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March 4, 2009

Burl W. Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
Saint Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Office of Energy Security**  
Docket Nos. G007/M-08-1329 and G007,011/MR-08-836

Dear Dr. Haar:

Attached are the *Comments* of the Minnesota Office of Energy Security (OES) in the following matter:

A request (*Petition*) by Minnesota Energy Resources Corporation-Northern Minnesota Utilities (MERC-NMU of Company) for approval by the Minnesota Public Utilities Commission (Commission) of a change in demand entitlements.

The petition was filed on November 1, 2008 by:

Gregory J. Walters  
Regulatory and Legislative Affairs Manager  
Minnesota Energy Resources Corporation  
519 1<sup>st</sup> Avenue SW  
Rochester, MN 55902

Based on its review, the OES recommends that the Commission:

- **approve** MERC-NMU's demand entitlement level; and
- **require** MERC-NMU, in its final compliance in Docket No. G007,011/MR-08-836, to remove all costs and volumes related to the FT0011 contract from its final base cost of gas calculations.

In addition, based on its review of MERC-NMU's *Petition*, the OES **withholds** any recommendation on MERC-NMU's Purchased Gas Adjustment (PGA) cost recovery proposal until such time that the Company provides sufficient evidence supporting its demand cost calculations and overall cost recovery proposal.

Based on its review, the OES also recommends that MERC-NMU provide the following in its *Reply Comments*:

- a detailed explanation of why its current peak day and design-day requirement calculation approach for its MERC-PNG Northern PGA system, MERC-PNG Great Lakes PGA system, and MERC-NMU PGA system show an increase in the design-day requirement and the same approach results in a decrease in design-day requirements for its MERC-PNG Viking PGA system;
- a re-calculation of the design-day requirement in last year's demand entitlement filing, Docket No. G007/M-07-1402, using MERC-NMU's current design-day methodology;
- a full discussion of whether its peak-day weather assumptions, on page 6 of its *Petition*, are sufficient to meet the Commission's peak-day standard of -25°F for 24 hours;
- data related to the sales volumes the Company uses to estimate its growth rate including any, and all, models and assumptions necessary to replicate the growth rate;
- a full discussion of how the Company handles farm tap customers and whether MERC-NMU classifies farm taps as firm or non-firm customers;
- a full discussion of MERC-NMU's firm system performance during the two recent cold weather events;
- a full discussion of MERC-NMU's interruptible customer tariffs and whether interruptions during the recent cold weather events occurred according to the Company's tariffs;
- the dates that peak usage occurred during each month in the 2008-2009 heating season;
- daily Heating Degree Days and Adjusted Heating Degree Days for each day during the 2008-2009 heating season;
- total daily system throughput for each day during the 2008-2009 heating season;
- total Daily Firm Capacity (DFC) throughput volumes for each day during the 2008-2009 heating season;

- a full discussion of the inconsistencies in the volumes reported for its FDD storage contracts and which volumes are the correct amounts to include in this demand entitlement filing;
- a full discussion of why MERC-NMU continues to recover FDD storage costs through the demand cost recovery portion of the PGA rather than the commodity cost recovery portion; and
- updated exhibits and attachments that show the effects of moving all storage costs to the commodity cost recovery portion of the monthly PGA.

The OES intends to review this information and provide its final recommendation in subsequent comments and is available to answer any questions that the Commission may have.

Sincerely,

/s/ ADAM J. HEINEN  
Rates Analyst  
651-296-6329

AJH/jl  
Attachment



## BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

### COMMENTS OF THE MINNESOTA OFFICE OF ENERGY SECURITY

DOCKET NOS. G007/M-08-1329 AND G007,011/MR-08-836

#### **I. SUMMARY OF MERC-NMU'S PROPOSAL**

Pursuant to Minnesota Rules 7825.2910, subpart 2 (Filing Upon Change in Demand), on November 1, 2008, Minnesota Energy Resources Corporation-Northern Minnesota Utilities (MERC-NMU or Company), submitted a demand entitlement filing (*Petition*).<sup>1</sup> In its *Petition*, MERC-NMU requests the Minnesota Public Utilities Commission's (Commission) approval to change its demand entitlement level. MERC-NMU also requests that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective November 1, 2008.

