # 5*

Company: Northern States Power Company (Xcel)

Docket Nos. **G002/M-07-1395**
In the Matter of a Petition by Northern States Power Company (Xcel) for Approval of Changes in Contract Demand Entitlements for the 2007-2008 Heating Season Supply Plan effective November 1, 2007.

G002/M-08-1315
In the Matter of a Petition by Northern States Power Company (Xcel) for Approval of Changes in Contract Demand Entitlements for the 2008-2009 Heating Season Supply Plan effective November 1, 2008.

G002/M-09-1287
In the Matter of a Petition by Northern States Power Company (Xcel) for Approval of Changes in Contract Demand Entitlements for the 2009-2010 Heating Season Supply Plan effective November 1, 2009.

G002/M-10-1163
In the Matter of a Petition by Northern States Power Company (Xcel) for Approval of Changes in Contract Demand Entitlements for the 2010-2011 Heating Season Supply Plan effective November 1, 2010.

G002/M-11-1076
In the Matter of a Petition by Northern States Power Company (Xcel) for Approval of Changes in Contract Demand Entitlements for the 2011-2012 Heating Season Supply Plan effective November 1, 2011.

G002/M-12-862
In the Matter of a Petition by Northern States Power Company (Xcel) for Approval of Changes in Contract Demand Entitlements for the 2012-2013 Heating Season Supply Plan effective November 1, 2012.

G002/M-13-663
In the Matter of a Petition by Northern States Power Company (Xcel) for Approval of Changes in Contract Demand Entitlements for the 2013-2014 Heating Season Supply Plan effective November 1, 2013.

Issues: Commission Approval for Demand Entitlement petitions effective November 1, 2007, 2008, 2009, 2010, 2011, August 1, 2012, and 2013.

Should the Commission approve Xcel's request for interstate pipeline and other capacity changes to meet its Design Day and Reserve Margin requirements as described in the listed dockets?

Should the Commission approve Xcel's request to recover the associated cost changes in its pipeline demand entitlement contracts and supplier reservation fees as described in the listed dockets?

Should the Commission approve Xcel's requested Jurisdictional Allocation Factors changes that allocate costs between Minnesota and North Dakota?

Should the Commission approve Xcel's proposed allocation method for assigning storage capacity demand charges to firm and interruptible customers?

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Relevant Documents

G002/M-07-1395

Xcel Initial Petition	October 31, 2008
Staff Briefing Papers	November 29, 2007
Commission Order	February 7, 2008
Xcel Supplemental Information	February 20, 2008
Department of Commerce (Department) Comments	August 21, 2008
Xcel Reply Comments	September 12, 2008
Department Supplemental Comments	October 7, 2008

G002/M-08-1315

Xcel Initial Petition	November 1, 2008
Xcel Amendment to Initial Petition	December 30, 2008
Department of Commerce (Department) Comments	May 1, 2009
Xcel Reply Comments	May 15, 2009
Department Supplemental Comments	September 1, 2009

G002/M-09-1287

Xcel Initial Petition	November 2, 2009
Department Comments	February 10, 2010
Department Comments - Corrected	February 11, 2010
Xcel Reply Comments	March 1, 2010
Xcel Update – Attachment 4	June 30, 2010
Department Supplemental Comments	July 6, 2010

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Department Comments ..... April 15, 2011
Xcel Reply Comments ..... April 25, 2011
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Xcel Initial Petition ..... August 1, 2012
Department Comments ..... September 14, 2012
Xcel Reply Comments ..... September 24, 2012
Xcel Supplemental Schedule ..... January 4, 2013
Department Response to Reply Comments ..... March 6, 2013
Department Response to Reply Comments – Griffing Attachments ..... March 6, 2013

G002/M-13-663
Xcel Initial Petition ..... August 1, 2013
Department Comments ..... August 30, 2013
Xcel Reply Comments ..... September 9, 2013
Xcel Supplemental Compliance Filing ..... November 1, 2013
Department Supplemental Comments ..... March 4, 2014
Xcel Reply Comments ..... March 11, 2014
Department Letter ..... April 9, 2014

For all the above dockets
Xcel Supplemental Contract Demand Entitlement ..... November 22, 2013

The attached materials are workpapers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless otherwise noted.

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Statement of the Issue

1. Xcel is seeking Commission Approval for Demand Entitlement petitions effective November 1, 2007, 2008, 2009, 2010, 2011, August 1, 2012, and 2013.

    a. Should the Commission approve Xcel's request for interstate pipeline and other capacity changes to meet its Design Day and Reserve Margin requirements as described in the listed dockets?

    b. Should the Commission approve Xcel's request to recover the associated cost changes in its pipeline demand entitlement contracts and supplier reservation fees as described in the listed dockets?

2. Should the Commission approve Xcel's requested Jurisdictional Allocation Factors changes that allocate costs between Minnesota and North Dakota?

3. Should the Commission approve Xcel's proposed allocation method for assigning storage capacity demand charges to firm and interruptible customers?

Introduction

As a Minnesota (MN) public utility company, Xcel has an obligation to ensure that it has adequate natural gas supply for delivery to its customers; its natural gas supply portfolio is reviewed and if necessary, re-calculated annually for each heating season.

Xcel enters into natural gas supply contracts with various marketers and producers at various supply points generally located on interstate pipelines and storage locations outside MN. These supply contracts are for the natural gas commodity and often include "*supply reservation fees*" which guarantee Xcel that the natural gas supply will be available at a certain point under the terms specified in the contract. These supply contracts help assure Xcel that it will have enough natural gas available at particular receipt points on the interstate pipelines. Further, Xcel enters into "*interstate pipeline transportation and storage capacity contracts*" that enable and entitle Xcel to transport and store natural gas supply for delivery into its distribution system.

To make natural gas deliveries to its customers, Xcel annually reviews and updates its' pipeline transportation and storage entitlements, and supply contracts which is important to ensure system reliability of natural gas supply deliveries to its customers. This ensures that Xcel's supply portfolio covers its *anticipated* peak demand during a particular year. Xcel's Design Day (DD) calculation, its service obligation, uses the historical natural gas customer consumption from its January 29, 2004 peak day[1]. By comparing its anticipated need to its current supply arrangements, Xcel has determined which incremental capacity changes are needed to ensure its customer needs are met under the most extreme conditions at reasonable cost.

[1] For further details, see each docket's initial petition Attachment 1, Schedule 3, p. 2.

Xcel's demand entitlement petitions seek Commission approval to recover certain cost and capacity changes in interstate pipeline transportation entitlements, storage entitlements, supplier reservation fees, and other demand-related contract costs and to implement the rate impact of these petitions through its Purchased Gas Adjustment (PGA)[2] charges.

Pursuant to Minn. R. 7825.2920, subp. 1,[3] Xcel has included in its PGAs[4] all open dockets' demand entitlement cost and capacity changes that have occurred since its last approved Docket No. 06-1454.

Staff's briefing papers have consolidated all outstanding Xcel demand entitlement dockets, as reflected in the above relevant documents section.

Minnesota Rules

Minnesota Rules require gas utilities to make a filing whenever there is a change in their entitlement to the demand-related services provided to them by a supplier or transporter of natural gas.

Minnesota Rule part 7825.2400, Subp. 13a. Demand, defines demand as "the maximum daily volumes of gas that the utility has contracted with a supplier or transporter to receive."

Minnesota Rule part 7825.2910, Subp. 2, Filing upon a change in demand, is included in the Automatic Adjustment of Charges rule parts 7825.2390 through 7825.2920 and requires gas utilities to file to increase or decrease demand, to redistribute demand percentages among classes, or to exchange one form of demand for another.

Minnesota Rules parts 7851.0010, subpart 21 and 7610.0800, subpart 21, both define peak-day as "the 24-hour period of greatest gas send-out."

Demand Entitlements

What is a demand entitlement? Reflects reservation charges paid to an interstate natural gas pipelines to reserve pipeline capacity to transport the natural gas supply for delivery to the LDC and contract charges associated with the LDC procuring its gas supply; these costs are recovered through the LDC's PGA. Demand Entitlements may include interstate transportation capacity, storage capacity, supply reservation fees, or other demand services procured to enable the delivery of the natural gas supply to the LDC.

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[2] Local Distribution Company's 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.

[3] Minn. Rule, part 7825.2920, subpart 1. Approval For Automatic Adjustment Of Charges. Automatic adjustment of charges filed under parts 7825.2900 and 7825.2910 are provisionally approved and may be placed into effect without commission action, but subject to the conditions in subparts 2 and 3.

[4] On a provisional basis subject to Commission approval

What is purpose of the demand entitlements contract? Most utility companies in MN who provide natural gas services to residential, commercial, or industrial customers within the state, purchase capacity on interstate natural gas pipelines and enter into natural gas supply contracts in order to receive natural gas supply from various supply points outside MN that are necessary for the utility company to make deliveries to its utility customers. The purchaser (Xcel) of interstate pipeline capacity or natural gas supply contracts is entitled to a certain amount of interstate pipeline capacity and natural gas supply on a daily basis.

Background

Xcel seeks cost and capacity change recovery for it anticipated demand entitlements for each of the stated years. Xcel has two types of interstate pipeline natural gas transportation capacity contracts, *Upstream* and *Delivered*. These contracts are included in Xcel's anticipated demand entitlements, but both are necessary for the LDC to make deliveries through its system. An example of an *Upstream* contract would be Xcel's firm transportation contract held on ANR. Xcel has purchased firm transportation capacity on ANR that transports and delivers Xcel's natural gas supply to Viking Gas Pipeline; ANR does not make the delivery to Xcel. The *Delivered* contract would be Xcel's firm transportation capacity held on Viking that ultimately transports and delivers the natural gas supply to its distribution system.

Xcel holds *Upstream* firm capacity contracts on ANR (transportation), ANRP (Storage), ANR Storage Company, and Great Lakes Gas Transmission (transportation). Xcel holds *Delivered* firm capacity on Williston Basin Interstate Pipeline (WBI) (transportation), Viking Gas Transmission (transportation), Northern Natural Gas Pipeline (transportation and storage).

In addition, Xcel has Peak Shaving, and LNG Peak Shaving facilities that enable Xcel to store natural gas on its system for immediate use.

Xcel is seeking Commission approval for the following types of changes:

1. Supply Reservation Fees;
2. Interstate pipeline transportation and storage, and other demand-related contract cost and capacity changes required to meet the Design Day requirements and provide an adequate reserve margin;
3. Design Day capacity requirements due to customer growth; and
4. Jurisdictional Allocations for costs between Minnesota (MN) and North Dakota (ND).

Xcel is seeking Commission Approval for Demand Entitlement petitions effective November 1, 2007, 2008, 2009, 2010, 2011, August 1, 2012, and 2013.

a. **Should the Commission approve Xcel's request for interstate pipeline and other capacity changes to meet its Design Day and Reserve Margin requirements as described in the listed dockets?**
b. Should the Commission approve Xcel's request to recover the associated cost changes in its pipeline demand entitlement contracts and supplier reservation fees as described in the listed dockets?

General Discussion

The following general discussion applies to all of the Xcel dockets addressed in these briefing papers. The Docket Nos.:

G002/M-07-1395
G002/M-08-1315
G002/M-09-1287
G002/M-10-1163
G002/M-11-1076
G002/M-12-862
G002/M-13-663

Each year Xcel develops a supply plan based on its estimate of how much demand there will be for natural gas on its system. Xcel's supply plan is calculated based on its Design Day requirements for the upcoming heating season. Once Xcel has an estimate of how much supply demand there will be it adjusts its transportation and storage contracts to ensure it has enough capacity to deliver its natural gas supply to the entire system.

1. Transportation Capacity

Xcel stated its Design Day (DD) objective is to calculate customer demand requirements that forecast the anticipated natural gas supply demand at design day temperatures accurately so adequate firm gas supply requirements can be planned. Xcel historically starts its DD requirement development by using its Actual Peak Use per Customer Design Day (UPC DD) method.

Prior to the 2004-2005 demand entitlement filing, Xcel used a more traditional *linear regression* model to calculate its DD supply requirements, Average Monthly Design Day (Avg. Monthly DD). In its 2004-2005 Petition, Xcel introduced its current UPC DD method of calculating its DD supply requirements.

In all subsequent demand entitlement petitions, Xcel has continued to use the two methods and compares the results of both methods before determining the appropriate DD gas supply requirements. Xcel stated that by comparing the two DD methods, it is assured that its gas supply estimates are more accurate.

a. UPC DD natural gas supply calculation method

To calculate its gas supply requirements, Xcel's starting point is to project the number of system customers for the upcoming heating season. For the 2007-2008 heating season, Xcel projected customer count was 431,503 for MN and 44,589 for ND (476,092 total system). Next, Xcel applied its actual per customer peak day actual use factor of 1.57393/Dth[5] to the number of customers to calculate its estimated Peak Day requirements.[6]

For example, in Xcel's 2007-2008 demand entitlement petition it estimated DD supply requirements at 749,129 Dth/day (476,092 * 1.57393) for all residential and commercial customers. The demand billed customers' requirements (20,938 Dth/day) are then added to determine Xcel's total heating season DD requirements in 2007-2008, 770,067 Dth/day. Xcel stated that it periodically reviews the peak day actual use factor and would update if necessary. Staff has summarized each docket's total Xcel DD supply requirements in Appendix A, Schedule 1.

b. Avg. Monthly DD (linear regression method)[7]

Xcel's petition stated that it does not use the Avg. Monthly DD Model for estimating its DD requirements. Instead, the model results develop allocation factors[8] by regional service area and by state that enable Xcel to ensure that adequate firm pipeline transportation capacity is available for each service region. Different Xcel operating regions have different factors, for example the Heating Degree Day (HDD) factor is dependent on the location of the region.

For its 2007-2008 petition, Xcel used February 2005 - February 2007 data[9] in its calculation. Xcel used 25 months of data instead of the usual 60 months of data because of a 2005 change in customer groups. Xcel stated that its regression statistics were very strong, generally result in an r-squared values in excess of 95%.

2. Transportation Costs

Xcel negotiated and entered into supply contracts that procure its gas needs. Contracts are negotiated with various producers or marketers generally located at points on interstate pipelines and generally required Xcel to pay *"supplier reservation fees"* that guarantee the gas supply availability for DD.

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[5] The peak day actual use per firm customer factor was developed using the 2004-2005 Heating Season Plan data (January 29, 2004). Xcel stated that this date is its coldest day in the last 20 years. For calculation details, see each docket's initial petition Attachment 1, Schedule 3, p. 2.

[6] For further details, see each docket's initial petition Attachment 1, Schedule 3, p. 1

[7] For additional discussion, see Xcel's discussion in each docket's initial petition , Attachment 5

[8] For further details, see each docket's initial petition, Attachment 1, Schedule 1, p. 1; factors used are Load Variation factor, Degree per Design Day, Monthly Base Use factor, and an Unaccounted Gas factor.

[9] For further details, see each docket's initial petition Attachment 1, Schedule 1, pp. 2 and 3

Xcel stated that it has adjusted its existing supplier reservation charges for each heating season and list its changes on Attachment 2, Schedule1, p. 1 of each docket. This information is marked as ***Trade Secret***.

After Xcel calculates and procures its gas supply, it aligns the necessary firm transportation capacity on interstate pipelines to ensure deliverability to its customers on Design Day (DD). Xcel has negotiated contracts on the previously mentioned interstate pipelines and is required to pay reservation fees on each pipeline that guarantees the transportation capacity is available. This ensures Xcel is capable of making DD deliveries through its distribution system.

Xcel has requested Commission approval of cost and capacity changes to its natural gas supply and interstate pipeline firm transportation capacity contracts, *"Demand Entitlements"* for all dockets.

3. Reserve Margin[10]

Xcel stated that each docket's reserve margin is appropriate given the need to balance the uncertainty of

(a) the likelihood of experiencing Design Day conditions (most recent coldest day was January 29, 2004);
(b) actual consumer demand during Design Day conditions; and
(c) the need to protect against the potential loss of a source of firm gas supply.

Xcel further stated that its firm resources maintain a reserve margin as close as practicable to either the capability of the LNG vaporizing largest pump or to the capability of either of the St. Paul propane peak shaving plants. The reserve margin ensures reliability for Xcel's gas utility customers.

Docket No. G002/M-07-1395 (for 2007-2008)

Xcel

November 2, 2007 Initial Petition

Interstate Pipeline Transportation Capacity Changes

Xcel stated that the primary reason for 2007-2008 demand entitlement changes is attributable to its increased customer count. Xcel's petition reflected the following Design Day firm transportation capacity changes to its 2007-2008 heating season plan:

1. Northern Natural Gas Company changes (effective November 1, 2007):

a. On November 1, 2007, the majority of Xcel's interstate pipeline contracts expired. Xcel sought out bids from several different transportation

[10] For further details, see Appendix A, Schedule 5.

options.[11] Xcel evaluated several alternatives to transport its gas supply deliveries. Xcel's successful negotiations with Northern led to re-contracting[12] with Northern at discounted rates, saving its customers approximately $16 million.[13] Xcel turned back Northern transportation capacity of 28,280 Dth/day.

b. In its prior petitions, Xcel had always requested an extension to the filing deadline in order to receive from Northern the annual re-determination of Xcel's TF12 entitlements split between base/variable.[14] In the Docket No. 07-1395, Xcel proposed to include the actual revised Base/Variable split in its Annual Automatic Adjustment (AAA) and Purchased Gas Adjustment (PGA) true-up filing due September 1, 2008. Xcel stated that this approach is similar to what other gas utilities do in MN.

[Staff note: The Department concluded that this change in handling the re-determination Xcel's TF12 base/variable is reasonable.]

2. *Viking Gas Pipeline changes (effective November 1, 2007)*:

a. Xcel stated that it increased firm transportation capacity entitlements (Rate Schedule FT-A) on Viking to meet system growth. Xcel increased its FT-A transportation capacity by 9,100 Dth/day.

b. Associated with Xcel's Northern capacity turn-back discussed above, it was able to release its Viking backhaul capacity arrangement. Northern delivered the gas to Viking, which backhauled the gas to Xcel's customer. The Viking capacity has been released and was posted on Viking's electronic bulletin board since the contract term had not expired.

Interstate Pipeline Transportation Cost Changes

Based on its projected demand entitlement capacity requirements, Xcel was able to project its total cost of the entitlements. As a result of its re-negotiation with Northern, Xcel was able to save its MN customers $16 million.[15]

[11] Options included restructuring expired Northern contracts to bypassing Northern by connecting to several other interstate pipelines.
[12] For further detail, see each docket's initial petition, Attachment 1, Schedule 5 and Attachment 2, Schedule 1, p. 1.
[13] For further details, see Appendix A, Schedule 7.
[14] The entitlement split is based on Northern' allocation of the TF12 transportation entitlements it made between the TF12 Base (TF12B) and TF12 Variable (TF12V) entitlements. This allocation calculation was performed by Northern annually based on actual throughput from May through September of the current year.
[15] For further details, see Appendix A, Schedule 7.

Reserve Margin Changes

Xcel proposed a total company 42,531 Dth/day 2007-2008 heating season DD reserve margin[16] or ***5.52%***, which is an increase from the previous year's reserve margin of 2.74%.

[Staff note: The Department stated that a typical Reserve Margin range is between 5% - 7%. The Department concluded the Xcel's increase in Reserve Margin is reasonable]

Department

August 21, 2008 Comments

The Department recommended that the Commission approve Xcel's demand entitlement changes petition, as filed; approve Xcel's proposed recovery of the associated demand entitlement costs effective November 1, 2007; and allow Xcel to recover such costs in its monthly PGA beginning November 1, 2007.

The Department reviewed Xcel's projected DD requirements growth of 14,384 Dth/day. Xcel stated that MN growth was projected at 5,984 Dth/day while ND growth was projected at 8,400 Dth/day. The Department also compared Xcel's growth to its current projected Dth usage by state; it questioned Xcel's use of strict proportional growth between MN and ND.

The Department requested that Xcel provide further information, in *Reply Comments*, in regard the differences in increases in customer growth between MN and ND.

Xcel

September 12, 2008 Reply Comments

In its *Reply Comments*, Xcel provided its projected MN and ND customer growth information requested by the Department. Xcel provided historical information that reflected the customer growth rates between customer classes (residential, and small and large commercial customers). The data reflected that the customer growth is greater in ND than in MN for every customer class.

Department

October 7, 2008 Supplemental Comments

The Department reviewed the customer growth information provided by Xcel and continued to support its original recommendations.

[16] For further detail, see each docket's petition, Attachment 2, Schedule 1, p. 2.

PUC Staff

The Department and Xcel do not have any remaining disputed issues. Staff has commented at the end of this section.

Docket No. G002/M-08-1315 (for 2008-2009)

Xcel

October 30, 2008 Initial Petition

December 30, 2008 Revised Petition

The following discussion reflects a ***consolidation*** of Xcel's data provided in both the October 30, 2008 and December 20, 2008 petitions.

Interstate Pipeline Transportation Capacity Changes

1. *Fargo Lateral*

On May 15, 2008, Xcel entered into a cost-based (incremental rate) Precedent Agreement with Viking for the 2009 Fargo lateral construction project to add firm transportation capacity with deliveries to Fargo, ND, Moorhead, MN, and Dilworth, MN ("Fargo Area"). This project was scheduled to go into service for the 2008-2009 heating season.[17] Because of construction and regulatory delays, the scheduled in-service date was not met. Xcel entered into other short-term contract arrangements with other parties that enabled it to make deliveries to its customers for the 2008-2009 heating season. Viking committed to having the Fargo Lateral project completed for the 2009-2010 heating season.[18]

2. *Design Day Region Re-alignment*

In its 2008-2009 Petition, Xcel proposed to re-align its customer base within the DD demand regions that were used to calculate the peak-day projection.[19] Xcel stated that this was done to better align demand with the deliverable capacity used to serve each region of Xcel's gas service territory. The re-alignment of these customers within different regions resulted in Xcel using different weather-related coefficients in certain areas that in turn led to the increased DD requirement. As result of this demand Xcel increased its DD requirements by 1,288 Dth/day.

After the Fargo Lateral in-service date delay, Xcel proposed the following changes to its demand entitlements:

3. *Northern Natural Gas Company*

Re-alignment of Xcel system regions did not alter its Northern demand entitlements.

[Staff note: Staff assumed that the re-alignment change was handled by Xcel's Reserve Margin]

[17] Transportation contracts were to be effective 1/1/2009.
[18] See discussion for the December 30, 2008 revised filing for Xcel's 2008-2009 winter season requirements.
[19] For further details, see Attachment 1, Schedule 1, p. 1.

4. *Viking Gas changes (effective November 1, 2008)*:

The Fargo Lateral project delayed in its in-service date caused Xcel to make the following arrangements to ensure its customers had adequate supply during the 2008-2009 heating season:

a. Acquired additional capacity of 820 Dth through capacity release arrangements; and
b. Acquired additional capacity of 850 Dth through peaking supply from another source; and
c. Arranged for lower minimum pressure at the Fargo town border station on Viking to allow greater volumes to be delivered down the Fargo lateral.

Interstate Pipeline Transportation Cost Changes

Based on its projected demand entitlement capacity requirements and the projected total cost of the entitlements, Xcel is still saving its customer $14 million per year compared to the 2006-2007 Petition.[20]

Reserve Margin Changes

Xcel proposed a total company 52,886 Dth/day 2008-2009 heating season DD reserve margin[21] or *6.9%*, which is an increase from the 2007-2008 Heating Season percentage of 1.37%.

Department

May 1, 2009 Comments

Xcel's Realignment of Customer Base

The Department concluded that Xcel has re-aligned its customers into different service regions. Xcel stated that its reasoning was that the new alignment should produce better peak-day forecasts because demand and deliverable capacity are better matched than under the former scheme that was based on customers' location by county.

The Department concluded that the customer shifts were not a reason to abandon the demand areas as the basis of regression analysis.

The Department questioned why Xcel's projected MN DD requirement increased by 1,288 Dth/day when its MN customer count decreased by 2,651. The 2008-2009 total system forecast reflected a decrease of 3,285 Dth/day, which would shift DD cost responsibility from ND to MN.

[20] On page 7 of staff's briefing papers, Xcel's reserve margin is 5.52% in its 2007-2008 Petition.
[21] For further detail, see each docket's petition, Attachment 2, Schedule 1, p. 2.

Further, the Department concluded that Xcel's initial petition reflected that Xcel's ND customer count increased by 1,286 while Xcel's projected DD ND requirement decreased by 4,573 Dth/day.

The Department stated that Xcel's MN position appeared to conclude that shifts in customers among demand regions[22] have caused the total predicted usage for customers to increase while its customer counts declines. Xcel's ND position appeared to conclude that the re-alignment of customers within demand regions caused the customer count to increase while it's projected DD requirements decrease.

Xcel further stated that the 2008-2009 projected MN customer count is an increase over the actual customer count for 2007-2008. However, Xcel did not provide an actual customer count for 2007-2008.

The Department recommended withholding Commission approval of Xcel's projected DD requirements. The Department stated that it supports reasonable improvements in forecasting models, but Xcel has not provided sufficient support for it model in its initial petition.

The Department requested that in *Reply Comments*:

- Xcel clarify how the re-alignment of customers among different demand regions led to usage forecasts in MN and ND moving in the opposite direction of the respective customer count forecasts; and
- Xcel provide the actual MN customer count for 2007-2008 and elaborate as to why it believed the actual number fell short of its projected number.

Changes in Xcel's Design-Day Resources

The Department concluded that the actions that Xcel has taken in its amended petition with regard to the reliability of its system are appropriate. The modifications in its PGA to reflect the delay in the expansion of the Fargo lateral capacity also are suitable. The Department concluded that the changes in the Viking entitlements are reasonable. The Department concluded that Xcel's proposed total design-day entitlement level meets the needs of its projected number of firm customers.

Change in Xcel Energy's Reserve Margin

Reserve margins in the 5-7 percent range are typical. The Department concluded that Xcel's increase in the reserve margin is reasonable.

Changes in Xcel Energy's Jurisdictional Allocations

As previously stated, the Department requested that Xcel explain its projections further in *Reply Comments*. The Department stated that it will review Xcel's response and provide its recommendation.

[22]Use per customer from one demand area to the next is not identical.

Xcel

May 15, 2009 Reply Comments

In response to the Department's information request in its May 1, 2009 Comments, Xcel provided the following information:

Impact of Re-alignment of Customers

The Department requested that Xcel provide an explanation of the impact of re-alignment of its customers into different service regions in its Reply Comments. Xcel stated that the re-alignment of customers caused its usage forecasts to move in the opposite direction of customer count forecasts due to the fact that Xcel changed the heating degree days ("HDD") measure for its customers in the Fargo/Grand Forks demand areas. Xcel stated that it used Fargo HDD for the Fargo/Grand Forks demand regions in the 2008-2009 Ave. Monthly DD regression analysis, whereas in the 2007-2008 Ave. Monthly DD regression analysis, the Minneapolis/St. Paul HDD was used.[23]

Comparison of Forecasted to Actual Customer Count

The Department requested Xcel provide its actual customer count for the 2007-2008 heating season with an explanation of why the count was so different from its projected count. Xcel stated that the 2007-2008 Minnesota customer forecast was prepared in March 2007, and included a 2% growth projection based on an average annual growth rate of 2% over the previous 5 years. The actual customer additions were much lower than predicted.

Xcel stated that it believed that the slow-down in customer growth was due to the housing market which slowed to a 0.9% grow rate in 2007. In its 2008-2009 forecast, the slow-down was captured in its projection by lowering customer growth to 1%. The projected 2008-2009 MN customer count was 428,852 which is lower than the projected number of MN customers of 431,503 in the 2007-2008 estimate; the number of actual January 2008 customers was 424,591, which was incorporated into the 2008-2009 forecast.[24]

Cost of Supplier Reservation Fees

The Department also requested further discussion on Xcel's Supplier Reservation Fees. Xcel stated that it provided this information in its *Reply Comments*, which is marked Trade Secret.

[23] Xcel illustrates this in its 08-1315 Reply Comments, pp. 2-3.

[24] For further details, see Xcel's 08-1315 Reply Comments, Attachment A which compares the forecasted and actual customers by state for the last 2 years.

Department

September 1, 2009 Supplemental Comments

Effect of Re-alignment of Customers Within Demand Regions on Forecasts and Allocations

The Department stated that it analyzed Xcel's *Reply Comments* and that it agreed that the information demonstrates that the unusual situation in which customer and usage forecasts moved in opposite directions was caused by using the Minneapolis/St. Paul HDD measure for the Fargo/Grand Forks demand areas in 2007-2008 and the Fargo HDD measure for those areas in 2008-2009.

The Department concluded that the Fargo HDD for the Fargo/Grand Forks demand region is a better input for forecasting design-day use and that Xcel has addressed the Department's concern about realignment of customers.

Actual Customer Counts Versus Forecasted Customer Counts

The Department concluded that Xcel's Reply Comments adequately addressed its questions regarding the customer counts used in 2008-2009 projections. The Department concluded that Xcel's 2008-2009 customer count forecast is reasonable.

Alternative Supplier Reservation Fee

The Department concluded that Xcel has demonstrated that the supplier reservation fees it contracted for are the lowest-cost arrangements available.

PUC Staff

The Department and Xcel do not have any remaining disputed issues. Staff has commented at the end of this section.

Docket No. G002/M-09-1287 (effective November 1, 2009)

Xcel

November 2, 2009 Initial Petition

Interstate Pipeline Transportation Capacity

Xcel stated that the primary reasons for the 2009-2010 demand entitlement changes is to its increased customer count and the Fargo Lateral project. Xcel's petition reflected the following Design Day firm transportation capacity changes to its 2009-2010 heating season plan:

1. Northern Natural Gas changes *(effective November 1, 2009)*

On March 31, 2009, Northern contract number 111739 for 10,084 Dth/day of maximum rate winter capacity expired and was not renewed. To replace the expired contract capacity and to further meet increased peak day demand requirements from its customers served off Northern, Xcel exercised two different options.

a. Xcel entered into a discounted annual contract for 10,000 Dth/day.

b. Xcel entered into an additional discounted contract for 10,000 Dth/day.

2. Viking Gas Transmission changes *(effective November 1, 2009)*

a. On October 31, 2009, contract number AF0035 capacity for 12,000 Dth/day expired and was not renewed. Xcel acquired this backhaul capacity in 1999 as a result of a construction project to loop approximately 9 miles on the Fargo lateral. This firm entitlement was replaced with a contract that Xcel acquired as of the 2009 Fargo lateral construction project.

b. In March 2009, a short-term capacity contract for 820 Dth/day expired and was not renewed. This contract was purchased in the 2008-2009 winter season because there were construction delays for the 2009 Fargo lateral construction project. The expired contract was replaced by the capacity Xcel acquired as part of the 2009 lateral construction project.

c. On May 15, 2008, Xcel entered into a cost-based (incremental rate) Precedent Agreement with Viking for the 2009 Fargo lateral construction project to add firm transportation capacity with deliveries to Fargo, ND, Moorhead, MN, and Dilworth, MN ("Fargo Area"). The 2009 Fargo lateral contract was necessary to meet firm DD requirements on both an hourly and daily basis when capacity shortfalls were possible. Xcel considered a variety of options on how to increase the available capacity. Xcel determined that the Cost-Based Precedent Agreement[25] would be the best option. Through the Agreement, Xcel negotiated to purchase 89,263 Dth/day of firm capacity for an 8 year period at an annual cost of $4.9 million per year. Of the newly purchased 89,263 Dth/day contract, 57,178 Dth/day delivered to the Fargo area. The total project cost was estimated to be $14.7 million. The per Dth quantity that Xcel purchased from Viking to pay for the lateral project was to be re-calculated when the final cost of the project is known, estimated to be in February 2010.

[25] For further details, see the 09-1287 petition's Attachment 4, p. 1

Under the Cost-Based Precedent Agreement, Xcel further adjusted its firm demand entitlements:

a. Xcel purchased an additional 32,085 Dth/day using a one-time option which allowed Xcel to realign 36,316 Dth/day of maximum rate south end receipt capacity on Northern and receive a discount rate (Northern Chisago realignment discount option).

b. After Xcel exercised its one-time realignment to Chisago, Xcel had the ability to elect up to 5% growth per year of incremental entitlement at the discount rate in the St. Cloud and Hugo areas (St. Cloud and Hugo growth option). Xcel is projecting the need for additional firm capacity for the St. Cloud area. Xcel's analysis reflected that this growth option was reasonable.

Xcel's analysis[26] reflected that by choosing its delivery options, as well as the resulting Northern Chisago realignment discount option, Xcel customers would save approximately $0.6 million in the 2009-2010 heating season which increase to $1.4 million per year in the 2011-2012 heating season.

Interstate Pipeline Transportation Cost Changes

Based on its projected demand entitlement capacity requirements, and the projected total cost of the entitlements, Xcel is still saving its customer $11 million per year over the cost reflected in its 2006-2007 Petition.

Reserve Margin Changes

Xcel proposed a total company 60,018 Dth/day 2009-2010 heating season DD reserve margin[27] or *7.7%*, which is an increase from the 2008-2009 Heating Season percentage of 0.80%.

Department

February 10, 2010 Comments

The Department's analysis concluded that Xcel's proposal is reasonable, but the Department recommended that the Commission withhold approval of Xcel's petition of its demand entitlement changes until the Department receives and reviews the requested information.

[26] For further details, see 09-1287 petition's Attachment 4, p. 2.
[27] For further detail, see each docket's petition, Attachment 2, Schedule 1, p. 2.

The Department requested in Xcel's *Reply Comments*:

Reserve Margin

The Department concluded that Xcel's DD demand levels and the demand entitlement resources that support the DD demand level change periodically. Xcel's entitlement revisions reflect changes in usage patterns, contract prices, and so forth. The Department believed that the proposed changes associated with the completed Fargo lateral project reflect such changes. But, to ensure that Xcel's proposal is reasonable, the Department requested that Xcel provide more detail as to how the project has affected Xcel's proposed 7.7% reserve margin and what could happen to the reserve margin in subsequent heating seasons.

Fargo Lateral and the one-time realignment on Northern

The Department requested that Xcel provide further information in its *Reply Comments*, on the Fargo lateral entitlement addition and the one-time Chisago realignment on Northern and the changes it allowed or will allow in the St. Cloud and Hugo areas.

Further, the Department reserved the right to examine the final economics of the Fargo Lateral Precedent Agreement cost.

Hedging Transactions

The Department requested that Xcel provide further information in its *Reply Comments* regarding the hedging transactions financial instruments costs.

Xcel

March 1, 2010 Reply Comments

Final Economics and Update Regarding Fargo Lateral Project

As stated in Xcel's initial petition, it purchased firm entitlements of 89,263 Dth/day under the terms of a Cost-Based Precedent Agreement with Viking. In keeping with the terms of the Agreement, on February 11, 2010, Viking provided Xcel with the final construction costs of the Project, which totaled $12.1 million. This amount is $2.6 million less than the $14.7 original petition estimate.

For the 2009-2010 heating season, Xcel purchased the 89,263 Dth/day of firm entitlement for the period November 2009 through March 2010 per the agreement terms. As described in its Petition, Xcel negotiated a true-up formula to determine the final amount of firm entitlement it must purchase from Viking to cover the project construction cost. Xcel applied the Agreement true-up formula to final construction costs and the firm entitlements re-calculated to 73,577 Dth/day.

Xcel's customers had over paid for firm entitlements for the 2009-2010 heating season. Viking proposed to Xcel to reduce the 73,577 Dth/day firm entitlements to 72,213 Dth/day for the period April 1, 2010 through the end of the contract term to compensate Xcel's customers for the overpayment.

Xcel stated that it evaluated Viking's proposal and found it reasonable. The reduction of 73,557 Dth/day firm entitlements to 72,213 Dth/day to the end of the contract term offsets the costs associated with the over-purchased firm entitlements of 15,706 Dth/day.[28]

Reserve Margin Impact of Fargo Lateral Addition and Chisago Realignment and Reasonableness of Reserve Margin

Xcel stated that in its experience with purchasing incremental capacity, the interstate pipeline will rarely accommodate 1% to 2% capacity additions every year to keep pace with a LDC's increasing customer demand. Xcel must purchase capacity in larger increments that temporarily exceed its projected customer growth. This is especially true in the event of interstate pipeline capacity additions involving construction projects.

Typically, when an interstate pipeline expansion project adds new capacity, the project is constructed to build for the LDC's anticipated capacity needs for a period of years. This method enables Xcel to avoid participating in expansion projects annually while benefiting from the economies of scale from the larger projects.

Xcel stated that without the capacity purchased through the Fargo Lateral project, it would not be able to meet the DD requirements of the Fargo lateral requirements.

Reserve Margin

Xcel anticipated that future reserve margins will decrease by approximately 1% per year. Xcel believed that while the reserve margin is elevated initially due to the incremental deliverable capacity of the Fargo Lateral Project, the reserve margin will decline[29] over time and the Project will deliver annual savings to its customers through 2017. Xcel's analysis stated that its customer savings will increase from approximately $323,000 to $616,000 beginning November 1, 2010, ratcheting up from $1.1 million to $1.4 million per year beginning November 1, 2012.

Hedging Transaction Information Included in Filing

Xcel stated that it used the best available information in November 2009 to analyze its hedging transaction options. At the time Xcel filed its initial petition in Docket No. 09-1287, monthly index prices, which the financial instruments are settled against, had not been published for the 2009-2010 heating season. Xcel claimed that it is able determine the actual costs or benefits after the index prices are finalized. Xcel believed that its post-mortem review and full cost/benefit disclosure should be included in its AAA filing each September.

Xcel

June 30, 2010 Petition Updating Attachment

Xcel filed an updated Attachment 4 from its March 1, 2010 Reply Comments. The Attachment was updated at the request of the Department. Xcel updated two pages of Attachment 4 to

[28] Calculation reflects the original firm entitlement of 89,263 Dth/day minus the revised firm entitlements of 73,557 Dth/day.

[29] For further details, see Xcel's Reply Comments, p. 4.

provide additional clarifying information concerning the Fargo Lateral payment options,[30] and further corrected an error in the March 2010 petition. Xcel made further changes[31] that were requested by the Department.

Department

July 2, 2010 Supplemental Comments

Final Economics and Update Regarding Fargo Lateral Project

The Department concluded that Xcel has shown that the firm entitlement purchased through the Fargo Largo Project Precedent Agreement was the best option for its customers. Furthermore, the Department concluded that an April 1, 2010 date to implement the final cost of the Fargo Lateral Project in its PGA is appropriate.

Reserve Margin Effect of Fargo Lateral Addition and Chisago Realignment and Reasonableness of Reserve Margin

The Department concluded that Xcel has demonstrated that its 7.7% reserve margin is acceptable given that anticipated customer demand growth will cause the reserve margin to diminish over the next several years.

Hedging Transaction Information Included in the Filing

The Department agreed with Xcel that the AAA filing made each September is the appropriate vehicle for determining annual hedging costs and benefits.

[Staff notes that the Commission has approved the hedging transactions for the 2009-2010 heating season, but in its February 5, 2014 comments on the 2012-2013 AAA report in Docket No. 13-600, the Department stated that it did not include a hedging analysis in its review and report]

PUC Staff

The Department and Xcel do not have any remaining disputed issues. Staff has commented at the end of this section.

Docket No. G002/M-10-1163 (2010–2011)

Xcel

November 1, 2010 Initial Petition

Interstate Pipeline Transportation Capacity

[30] Attachment 4, page 1 reflects the payment options associated with the Fargo Lateral Project.
[31] For further details, see Xcel's June 30, 2010 petition in this docket.

Xcel stated that the primary reason for 2010-2011 demand entitlement changes is attributable to its increased customer count. Xcel's petition reflected the following Design Day firm transportation capacity changes in its 2010-2011 heating season plan:

1. Northern Natural Gas changes (effective November 1, 2010)

Xcel did not make any modifications to its entitlement levels on Northern from Docket No. 09-1287. On November 1, 2010, Xcel did effectuate the one-time option in its long term Northern transportation agreement to realign 36,316 Dth/day of maximum tariff rate capacity and receive a discount rate ("Northern Chisago realignment discount option"[32]). Xcel stated that the Northern Chisago realignment discount option provides a savings of $1.9 million per year. [33]

2. Viking Gas Transmission changes (effective November 1, 2010)

On November 1, 2010, Xcel executed a Precedent Agreement with ANR for 50,000 Dth/day incremental firm entitlement capacity. The capacity ratchets up to 57,500 Dth/day on November 1, 2011, and up to 66,500 Dth/day on November 1, 2012. This capacity is needed to deliver gas to Marshfield, MN that allowed Xcel to effectuate the Northern Chisago realignment discount option and source gas supplies for the Viking capacity acquired as part of the Fargo lateral expansion project.

3. Great Lakes Gas Transmission changes (effective November 1, 2010)

On March 31, 2010, contract FT0043 for 3,799 Dth/day expired. Xcel negotiated replacement contract FT14739 with a 4 year term (4/1/10 – 3/31/14). The contract volume during the summer months was increased from 3,799 Dth/day to 4,475 Dth/day which is used to fill Xcel's ANR Storage Company ("ANRS") storage in Michigan. Previously, Xcel relied on the capacity release market to acquire additional summer capacity to fill its ANRS storage account.

During the winter months of November through March, the contract volume is reduced from 4,475 Dth/day to 3,509 Dth/day.

Interstate Pipeline Transportation Cost Changes

Based on its projected demand entitlement capacity requirements and the projected total cost of these entitlements, Xcel is still saving its customer $11 million per year over the 2006-2007 Petition.

Reserve Margin Changes

Xcel proposed a total company 49,374 Dth/day 2010-2011 heating season DD reserve margin[34] or *6.3%*, which is a decrease from the 2009-2010 Heating Season percentage of 1.4%.

[32] This Northern realignment capacity option is discussed in greater detail in the above 09-1287 discussion.
[33] For further details, see 10-1163 petition's Attachment 1, Schedule 2
[34] For further detail, see each docket's petition, Attachment 2, Schedule 1, p. 2.

Department

April 15, 2011 Comments

The Department's analysis of Xcel's proposed demand entitlement changes concluded that Northern entitlement costs reduced by $1.9 million, but the decrease was partially offset by an ANR pipeline demand entitlement cost increase.

The Department concluded that Xcel met its reporting requirement for planned use of heating-season financial instruments. The Department recommended that Xcel provide updated information when it is available.

The Department recommended that the Commission approve Xcel's proposed demand entitlements capacity and cost changes, and its proposal to recover costs associated with the demand entitlements changes in the petition effective at November 1, 2010.

Xcel

April 25, 2011 Reply Comments

As required by the Commission's Order in Docket No. G002/M-08-46, Xcel included a table summarizing its financial hedging transactions for the 2010-2011 heating season in its November 1, 2010 petition. Xcel stated that the data was preliminary in its initial petition. Xcel updated Schedule A in its *Reply Comments* with actual information.