On November 5, 2008, MERC-NMU submitted revised attachments reflecting corrected information for its Attachment 4, page 1, and Attachment 11. MERC-NMU stated that it had not updated the proposed commodity and demand costs and the revised attachments should replace those in the *Petition*.

#### **II. THE OES'S ANALYSIS OF MERC-NMU'S PROPOSAL**

The Minnesota Office of Energy Security (OES) reviewed MERC-NMU's proposed design-day requirement, proposed demand entitlement levels, and resulting reserve margins. Additionally, the OES compared this year's amounts with previous years' amounts. The OES's analysis of the Company's request includes three parts:

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<sup>1</sup> On November 1, 2008, MERC-PNG filed demand entitlement petitions for the 2008-2009 heating season for its Viking Gas Transmission Co. system customers in Docket No. G011/M-08-1331, for its Great Lakes Transmission L.P. system customers in Docket No. G011/M-08-1328, and for the Northern Natural Gas Co. system customers in Docket No. G011/M-08-1330. The OES separately addresses each of the requests in these dockets.

- MERC-NMU's design-day study;
- demand entitlement analysis; and
- the specific proposed demand entitlement changes.

#### **A. MERC-NMU'S DESIGN-DAY STUDY**

In its *Petition*, MERC-NMU provides a discussion of the design-day model it uses to determine its design-day requirement. In this discussion, MERC-NMU explains that it uses a design-day process that is different than the methodology that it used in its previous demand entitlement filings. The primary differences between the Company's current and previous design-day process are the data stream it uses and the Company's modified treatment of non-firm customers. In addition, MERC-NMU also discusses smaller adjustments that it makes to its design-day calculations.

In previous demand entitlement filings, MERC-NMU used approximately five heating seasons of data in its design-day regression models, while it uses three heating seasons of data in its current design-day study. Decreases in the amount of data can cause estimation issues that decrease the significance of a regression model; however, MERC-NMU states on pages 9 and 10 of its *Petition* that after examining daily data from three, four, and five heating seasons, it determined that three heating seasons of data provided the best results.

In response to an informal information request in MERC-PNG's 2008-2009 Viking demand entitlement filing (Docket No. G011/M-08-1331), the Company provided the raw data, various regression model results, and an explanation of the techniques it used to calculate the design-day studies and requirements for each of MERC's PGA systems. In this explanation of the changes in its design-day method, the Company indicates that the large changes in its design-day requirement were due to its new technique more accurately estimating natural gas usage by interruptible customers during peak periods. Specifically, the Company changed its previous assumption that interruptible customers use the same amount of natural gas every day to a more realistic assumption that natural gas use by interruptible customers varies depending on daily circumstances. Since the design-day requirement estimate is intended to project firm peak day natural gas usage, it is important that interruptible peak day usage is estimated as accurately as possible, since this amount is subtracted from total system throughput.

It is important to note that using the same design-day calculation methodology, the Company proposes significant increases in its design-day requirement for its MERC-PNG Northern PGA system, MERC-PNG Great Lakes PGA system, and for its MERC-NMU PGA system, while at the same time the Company proposes a significant decrease in the design-day requirement for its MERC-PNG Viking PGA system. Given this occurrence, the OES requests that MERC-NMU provide in its *Reply Comments* a detailed explanation of why its current peak day and design-day requirement calculation approach for its MERC-PNG Northern PGA system, MERC-PNG Great

Lakes PGA system, and MERC-NMU PGA system show an increase in the design-day requirement and the same approach results in a decrease in design-day requirements for its MERC-PNG Viking PGA system.