Xcel agreed to discuss whether the amount of demand resources needed to serve firm customers should be revised to reflect any measurable changes in the amounts firm customers use on peak days, based on its forecast using 70 data points and any other factors it considers to be reasonable.

Xcel corrected errors in the Department's comments, Xcel believed the Department inadvertently reflected the Minnesota heating season capacity at 743,781 Dth instead of the MN Design Day forecasted demand of 699,611 Dth and reflected the Grand Forks allocation factor increase at 2.1% instead the factor should be 1.9%.

Department

September 30, 2011 Supplemental Comments

The Department acknowledged its errors and thanked Xcel for the corrections.

PUC Staff

The Department and Xcel do not have any remaining disputed issues. Staff has commented at the end of this section.

Docket No. G002/M-11-1076 (2011-2012)

Xcel

November 1, 2011 Initial Petition

Interstate Pipeline Transportation Capacity

Xcel stated that the primary reason for 2011-2012 demand entitlement changes is attributable to its increased customer count. Xcel's petition reflected the following Design Day firm transportation capacity changes in its 2011-2012 heating season plan:

1. *Northern Natural Gas changes (effective November 1, 2011)*

a. In April 2010, Xcel participated in a Northern Zone EF 2011-2012 Open Season to increase capacity[35] to Brainerd, MN effective November 1, 2011. The additional capacity contract term is through October 31, 2024. The contract increases are as follows:

November 1, 2011 - October 31, 2012: 4,359 Dth/day
November 1, 2012 - October 31, 2013: 4,603 Dth/day
November 1, 2013 - October 31, 2014: 4,839 Dth/day
November 1, 2014 - October 31, 2024: 5,075 Dth/day

b. Effective November 1, 2011, Xcel elected its biennial option to increase capacity by up to 5% at its St Cloud Area TBS. Xcel projected that its DD requirement calculations for St Cloud Area will outgrow the daily firm demand entitlements on Northern. To ensure adequate capacity to meet the demands of our firm customers in the St Cloud Area, Xcel elected the following capacity increases:

St Cloud #1 = 1,916 Dth/day
Sartell #1 = 884 Dth/day
Becker #1 = 2,000 Dth/day

Xcel stated that the discount available by using these capacity elections will save Xcel customers an estimated $1.2 million over the term of the contract when compared to maximum tariff rates.

c. Xcel stated that it has a biennial option to increase capacity up to 5% annually at Hugo Area TBS. According to its hourly flow analysis, Xcel stated that it will outgrow its hourly firm entitlement on Northern needed to meet the firm customer's hourly requirements at DD temperatures. To ensure adequate hourly capacity to meet the demands of its firm customers, Xcel elected the following capacity in the Hugo Area:

Stacy #1 = 90 Dth/day

[35] The additional capacity is needed in Brainerd, MN to ensure adequate capacity to meet the demands of firm customers and to maintain a 5% reserve margin in Brainerd during DD requirement weather.

Xcel stated that it estimated these capacity elections would save Xcel customers in excess of $37,000 over the term of the contract when compared to maximum tariff rates.

2. Viking Gas Transmission changes (effective November 1, 2011)

On October 21, 2011, Xcel's Viking backhaul contract AF0036 expired and was not renewed. Xcel determined that it no longer needed this backhaul capacity since it acquired backhaul capacity as part of the Fargo lateral construction project which was described in Docket No. 09-1287.

3. Great Lakes Gas Transmission changes (effective November 1, 2011)

On April 30, 2011, Xcel's Great Lakes backhaul contract FT-0142 expired and was not renewed. Xcel negotiated two displacement supply contracts[36] for 15,297 Dth/day which equaled Xcel's ANR storage withdrawal capacity. The contract term was November 1, 2011 through March 31, 2012.

4. ANR Pipeline changes (effective November 1, 2011)

As previously discussed in Docket No. 10-1163, as part of the Northern Chisago realignment discount option the ANR capacity entitlements ratchet up from 50,000 Dth/day to 57,500 Dth/day.

Interstate Pipeline Transportation Cost Changes

Based on its projected demand entitlement capacity requirements, Xcel was able to project its total cost of the entitlements. Xcel is still saving its customer $10 million per year over the amount in the 2006-2007 Petition.

Reserve Margin Changes

Xcel proposed a total company 47,919 Dth/day 2011-2012 heating season DD reserve margin[37] or *6.1%,* which is a decrease from the 2010-2011 Heating Season percentage of 0.2%.

Department

February 2, 2012 Comments

The Department reviewed and recommended approval of Xcel's Demand Entitlement petition to the Commission.

[36] When called upon, Xcel provided the supplier an amount of gas at Deward, MI out of Xcel's ANR storage account and the supplier will provide the same volume of gas to Xcel at Carlton. The supplier will charge Xcel a daily demand charge for the displaced volumes.

[37] For further detail, see each docket's petition, Attachment 2, Schedule 1, p. 2.

The Department's Inquiries Regarding Demand Entitlement Filings

The Department issued discovery to each regulated Minnesota gas utility requesting input regarding: 1) the annual demand entitlement filing *timeline,* and 2) the reasonableness of acquiring capacity contracts for the upcoming heating season in excess of the amount estimated by the design day analysis.

a. Demand Entitlement Filing Timeline

Based on the Department's discovery responses, there was agreement that the demand entitlement filings could be filed in the summer rather than in the fall. The utilities stated that they could make their filings either on July 1st or August 1st of each year. The Department preferred the earlier timeline because it would enable any reliability issues to be identified and possibly resolved prior to the start of the heating season.

Minn. R. 7825.2910, subp. 2:

> does not specify a timeline for making the demand entitlement filing, the Department recommended that the Commission request Xcel to file, on a going-forward basis, its annual demand entitlement filing by August 1.

b. Acquiring excess capacity contracts above Design Day estimates

The Department requested that each utility provide a discussion regarding its level of capacity procurement as it relates to the demand entitlement filing. The Department requested that the utilities comment on the practice of acquiring capacity contracts in excess of the amount estimated by the design day analysis. The utilities generally stated that because of the nature of the interstate pipeline business, the pipelines generally sell larger blocks of capacity to fully recover capital costs.

The Department was concerned that the LDCs do not provide design day analyses for future heating seasons when requesting cost recovery of additional entitlements above the amount estimated for the upcoming heating season. The Department suggested that, if utilities want to include additional capacity above an adequate reserve margin calculated for the upcoming heating season, the utilities should provide information substantiating that these additional volumes will be necessary for future heating seasons and provide justification for recovery of corresponding costs from ratepayers in the current heating season, prior to the time when such capacity is needed.

Discussion on Xcel's use of data points in its Ave. Monthly DD method

The Department requested Xcel to provide a discussion on its use of 60 data points instead 70 data points in its Ave. Monthly DD method.

Xcel

February 13, 2012 Reply Comments

Xcel stated that it appreciated the Department's February 2, 2012 *Comments* and its recommendation of approval to implement its 2011-2012 Heating Season Supply Plan effective November 1, 2011.

Xcel responded to the Department's February 2, 2012 *Comments* that requested additional discussion on three issues in Xcel's *Reply Comments*:

The Department requested that Xcel explain why it used only 60 data points and state whether it has plans to increase the number of data points in subsequent year's demand entitlement filings

Xcel stated that the reason 60 data points were used instead of 70, is that it prefers to use whole years of data for its Ave. Monthly DD model regressions. Since Xcel implemented a new customer database in 2005, there are only 10 months of data available for 2005. Xcel removed the 2005 data from its regression studies and used years 2006 through 2010.

Accordingly, Xcel preferred to use 60 data points in its design-day regression studies referenced in the Department's comments on April 15, 2011 pertaining to Docket No. 10-1163. To address the Department's concern, Xcel provided in its *Reply Comments* a re-calculation of its regression model reflecting 70 data points, March 2005 through December 2010. Xcel explained that the difference in data points provided a *de minimus* impact[38] on Xcel's design day calculation.

The Department's request that Xcel file its annual demand entitlement filing by August 1

Xcel stated that it is willing to file its annual demand entitlement filing by August 1 in the future.

The Department's Request for Discussion on Excess Demand Entitlements above the Current Capacity requirements

Xcel responded with the same arguments made in Docket No. 09-1287, in that an interstate pipeline generally constructs capacity to meet future needs. A LDC cannot just purchase capacity for its current needs, it must project its future needs at the time of capacity construction.

Department

November 1, 2012 Supplemental Comments

Number of Data Points Used in the Average Monthly Design-Day Forecast

The Department reviewed Xcel's re-calculation of the Avg. Monthly DD forecast with 70 data points and concluded that the 10 additional data points had little effect on the outcome of the Xcel's design day forecast. The Department concluded that it is reasonable to exclude the 10 data points from the forecast in the current docket.

[38] For further details, see Xcel's Reply Comment, pp. 1-2 and Attachments 1 and 2.

The Department does not recommend that the Commission determine at this time that a rolling 60-month data set is the correct data to use in future demand entitlement filings, Xcel's filings can rely on that approach so long as the Company retains the data back to the full year of 2006.

Making the Annual Demand Entitlement Filing by August 1

The Department noted that Xcel made its 2012 Demand Entitlement filing on August 1, 2012, as stated. The Department appreciated Xcel's willingness to make this change which allowed the Department to review the Company's proposed demand entitlements prior to each heating season.

PUC Staff

The Department and Xcel do not have any remaining disputed issues. Staff has commented at the end of this section.

Docket No. G002/M-12-862 (2012-2013)

Xcel

August 1, 2012 Initial Petition

Interstate Pipeline Transportation Capacity

Xcel's petition reflected the following Design Day firm transportation capacity changes to its 2012-2013 heating season plan, effective on November 1, 2012:

1. *Northern Natural Gas changes*

As discussed in Docket 11-1076, Xcel required additional capacity in Brainerd, MN to ensure adequate capacity to meet the demand needs of its firm customers and its desired 5% reserve margin in Brainerd during DD requirement weather. On November 1, 2012, the capacity at Brainerd ratcheted up to 4,603 Dth/day from 4,359 Dth/day.

2. *Viking Gas Transmission changes*

Xcel stated it acquired 14,287 Dth/day backhaul capacity on Viking terminating at Marshfield, MN. The capacity term is December, 1, 2012 through February 28, 2013 and was used to meet design day requirements of firm customers served off Viking during the coldest winter days.

3. *Great Lakes Gas Transmission changes*

Xcel negotiated a similar displacement contract that it used in Docket No. 11-1076 for its ANR storage withdrawal season of November 1, 2012 through March 31, 2013. Xcel stated that its decision was the most economical option.

4. ANR Pipeline changes

As previously discussed in Docket No. 10-1163, as part of the Northern Chisago realignment discount option the capacity entitlements ratchet up from 57,500 Dth/day to 66,500 Dth/day on November 1, 2012

Interstate Pipeline Transportation Cost Changes

Based on its projected demand entitlement capacity requirements, Xcel was able to project its total cost of the entitlements. Xcel is still saving its customer $9 million per year over the amount in the 2006-2007 Petition.

Reserve Margin Changes

Xcel proposed a total company 48,400 Dth/day 2012-2013 heating season DD reserve margin[39] or *6.1%*, which reflects no increase/decrease from the 2011-2012 heating season.

Department

September 14, 2012 Comments

The Department concluded that Xcel's changes in DD entitlement capacity and cost resources were supported with reasonable analysis. The Department stated Xcel's petition reflected no new savings for ratepayers, but it continues to take advantage of discounts that it put in place as part of agreements it signed earlier and has increased the volumes acquired under those agreements as planned. The Department concluded that the changes for 2012-2013 demand entitlements are reasonable.

Xcel

September 24, 2012 Reply Comments

March 6, 2013 Supplemental Comments

In its September 14, 2012 Comments, the Department requested that Xcel provide additional information in its *Reply Comments* on the following:

Updated 2012 – 2013 Winter Hedging Cost Information

Xcel stated that the winter hedging cost information provided in Attachment 3, Schedule 1 of its initial petition dated August 1, 2012 is up to date. Xcel has not entered into any new transactions since June 30, 2012 because its variance for including financial hedging costs in the PGA expired.[40]

[39] For further detail, see each docket's petition, Attachment 2, Schedule 1, p. 2.
[40] Last extended in Docket No. G002/M-08-46

Xcel further stated that all current transactions were costless collars so no upfront hedging costs have been incurred for the upcoming winter; Xcel has no new hedging costs to report at this time. Xcel expected that no new hedging cost will incurred in the 2012-2013 heating season. If hedging costs are incurred, Xcel indicated that it will report those costs in its next AAA report**.**

PUC Staff

The Department and Xcel do not have any remaining disputed issues. Staff has commented at the end of this section.

Docket No. G002/M-13-663 (2013-2014)

Xcel

August 1, 2013 Initial Petition

Interstate Pipeline Transportation Capacity

Xcel's petition reflected the following Design Day firm transportation capacity changes to its 2013-2014 heating season plan, effective November 1, 2013:

1. Northern Natural Gas changes

a. As discussed in Docket 11-1076, Xcel required additional capacity in Brainerd, MN to ensure adequate capacity to meet the demand needs of its firm customers and its desired 5% reserve margin in Brainerd during DD weather. On November 1, 2013, the capacity at Brainerd ratcheted up to 4,839 Dth/day from 4,603 Dth/day.

b. In April 2012, Xcel entered into two incremental capacity contracts[41] with Northern for 2,078 Dth/day at Hugo, MN and 257 Dth/day at its Stacy #1. Xcel stated that these contracts are necessary to ensure adequate capacity to meet the DD requirements of its firm customers.

c. Xcel elected to exercise its Northern biennial option to increase capacity by 881 Dth/day on the Paynesville lateral and 617 Dth/day on the Watkins lateral located on Northern system.

2. Viking Gas Transmission changes

a. Xcel entered into an agreement to purchase 14,287 Dth/day of backhaul capacity on Viking. The contract term of this capacity will be December, 1, 2013 through February 28, 2014 and is used to meet design day requirements of firm customers served off Viking during the coldest winter days.

[41] Part of Xcel's Northern biennial growth election option previously discussed.

b. Xcel entered into a forward haul capacity contract for 5,713 Dth/day on Viking. The capacity is needed to meet Xcel's firm DD requirements and maintain its reserve margin on Viking for the Fargo Lateral.

3. Great Lakes Gas Transmission changes

In July 2013, Xcel entered into a backhaul capacity contract with Great Lakes for 6,706 Dth/day that delivered storage withdrawals from ANR Storage. Previously, Xcel has entered into displacement contracts that delivered the same storage withdrawals, but for the 2013-2014 heating season, the displacement contracts became un-economical and the backhaul contract on Great Lakes was the economical choice.

Interstate Pipeline Transportation Cost Changes

Based on its projected demand entitlement capacity requirements, Xcel was able to project its total cost of the entitlements. Xcel is still saving its customer $8 million per year over the amount in the 2006-2007 Petition.

Reserve Margin Changes

Xcel proposed a total company 47,639 Dth/day 2013-2014 heating season DD reserve margin[42] or *6.0%*, which is a decrease from the 2012-2013 Heating Season percentage of 0.1%.

Department

August 30, 2013 Comments

The Department recommended that Xcel fully explain, in its Reply Comments:

Whether the customer count figure for the 2012-2013 heating season presented in the current filing is correct

The Department noted that the customer count figure from the 2012-2013 heating season is not the same as the projected figure referenced in the Company's last demand entitlement filing.

Whether the Company has considered the use of a daily regression analysis and, if so, why it decided to maintain its current method of analysis…. If Xcel has not considered the use of a daily analysis, it should provide a discussion of whether a daily analysis is feasible, and reasonable, to use for its gas system

The Department concluded that it is unsure if Xcel's Ave. Monthly DD method represents the best available option to calculate its Design Day requirements. The method used by Xcel estimated peak-day consumption by calculating the slope on a monthly average usage per degree day over the 60 month period from January 2008 to December 2012. The Department's potential issue with Xcel's method is twofold.

[42] For further detail, see each docket's petition, Attachment 2, Schedule 1, p. 2.

a. First, the method assumes that natural gas consumption is constant at all temperatures; in other words, the Company's approach assumes that a change in temperature from 1 HDD to 2 HDD (*i.e.,* 59°F to 58°F) is the same as when it is 79 HDD to 80 HDD (*i.e.,* -14°F to -15°F).

b. Second, Xcel's method used is an average *monthly* design day, which means a given temperature with the average demand area consumption would be a certain amount during a given month. The Department stated that under many instances, the Ave. Monthly DD method is not unreasonable, but the goal of a design-day analysis is to determine forecasted consumption on a peak day.[43] On a peak day, the individual consumption characteristics for each ratepayer are likely to be above average, so the average monthly calculation may not be appropriate. This conclusion is supported by the fact that the results of Xcel's UPC DD method, which is based on an actual high consumption event, generally resulted in higher forecasted design day requirements than the Avg. Monthly DD method.

Given the fact that Xcel uses a dual method approach, the Department does not believe that Xcel's Avg. Monthly DD method is unreasonable, and the Department agrees with Xcel that the Company should continue to use the two methods to develop its design-day estimate, updating the UPC DD method when appropriate.

The Department recommended that Xcel provide a discussion in *Reply Comments* stating whether the Company has considered the use of a *daily*, regression based, design-day analysis and, if so, why it decided to maintain its current analysis. If Xcel has not considered the use of a daily analysis, the Company should provide a discussion of whether a daily analysis is feasible, and reasonable, to use for its gas system.

> *Whether Xcel believes the current peak-day definition (coldest temperature in the past 20 years) is appropriate or whether maintaining the 1995-1996 heating season event as the planning objective, on a going-forward basis, is more appropriate; and*

The Department stated that a DD has generally been interpreted as the coldest 24-hour average temperature in the past 20 years.[44] The Department recommended that Xcel provide a detailed

[43] The Department stated that there are various different ways to estimate usage on a design day. The Department noted that most Minnesota gas utilities forecast expected design day consumption using regression models based on daily consumption data. The use of daily data increases the amount of data available, and the granularity of the analysis, but it also requires estimation of daily interruptible load because interstate pipelines do not meter consumption data at the class level. In terms of Xcel's analysis, the use of an average monthly method reduces the level of specificity in the data on a day-to-day basis, but it does remove the issue of having to estimate interruptible usage because monthly interruptible consumption is readily available at the local distribution company (LDC) level.

[44] Such an event occurred during the 1995-1996 heating season, but that event's 20-year anniversary of the coldest day for most Minnesota natural gas utilities is approaching. The Department noted that since the 1995-1996 heating season there has not been a cold weather event that has equaled what occurred during that heating season. Thus, the design-day planning target for the natural gas utilities will change, and become less stringent, in the near future. Minnesota ratepayers will benefit from a less stringent planning objective through lower demand costs; however, if a

discussion in its *Reply Comments*, explaining whether it believed the current DD definition (coldest temperature in the past 20 years) is appropriate or whether maintaining the 1995-1996 heating season event as the planning objective, on a going-forward basis, is more appropriate.

Hedging Cost

That the Company provide, in its November 1, 2013 supplemental filing, an update on any hedging transactions that are entered into for the 2013-2014 heating season.

Xcel

September 9, 2013 Reply Comments

Xcel submitted its Reply Comments to the Department's August 30, 2013 Comments for its Petition seeking approval of changes in contract demand entitlements and responded as follows:

Customer Count

Xcel stated that its schedule within the petition is consistent with past practice, the 2012-2013 customer count is based on a projection. Xcel has routinely used a projection because it cannot specify the exact number of customers on our system during a peak day. Xcel noted that this approach has been accepted by the Commission as part of prior contract demand entitlement filings.

The 2012-2013 customer count reflected in Xcel's Docket No. 13-663, Attachment 2, Page 2 is the number of firm customers used in the design day calculation for the given year. This column references footnote 2 on the attachment which states that the customer count is a projection. Xcel does not update the projected customer count to actual count from the previous year. This attachment reflected how forecasted design day and demand entitlements compare to actual peak day send-out by heating season.

Daily, Regression Based, Design-Day Analysis

Xcel stated that it has not proposed daily design day analysis because it believed the current approach provided better results. The Department pointed out that the daily interruptible sales must be estimated because metering equipment does not measure gas flows at the class level. Xcel believed that errors between estimated and actual interruptible throughput could skew use per customer data and provide less than accurate regression results. Xcel further stated that its current design day methodology does not require interruptible throughput to be estimated and produced regression results that are very robust with most R-squares over 95%. Given this, Xcel believed that the current method is more reasonable than a daily design day analysis.

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cold weather event similar to the 1995-1996 heating season were to occur in the future, under different planning requirements, reliability could be at risk

Peak-Day Definition

Xcel stated that it used January 29, 2004 data to develop its actual per customer use of 1.57393 Dth/day. Xcel has used this metric for at least the last eight years in its design day planning and that there are presently no plans to change at this point. Xcel stated that the January 29, 2004 use is the highest (peak day) value.

Xcel

November 1, 2013 Supplemental Filing

In its August 30, 2013 comments, the Department recommended Xcel provide a supplemental petition on November 1, 2013 that detailed Xcel's final demand entitlement levels and costs. Further, the Department recommended that Xcel provide an update on any hedging transactions that were entered into for the 2013-2014 heating season.