In its discussion in the *Petition* of its design-day requirement changes, MERC-NMU states that estimating peak day interruptible usage is difficult. The OES agrees with the Company that it is difficult to know with certainty the amount of natural gas used by interruptible customers; therefore, it is necessary to determine whether MERC-NMU's changes in its design-day study ensure reliable firm customer peak day service. In an effort to validate the Company's modified design-day methodology, the OES recommends that MERC-NMU provide in its *Reply Comments* a re-calculation of the design-day requirement in last year's demand entitlement filing, Docket No. G007/M-07-1402, using MERC-NMU's current design-day methodology. This information will help confirm whether the Company's revised method ensures reliable peak day firm service.

In addition, MERC-NMU discusses on Page 6 of its *Petition*, the process through which it establishes the temperature it sets as its peak-day determinant. Based on a review of this information, the OES notes that the Fargo weather station, which MERC-NMU uses to determine weather coefficients, has a maximum heating degree day below the Commission prescribed peak-day weather standard of -25°F for 24 hours. Therefore, the OES recommends that the Company provide a full discussion in its *Reply Comments* of whether MERC-NMU's peak-day weather assumptions, on page 6 of its *Petition*, are sufficient to meet the Commission's peak-day standard of -25°F for 24 hours.

As mentioned earlier, MERC-NMU has modified its treatment of non-firm customers in this demand entitlement filing. In previous demand entitlement filings, MERC-NMU estimated daily non-firm usage, and then used the remaining usage amounts (firm usage) to estimate its design-day requirement level. Its current method is different than its old approach in that the Company estimates its design-day requirement, and then uses historical non-firm usage, and telemetry data when available, to remove interruptible volumes from its design-day requirement. After reviewing this approach, the OES believes it may more accurately reflect the amount of natural gas used by interruptible and firm customers on peak days and may decrease variability in design-day estimates. As such, the OES does not dispute the use of this technique.

MERC-NMU also makes smaller adjustments to its design-day calculations. The first of these smaller adjustments is the calculation of its sales growth rates. In previous demand entitlement filings, MERC-NMU used changes in forecasted design-day customer numbers as a proxy for its sales growth rates. In this docket, MERC-NMU instead uses forecasted changes in sales volumes to estimate its growth rate. The Company does not provide these forecasted volumes in its *Petition*; therefore, the OES recommends that MERC-NMU provide these data in its *Reply Comments*, along with any, and all, models, data, and assumptions necessary to replicate the growth rate.

The second smaller adjustment MERC-NMU undertakes relates to its treatment of farm taps. MERC-NMU does not provide a discussion of these changes and, as such, the OES recommends that the Company provide in its *Reply Comments* a full discussion of the changes to the design-day related to these customers and whether MERC-NMU classifies farm taps as firm or non-firm customers.

At the date these *Comments* were filed, MERC-NMU's service territory has experienced two extreme cold weather events, one during December 2008 and one during January 2009. Considering the recent cold weather and the changes in design-day calculations, the OES recommends that MERC-NMU provide the following in its *Reply Comments*:

- a full discussion of MERC-NMU's firm system performance during the two recent cold weather events;
- a full discussion of MERC-NMU's interruptible customer policy and whether interruptions during the recent cold weather events occurred according to the Company's policy;
- the dates that peak usage occurred during each month in the 2008-2009 heating season;
- daily Heating Degree Days and Adjusted Heating Degree Days for each day during the 2008-2009 heating season;
- total daily system throughput for each day during the 2008-2009 heating season; and
- total Daily Firm Capacity (DFC) throughput volumes for each day during the 2008-2009 heating season.

## **B. DEMAND ENTITLEMENT ANALYSIS**

### *1. Design-Day Requirement*

The OES investigated MERC-NMU's historical peak-day sendout per customer information. OES Attachment 2 shows that the MERC-NMU all-time peak-day sendout per design-day customer was 1.5198 Mcf/day during the 1996-1997 heating season.<sup>2</sup>

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<sup>2</sup> Peak-day sendout per design-day customer is defined as the usage on a peak-day in terms of customer numbers projected prior to the heating season.

As indicated in Columns 4, 5, and 6 of OES Attachment 2, MERC-NMU's proposed design-day requirement increases 2,718 Mcf/day (or approximately 4.46 percent) from 61,008 Mcf/day in 2007-2008 to 63,726 Mcf/day in 2008-2009. This proposed change is in the range of percentage changes over the past 12 years: -2.40 percent to 14.69 percent. However, if the 14.69 percent growth rate for the 2003-2004 heating season is omitted from our analysis, then MERC-NMU is proposing the largest increase in design-day volumes during the period.

## *2. Peak-Day Sendout*

As shown in Columns 12, 13, and 14 of OES Attachment 2, MERC-NMU's firm peak-day sendout for the 2007-2008 heating season was 54,115 Mcf/day, an increase of 24,019 Mcf/day (or approximately 79.81 percent) over the 2006-2007 heating season. On a total throughput level, this was the greatest peak-day sendout on the MERC-NMU system for the period even though it was not the largest peak-day sendout per customer. The Company's proposed increase of 2,718 Mcf/day in design-day requirements results in an anticipated design-day per customer of 1.6293 Mcf/day, which is in the range of design-day per customer estimates over the previous 13 years of 1.4871 Mcf/day to 1.6775 Mcf/day and is roughly three percent higher than the average design-day per customer of 1.5845 Mcf/day.<sup>3</sup>

Further, the estimated total entitlement per customer of 1.6577 Mcf/day is greater than the 13-year average entitlement per customer of 1.6391 Mcf/day, but in the range of 1.5455 Mcf/day and 1.9876 Mcf/day. Compared to the all-time peak-day sendout per design-day customer of 1.5198 Mcf/day, MERC-NMU's proposal of 1.6293 Mcf/day per design-day customer is higher. In addition, MERC-NMU's proposed total entitlement per customer of 1.6577 Mcf/day is also greater than the all-time peak-day sendout per design-day customer.

## *3. Entitlement Level and Reserve Margin*

Along with its design-day proposal, MERC-NMU also proposes an increase in its total entitlement level. The Company indicates in its Attachment 3 that it proposes to increase its total entitlement level by 415 Mcf/day (or approximately 0.64 percent) from the previously filed level of 64,420 Mcf/day to 64,835 Mcf/day.

As shown in OES Attachment 2, the Company's total entitlement proposal results in a positive reserve margin for its MERC-NMU firm system customers of 1.74 percent, which is a decrease of 3.85 percent from the 2007-2008 reserve margin of 5.59 percent.

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<sup>3</sup> This average excludes the 2003-2004 heating season since the increases in design-day during this heating season were quite large and the result of Aquila Networks' practice of allocating design-day requirements based on Northern Natural Gas zones.

#### 4. Conclusion

Based on its demand entitlement analysis, the OES concludes that MERC-NMU's proposed design-day requirement, entitlement level, and resulting reserve margin is sufficient to cover the expected 2008-2009 heating season demand.

### C. MERC-NMU'S SPECIFIC PROPOSED DEMAND ENTITLEMENT CHANGES

There are two types of demand entitlement changes. The first type is design-day deliverability which, in this case, increases the amount of transportation available to MERC-NMU's customers during the winter peak period. The second type does not affect design-day deliverability levels, but alters the capacity portfolio and the PGA costs recovered from customers.