Changes to Interstate Pipeline Transportation Capacity

1. *Viking Gas Transmission changes*

In its initial 13-663 Petition, Xcel planned to purchase 14,287 Dth/day of firm backhaul capacity on Viking and 5,713 Dth/day of firm forward haul capacity for the months of December-February. Xcel's analysis identified a less expensive option that does not require the purchase of the backhaul capacity. Xcel purchased 10,542 Dth/day of Viking forward haul capacity and used existing Northern upstream capacity (9,458 Dth/day) at Chisago, MN to meet DD requirements. This reduced Xcel's costs by $90,328 from the initial Petition.

2. ANR Pipeline changes

Xcel released upstream capacity on ANR that is not needed for DD requirements. This reduced Xcel's costs by $85,500 for the initial Petition.

Update on Hedging Transactions

Xcel provided an update to its hedging transactions[45]. Xcel stated that it executed two call options and planned to purchase one more call option for the 2013-2014 heating season.

Department

March 4, 2014 Supplemental Comments

On November 1, 2013, Xcel made its *Supplemental Filing* which shows its final demand entitlement volumes and costs. The Department responded to the *Supplemental Filing* and Xcel's *Reply Comments* below.

[45] For further details, see Xcel's November 1, 2013 Supplemental Petition, Attachment 3, Schedule 1.

Customer Counts

The Department concluded that Xcel has adequately explained how it used the customer count projection in its DD calculation. The Department did not have any additional comment.

Daily Design-Day Method

The Department concluded that Xcel's response was reasonable. Further, the Department reiterated that it inquired about Xcel's consideration of other design-day methods to get a better idea of whether it keeps apprised of other methods that may be more suitable for design-day estimation. Based on Xcel's response, the Department does not have additional comments.

Estimation of Future Peak-Day

The Department concluded that Xcel's response is appropriate. The Department agreed with Xcel that using the information from January 29, 2004 within Xcel's UPC DD method to estimate its peak day is reasonable.

The Department requested Xcel to provide *clarification* in regard to its calculation of the demand cost impacts in its Supplemental Filing.

Xcel

March 11, 2014 Reply Comments

Xcel's Reply Comments addresses the Department's March 4, 2014 Supplemental Comments. The Department requested that Xcel provide a full explanation of how it derived the calculation of the demand cost impacts in its November 1, 2013 Supplemental Filing, Schedule 1, Page 4 of 4.

Xcel responded by submitting additional schedules that explained its original calculations as requested by the Department. Xcel submitted Schedule A that illustrated how it calculated the cost impacts in its November 22, 2013 Supplemental Filing, Schedule 1, Page 4. Xcel states that its calculations included rates from its November 2013 PGA filing and seasonal usage that were not filed in the Supplemental Filing, which made it impossible for the Department to duplicate.

Xcel submitted Schedule B that stated its interpretation of DOC Attachment S-1. There are a few differences that account for the differences in rate impacts to firm non-demand billed and interruptible classes.

The usage volumes in Schedule B are equal to the usage volumes in Schedule A, which do not equal the volumes used in DOC Attachment S-1 for the Commercial Firm classes.

Schedule B includes winter and summer uses per customer and DOC Attachment S-1 includes only annual uses per customer (as mentioned above, seasonal usage was not available to the Department).

Schedule B includes winter and summer demand rates, whereas DOC Attachment S-1 only included winter rates. Winter rates are the only ones that changed under the revised proposal, but to do an annual bill comparison one also needs to consider summer demand rates.

Schedule B does not include the Monthly Demand Cost True-up factor because the factor unnecessarily complicates annual bill comparisons. However, since they are the same whether or not one uses the revised allocation proposal, they don't affect a dollar comparison of rates. Depending on the size of the rates, it can affect the percentage.

Xcel further stated that in recent years, it has included blended annual rates in its demand entitlement petitions to facilitate comparison to other gas utilities. Most Minnesota natural gas LDCs do not have seasonal demand rates. On Schedule B, Xcel has included blended annual rates for illustrative purposes.

Department

April 9, 2014 Letter

The Department stated it appreciated Xcel's clarification of its bill impact calculations and concluded that the bill impacts calculated in Schedule B of its March 11, 2014 Reply Comments represent the bill impacts that would be charged to ratepayers. In an effort to minimize confusion in future demand entitlement filings, the Department recommended that the Company provide clearly marked schedules and bill impact calculations, broken down by season, such that the calculations correspond with the monthly PGA filings.

Further, the Department reviewed Xcel's provision of annual bill impacts to facilitate comparison between utilities. The Department recommended that this information continue to be provided in future demand entitlement filings, but marked as being for illustrative purposes and not representative of actual bill impacts to Xcel ratepayers.

The Department recommends that the Commission accept Xcel's DD analysis, accept the Company's proposed level of demand entitlement, and allow Xcel to recover associated demand costs through the monthly PGA effective November 1, 2013, as revised by the Company's November 22, 2013 Supplement.

PUC Staff

Staff has reviewed the submitted petitions in all the above listed dockets and the comments by both the Department and Xcel. While staff agrees with most of the Department's recommendations that the demand entitlement capacity and cost changes are reasonable, staff offers some additional discussion:

Peak Day versus Design Day

The parties (Xcel and the Department) seemed to use both of these terms interchangeably. Staff is providing the MN Rule definition for both terms.

Design Day - Minn. Rule, part 7825.2400, Subp. 13d.

This rule defines design-day as "a 24-hour-day period of the greatest possible gas requirement to meet firm customer needs."

Peak Day - Minn. Rule, parts 7851.0010, Subp. 21 and 7610.0800, Subp. 21.

Both of these rules define peak-day as "the 24-hour period of greatest gas send-out." Peak-day send-out is often referred to in comparison to the design day forecast. The historical peak-day and the amount of gas sent-out from the gas utilities' system refers to the actual amount of gas sent out from the LDC over a 24-hour time period. Each year has a peak-day and each utility has a record for its all-time, historical peak-day. Peak-days are usually lower than the design-day and to ensure the ability to provide reliable service to firm customers, the peak-day should always be less than the design-day plus a reserve margin.

Design Day Calculation Methodologies

For all seven dockets incorporated into these briefing papers, Xcel used its Actual Use per Customer Design Day (UPC DD) method to calculate its annual design day (DD) requirements. Xcel annually projects its customer count for the upcoming contract year and applies it to the actual use per customer DD factor of 1.57393/Dth[46] with the result being its DD requirements. In its 2004-2005 demand entitlement petition, Xcel introduced the UPC DD model.

An example of Xcel's projected DD requirements calculation is based on its 2007-2008 projected 476,092 customers * 1.57393/Dth[47] which equals its DD projection of 749,129 Dth/day.[48] The demand billed customers' requirements (20,938 Dth/day) are then added together to determine Xcel's total heating season DD requirement of 770,067 Dth/day.[49]

[46] The peak day actual use per firm customer factor was developed using the 2004-2005 Heating Season Plan data (January 29, 2004) and has not been updated in any of the demand entitlement petitions filed by Xcel since then. For calculation details, see each docket's initial petition Attachment 1, Schedule 3, p. 2. Xcel further stated that January 29, 2004 is the coldest day on its system in the last 20 years.

[47] Xcel stated that it periodically reviews the actual per customer peak day actual use factor and updates as necessary.

[48] Includes all residential and commercial customers.

[49] For further details, see each docket's Attachment 1, Schedule3, p. 1.

After calculating its projected DD requirements, Xcel uses its Average Monthly Design Day (Avg. Monthly DD) model[50] to spread its DD requirement across all the system's regions/states. For all dockets, Xcel used 15 different regions and 2 states (MN and ND).[51] Prior to the 2004-2005 demand entitlement petition Xcel used its Avg. Monthly DD model[52] to estimate its projected DD requirements.

The Department has reviewed how Xcel used its models in every listed docket. The Department raised the following questions and requested Xcel to file its discussion in it *Reply Comments*:

a. Why Xcel used the UPC DD model to develop its DD projection as opposed to using a more traditional linear regression model[53]?

In its *Reply Comments*, Xcel discussed that it had used its regression model prior to 2004-2005. In 2004-2005, Xcel changed its DD calculation method to the UPC DD method. Xcel tested the results of both methodologies and determined that the results were similar. Xcel discussed that the UPC DD method was its preferred method and the tested results of both which were determined similar, that it believed the UPC DD method provided a simpler calculation. The Department reviewed the *Reply Comments* and found that Xcel's calculation was reasonable.

b. Why Xcel used the Ave. Monthly DD model as opposed to a *daily* DD model? [54]

In its Docket No. 13-663 *Reply Comments*, Xcel responded by stating the daily linear regression analysis required more data within the model and would further require Xcel to use estimated amounts for the interruptible sales customers. Xcel believed that this might lead to a distorted analysis, therefore, believes its Ave. Monthly DD model would produce the most accurate result. The Department reviewed the *Reply Comments* and found that Xcel's calculation was reasonable.

c. Why Xcel used January 29, 2004 as its coldest day instead of the 1995-96 heating season as its Design Day requirement calculation?[55]

In its Reply Comments, Xcel stated that the 20 year period which would include the 1995-1996 winter season has almost expired from being included from a 2014 proposed calculation. Further, Xcel concluded that winter conditions have changed during the last 20 years and that January 29, 2004 provided a more realistic DD requirement calculation. The Department reviewed the *Reply Comments* and found that Xcel's discussion was reasonable.

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[50] This model is a traditional linear regression analysis.
[51] For further details, see each docket's Attachment 1, Schedule 1, p. 1.
[52] The Ave. Monthly DD model calculates a variety of factors that include Heat Degree Day (HDD), Monthly Base Use factor and others. These factors are different by region thus impacting the regional DD requirements. In its 2008-2009 petition re-configured its regions that allowed Xcel to better align its DD requirements to regions.
[53] The Department reviewed both of Xcel's DD methodologies in every docket.
[54] Docket No. G002/M-13-663 (2013-2014)
[55] Id.

Department Recommendation

The Department has reviewed Xcel's DD models and concluded that Xcel has provided sufficient data supporting its position in all the listed dockets. The Department has recommended that the Commission approve the petitions, as filed.

PUC Staff Recommendation

Staff agrees, however, staff urges Xcel to review its models periodically to ensure accuracy in its DD requirement calculations, especially when the 2013-2014 heating season is considered.

Northern Natural Gas (NNG) Annual Re-determination of its TF12 Base/Variable split

As noted previously in the above Docket No. 07-1395 discussion, Xcel previously requested a demand entitlement petition extension to its November 1 deadline in order to receive from Northern the annual re-determination of its TF12 entitlements split between base/variable.[56] Xcel proposed to include the actual revised Base/Variable split in its Annual Automatic Adjustment (AAA) and Purchased Gas Adjustment (PGA) true-up filing due September 1, 2008. Xcel stated that this approach is similar to what other gas utilities do in MN.

Northern allocated its TF12 transportation entitlements between the TF12 Base (TF12B) and TF12 Variable (TF12V) entitlements. This allocation calculation was performed by Northern annually based on actual throughput from May through September of the current year.

Department Recommendation

The Department reviewed Xcel's proposal and considered it to be reasonable. The Department recommended that the Commission approve Xcel's proposal.

Staff Recommendation

Staff agrees.

Customer Count

In each of the listed dockets, Xcel has provided its customer count projection. Xcel has stated that its demand entitlement petitions provide only projected customer count data and Xcel does not update to actual customers when reflecting prior year data. Thus, all customer count data reflected in Xcel's demand entitlement petitions are based on projections.

The Department raised the question as to why Xcel experienced a customer count decrease in its 2008-2009 demand entitlement petition when compared to its 2007-2008 Petition. For the 2007-2008 heating season, Xcel projected its MN customer count at 431,503 and for ND at 44,589

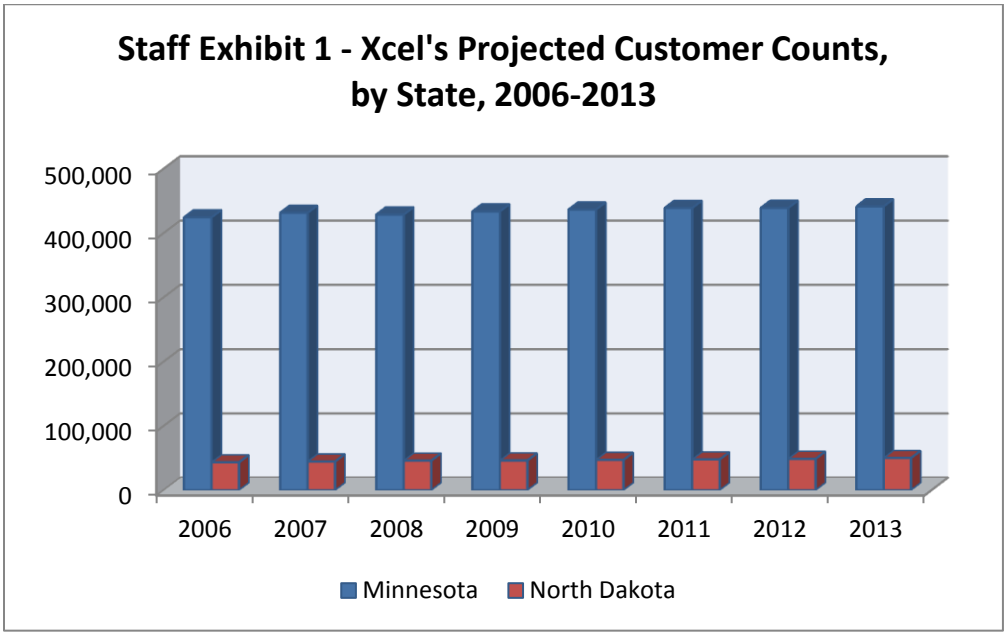
[56] The entitlement split is based on Northern' allocation of the TF12 transportation entitlements it made between the TF12 Base (TF12B) and TF12 Variable (TF12V) entitlements. This allocation calculation was performed by Northern annually based on actual throughput from May through September of the current year.

(476,092 total system). For the 2008-2009 heating season, Xcel projected its MN customer count at 428,852 and for ND at 45,875 (474,727 total system). In MN, Xcel projected a 2,651 customer decrease in 2008-2009 compared to the 2007-2008 heating season. However, in ND, Xcel projected an increase of 1,286 customers between the two heating seasons. The Department requested that Xcel provide additional discussion in its *Reply Comments*.

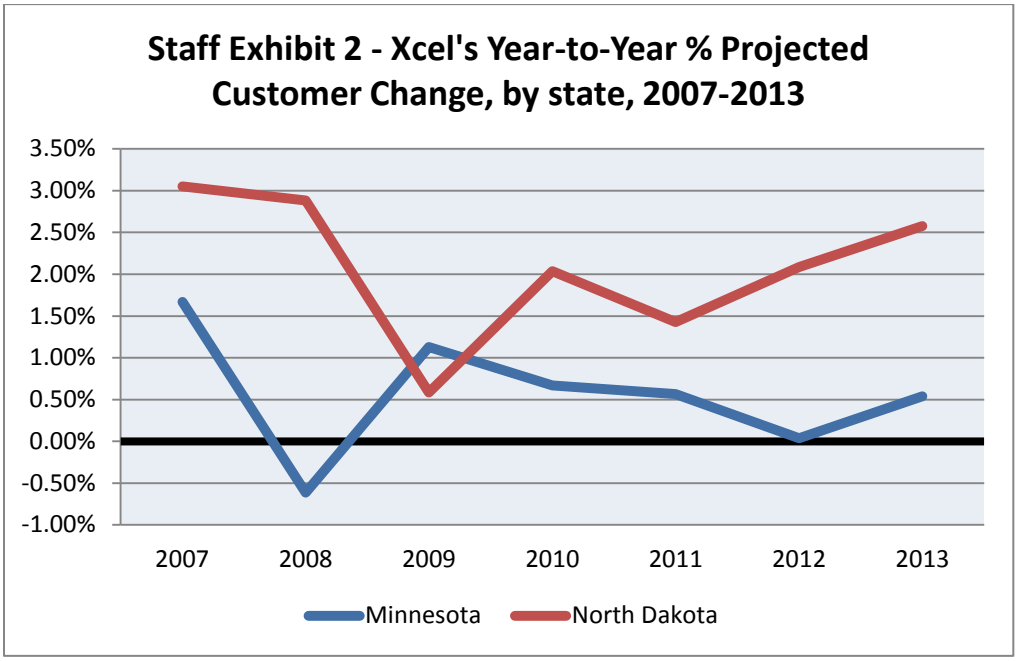
Xcel' *Reply Comments* stated the reason for the decrease in customer count in the 2008-2009 Petition was that it did not achieve its projected 2% growth rate reflected in its 2007-2008 demand entitlement petition. Xcel stated its reason for not achieving its 2007-2008 projected customer count was due to the 2007/2008 economic slowdown. Xcel stated that its 2008-2009 demand entitlement petition customer count was adjusted for its lower growth rate compared to the 2007-2008 demand entitlement projection, therefore, the 2008-2009 petition resulted in a reduction.

Staff concluded that in every demand entitlement petition except the 2008-2009 Petition, Xcel reflected an increase in its customer count in MN; however, these customer count increases are relatively small from year to year. Xcel has included customer count increases in every year for its projections in ND and these are much larger increases on a percentage basis then the projected MN customer count increases.

Staff summarized Xcel's projected customer counts[57] for each docket in its Appendix A, Schedule 6 and offers Staff Exhibit 1 which illustrates Xcel's projected customer growth pattern over the last seven years. Staff has further illustrated Xcel's projected customer count growth[58] on a percentage basis in Staff Exhibit 2



[57] Reflects both MN and ND projected customer counts.
[58] Id.



As illustrated in Staff Exhibit 1, Xcel projected a slight MN customer count growth rate from 2007 to 2013, but a much higher ND customer count growth rate from 2007 to 2013.

	Total projected increase in customer count from 2007-2013	Total Period Increase from 2007-2013 as a Percentage	Average increase over the 7 year period
Minnesota	10,070	2.3%[59]	0.33%
North Dakota	5,417	12.15%[60]	1.74%

As has previously been stated, Xcel blamed the 2007/2008 economic slowdown for not achieving its projected 2% growth rate in MN. But, Xcel has not reflected a similar pattern in its ND customer growth pattern. In ND, Xcel has enjoyed a much higher projected customer count growth rate in every year.

[59] Xcel projected its 2007 MN customer count at 431,503 and in 2013 at 441,573. The period growth rate is calculated at 2.3% (441,573-431,503/431,503).
[60] Xcel projected its 2007 ND customer count at 44,589 and in 2013 at 50,006. The period growth rate is calculated at 12.15% (50,006-44,589/44,589).

Department Recommendation

The Department reviewed every docket's projected customer count for MN. The Department did inquire into the decrease that occurred between 2008-2009 and 2007-2008 projections and the Company did provide additional discussion in its 2008-2009 *Reply Comments*. After the Department's review, it recommended to the Commission that it approve Xcel's customer count projection. Further, the Department recommended to the Commission that it approve the projected customer counts from all other listed dockets.

Staff Recommendation

Staff does not necessarily disagree with the Department's recommendations; however, it would like to see Xcel provide further explanation in a supplemental filing as to why its economic slowdown explanation for the customer count decrease in 2008-2009 applies only to MN and not ND.

Re-alignment of customers in Xcel's service regions

As previously mentioned above, Xcel proposed to re-align its customers within its service regions in Docket No. 08-1315. The service regions are developed in Xcel's Ave. Monthly DD model and are used to allocate Xcel's DD requirement to each region. The importance of its service regions was defined by Xcel's use of different factors, such as Heating Degree Day factors, which are different depending on the service region, and which help determine Xcel's DD requirements by regions. According to Xcel, this provided assurance that it has enough supply and transportation capacity to serve each region's DD requirements.

The Department reviewed Xcel's proposal and requested that it provide an explanation of the impact of re-alignment on its customers into different service regions in its *Reply Comments*.

In its *Reply Comments*, Xcel stated that the re-alignment of customers caused different alignment of its DD requirement by service region, which would better service its customers. Xcel stated that the reason for the different result in customer service regions was that it used its Fargo HDD for the Fargo/Grand Forks demand regions in the 2008-2009 Ave. Monthly DD regression analysis, whereas in the 2007-2008 Ave. Monthly DD regression analysis, the Minneapolis/St. Paul HDD was used.

Department Recommendation

After reviewing Xcel's Reply Comments, the Department recommended that the Commission approve Xcel's proposed re-alignment.

Staff Recommendation

Staff agrees.

[Staff notes that Docket No. 08-1315 was the only docket that Xcel proposed to re-align its customer service regions.]

Fargo Lateral Precedent Agreement

On May 15, 2008, Xcel entered into a cost-based Precedent Agreement with Viking for additional capacity in the Fargo, ND, Moorhead, MN, and Dilworth, MN ("Fargo Area"). Xcel believed that the 2009 Fargo lateral additional capacity was to necessary meet firm DD requirements on both an hourly and daily basis when capacity shortfalls were possible. Xcel considered a variety of options on how to increase the available capacity. Xcel determined that the Cost-Based Precedent Agreement[61] would be the best option. Xcel stated that the majority of the Viking project was to replace current 8 inch service pipe with 12 inch.

Because of construction delays, the Viking project was not completed for the 2008-2009 heating season. Xcel adjusted its supply portfolio to cover its DD requirements in the Fargo, ND area. Viking committed to having the Fargo Lateral project completed for the 2009-2010 heating season.[62]

For Docket No. 09-1287, the Fargo Lateral Agreement went into effect. On November 1, 2009, in accordance with the Agreement terms, a new firm capacity 8 year contract for 89,263 Dth/day started. Viking had estimated that the new lateral would produce an annual cost of $4.9 million, which produced a Viking monthly demand rate of $4.575 per month. Of the newly contracted capacity, Xcel stated that 57,178 Dth/day would be delivered into the Fargo area. The total lateral construction cost was $14.7 million.

The Department's reviewed both of Xcel's dockets and concluded that the portfolio adjustments were reasonable.

Department Recommendation

After review, the Department recommended that the Commission approve the Fargo Lateral costs and determinant level.

Staff Recommendation

Staff agrees.

Fargo Lateral Economic True-up Adjustment

As part of the Fargo Lateral economics, the Precedent Agreement included a provision that required Xcel's per Dth quantity to be re-calculated once the final project cost was known; this was projected to be in February 2010. Xcel has contracted for 89,263 and had included this amount in its 2009-2010 demand entitlement petition which had been collected from its customers during that heating season. Pursuant to the Precedent Agreement, the final cost was determined to be $12.1 million; a $2.6 million reduction or a decrease of 18%.

[61] For further details, see the 09-1287 petition's Attachment 4, p. 1

[62] See discussion for the December 30, 2008 revised filing for Xcel's 2008-2009 winter season requirements.

The negotiated true-up formula re-calculated the final amount of firm entitlement that Xcel must purchase from Viking to cover the project construction cost; the re-determined capacity was 73,577 Dth/day. This meant that Xcel had over-collected by 15,686 Dth/day[63] during the time period from November 1, 2009 through March 31, 2010. Viking proposed to Xcel to reduce the re-calculated 73,577 Dth/day firm entitlements to 72,213 Dth/day for the period April 1, 2010 through the end of the contract term to compensate Xcel's customers for the overpayment; a reduction of 1,364 Dth/day or a decrease of 1.9%. The Department reviewed the docket's discussion and concluded that the adjustments were reasonable.

Department Recommendation

After review, the Department recommended Commission approval the Fargo Lateral costs and determinant level.

Staff Recommendation

Staff disagrees. From the record, staff cannot determine what the revised annual cost is under the capacity re-calculation; or the monthly demand rate. Staff cannot determine if Xcel's customers are receiving the appropriate refund for the over-collected capacity. Staff believes that the Commission should require Xcel to provide this information and the supporting calculation in determining if this re-calculated capacity level provides an appropriate refund to its customers; in a supplemental filing. (This assumes the Commission accepts Vikings/Xcel's proposal to refund the over-collection.)

The Commission may wish to adopt another refund methodology for the over-collection flow back to Xcel's customers. The Commission could adopt a methodology that would calculate the remaining refund at a certain date and require Xcel to credit the appropriate cost in its demand entitlement petition or its monthly PGA petitions; this refund could be a one-time credit or amortized over a time period of 2 or 3 years.

In Docket No. 11-1076, the Department Requested Xcel Discussion on the following:

a. Discussion on Changing the Filing Date to August 1 from November 1

Because of timing issues with filing at November 1, the Department sought discussion from Xcel and other utility companies on moving its filing date from November 1 to August 1 or earlier, if possible. Xcel's comments indicated that it would not object and agreed to move the date to August 1. Xcel began using its August 1 filing date in Docket No. 12-862.

[63] Calculation reflects the original firm entitlement of 89,263 Dth/day minus the revised firm entitlements of 73,557 Dth/day.

Department Recommendation

The Department recommended that the Commission approve Xcel's new August 1 filing date.

Staff Recommendation

Staff Agrees.

b. Discussion from Xcel on the Reasonableness of Acquiring Contract Entitlements in Excess of its DD analysis

In Xcel's Reply Comments, it stated the excess contract entitlements were for Reserve Margin purposes or were caused by interstate pipeline construction projects. The Reserve Margin capacity is always included in Xcel's contract entitlement calculation; represents the capacity that is used when something happens out of the ordinary and that the extra capacity allows Xcel to meet its DD requirements in extreme conditions.

Generally, additional interstate pipeline capacity is a result of its construction projects which are generally supported by the LDC entering into a Precedent Agreements with the pipeline for the additional capacity. The LDC must estimate its future capacity needs over a period of years. Interstate pipeline construction project planning reflects LDC future capacity needs because pipeline do not build every year for additional LDC needs; economics of scale. Because of interstate pipeline practices, the LDC is required to purchase its future capacity needs before the capacity is actually required.

Department Recommendation

The Department recommended that the Commission approve Xcel's capacity purchasing practices.

Staff Recommendation

Staff Agrees.

Supplier Reservation Fees

In each docket, the Department reviewed Xcel's Supplier Reservation Fees and concluded that the fees were reasonable. Xcel's Supplier Reservation Fee information for every docket has been marked as "*Trade Secret*."

Department Recommendation

The Department has recommended that the Commission approve every docket's proposed level of Supplier Reservation Fees.

Staff Recommendation

Staff Agrees.

Hedging Transactions

Xcel provided its Hedging Transaction information in every docket as requested by the Department. In certain dockets, the Department requested additional information on hedging transactions. Xcel stated that it would file the requested its AAA report, when it became available. The Department noted that Xcel had provided the requested information in its AAA reports.

Department Recommendation

The Department recommended approval of these transactions to the Commission.

Staff Recommendation

Staff agrees.

Transportation Demand Entitlement Capacity Changes

Xcel entered into interstate pipeline transportation and storage capacity contracts that enable and entitle Xcel to transport and store natural gas supply for delivery into its distribution system. To continue natural gas deliveries to its customers to meet DD requirements, Xcel annually reviews and updates its' pipeline transportation and storage entitlements, and supply contracts which ensures system reliability of customer deliveries.

In each docket, Xcel proposed to modify its interstate pipeline capacity for anticipated changes in demand entitlements. By comparing its anticipated need to its current supply arrangements, Xcel has determined which incremental capacity changes are needed to ensure its customer needs are met under the most extreme conditions at reasonable cost. Xcel's demand entitlement petitions sought Commission approval to make certain capacity changes in interstate pipeline transportation entitlements and storage entitlements

The majority of Xcel's capacity is provided by Northern with the other companies providing supply to areas on Xcel system that cannot be supplied by Northern. In 2007, the majority of the initial interstate pipeline firm contracts expired. These contracts were a result of FERC Order No. 636, which was implemented in 1992.

The Department has reviewed each docket and determined that Xcel's proposed demand entitlement capacity and related adjustments was reasonable.

Xcel' Minnesota Design Day Entitlements[64] summary:

Quantities in Dth

Docket Number	**MN** Design Day Entitlements	Change in Design Day Entitlements	Inc./Dec. Percentage Design Day
	(1)	(2)	(3)
06-1454	**677,733**		
07-1395	**683,717**	5,984	0.88%
08-1315	**685,005**	1,288	0.19%
09-1287	**694,487**	9,482	1.38%
10-1163	**699,611**	5,124	0.73%
11-1076	**702,294**	2,683	0.38%
12-862	**702,159**	(135)	(0.19%)
13-663	**706,935**	4,776	0.68

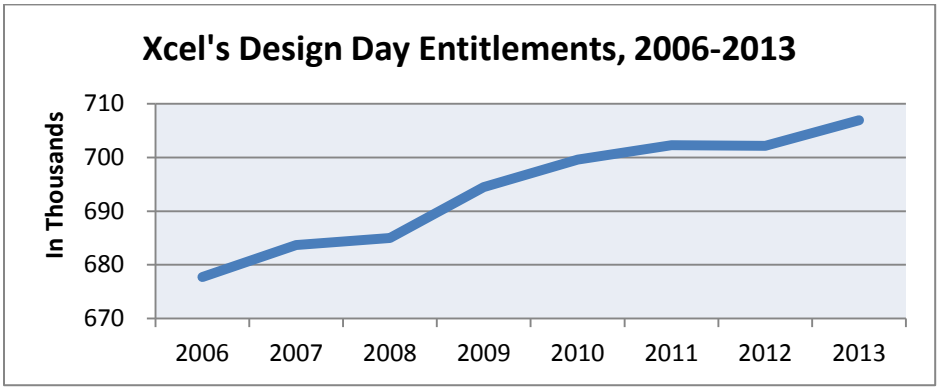
The overall percentage increase from 06-1454 to 13-663 is 4.31% or an increase in demand entitlements of 29,202 Dth (706,935 Dth – 677,733 Dth) over the 7 year period.

Department Recommendation

The Department recommended that the Commission approve the proposed demand entitlement capacity in each docket.

Staff Recommendation

Staff agrees and further illustrates Xcel's MN design day demand entitlements in the following graph.



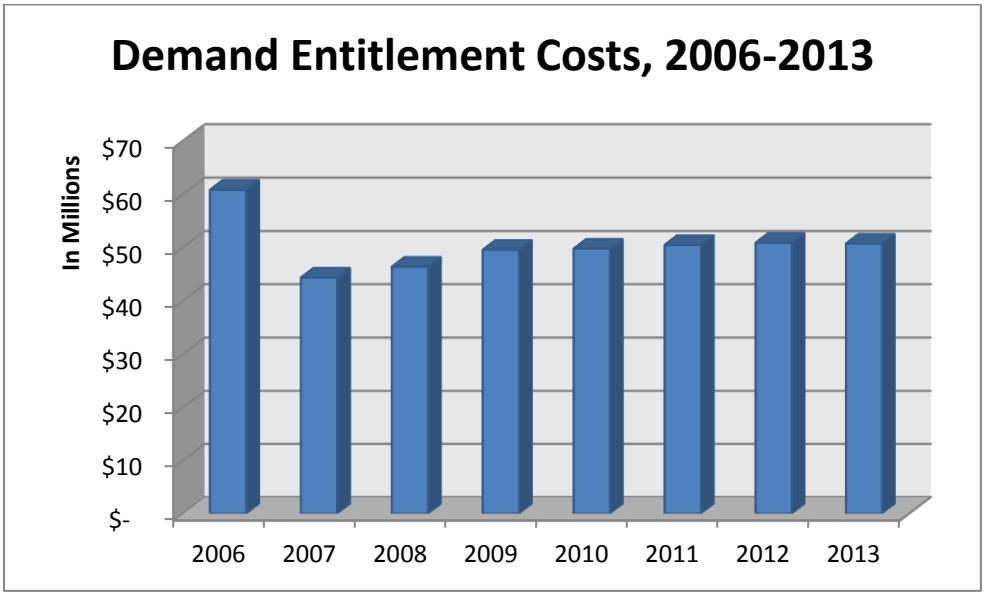
(Please see Schedule1 in Appendix A for the data used to prepare the above chart.)

[64] For further details, see each docket's Attachment 1, Schedule 3, p. 1 and Attachment 2, p. 2 for all open Xcel demand entitlements dockets.

Transportation Demand Entitlement Costs

The interstate pipelines listed above assess Xcel demand charges for rights to the capacity held on each pipeline. Xcel's has sought Commission approval to recover cost from interstate pipeline transportation charges and storage charges and to collect the rate impact of these petitions through its Purchased Gas Adjustment (PGA)[65] charges.

In Docket No. 07-1395, as mentioned above, the majority of Xcel's interstate pipeline contracts expired. Xcel sought bids from several different transportation options.[66] Xcel evaluated several alternatives to transport its gas supply. Xcel's successful negotiations with Northern led to re-contracting[67] with Northern at discounted rates, annually saving its customers approximately $16 million.[68] Xcel has adjusted its demand entitlement costs for each docket and these are summarized in Appendix A, Schedule 7 and are further illustrated in the following chart.



As illustrated, Xcel's demand entitlement costs have leveled off starting in 2009 through 2013 at approximately $50 million per year. The Department has reviewed the cost level for each docket and determined that the costs were reasonable.

[65] Local Distribution Company's 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.

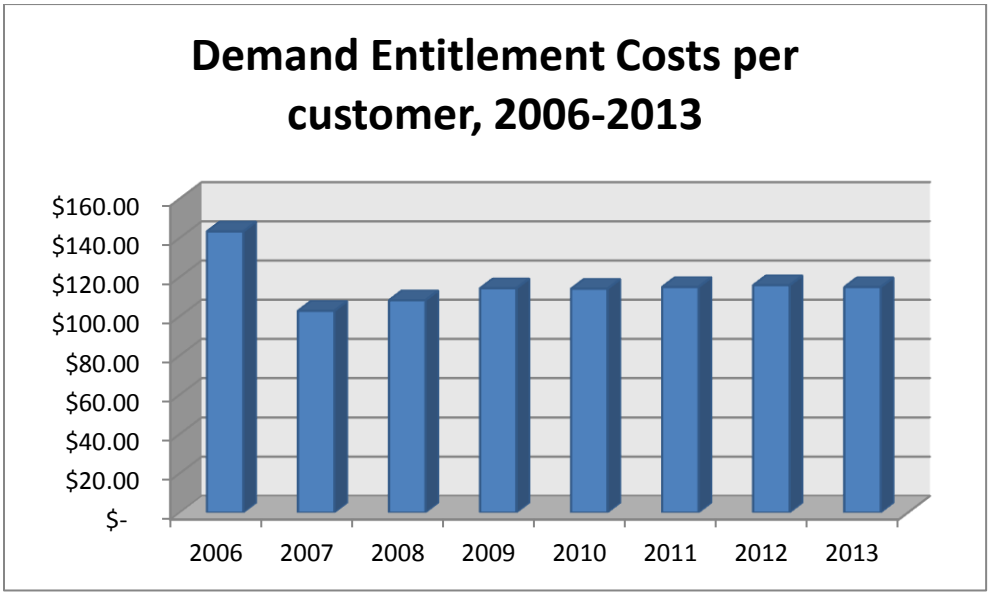
[66] Options included restructuring expired Northern contracts to bypassing Northern by connecting to several other interstate pipelines.

[67] For further detail, see each docket's initial petition, Attachment 1, Schedule 5 and Attachment 2, Schedule 1, p. 1.

[68] For further details, see Appendix A, Schedule 7.

Staff reviewed the data and discussion provided by Xcel in these dockets. Generally, staff considers the Department's review adequate for determining whether Xcel's demand entitlement costs are reasonable. Staff's analysis reviewed the cost per customer of the demand entitlements. On the below chart, staff illustrates how the demand entitlement costs impacted Xcel's customers. In Xcel's last Commission approved demand entitlement filing[69], the per customer cost of demand entitlements was approximately $143, while the total demand entitlement costs were $60,816,216.

In Docket No 07-1395, Staff believes that Xcel properly conducted its due diligence in its contract re-negotiation, which lowered the demand entitlement cost per customer to approximately $103, while lowering the total demand entitlement cost to 44,353,891 or a 27% decrease.[70] As the above chart illustrates, starting in 2009 Xcel has leveled its demand entitlement costs at approximately $50 million per year. Staff believes that Xcel has exercised good judgment in negotiating its contracts by ensuring that its customers are appropriately covered for DD requirements. Staff agrees with the Department that the overall demand entitlement costs from year to year were reasonable.



[69] Docket No. 06-1454.
[70] For further details, see Appendix A, Schedule 7.

Demand Entitlement Costs Allocated to Minnesota summary; includes interstate pipeline transportation and storage costs, and supply reservation costs:

Docket No.	Allocated System Demand Costs[71] - **MN**	Allocated Grand Forks Demand Costs[72] - **MN**	Allocated Fargo Lateral Demand Costs[73] - **MN**	Total Allocated Demand Entitlement Costs – **MN** (1)+(2)+(3)	Inc./(Dec.) over prior Year	Percent Change Inc./(Dec.) (5)/(4)
	(1)	(2)	(3)	(4)	(5)	(6)
06-1454	$60,653,848	$87,537	$74,831	$60,816,216		
07-1395	$44,185,740	$95,401	$72,750	$44,353,891	($16,462,325)	(27.07%)
08-1315	$44,053,776	$92,629	$73,436	$44,219,841	($134,050)	(0.30%)
09-1287	$49,472,206	N/A	$94,563	$49,566,769	$3,177,732	6.85%
10-1163	$49,696,724	N/A	$94,047	$49,790,771	$224,002	0.45%
11-1076	$50,469,141	N/A	N/A	$50,469,141	$678,370	1.36%
12-862	$50,876,312	N/A	N/A	$50,876,312	$407,171	0.81%
13-663	$50,726,838	N/A	N/A	$50,726,838	($149,474)	(0.29%)

Department Recommendation

The Department recommended that the Commission approve the proposed demand entitlement costs in each docket.

Staff Recommendation

Staff agrees.

Reserve Margin

The Department has recommended to the Commission for its approval LDC Reserve Margin capacity proposals in the 5% to 7% range to be reasonable. The Reserve Margin is an important calculation to the LDC because this provides additional capacity that is valuable if something out of the ordinary occurs on its system. Xcel would still be able to meet its DD requirements if needed.

In Docket No. 09-1287 Xcel calculated its reserve margin at 7.7%. The Department issued informational data requests and Xcel responded by stating it participated in the interstate pipeline expansion projects. Xcel stated that because of interstate pipeline practices, it estimated its

[71] For further details, see each docket's Attachment 1, Schedule 2, p. 2, Ln. 1for all open Xcel demand entitlements dockets.
[72] For further details, see each docket's Attachment 1, Schedule 2, p. 2, Ln. 4for all open Xcel demand entitlements dockets until the allocation factor and cost separation ended in 09-1287.
[73] For further details, see each docket's Attachment 1, Schedule 2, p. 2, Ln. 7 (through 08-1315) and Ln. 4 (from 09-1287 through 10-1163) and for all open Xcel demand entitlements dockets until the allocation factor and cost separation ended in 11-1076.

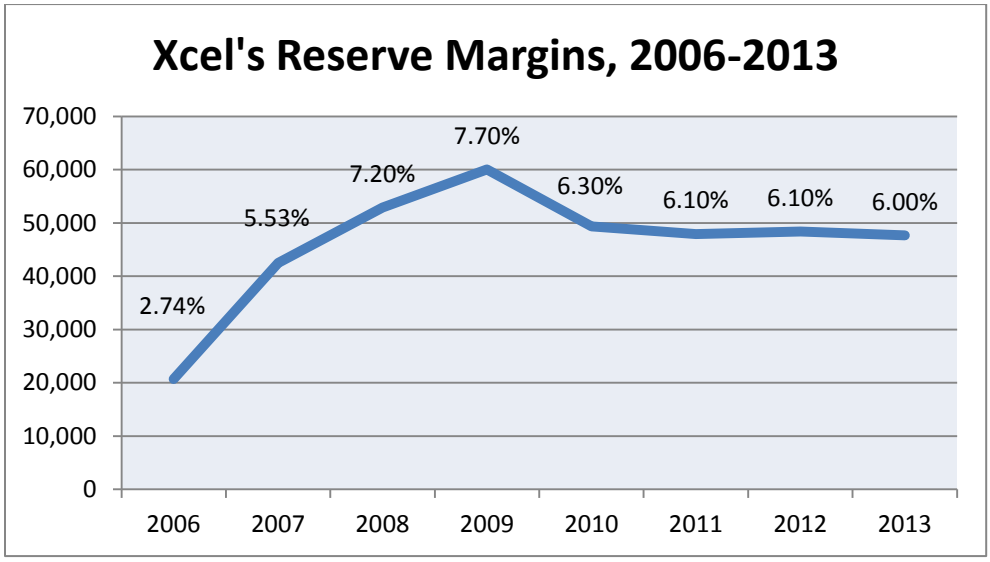
future capacity requirement for the next few years in order to participate in the project's open season. Xcel stated that it's anticipated Reserve Margin would reduce over the next few years. The Department reviewed Xcel's Reply Comments and determined that its explanations were reasonable. The Department determined that all of Xcel's Reserve Margin calculations in all dockets were reasonable.

Department Recommendation

The Department recommended that the Commission approve Xcel's capacity purchasing practices and its Reserve Margin calculations in all dockets.

Staff Recommendation

Staff agrees and has summarized Xcel's Reserve Margin calculations for the seven year period in Appendix A, Schedule 5. Also, staff provides the following graph illustrating Xcel's Reserve Margin calculations.



Xcel's Reserve Margins[74] summary, total company:

Quantities in Dth

Docket Number	Total Company Reserve Margin	Change in Reserve Margin	Reserve Margin as a Percentage
	(1)	(2)	(3)
06-1454	**20,696**		2.74%
07-1395	**42,531**	21,835	5.53%
08-1315	**52,886**	10,355	6.90%
09-1287	**60,018**	7,132	7.70%
10-1163	**49,374**	(10,644)	6.30%
11-1076	**47,919**	(1,455)	6.10%
12-862	**48,400**	481	6.10%
13-663	**47,639**	(761)	6.00%

The average reserve margin over the docket period is **5.96%**.

File seasonal and annual rate data for determining impact on customers

Department Recommendation

The Department recommended that Xcel provide clearly marked schedules and bill impact calculations, broken down by season, such that the calculations correspond with the monthly PGA filings. The Department recommended that this information continue to be provided in future demand entitlement filings, but marked as being for illustrative purposes and not representative of actual bill impacts to Xcel ratepayers.

Staff Recommendation

Staff agrees.

[74] For further details, see each docket's Attachment 1, Schedule 3, p. 1 and Attachment 2, Schedule 1, p. 2 for all open Xcel demand entitlements dockets.

Should the Commission approve Xcel's requested Jurisdictional Allocation Factors changes that allocate costs between Minnesota and North Dakota?