#### 1. Design-Day Deliverability Changes

As shown in OES Attachment 1 and MERC-NMU Attachment 3, the Company proposes to increase its approved total entitlement by 416 Mcf/day (or approximately 0.64 percent). To obtain the proposed entitlement level, MERC-NMU proposes to change its portfolio of capacity services identified below in Table 1:

<b>Table 1: MERC-NMU's Proposed Changes to its Design-Day Capacity Portfolio</b>	
<b>Capacity Entitlement</b>	<b>Proposed Change Increase/(Decrease)</b>
NNG TF12B and TF12V	(3,460) Mcf/day
NNG TF5	3,460 Mcf/day
<b>NNG Subtotal</b>	
	<b>0 Mcf/day</b>
GLGT T-16 & T155-12	(500) Mcf/day
Viking Capacity Release*	(4,987) Mcf/day
Viking FT-A (3)*	5,902 Mcf/day
NNG TF12 Chisago	144 Mcf/day
NNG TF5 Chisago	324 Mcf/day
NNG TFX12 Chisago	361 Mcf/day
NNG TFX 5	87 Mcf/day
<b>Total Overall Change</b>	
	<b>416 Mcf/day**</b>

\*These amounts are not included in the total change in entitlement levels.

\*\*The increase in entitlements of 416 Mcf/day listed in this table is different than the increase of 415 Mcf/day listed earlier is caused by rounding.

Based on its demand entitlement analysis in Section D, the OES concludes that MERC-NMU's proposed 2008-2009 changes to its capacity portfolio for its firm customers appear reasonable.

## 2. *Other Demand Entitlement Changes*

As shown in MERC-NMU's Attachments 6 and 8, the Company proposes to change other pipeline entitlements that are not included in peak-day deliverability. Using the values found in MERC-NMU Attachment 8, the Company proposes the changes indicated in Table 2 below to its portfolio of other services.

<b>Table 2: MERC-NMU's Proposed Changes to its Other Pipeline Entitlements not Included in Peak-Day Deliverability</b>	
<b>Other Services</b>	<b>Proposed Change Increase/(Decrease)</b>
SMS	(29) Mcf/day
FDD Storage Reservation <sup>4</sup>	33 Mcf/day
FDD Storage Cycle Volumes	378 Mcf/day
FDD LS <sup>5</sup>	0 Mcf/day
Nexen PSO	14,904 Mcf/day
Tenaska PSO	(17,763) Mcf/day

Based on its review of these other pipeline entitlements, the OES has some concerns with MERC-NMU's PGA cost recovery proposal. First, the OES notes that the FDD volumes listed in MERC-NMU Attachment 4, Page 2 of 2, do not reconcile with the same volumes presented in MERC-NMU Attachment 8. Given this discrepancy, the OES recommends that MERC-NMU provide a full discussion in its *Reply* Comments of the inconsistencies in the volumes reported for its FDD storage contracts and which volumes are the correct amounts to include in this demand entitlement filing. Second, after reviewing MERC-NMU's cost recovery proposal, the OES believes that the Company is treating the cost recovery of the FDD storage contracts incorrectly. Specifically, Firm Deferred Delivery are storage contracts that allow a utility to withdraw, or inject, natural gas into storage without any prior notice to the pipeline or storage company.

In its March 7, 2008 *Supplemental Comments* in Docket No. G007/M-07-1402, MERC-NMU concluded that it was appropriate to recover storage costs through commodity costs charged to all customers rather than in demand costs charged only to firm customers since all customers, not just firm customers, benefit from natural gas storage.<sup>6</sup> In the current docket, when total demand costs are broken down, it is clear that FDD costs are included in these traditional demand costs in

<sup>4</sup> FDD stands for Firm Deferred Delivery.

<sup>5</sup> MERC-NMU does not mention its FDD LS contracts in its *Petition*; however, it recovers these costs in its PGA in the same cost category as the other FDD related costs. For this reason, the OES includes the FDD LS contract in its analysis.