The following discussion applies to all of the Xcel dockets addressed in these briefing papers. Those dockets are:

Docket No. G002/M-07-1395
Docket No. G002/M-08-1315
Docket No. G002/M-09-1287
Docket No. G002/M-10-1163
Docket No. G002/M-11-1076
Docket No. G002/M-12-862
Docket No. G002/M-13-663

Xcel

Xcel provided natural gas distribution services to both Minnesota (MN) and North Dakota (ND) customers. Xcel stated that its demand entitlement costs are accounted for on a total system basis and that it used jurisdictional allocation factors[75] to allocate the petition's demand entitlement costs between states.

The starting point for calculating the jurisdictional allocation factors is the number of Xcel customers in each state. When the of customer number changes in either state, so does the Jurisdictional Allocation Factors used by Xcel. After separating the customers by states, Xcel separated the customers into "regions" based on its location on Xcel's system. Xcel stated that different regions have different Heating Degree Days (HDD) which associates different factors to its Ave. Monthly DD calculation.

The Ave. Monthly DD model produces a series of factors[76] from which Xcel is able to calculate its DD requirements by region. From the results of its Ave. Monthly DD model, Xcel is able to calculate its Jurisdictional Allocation Factors; allocation factors between region and states. [77] The Jurisdictional Allocation factors are summarized in Appendix A, Schedule 2, by docket; the table illustrates a de minimus year to year change in each jurisdictional allocation factors used by Xcel.

[75] Xcel supported its use of this allocation methodology by stating its approach accurately estimated the relationship of DD between the states and regional jurisdictions.
[76] These factors include load variation (Dth/Degree), degree per design day, monthly base use factor, and its unaccounted factor.
[77] For further details, see each docket's Attachment 1, Schedule 1, p. 1 for all open Xcel demand entitlements dockets. Xcel refers to Moorhead, MN as Fargo, MN in this schedule.

The Jurisdictional allocation factors were as follows:

Jurisdictional Allocation Factors for Demand Entitlement Costs[78] summary, **MN** portion only:

Docket Number	Fargo Pipeline Lateral – **MN** portion	Grand Forks Lateral – **MN** Portion	All Remaining Costs – **MN** portion
	(1)	(2)	(3)
06-1454	21.99%	13.58%	89.68%
07-1395	21.75%	14.80%	88.79%
08-1315	21.58%	14.37%	89.34%
09-1287	N/A[79]	14.67%	89.56%
10-1163	N/A	14.59%	89.44%
11-1076	N/A	N/A[80]	89.36%
12-862	N/A	N/A	89.07%
13-663	N/A	N/A	88.95%

Moorhead/Fargo Service Area Jurisdictional Allocation Factor[81]

The factor annually allocated the Moorhead/Fargo service area demand entitlement costs Pipeline related to the Fargo/Moorhead area-looping transmission project Minnesota customers. Changes to this jurisdictional allocation factor[82] are caused by increases/decreases in customer count and by updating the traditional Avg. Monthly DD (linear regression) method. This jurisdictional allocation factor averaged approximately 21.77% from Xcel's last approved demand entitlement petition to its 2008 demand entitlement petition. Xcel used this allocation factor to allocate the appropriate demand entitlement costs to MN customers. Xcel discontinued its use in Docket 08-1315.

Xcel's Viking contract AF0035 expired on October 31, 2009 and was not renewed. Instead, Xcel entered into an incremental Cost-Based transportation rate based on the Precedent Agreement it signed with Viking which expanded the Fargo Lateral from 8" pipe to 12". Xcel stated that it was necessary to expand the Fargo Lateral because its DD analysis indicated that the possible winter shortages existed if certain conditions occurred.

[78] For further details, see each docket's Attachment 1, Schedule 1, p. 1 for all open Xcel demand entitlements dockets.
[79] As a result of Xcel not renewing its Viking contract AF0035 expired on October 31, 2009, the Minnesota Fargo DD allocation factor is no longer needed.
[80] The MN Grand Forks DD allocation factor was been eliminated as a result of a Viking contract that expired on October 31, 2011 and was not renewed.
[81] Reflected in Appendix A, Schedule 2, Column 1
[82] The allocation factor is developed by dividing the Moorhead, MN Design Day (DD) requirements by the total DD requirements for all service area costs (Moorhead, MN and Fargo, ND).

Xcel discussed the system benefits that accrued to both Minnesota and North Dakota customers as a result of the incremental entitlement procured through the expanded 2009 Fargo lateral. In Docket No. 09-1287, Xcel proposed to apply its *Minnesota/North Dakota Jurisdictional General System Allocation Factor*[83] to these costs instead of the previous Moorhead/Fargo Service Area Jurisdictional Allocation Factor, which it proposed to terminate in **Docket No. 09-1287**.

Grand Forks Service Area Jurisdictional Allocation Factor[84]

Xcel used this allocation factor to allocate the demand entitlement transportation capacity costs on Viking related to the Grand Forks area transmission looping project. Changes to this jurisdictional allocation factor[85] are caused by increases/decreases in customer count and by updating its Avg. Monthly DD (linear regression) method. The factor allocated the Grand Forks service area demand entitlement costs to Minnesota customers. This jurisdictional allocation factor averaged approximately 14.40% from Xcel's last approved demand entitlement petition to its 2010 demand entitlement petition. Xcel used this allocation factor to allocate the appropriate demand entitlement costs to MN customers. This allocation was in effect through Docket 10-1163.

Xcel's Viking contract AF0036 expired on October 31, 2011 and was not renewed; Grand Forks Service Area Jurisdictional Allocation Factor was terminated in **Docket No. 11-1076**. In all subsequent demand entitlement petitions, Xcel proposed to allocate these replacement demand entitlement costs by the *Minnesota/North Dakota Jurisdictional General System Allocation Factor*.

Minnesota/North Dakota General System Jurisdictional Allocation Factor[86]

Xcel proposed to allocate the remaining demand entitlement costs between MN and ND by using the Minnesota/North Dakota Jurisdictional General System Allocation Factor. Changes to this jurisdictional allocation factor are caused by increases/decreases in customer count and by updating the traditional Avg. Monthly DD (linear regression) method. The factor annually allocated all remaining demand entitlement costs between MN and ND customers. This jurisdictional allocation factor averaged approximately 89.27% from Xcel's last approved demand entitlement petition through its 2013 demand entitlement petition. Xcel used this allocation factor to allocate the appropriate demand entitlement costs to MN customers. In all dockets subsequent to Docket No. 10-1163, Xcel proposed to allocate all demand entitlement costs between MN and ND based on this factor.

[83] In all subsequent demand entitlement petitions, Xcel proposed to allocate these replacement demand entitlement costs by the Minnesota/North Dakota Jurisdictional General System Allocation Factor.
[84] Reflected in Appendix A, Schedule 2, Column 2
[85] The allocation factor is calculated by dividing the Design Day demand for the city of East Grand Forks, Minnesota by the Design Day demand total for the Grand Forks area (Grand Forks and East Grand Forks).
[86] Reflected in Appendix A, Schedule 2, Column 3

Department

In each docket, the Department's analysis concluded that all docket's jurisdictional allocation factors were reasonable and recommended approval to the Commission. Specifically, the Department recommended the following:

- Prior to Docket No. 09-1287, Xcel's use of its allocation factors, Moorhead/Fargo Service Area Jurisdictional Allocation Factor, Grand Forks Service Area Jurisdictional Allocation Factor, and Minnesota/North Dakota General System Jurisdictional Allocation Factor.

- Between Docket Nos. 09-1287 and 11-1076, Xcel's use of its allocation factors, Grand Forks Service Area Jurisdictional Allocation Factor and Minnesota/North Dakota General System Jurisdictional Allocation Factor.

- Starting with Docket No. 11-1076, Xcel's use of its allocation factor, Minnesota/North Dakota General System Jurisdictional Allocation Factor.

[Staff note: From the record, staff cannot determine whether the Department approved or disapproved Xcel's proposed discontinuance of allocation; in Docket No. 09-1287 (Moorhead/Fargo Service Area Jurisdictional Allocation Factor) or in Docket No. 11-1076 (Grand Forks Service Area Jurisdictional Allocation Factor). The record reflects that the Department stated that all jurisdictional allocation factors were reasonable.]

However in Docket No. 12-862, the Department was not originally satisfied with Xcel's initial petition and requested further information to further assist its analysis on whether Xcel had properly reflected cost causation principals when it allocated the additional demand entitlement costs between MN and ND.

Docket No. G002/M-12-862 (2012-2013)

Department

September 14, 2012 Comments

In its *Comments*, the Department analysis reflected that Xcel's initial petition requested an increase of $1,093,807 demand entitlement. Xcel proposed to apply its 89.07% Minnesota/North Dakota General System Jurisdictional Allocation Factor to the proposed increase, this resulted in MN customers being allocated an additional demand entitlement cost of $974,254 ($1,093,807 * 89.07%). Xcel's justification for using this allocation factor was that the additional capacity was capable of supporting either Minnesota or North Dakota during periods of high system demand. Xcel further stated that similar costs had previously been allocated under this method and therefore it was an established methodology.

In Xcel's initial petition it stated that the majority of the new proposed demand entitlements was acquired to serve customers in North Dakota. The Department questioned whether the majority of the incremental costs should be assigned to Minnesota customers. The Department concluded that Xcel's petition did not provide it with enough information to ascertain whether the changes in of Xcel's demand entitlement costs were charged to MN and ND customers consistent with cost-causation principles.[87]

The Department recommended that Xcel's *Reply Comments* include a discussion on:

- Verification that the costs of the additional capacity should be charged to customers in Minnesota and North Dakota based on Minnesota/North Dakota Jurisdictional General System Allocation Factors that corresponded to the cost-causation of the two jurisdictions; and

- The portion of the additional capacity that is expected to be used to meet the needs of Xcel's Minnesota customers.[88]

Xcel

September 24, 2012 Reply Comments

In reply to the Department, Xcel provided additional discussion on the following:

1. *Allocation of Capacity Costs between Minnesota and North Dakota*

Xcel stated that its proposed annual costs of its new demand entitlements are as follows:

Proposed Demand Entitlement Cost Increase

Pipeline	New Capacity Costs	State Served	Total by State	Percentage by State
Northern Natural	$28,193	MN		
Great Lakes Gas	$276,620	MN	$304,813	27.87%
ANR Pipeline	$579,528	ND		
Viking Gas	$209,466	ND	$788,994	72.13%
Total	$1,093,807		$1,093,807	100.00%

Xcel stated that it proposed using its Minnesota/North Dakota General System Jurisdictional Allocation Factor to allocate the proposed increase in demand entitlement costs between MN and ND. Xcel stated that the capacity changes described above merely represent a small portion of its contract demand entitlements described in its Petition. Further, these demand entitlement cost

[87] The Department analyzed Xcel's Reply Comments' Table 1 and its initial petition's Attachment 1, Schedule 1, p. 4.
[88] Xcel forecasted a 3% peak increase in North Dakota's volume and a peak volume decrease of less than 0.1% for Minnesota, while assigning 89.07% of the incremental demand entitlement costs to Minnesota and 10.93% to North Dakota.

and capacity increases do not alter the jurisdictional allocation factors that affect the assignment of demand entitlement costs between MN and ND. Also, the proposed demand entitlement capacity is capable of supporting either MN or ND in times of peak demand.

Thus, Xcel has proposed to allocate the increase in demand entitlement costs using the established allocation methodology from previous dockets, the Minnesota/North Dakota General System Jurisdictional Allocation Factor.

2. Capacity for Minnesota Customers

Xcel's stated that of the increase of 38,797 Dth/day demand entitlement capacity proposed for the 2012-2013 heating season, 15,510 Dth/day serves MN and 23,287 serves ND.

Proposed Demand Entitlements Capacity Increase

State	Dth/day	Percentage
Minnesota	15,510	39.98%
North Dakota	23,287	60.02%
Total	35,797	100.00%

Department and Xcel

The Department and Xcel held informal discussions on how Xcel should reflect cost information for the proposed increase in demand entitlement cost and capacity, and how Xcel should allocate the proposed demand entitlement cost increase to its MN and ND jurisdictions. As a result, Xcel filed a supplemental schedule[89] to its Petition. The schedule reflected the detail of Xcel's cost changes between its 2011 and 2012 Contract Demand entitlement filings. The schedule further apportioned the cost changes directly to a jurisdiction, MN or ND, or to Upstream/System Supply. Xcel stated that the proposed increased demand entitlement cost associated with Upstream/System Supply entitlements serve the entire system.

January 4, 2013 Supplemental Schedule

In response to an informal Department data request, Xcel submitted a new supplemental schedule[90] that summarizes its proposed cost and capacity demand entitlement changes between 2011 (11-1076) and 2012 (12-862) petitions. The schedule reflected the proposed direct cost changes for its services between MN and ND, and further apportions the demand entitlement costs to upstream/system supply serving the entire system. Xcel stated that its schedule illustrated that the majority of its proposed demand entitlement cost changes were incurred primarily to benefit the entire system rather than just one jurisdiction.

[89] Filed on January 4, 2013.
[90] For further details, see Xcel's January 4, 2013 Supplement Schedule, Attachment 1.

Department

March 6, 2013 Supplemental Comments

In its September 24, 2012 *Reply Comments*, Xcel responded to the Department's September 14, 2012 *Comments* and the Department has provided the following response to Xcel's *Reply Comments*:

The Department stated it believed the new information would allow the Department to analyze the proposed increase in demand entitlement cost and capacity by jurisdiction and by cost driver.

The Department concluded that in Xcel's supplemental schedule the proposed increase in demand entitlement costs from 2011 to 2012 was actually $641,021 as opposed to the $1,093,807 previously cited by the Department. The lower figure appears to reflect all of the changes in demand entitlement costs, including reductions in costs due to expiring gas supply contracts. From the supplemental schedule, the Department summarized the demand entitlement costs increase as follows:

Jurisdiction	Amount	Percentage
Minnesota	$179,836	28.05%
North Dakota	$37,255	5.81%
Upstream/System Supply[91]	$423,930	66.13%
Total	$641,021	100%

The Department stated that Xcel's previous demand entitlement filing for 2012 and in previous years did not include an Upstream/System Supply category. Further, the demand entitlement growth rates for Minnesota and North Dakota typically were positive and similar in size. The Department believes that the shifts in the cost allocation factors from year to year based on projected demand entitlements changes did not seem out of place when compared with cost allocations presented in Xcel's Initial Attachment and its predecessor documents.

The Department noted that a significant difference exist between the proposed 89.07% Minnesota/North Dakota General System Jurisdictional Allocation Factor incurred for MN and the allocation factor based on the previous year's addition of incremental capacity of 60.02 % incurred for North Dakota. The Department stated that Xcel's request seemed not to reflect cost-causation reasonably.

Xcel's January 4, 2013 supplement schedule reflected a new allocation method for the net changes in the demand entitlement costs incurred to meet Xcel's DD requirement. The Department stated that Xcel's new method is a more complete approach to presenting the information. The earlier method presented in the Initial Attachment did not capture the fact that Xcel has flexibility in directing its entitlements to one jurisdiction or another. Xcel summarized its proposed demand entitlements by costs driver, "New Volume" and "Contract Turnover".

[91] Upstream/System Supply is not an Xcel jurisdiction in the same sense as Minnesota and North Dakota, but the Department is treating this category as if it were a jurisdiction to facilitate this analysis.

The Department concluded that Xcel was able to assign demand entitlement costs to Xcel's jurisdictions and to identify whether a cost change was driven by an "increase in volume" of natural gas or by "contract turnover" in the jurisdictions. The Department summarized the 2012 changes as follows:

Xcel 2012 Incremental Demand Entitlement Costs by Jurisdiction and Cost-Causation Factor

	Minnesota	North Dakota	Upstream/Supply	Total	% to Total
New Volume	$28,193	$37,255	$167,025	$232,473	36.27%
Contract Turnover	$151,643	$0	$256,905	$408,548	63.73%
Total	$179,836	$37,255	$423,930	$641,021	
Percent of Total	28.05%	5.81%	66.13%	100.00%	100.00%

The Department concluded that the above table brings to light facts about Xcel's 2012 incremental demand entitlement costs were not apparently due to the limits of previous analyses. According to the table, contract-turnover activity accounts for 63.73% of the incremental demand-entitlement costs for the year, while new volume increases are the cause of 36.27% of the increased costs. Furthermore, none of the contract-turnover costs are associated with North Dakota only, even though 5.81% is directly assigned to that jurisdiction.

The Department indicated that North Dakota *may not* be responsible for a large share of Xcel's incremental demand-entitlement costs. By the fact that the greater cause of 2012 demand entitlement cost increases is contract-turnover activity, not volume increases supports the allocation factor that assigned 89.07% of Xcel's incremental demand-entitlement costs to Minnesota when volume forecasts indicated that North Dakota was where costs would arise due to volume growth.

The Department analysis included a comparison of its own cost-causative method compared to Xcel's demand-entitlement cost allocation results and concluded that the results were essentially the same. The Department concluded that Xcel's demand entitlements are reasonably allocated between Minnesota and North Dakota.

PUC Staff

As previously stated above, Xcel's demand entitlement petitions proposed to eliminate its use of Moorhead/Fargo Service Area Jurisdictional Allocation Factor and Grand Forks Service Area Jurisdictional Allocation Factor. In its Docket No. 11-1076 and its subsequent dockets, Xcel proposed to use its Minnesota/North Dakota Jurisdictional General System Allocation Factor to allocate all of its demand entitlement costs to MN and ND.

Xcel supported its allocation change proposal by stating:

- that system benefits accrued to both MN and ND customers as a result of the incremental entitlement procured through the expanded 2009 Fargo lateral;

- that the allocation factor changes described above merely represent a small portion of its contract demand entitlements described in its Petition;

- that these demand entitlement cost and capacity increases do not alter the jurisdictional allocation factors that affect the general assignment of demand entitlement costs between MN and ND; and

- that similar costs had previously been allocated under this method and therefore it was an established methodology

While all of Xcel's above statements are correct, staff believes that Xcel's statements do not justify such a radical cost shift from ND to MN. Xcel pointed out that the 2009 Fargo Lateral provided it with system flexibility that would enable the lateral to service customers in both MN and ND during periods of high demand. While this statement is true, from the discussion provided in each docket, staff believes this lateral was updated to primarily serve Xcel's Fargo customers as previously served by the old lateral.

Xcel has multiple receipt points on its LDC system that gives Xcel system flexibility in delivering gas to its customers during times of need or during high demand. Staff believes that the Fargo Lateral does provide system flexibility, however, the lateral's primary purpose is to serve Xcel's Fargo customers; thus, this does not support Xcel's use of the Minnesota/North Dakota Jurisdictional General System Allocation Factor to allocate all demand entitlement costs to its customers.

Xcel stated that the allocation factor changes merely represent a small portion of its contract demand entitlements described in its Petition.

During the time period of 2007 through 2013, the two proposed allocation factor changes annually allocated demand entitlement costs of approximately $913,167, based on an averaged amount. Xcel's annual demand entitlement costs are approximately $50 million; since 2009. While it is easy to see that the allocated costs of $913,167 is a small component of the total overall costs, staff believes that this does not justify the change in allocation methodology. As illustrated in the below charts, the allocation factor changes annually, which shifts approximately $800,000 of additional demand entitlement costs to MN customers.

Xcel stated that the demand entitlement costs and capacity increases do not alter the jurisdictional allocation factors that affect the general assignment of demand entitlement costs between MN and ND. Staff believes this statement is true, but staff fails to see how this statement supports Xcel's proposed allocation factor changes.

Xcel stated that similar costs had previously been allocated under this method and therefore it was an established methodology. Staff believes this statement is true. Xcel changed its allocation methodology starting in Docket No. 09-1287 and again in Docket No. 11-1076, but staff has previously commented on these changes. Thus, staff believes that this statement does not support Xcel's allocation factor changes.

The Department's analysis did not address in Docket Nos. 09-1287 or 11-1076 whether Xcel's proposed allocation changes were acceptable and reasonable to Xcel's MN customers and were properly supported by cost-causation principles. In Docket No. 12-862, the Department did address whether Xcel's proposed demand entitlement costs changes from 2011 to 2012 were supported by cost-causation principles.

The Department initially stated that Xcel's 2012 demand entitlement costs request seemed not to reflect cost-causation reasonably. This is reflected in the above Department discussion which suggested that MN customers should be responsible for 27.87% of the proposed change in demand entitlement costs, while ND customers should be allocated 72.13%. This led the Department to compare the 27.87% MN allocation factor to the 89.07% general system allocation factor.

The allocation factor comparison led to additional discussions between the Department and Xcel. Xcel stated that the majority of demand entitlement cost increase should be assigned to its Upstream/System Supply category, which provided service to all of Xcel's customers. The Department stated that Xcel's previous demand entitlement filing for 2012 and in previous years did not include an Upstream/System Supply category. Further, the demand entitlement growth rates for Minnesota and North Dakota typically were positive and similar in size. The Department summarized that North Dakota *may not* be responsible for a large share of Xcel's incremental demand-entitlement costs.

The Department stated that the greatest cause of 2012 demand entitlement cost increases was contract-turnover activity, and not volume increases as suggested by Xcel's proposal allocation factor change that assigned 89.07% of Xcel's incremental demand entitlement costs to MN. The Department's conclusion was that the volume forecasts indicated that ND customers should absorb most of the increased costs due to system volume growth.

The Department compared the results of its own cost-causative analysis to Xcel's demand-entitlement cost allocation results and concluded that the results were essentially the same. The Department concluded that Xcel's demand entitlement costs are reasonably allocated between MN and ND.

Based on available data and discussion, Staff disagrees with the Department recommendations. In the below charts, staff illustrates how approving Xcel's proposed allocation factors would impact the MN customers by placing cost burden on the MN customers while offering cost relief to ND customers. For comparison purposes, staff compared the Minnesota/North Dakota Jurisdictional General System Allocation Factor to the applicable factor before the discontinuance of each of the two allocation factors. Staff believes that this is a valid

comparison because the Minnesota/North Dakota Jurisdictional General System Allocation Factor does not materially change from year to year.

As reflected in staff's Appendix A, Schedule 2, the Moorhead/Fargo Service Area Jurisdictional Allocation Factor averaged approximately 21.77% from 2006 through 2008 and the Grand Forks Service Area Jurisdictional Allocation Factor average approximately 14.40% from 2006 through 2010. Xcel proposed to allocate similar costs based on the Minnesota/North Dakota Jurisdictional General System Allocation Factor that averaged approximately averaged 89.27% from 2006 through 2013.

Staff's analysis is based on actual data where the data is available and on staff assumptions to complete the analysis. Staff believes that its analysis does present a valid comparison of the impact on MN customers. Xcel proposed to use the Minnesota/North Dakota Jurisdictional General System Allocation Factor instead of its previous Moorhead/Fargo Service Area Jurisdictional Allocation Factor is shifting an averaged $228,126 of annual demand entitlement costs to MN customers. Xcel proposed to use the Minnesota/North Dakota Jurisdictional General System Allocation Factor instead of its previous Grand Forks Service Area Jurisdictional Allocation Factor is shifting an averaged $481,499 of annual demand entitlement costs to MN customers. This amounts to Xcel shifting total annual demand entitlement costs to MN customers of approximately $709,625.

Further, staff believes that the Department support for its conclusion that Xcel's proposal met general cost causation principles was that it believed that Xcel's Upstream/System Supply capacity argument was something new to Xcel's system and supported Xcel's use of its general system allocation proposal.

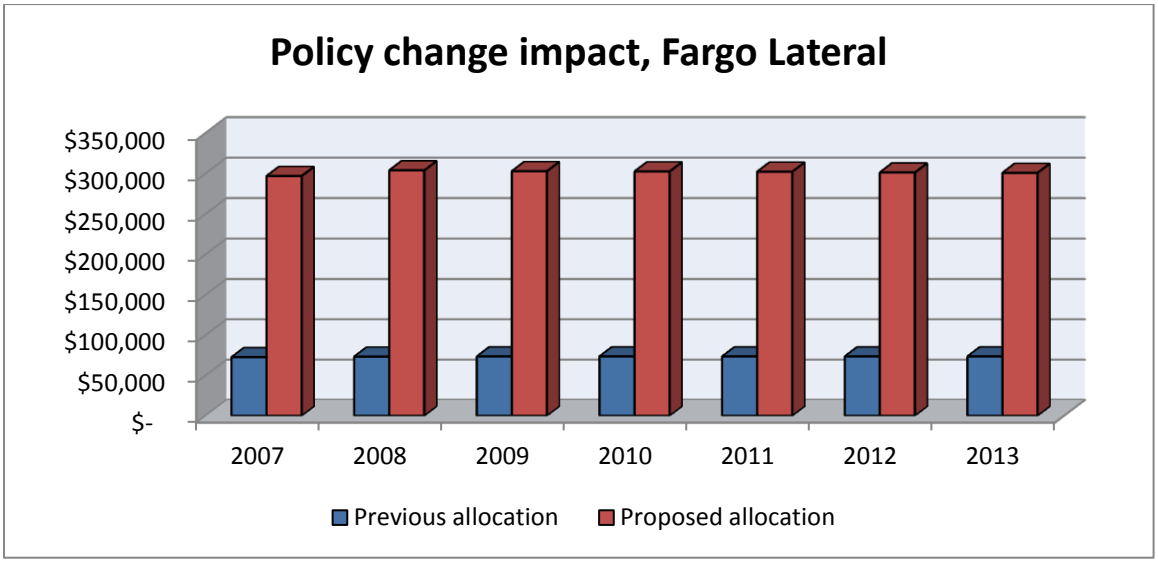
From previous Xcel docket information, Xcel has used Upstream capacity contracts to make deliveries to its customers by making deliveries into the Downstream pipeline, which makes the delivery to the customers. Xcel held demand entitlement contracts on Viking which considered an upstream pipeline in all dockets discussed from 2006 to 2010. Staff believes that this new phenomena discussed by Xcel and the Department existed previous to the 2012 demand entitlement petition and is not justification for approving Xcel's change in allocation factors proposal.

The Department further stated that the demand entitlement growth rates for MN and ND typically were positive and similar in size. Staff disagrees with this statement. Has clearly illustrated in the above staff discussion, the projection growth for the 2006 through 2013 time period reflects that ND experienced a growth rate of 12.15%, while MN experienced a growth rate of 2.3%. Staff believes this statement does not support the allocation factor change proposed by Xcel.

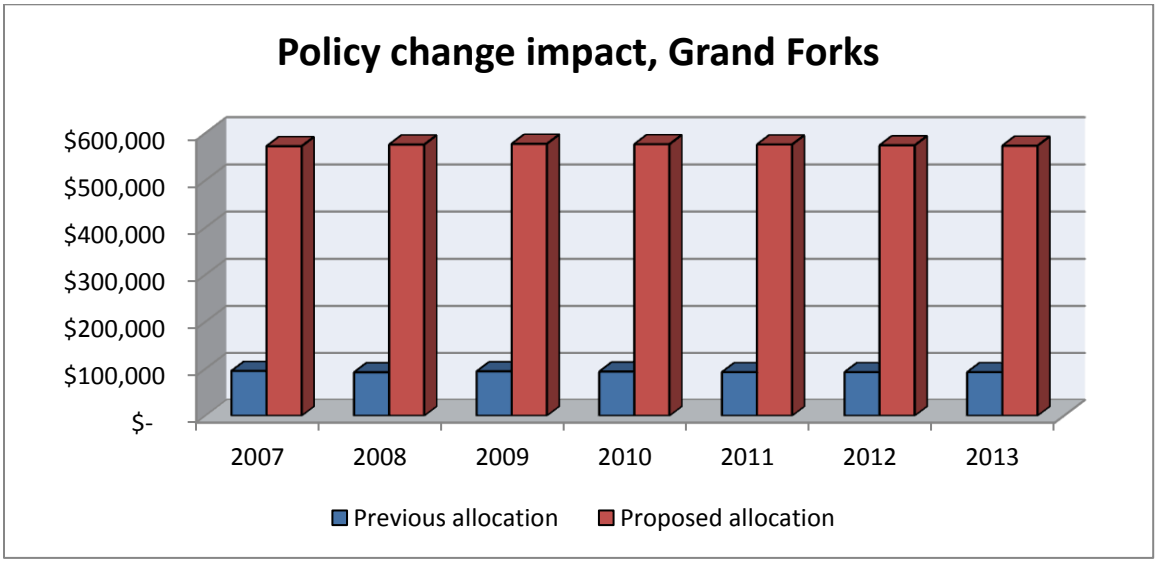
From the available data and discussion in these dockets, staff concluded that Xcel's proposal is unreasonable at this time. Staff believes that the Commission should require Xcel to provide additional information in a supplemental petition in this proceeding before approving Xcel's allocation factor change proposal. Further, to support staff conclusion, Xcel stated in its 2009 petition that its Cost-Based transportation rate based on the Precedent Agreement it signed with

Viking was to expand the Fargo Lateral from 8 inch pipe to 12 inch. Xcel stated that it was necessary to expand the Fargo Lateral because its DD analysis indicated that the possible winter shortages existed in the Fargo area if certain conditions occurred.

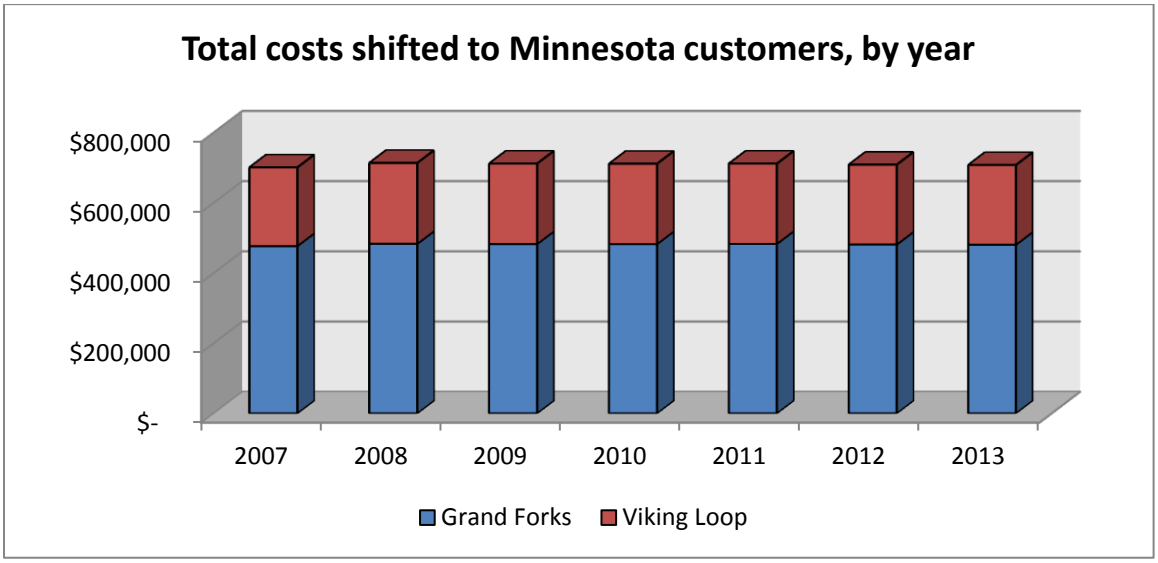
Staff Analysis of the Impact on Minnesota Customers of Changing the Moorhead/Fargo Service Area Jurisdictional Allocation Factor (Viking Loop)



Staff Analysis of the Impact on Minnesota Customers of Changing the Grand Forks Service Area Jurisdictional Allocation Factor (Grand Forks)



Staff Analysis of the Total Impact on Minnesota customers



Department Recommendations

The Department concluded that Xcel had reasonably supported its demand entitlement petitions and recommended that the Commission approve Xcel's proposed level of demand entitlements and associated costs. The Department further recommended that the Commission approve Xcel's use of jurisdictional allocation factors of 89.07% for Minnesota and 10.93% for North Dakota used in Docket No. 11-1076.

In Docket No. 12-862, the Department analysis reviewed the below issues by requesting additional information from Xcel and concluded that Xcel had reasonably addressed its concerns. The Department recommended that the Commission approve this docket.

- how its additional capacity acquired for its 2012 Demand Entitlements is expected to be used in its Minnesota jurisdiction to meet the needs of Minnesota customers; and

- that it can be verified that the costs of the additional capacity would be charged to customers in Minnesota and North Dakota according to cost-causation principles.

Staff Recommendation

Staff disagrees with the Department Recommendation and believes that the Commission should withhold its decision until additional data and discussion is provided by Xcel in a supplemental petition in this proceeding.

Xcel should address the following:

- Prior to the proposed discontinuance of the Fargo Lateral agreement, Xcel petitions included a demand entitlement cost that was allocated between ND and MN customers, see Xcel's petition, Attachment 1, Schedule 2, page 2. Xcel stated that the underlying contracts to these costs expired and were not renewed. From the record, staff cannot determine the cost of the replacement demand entitlement contracts. Staff believes that Xcel would have a similar contract in place to provide service. Staff believes that Xcel should provide this data and a discussion in a supplemental petition for comparison purposes.

- In Xcel's Docket No. 09-1287 petition, it stated that Xcel and ANR entered into a forward haul contract that delivers 50,000 Dth/day into Viking, which Viking delivers to Xcel through a backhaul arrangement. Further, Xcel stated that the ANR option (sourced out of Chicago) was the only available option to serve the increased capacity need of the Fargo Lateral. Staff would like Xcel to explain the necessity of the ANR contract, its purpose, and who is the primary customer(s) served by this contract. In other words, what is the primary delivery point(s) of the Viking backhaul agreement, is the capacity to primarily serve Xcel's MN or ND customers?

- Staff would like Xcel to provide additional discussion on why it is appropriate to propose changing its jurisdictional allocation factors, thus shift additional cost burden to MN customers.

- Staff would like Xcel to provide additional discussion on why it believed its four support arguments listed above on pages 53 and 54 are appropriate for determining if the proposed change in jurisdictional allocation factor methodology is justified?

- That Xcel provide any other information that it deems necessary to provide support for its change in jurisdictional allocation factors.

Should the Commission approve Xcel's revised proposal to allocate some demand costs to interruptible customers?

The following discussion applies to all of the Xcel dockets addressed in these briefing papers. Those dockets are:

Docket No. G002/M-07-1395
Docket No. G002/M-08-1315
Docket No. G002/M-09-1287
Docket No. G002/M-10-1163
Docket No. G002/M-11-1076
Docket No. G002/M-12-862
Docket No. G002/M-13-663

Docket No. E,G999/AA-06-1208

Department

In its review of the 2005-2006 AAA reports in Docket No. E,G999/AA-06-1208 (2006 AAA docket), the Department stated that the Commission, during its February 2, 2006 meeting (Docket No. E,G999/AA-05-1403), expressed interest in the possibility of having gas utilities allocate demand costs to interruptible customers. Thus, in the 2006 AAA docket, the Department invited all gas utilities to provide further discussion of the demand cost allocation issue in their reply comments.

The Department ultimately concluded in the 2006 AAA docket that, with a few exceptions,

> the costs associated with supplier Producer Demand[92] and Contract Storage Service (Storage) [93] have traditionally been recovered as demand costs from firm sales customers. Historically, these types of costs were primarily used as tools to maintain distribution system reliability for the utility's firm customers. As noted above, the Commission has reviewed the utilities' unique set of circumstances and found that it was reasonable to allocate such costs as demand costs and assign them to firm customers.
>
> However, Producer Demand and Storage costs have recently been identified as tools used to mitigate price. Minnesota natural gas utilities are currently using these tools in developing their general gas supply portfolio, which is designed to provide gas to all system customers. Given what appears to be the evolving use

[92] Producer Demand costs are the contracted, per-unit fees paid by the utility to reserve third-party supplies to guarantee (reserve) gas supplies at either a fixed-rate or an index-rate.

[93] The American Gas Association defines a Contract Storage Service as:

> Service provided by a pipeline, or other owner of storage facilities, whereby storage customers may lease a portion of the facilities for the purposes of storing customer-owned gas. Contract storage service generally involves the injection of customer-owned gas into the facility during the off-peak period, the holding of the accumulated inventory for the customer, and the withdrawal of gas during the peak heating season.

> of these tools, and because the Commission's prior decisions were made in 1993 dockets, it may be appropriate for the Commission to revisit the issue of classification and billing for these charges as demand or commodity. If it is indeed the case that utilities use these tools such that they benefit all of a utility's sales customers (i.e., both firm and interruptible sales customers), the Commission may want to note this fact and consider whether it is reasonable to classify Producer Demand and Storage costs as demand charges and assign all related costs solely to firm customers.

Rather than recommending a global change to the classification and allocation of certain producer demand and storage costs, the Department recommended that the Commission require each utility to provide its unique set of facts in determining whether it is reasonable to classify Producer Demand and Storage costs as commodity costs or demand costs, and to clarify which customer classes are to be assigned the related costs.

Commission Order

The Commission's February 6, 2008 Order in Docket No. E,G-999/AA-06-1208 stated:

> In the past, Minnesota gas utilities and regulators have generally treated Producer Demand and Storage costs as incurred for the benefit of firm customers and therefore properly allocated to and recovered from firm-service customers' rates. As the natural gas marketplace has become more complex, however, gas purchasing practices have changed, and it now appears that, at least in some cases, utilities are incurring Producer Demand and Storage costs not just to ensure reliable supplies for their firm service customers, but also to round out their supply portfolios and to cushion the price volatility associated with serving interruptible customers.

The Commission required each gas utility to make a supplementary filing in its 2007 demand entitlement docket that must:

(a) explain the factual and analytical basis for its current allocation of producer demand and storage costs between customer classes;

(b) demonstrate the rate impact on all customer classes of current allocation practices;

(c) demonstrate the rate impact on all customer classes of classifying producer demand and storage costs as commodity costs, which are allocated to both firm and interruptible customer classes; and

(d) explain the factual and analytical basis for any plan the utility wished to propose or explore that would partially reallocate demand and storage costs;

(e) demonstrate the rate impact on all customer classes of any plan filed under item (d).

Docket No. G002/M-07-1395

Xcel

In its 2007 Contract Demand Entitlement filing, Xcel initially proposed to allocate a portion of underground storage capacity demand and pipeline balancing costs to interruptible customers. Since the proposed change will cause a re-allocation of costs between customer classes, Xcel stated it believes any change should be made prospectively after a Commission decision to approve the change.

In Attachment 4 of Xcel's 2007 Demand Entitlement filing, and its supplemental petition filed February 20, 2008, Xcel stated that it believes that interruptible sales customers receive some benefit from certain expenses that have historically been allocated to firm customers, including a portion of storage costs as well as balancing expense. However, Xcel stated that it does not believe interruptible sales customers receive any benefit from the producer demand expense in its portfolio. According to Xcel, the Company's producer demand expense is attributable to a Viking city-gate peaking contract that was done in lieu of acquiring additional annual or heating season interstate pipeline firm transportation service.

Further, Xcel stated:

> Interruptible sales customers provide system value by agreeing to curtail their gas usage when requested by the Company, usually during very cold weather or peak day conditions when gas supplies may be limited. Therefore, the Company does not believe any pipeline transportation demand costs or producer demand costs (a.k.a. supplier reservation costs) should be assigned to the interruptible sales customers. However, the interruptible sales customers are receiving the benefits of both storage and pipeline balancing services on non-design days; therefore the Company believes a portion of these costs could be recovered from interruptible sales customers…

Xcel initially proposed to assign a portion of the following demand costs to interruptible customers:

- Underground storage capacity charges, which are placed on the entire cycle quantity of gas that can be stored (rather than deliverability demand charges, which determine the amount of peak day deliverability that can be withdrawn in the winter); and

- Pipeline balancing demand costs since Xcel provides balancing services for both firm and interruptible sales customer requirements on a daily basis on both Northern and Viking.

Underground Storage Costs

Xcel stated that it does not believe that interruptible sales customers should be allocated any storage deliverability demand charges since interruptible sales customers would not receive any natural gas out of storage on a design day, as their service would be curtailed. Interruptible sales customers do receive the benefit of gas in storage as reflected in their monthly weighted average

cost of gas; therefore, Xcel stated it believes a portion of capacity demand charges should be allocated to interruptible sales customers.

Xcel proposed to take the annual cost of storage capacity demand charges for all storage facilities, divided by budgeted heating season sales to determine a per Dth cost to be paid on all gas commodity sales (firm and interruptible) during the five winter months of November through March.

In its 2007 demand entitlement filing, Xcel estimated that this method would charge interruptible sales customers for approximately $687,000, or 13%, of storage capacity demand charges.

Pipeline Balancing Costs

Xcel initially proposed to take the annual demand costs of pipeline balancing services divided by the budgeted annual sales to determine a per Dth cost to be paid for on all gas commodity sales on an annual basis.

In its 2007 demand entitlement filing, Xcel estimated that this method would allocate approximately $150,000, or 17% of pipeline balancing demand charges to interruptible sales customers.

As discussed further below, Xcel later withdrew this proposed method of allocating pipeline balancing costs and adopted the method required by the Commission in Docket No. G-999/AA-12-756.

Department

In its August 21, 2008 comments in Docket No. G-002/M-07-1395, the Department concluded that Xcel's proposal to assign a portion of demand costs to interruptible customers is reasonable. The Department stated that Xcel's proposal represents a systematic approach to determining when interruptible customers benefit from the services associated with demand costs.

All Remaining Dockets

Xcel updated its proposal in its 2008 and 2011 Contract Demand Entitlement filings, and provided statements of continued support in its 2009, 2010, 2012, and 2013 Contract Demand Entitlement filings.

Docket No. G002/M-13-663

Xcel

In its August 1, 2013 Contract Demand Entitlement filing, Docket No. G-002/M-13-663, Xcel noted that it supported the Department's recommendation, in the 2012 natural gas Annual Automatic Adjustment proceeding (2012 AAA), that the Commission require all regulated gas utilities to recover balancing service costs in the commodity portion of the PGA. Xcel stated that it supported the Department's proposal for the following two reasons:

…One, the effect to customers was analogous in that interruptible classes would pay for some costs that are currently only allocated to firm customers, but from which interruptible customers benefit. Two, the methodology the Department proposed was simpler from an accounting standpoint than the methodology we have proposed in our contract demand entitlement filings.

Xcel stated that if the Commission approves the Department's recommendation in the 2012 AAA to treat the pipeline balancing charges as commodity, it would update the proposed methodology in its contract demand entitlement dockets to remove the pipeline balancing charges. Xcel further stated that it would continue to support the part of the proposal to assign the storage capacity demand charges to interruptible customers as last described in its 2011 Contract Demand Entitlement filing.

In its November 1, 2013 Supplemental Filing, which detailed final demand entitlement levels and costs for 2013-2014, Xcel removed the pipeline balancing costs from demand costs effective November 1, 2013 and proposed to treat them as commodity costs. Xcel did this based on the Commission's September 12, 2013 decision in Docket No. G-999/AA-12-756.