<sup>6</sup> Purchased gas costs passed through the monthly PGAs to customers are classified as either demand-delivered gas costs (demand costs) or commodity-delivered gas costs (commodity costs). Generally, demand costs are recovered from only firm sales service customers and commodity costs are recovered from both firm and interruptible sales service customers. However, both firm and interruptible sales customers use storage gas and both classes receive the benefit of the possible hedge against winter price increases resulting from the use of storage gas.

the PGA and not the commodity portion of the PGA as recommended by MERC-NMU in Docket No. G007/M-07-1402. This cost recovery proposal contradicts MERC-NMU's statement on Page 3 of its July 8, 2008 *Reply Comments* in Docket No. G007/M-07-1402 where the Company requests a date of July 1, 2008 to shift these storage demand costs to the commodity portion of the PGA. The OES also notes that an investigation of MERC-NMU's July 2008 through October 2008 PGAs shows that MERC-NMU has continued recovering FDD storage costs in the demand cost recovery portion of the PGA rather than the commodity cost recovery portion of the monthly PGA. Therefore, the OES recommends that MERC-NMU provide the following in its *Reply Comments*:

- a full discussion of why it continues to recover the FDD storage costs through the demand cost recovery portion of the PGA rather than commodity cost recovery portion; and
- updated exhibits and attachments that show the effects of moving the FDD storage costs to the commodity cost recovery portion of the monthly PGA.

### 3. *MERC-NMU's FT0011 Contract*

In MERC-NMU's previous demand entitlement filing<sup>7</sup> there were significant comments filed regarding this contract. Through these comments, the OES concluded that this contract did not adequately serve firm customers, recovery of demand costs were not reasonable, and the OES recommended that the Company refund any recovery to ratepayers. In response to these concerns, MERC-NMU submitted a *Letter* on September 23, 2008<sup>8</sup> in which it stated that it followed the OES's recommendations by terminating this contract and refunding any costs recovered to ratepayers.

Despite MERC-NMU's termination of this contract, and the subsequent recovery of costs associated with this contract, the OES notes that through an examination of the Company's July 31, 2008 base cost of gas filing<sup>9</sup> in its current rate case<sup>10</sup> MERC-NMU included volumes related to the FT0011 contract in its base cost of gas calculations. Given the fact that the FT0011 contract has been terminated by the Company, the OES believes that the inclusion of volumes associated with the FT0011 contract in MERC-NMU's base cost of gas calculations is unreasonable. Therefore, the OES recommends that the Commission require MERC-NMU, in its final compliance in Docket No. G007,011/MR-08-836, to remove all costs and volumes related to the FT0011 contract from its final base cost of gas calculations.

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<sup>7</sup> Docket No. G007/M-07-1402.

<sup>8</sup> *Id.*

<sup>9</sup> G007,011/MR-08-836.

<sup>10</sup> G007,011/GR-08-835.

#### 4. *PGA Cost Recovery*

MERC-NMU proposes to begin recovering the costs associated with its change in demand costs in the monthly PGA effective November 1, 2008. However, based on an examination of MERC-NMU's cost recovery proposal submitted in its initial filing, and the revised spreadsheets filed on November 5, 2008, the OES notes that the estimated demand costs are not the same. MERC-NMU did not provide support for the change in demand costs with its revised spreadsheets and, as such, the OES is not able to complete its analysis. Based on the change in demand costs proposed by MERC-NMU's in its revised spreadsheets and the Company's cost recovery proposal for its storage related contracts, the OES withholds any recommendation on MERC-NMU's PGA cost recovery proposal until such time that MERC-NMU provides sufficient evidence supporting its demand cost changes and cost recovery proposal.

### III. CONCLUSIONS AND RECOMMENDATIONS

Based on its review, the OES recommends that the Commission:

- approve MERC-NMU's demand entitlement level; and
- require MERC-NMU, in its final compliance in Docket No. G007,011/MR-08-836, to remove all costs and volumes related to the FT0011 contract from its final base cost of gas calculations.

In addition, based on its review of MERC-NMU's *Petition*, the OES withholds any recommendation on MERC-NMU's Purchased Gas Adjustment (PGA) cost recovery proposal until such time that the Company provides sufficient evidence supporting its demand cost calculations and overall cost recovery proposal.

Based on its review, the OES also recommends that MERC-NMU provide the following in its *Reply Comments*:

- a detailed explanation of why its current peak day and design-day requirement calculation approach for its MERC-PNG Northern PGA system, MERC-PNG Great Lakes PGA system, and MERC-NMU PGA system show an increase in the design-day requirement and the same approach results in a decrease in design-day requirements for its MERC-PNG Viking PGA system;
- a re-calculation of the design-day requirement in last year's demand entitlement filing, Docket No. G007/M-07-1402, using MERC-NMU's current design-day methodology;

- a full discussion of whether its peak-day weather assumptions, on page 6 of its *Petition*, are sufficient to meet the Commission's peak-day standard of -25°F for 24 hours;
- data related to the sales volumes the Company uses to estimate its growth rate including any, and all, models and assumptions necessary to replicate the growth rate;
- a full discussion of how the Company handles farm tap customers and whether MERC-NMU classifies farm taps as firm or non-firm customers;
- a full discussion of MERC-NMU's firm system performance during the two recent cold weather events;
- a full discussion of MERC-NMU's interruptible customer tariffs and whether interruptions during the recent cold weather events occurred according to the Company's tariffs;
- the dates that peak usage occurred during each month in the 2008-2009 heating season;
- daily Heating Degree Days and Adjusted Heating Degree Days for each day during the 2008-2009 heating season;
- total daily system throughput for each day during the 2008-2009 heating season;
- total Daily Firm Capacity (DFC) throughput volumes for each day during the 2008-2009 heating season;
- a full discussion of the inconsistencies in the volumes reported for its FDD storage contracts and which volumes are the correct amounts to include in this demand entitlement filing;
- a full discussion of why MERC-NMU continues to recover FDD storage costs through the demand cost recovery portion of the PGA rather than the commodity cost recovery portion; and
- updated exhibits and attachments that show the effects of moving all storage costs to the commodity cost recovery portion of the monthly PGA.

OES Attachment 1  
Demand Entitlement Portfolio Changes for NMU Customers

Docket No. G007/M-08-1329	06-1535 NMU GS	07-1402 NMU GS	08-1329 NMU GS	Proposed Change
NNG Design Day	21,635	21,491	21,791	300
Customer Requirements moving to Transportation				
Adjusted Design Day	21,635	21,491	21,791	300
Adjusted Design Day Percentages				
Factors for All Winter Capacity				
<u>NNG Allocated Entitlements in PGA</u>				
TF12B	7,340	2,954	2,653	(301)
TF12V	5,930	9,802	6,643	(3,159)
TF(5)	2,102	1,991	5,451	3,460
TFX(5)	5,514	6,139	6,139	0
LS Power	0	2,777	2,777	0
TFX(5)	0	0	0	0
Peak Capacity 3 mo.	0	0	0	0
Total NNG Allocated Entitlements in PGA	20,886	23,663	23,663	0
<u>Other Pipelines Entitlements in PGA</u>				
Viking FT-A	7,966	7,966	7,966	0
Viking FT-A Backhaul	4,625	4,987	5,902	915
Viking Chisago TF12	2,546	2,547	3,249	702
Viking Chisago TF5	2,078	2,439	2,653	214
Great Lakes T-16 & T155 - 12	11,308	15,308	15,308	0
Great Lakes T-16 & T155 - 5	2,138	2,138	2,138	0
Centra FT-1	9,858	9,858	9,858	0
Centra -Boise	0	0	0	0
Nexen Storage	6,000	0	0	0
Tenaska PSO GL	0	0	0	0
Tenaska PSO Centra	0	0	0	0
ANR Storage	0	0	0	0
Total Capacity	62,780	63,919	64,835	916
Total NNG Transportation	20,886	23,663	23,663	0
Total Transportation	56,780	63,919	64,835	916
Total Seasonal Transportation	7,616	10,907	14,367	3,460
Percent Seasonal on NNG	36.5%	46.1%	60.7%	14.6%
<u>Other Entitlements not included in Peak Day Deliverability</u>				
TFX Offpeak Old (Apr/Oct) one mo.	0	0	0	0
TFX (Apr/Oct) one mo.	0	0	0	0
TFX Apr.-Oct. 7 mos.	0	0	0	0
TFX May-Sept 5 mos.	0	0	0	0
FDD Storage reservation per mo.	73,136	87,857	89,316	1,459
FDD Storage capacity per mo.	6,343	7,620	7,980	360
ANR Capacity per mo.	0	0	0	0
Nexen PSO	600,000	669,700	684,604	14,904
Tenaska PSO	15,807	17,763	0	(17,763)
NGPL per mo.	0	0	0	0
SMS per mo.	1,907	2,172	2,143	(29)
SBA	0	0		0
Upstream Demand per mo.	0	0		0