On November 22, 2013, Xcel filed a supplement to all of its 2007-2013 Contract Demand Entitlement filings to revise the proposal in these dockets (regarding allocating some demand costs to interruptible customers) to only include storage capacity demand charges. The treatment of pipeline balancing charges has already been addressed in Docket No. G-999/AA-12-756.

Department

Please see the discussion below under the Department's response to Xcel's November 22, 2013 Supplemental Petition.

Docket No. G-999/AA-12-756

Commission

On November 14, 2013, the Commission issued its ORDER ACCEPTING GAS UTILITIES' AUTOMATIC ADJUSTMENT REPORTS AND TRUE-UP PROPOSALS, AND SETTING FURTHER REQUIREMENTS (2012 AAA Order) in Docket No. G-999/AA-12-756. The 2012 AAA Order required that:

> Prospectively, all regulated natural gas utilities shall recover balancing service costs, and shall credit the utility's penalty revenues and the pipeline's revenue credits, to the commodity portion of the PGA effective with the earliest true-up filing (for revenues) or the earliest monthly PGA (for costs) that can reasonably be implemented.

All Dockets – Xcel's November 22, 2013 Supplemental Petition

Xcel

On November 22, 2013, Xcel filed a supplement in all of its outstanding Contract Demand Entitlement dockets. Xcel revised its proposal made in its Contract Demand Entitlement filings because of the above 2012 AAA Order.

Xcel stated that, "The 2012 AAA Order reallocated the pipeline balancing charges with a different methodology, but a similar effect (moving some demand costs to interruptible classes)" by recovering Xcel's pipeline balancing service charges through its commodity rates in its monthly PGAs and annual PGA true-up. Xcel revised its proposal in its Contract Demand Entitlement filings to only include the allocation of storage capacity demand charges.

As with Xcel's original proposal, its revised proposal would allocate some charges (storage capacity demand charges), which are currently allocated only to firm classes, to both firm and interruptible sales classes.

According to Xcel, this change would decrease a typical residential customer's annual bill by about $0.94, or about 0.1 percent. An interruptible customer's bill will increase approximately 1.0 – 1.2 percent.

On March 11, 2014, in Docket No. G002/M-13-663 only, Xcel responded to a Department recommendation that Xcel fully explain how it derived the calculation of the demand cost impacts in its November 22, 2013 supplemental filing, Schedule 1, Page 4 of 4.

Department

In its March 4, 2014 supplemental comments in Docket No. G-002/M-13-663, the Department responded to Xcel's November 22, 2013 supplemental filing. The Department stated that Xcel did not make changes to the total entitlement levels that were proposed in the initial filing, and the only change in demand cost proposed by the Company relates to changes in how pipeline balancing charges and storage capacity to interruptible customers are accounted for.

[Staff notes that in its November 1, 2013 supplement (not directly addressed by the Department) Xcel made changes to the demand costs proposed in its initial filing, including the treatment of pipeline balancing charges.]

The Department noted that the bill impacts that it calculated do not agree with the dollar impacts shown by the Company in its November 22, 2013 supplemental filing.

The Department recommended that Xcel fully explain how it derived the figures in its supplemental filing, Schedule 1, Page 4 of 4.

The Department recommended that the Commission allow the recovery of demand costs associated with Xcel's proposed demand entitlement levels effective November 1, 2013, subject to clarification by Xcel regarding the calculation of the demand cost impacts in its supplemental filing.

On April 9, 2014, the Department filed a letter and changed the above recommendation. The Department is now recommending that the Commission allow Xcel to recover associated demand costs through the monthly PGA effective November 1, 2013, as revised by Xcel's November 22, 2013 Supplement.

PUC Staff

Xcel moved pipeline balancing service costs from demand to commodity effective November 1, 2013, in response to the Commission's decision in Docket No. G-999/AA-12-756. Staff believes the remaining questions regarding Xcel's proposal to allocate some additional demand costs to interruptible customers are:

- Should the Commission accept Xcel's proposal (as explained in docket 07-1395) with respect to the treatment of Producer Demand (supply reservation) costs, or require something different?

- Should the Commission accept Xcel's proposals with respect to underground storage costs, or require something different?

- Should the effective date of implementation of any such changes with respect to the treatment of Producer Demand or Underground Storage Costs be November 1, 2013, or prospective from the date of the Commission's decision?

Producer Demand Costs

Xcel indicated that its producer demand expense is attributable to a Viking city-gate peaking contract that was done in lieu of acquiring additional annual or heating season interstate pipeline firm transportation service, and that it does not believe any producer demand costs should be assigned to the interruptible sales customers. The Commission may desire to have Xcel clarify whether this is still the situation with respect to the Company's current producer demand expense.

Underground Storage Costs

As discussed above, Xcel proposed to allocate some storage capacity demand charges, but not storage deliverability (reservation) demand charges, to interruptible customers. Staff believes the Department agrees with this proposal, but the Commission may want to confirm the Department's position.

Xcel's proposal is to take the annual cost of storage capacity demand charges for all storage facilities, divided by budgeted heating season sales to determine a per Dth cost to be paid on all gas commodity sales (firm and interruptible) during the five winter months of November through March.

If the Commission agrees with Xcel that some storage capacity demand charges, but not storage deliverability demand charges, should be allocated to interruptible customers, it may wish to have the parties address whether it would be simpler, and at least as reasonable, to do this by including the annual cost of storage capacity demand charges in the average cost of storage gas in inventory, to be included in the commodity cost of storage gas as it is withdrawn from inventory and delivered to Xcel's customers.

Effective Date

The Commission may wish to consider a prospective effective date for any changes it approves (or requires) with respect to the treatment of Producer Demand and/or Storage costs.

Decision Alternatives

1. Xcel is seeking Commission Approval for Demand Entitlement petitions effective November 1, 2007,[94] 2008,[95] 2009,[96] 2010,[97] 2011,[98] August 1, 2012,[99] and 2013.[100]

    a. Approve Xcel's request for interstate pipeline and other capacity changes to meet its Design Day and Reserve Margin requirements as described in the dockets listed in the footnotes below. and

    b. Approve Xcel's request to recover the associated cost changes in its pipeline demand entitlement contracts and supplier reservation fees as described in the dockets listed in the footnotes below.

    Xcel and the Department do not have any issues remaining on the following resolved issues:

    - Xcel's Design Day Calculation Methodologies
    - Northern Natural Gas (NNG) Annual Re-determination of its TF12 Base/Variable split
    - Re-alignment of customers in Xcel's service regions
    - Fargo Lateral Precedent Agreement
    - Xcel response, in Docket No. 11-1076, to the Department request for a discussion on
        - Changing the Filing Date to August 1 from November 1
        - The Reasonableness of Xcel Acquiring Contract Entitlements in Excess of its Design Day analysis
    - Supplier Reservation Fees
    - Hedging Transactions
    - Transportation Demand Entitlement Capacity Changes
    - Transportation Demand Entitlement Costs
    - Reserve Margin
    - Seasonal and annual rate data

[94] Docket No. G002/M-07-1395
[95] Docket No. G002/M-08-1315
[96] Docket No. G002/M-09-1287
[97] Docket No. G002/M-10-1163
[98] Docket No. G002/M-11-1076
[99] Docket No. G002/M-12-862
[100] Docket No. G002/M-13-663

2. Should the Commission approve Xcel's requested Jurisdictional Allocation Factors changes that allocate costs between Minnesota and North Dakota?

    a. Approve the decision alternatives described in alternatives 1(a) and 1(b) but do not make a decision at this time on the allocation of costs between Minnesota and North Dakota. Require Xcel to provide within thirty days a response to staff's request for information as to the issues described below in a compliance filing. Ask the Department to comment on Xcel's compliance filing within thirty days of receiving Xcel's filing.

        - Moorhead/Fargo Service Area Jurisdictional Allocation Factor

            Request Xcel to provide the demand entitlement costs previously allocated by the Moorhead/Fargo Service Area Jurisdictional Allocation Factor, as reflected in Docket Nos. 07-1395 through 08-1315 on Xcel's petition, Attachment 1, Schedule 2, page 2 for all subsequent dockets.

            Request Xcel to provide additional discussion on why it believed the four support arguments listed above on pages 57 and 58 are appropriate for determining if the proposed change in jurisdictional allocation factor methodology is justified.

            Request Xcel to explain the necessity of the ANR contract (proposed in Docket No. 09-1287), its purpose, and who is the primary customer(s) served by this contract. In other words, what is the primary delivery point(s) on Xcel's system of the Viking backhaul agreement? Is the capacity to primarily serve Xcel's MN or ND customers?

            Request Xcel to provide additional discussion on why it is appropriate to propose changing its jurisdictional allocation factors, which shift additional cost burden to MN customers.

            Request Xcel to provide any new data or discussion that would support its jurisdictional allocation factor change.

        - Fargo Lateral Agreement(s)

            Request Xcel to explain what demand entitlement contract(s) replaced its expired Fargo Lateral Agreement (expired in Docket No. 09-1287). Provided the demand entitlement costs of the replaced (expired) and the new agreement(s). To explain why the new Fargo Lateral agreement is from the expired agreement.

- Fargo Lateral Economic True-up Adjustment

  Request Xcel to explain what the revised annual cost would be under the capacity re-calculation; and what will be the monthly demand rate. Request Xcel to also explain whether Xcel's customers are receiving the appropriate refund for the over-collected capacity. Require Xcel to provide this information and the supporting calculation to determine if this re-calculated capacity level provides an appropriate refund to its customers; in a supplemental filing. (This assumes the Commission accepts Vikings/Xcel's proposal to refund the over-collection.)

  If the Commission would like to consider another refund methodology for flowing the over-collection back to Xcel's customers as a one-time credit or amortized over a period of 2 or 3 years. The Commission could ask Xcel to discuss this in its compliance filing and to provide proforma calculations and estimates of the remaining refund as of a certain date for crediting the appropriate cost in its next demand entitlement petition or in a future monthly PGA petition.

- Grand Forks Service Area Jurisdictional Allocation Factor

  Request Xcel to provide the demand entitlement costs previously allocated by the Grand Forks Service Area Jurisdictional Allocation Factor, as reflected in Docket Nos. 07-1395 through 10-1163 on Xcel's petition, Attachment 1, Schedule 2, page 2 for all subsequent dockets.

  Request Xcel to provide additional discussion on why it believed the four support arguments listed above on pages 57 and 58 are appropriate for determining if the proposed change in jurisdictional allocation factor methodology is justified.

  Request Xcel to provide additional discussion on why it is appropriate to propose changing its jurisdictional allocation factors, which shift additional cost burden to MN customers.

  Request Xcel to provide any new data or discussion that would support its jurisdictional allocation factor change.

- Customer Count

  Require Xcel to provide a further explanation in a compliance filing as to why its economic slowdown explanation for the customer count decrease in 2008-2009 applies only to Minnesota and not to North Dakota.

  OR

b. Withhold approval on all issues described in alternatives 1(a) and 1(b) at this time. Require Xcel to provide within thirty days a response to the information requested above in alternative 2(a) in a compliance filing. Ask the Department to comment on Xcel's compliance filing within thirty days of receiving Xcel's filing.

3. Should the Commission approve Xcel's revised proposal to allocate some demand costs to interruptible customers?

   a. Producer Demand Costs

      i. Accept Xcel's proposal to continue treating its producer demand (supply reservation) costs as demand costs charged to firm sales customers only.

      OR

      ii. Require Xcel to treat some, or all of its producer demand costs as commodity costs chargeable to both firm and interruptible customers based on sales of commodity. [If this option is selected, it should be clarified as to when the change is to be effective, for example, July 1, 2014 or November 1, 2014.]

   b. Storage Costs

      i. Storage Capacity Demand Charges

         1. Accept Xcel's proposal, and method, to allocate some storage capacity demand charges to interruptible sales customers. [Clarify the effective date of the change in treatment, for example, July 1, 2014 or November 1, 2014.]

         OR

         2. Require Xcel to allocate some storage capacity demand charges to interruptible sales customers by including the costs in the commodity cost of gas withdrawn from storage and delivered to firm and interruptible sales customers. [Clarify the effective date of the change in treatment, for example, July 1, 2014 or November 1, 2014.]

         OR

         3. Require Xcel to continue treating storage capacity demand charges as demand costs chargeable to firm sales customers only.

ii. Storage Deliverability (Reservation) Demand Charges

1. Accept Xcel's proposal to continue treating storage deliverability (reservation) demand charges as demand costs chargeable to firm sales customers only.

OR

2. Require Xcel to allocate some storage deliverability demand charges to interruptible customers. [If this alternative is selected, the effective date of the change should be clarified, for example July 1, 2014 or November 1, 2014, and the method by which this should be done should be determined. If the Commission has also determined that some storage capacity demand charges should be allocated to interruptible customers, staff would suggest that whatever method is used for that be also used for allocating the storage deliverability demand charges.]

Appendix A
Schedule 1

Summary Tables for all open Dockets

For its briefing papers, staff has summarized the relevant demand entitlement docket information into the following tables.

Xcel's Minnesota and North Dakota Demand Entitlements and Reserve Margins[101] summary, by docket:

Quantities in Dth

Docket Number	Total Xcel Contracted Design Day Capacity (2) + (3)	Xcel Design Day Requirements Total System	**MN** Design Day Requirements	**ND** Design Day Requirements	Xcel Reserve Margin	Reserve Margin as a Percentage of Design Day[102] (5) / (2)
	(1)	(2)	(3)	(4)	(5)	(6)
06-1454	**776,379**	755,683	**677,733**	77,950	20,696	2.74%
07-1395	**812,598**	770,067	**683,717**	86,350	42,531	5.53%
08-1315	**819,668**	766,782	**685,005**	81,777	52,886	[103]6.90%
09-1287	**835,492**	775,474	**694,487**	80,987	60,018	7.70%
10-1163	**831,598**	782,224	**699,611**	82,613	49,374	6.30%
11-1076	**833,811**	785,892	**702,294**	83,598	47,919	6.10%
12-862	**836,698**	788,298	**702,159**	86,139	48,400	6.10%
13-663	**842,411**	794,772	**706,935**	87,837	47,639	6.00%

[101] For further details, see each docket's Attachment 1, Schedule 3, p. 1 for all open Xcel demand entitlements dockets.
[102] For further details, see each docket's Attachment 2, Schedule 1, p. 2 for all open Xcel demand entitlements dockets.
[103] As been adjusted to reflect the Department's adjustments to Xcel 08-1315 petition demand entitlements.

Appendix A
Schedule 2

Jurisdictional Allocation Factors for Demand Entitlement Costs[104] summary, **MN** portion only:

Docket Number	Viking Pipeline Loop – **MN** portion	Grand Forks Lateral – **MN** Portion	All Remaining Costs – **MN** portion
	(1)	(2)	(3)
06-1454	21.99%	13.58%	89.68%
07-1395	21.75%	14.80%	88.79%
08-1315	21.58%	14.37%	89.34%
09-1287	N/A[105]	14.67%	89.56%
10-1163	N/A	14.59%	89.44%
11-1076	N/A	N/A[106]	89.36%
12-862	N/A	N/A	89.07%
13-663	N/A	N/A	88.95%

[104] For further details, see each docket's Attachment 1, Schedule 1, p. 1 for all open Xcel demand entitlements dockets.
[105] As a result of Xcel not renewing its Viking contract AF0035 expired on October 31, 2009, the Minnesota Fargo DD allocation factor is no longer needed.
[106] The MN Grand Forks DD allocation factor was been eliminated as a result of a Viking contract that expired on October 31, 2011 and was not renewed.

Appendix A
Schedule 3

Xcel Design Day Demand Entitlements[107] summary, by docket:

Quantities in Dth

Docket Number	**Total** Design Day	Reserve Margin	Total Company (1)+(2)
	(1)	(2)	(3)
06-1454	755,683	20,696	**776,379**
07-1395	770,067	42,531	**812,598**
08-1315	766,782	52,886	**819,668**
09-1287	775,474	60,018	**835,492**
10-1163	782,224	49,374	**831,598**
11-1076	785,892	47,919	**833,811**
12-862	788,298	48,400	**836,698**
13-663	794,772	47,639	**842,411**

[107] For further details, see each docket's Attachment 1, Schedule 1, p. 1 and Attachment 1, Schedule 3, p. 1 for all open Xcel demand entitlements dockets.

Appendix A
Schedule 4

Xcel' Minnesota Design Day Entitlements[108] summary:

Quantities in Dth

Docket Number	**MN** Design Day Entitlements	Change in Design Day Entitlements	Inc./Dec. Percentage Design Day
	(1)	(2)	(3)
06-1454	**677,733**		
07-1395	**683,717**	5,984	0.88%
08-1315	**685,005**	1,288	0.19%
09-1287	**694,487**	9,482	1.38%
10-1163	**699,611**	5,124	0.73%
11-1076	**702,294**	2,683	0.38%
12-862	**702,159**	(135)	(0.19%)
13-663	**706,935**	4,776	0.68

The overall percentage increase from 06-1454 to 13-663 is 4.31% or an increase in demand entitlements of 29,202 Dth (706,935 Dth – 677,733 Dth) over the 7 year period.

[108] For further details, see each docket's Attachment 1, Schedule 3, p. 1 and Attachment 2, p. 2 for all open Xcel demand entitlements dockets.

Appendix A
Schedule 5

Xcel's Reserve Margins[109] summary, total company:

Quantities in Dth

Docket Number	Total Company Reserve Margin	Change in Reserve Margin	Reserve Margin as a Percentage
	(1)	(2)	(3)
06-1454	**20,696**		2.74%
07-1395	**42,531**	21,835	5.53%
08-1315	**52,886**	10,355	6.90%
09-1287	**60,018**	7,132	7.70%
10-1163	**49,374**	(10,644)	6.30%
11-1076	**47,919**	(1,455)	6.10%
12-862	**48,400**	481	6.10%
13-663	**47,639**	(761)	6.00%

The average reserve margin over the docket period is **5.96%**.

[109] For further details, see each docket's Attachment 1, Schedule 3, p. 1 and Attachment 2, Schedule 1, p. 2 for all open Xcel demand entitlements dockets.

Appendix A
Schedule 6

Xcel's Projected Total Customer Count[110] summary, by docket:

Docket Number	Total Number of Customers	Percentage of Inc./(Dec.)	Overall Inc./(Dec.)
06-1454	467,683		
07-1395	476,092	1.80%	
08-1315	474,727	(0.29%)	
09-1287	479,841	1.08%	
10-1163	483,676	0.80%	
11-1076	486,809	0.65%	
12-862	487,960	0.24%	
13-663	491,579	0.74%	**3.25%**

Xcel's Projected Minnesota Customer Count[111] summary, by docket:

Docket Number	Number of **MN** Customers	Percentage of Inc./(Dec.)	Overall Inc./(Dec.)
06-1454	424,415		
07-1395	431,503	1.67%	
08-1315	428,852	(0.61%)	
09-1287	433,698	1.13%	
10-1163	436,594	0.66%	
11-1076	439,055	0.56%	
12-862	439,210	0.04%	
13-663	441.573	0.54%	**2.33%**

Xcel's Projected North Dakota Customer Count[112] summary, by docket:

Docket Number	Number of ND Customers	Percentage of Inc./(Dec.)	Overall Inc./(Dec.)
06-1454	43,268		
07-1395	44,589	3.05%	
08-1315	45,875	2.88%	
09-1287	46,143	0.58%	
10-1163	47,082	2.04%	
11-1076	47,754	1.42%	
12-862	48,750	2.09%	
13-663	50,006	2.58%	**12.15%**

[110] For further details, see each docket's Attachment 1, Schedule 1, Page 2, Column 2 for all open Xcel demand entitlements dockets.
[111] Id.
[112] Id.

Appendix A
Schedule 7

Demand Entitlement Costs Allocated to Minnesota summary; includes interstate pipeline transportation and storage costs, and supply reservation costs:

Docket No.	Allocated System Demand Costs[113] - **MN**	Allocated Grand Forks Demand Costs[114] - **MN**	Allocated Fargo Lateral Demand Costs[115] - **MN**	Total Allocated Demand Entitlement Costs – **MN** (1)+(2)+(3)	Inc./(Dec.) over prior Year	Percent Change Inc./(Dec.) (5)/(4)
	(1)	(2)	(3)	(4)	(5)	(6)
06-1454	$60,653,848	$87,537	$74,831	$60,816,216		
07-1395	$44,185,740	$95,401	$72,750	$44,353,891	($16,462,325)	(27.07%)
08-1315	$44,053,776	$92,629	$73,436	$44,219,841	($134,050)	(0.30%)
09-1287	$49,472,206	N/A	$94,563	$49,566,769	$3,177,732	6.85%
10-1163	$49,696,724	N/A	$94,047	$49,790,771	$224,002	0.45%
11-1076	$50,469,141	N/A	N/A	$50,469,141	$678,370	1.36%
12-862	$50,876,312	N/A	N/A	$50,876,312	$407,171	0.81%
13-663	$50,726,838	N/A	N/A	$50,726,838	($149,474)	(0.29%)

[113] For further details, see each docket's Attachment 1, Schedule 2, p. 2, Ln. 1for all open Xcel demand entitlements dockets.
[114] For further details, see each docket's Attachment 1, Schedule 2, p. 2, Ln. 4for all open Xcel demand entitlements dockets until the allocation factor and cost separation ended in 09-1287.
[115] For further details, see each docket's Attachment 1, Schedule 2, p. 2, Ln. 7 (through 08-1315) and Ln. 4 (from 09-1287 through 10-1163) and for all open Xcel demand entitlements dockets until the allocation factor and cost separation ended in 11-1076.