**OES Attachment 2**  
**Demand Entitlement Analysis**  
**NMU's Customers**  
**As Proposed by NMU**

**Northern Minnesota Utilities**

		Number of Firm Customers			Design Day Requirement			Total Entitlement + Peak Shaving			Reserve Margin
Heating Season	DD No. of Customers	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
			Change from Previous Year	% Change From Previous Year	Design Day (McF)	Change from Previous Year	% Change From Previous Year	Total Entitlement (McF)*	Change from Previous Year	% Change From Previous Year	% of Reserve Margin [(7)-(4)]/(4)
2008-2009	39,112		854	2.23%	63,726	2,718	4.46%	64,835	415	0.64%	1.74%
2007-2008	38,258		(225)	-0.58%	61,008	(52)	-0.09%	64,420	1,639	2.61%	5.59%
2006-2007	38,483		275	0.72%	61,060	(1,047)	-1.69%	62,781	(1,553)	-2.41%	2.82%
2005-2006	38,208		(1,608)	-4.04%	62,107	1,404	2.31%	64,334	2,668	4.33%	3.59%
2004-2005	39,816		2,740	7.39%	60,703	(1,491)	-2.40%	61,666	(2,672)	-4.15%	1.59%
2003-2004	37,076		612	1.68%	62,194	7,968	14.69%	64,338	7,945	14.09%	3.45%
2002-2003	36,464		362	1.00%	54,226	(344)	-0.63%	56,393	260	0.46%	4.00%
2001-2002	36,102		415	1.16%	54,570	(1,099)	-1.97%	56,133	0	0.00%	2.86%
2000-2001	35,687		717	2.05%	55,669	1,118	2.05%	56,133	1,210	2.20%	0.83%
1999-2000	34,970		1,097	3.24%	54,551	119	0.22%	54,923	151	0.28%	0.68%
1998-1999	33,873		968	2.94%	54,432	1,551	2.93%	54,772	3,918	7.70%	0.62%
1997-1998	32,905		1,362	4.32%	52,881	2,176	4.29%	50,854	0	0.00%	-3.83%
1996-1997	31,543		790	2.57%	50,705	1,342	2.72%	50,854	(10,270)	-16.80%	0.29%
1995-1996	30,753				49,363			61,124			23.83%
Average:				1.90%			2.07%			0.69%	3.43%
Average (Ex. 2003-2004):				1.92%			1.02%			-0.43%	3.43%

**Firm Peak Day Sendout**

Heating Season	Number of Peak Day Customers	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(19)
			Firm Peak Day Sendout (McF)	Change from Previous Year	% Change From Previous Year	Excess/Dcf. per Cust. [(7)-(4)]/(1)	Design Day per Customer* (4)/(1)	Entitlement per Customer (7)/(1)	Peak Day Sendout per DD Customer (12)/(1)
2008-2009	unknown		unknown			0.0284	1.6293	1.6577	unknown
2007-2008	38,258		54,115	24,019	79.81%	0.0892	1.5946	1.6838	1.4145
2006-2007	38,483		30,096	(16,324)	-35.17%	0.0447	1.5867	1.6314	0.7821
2005-2006	38,208		46,420	5,014	12.11%	0.0583	1.6255	1.6838	1.2149
2004-2005	38,394		41,406	2,123	5.40%	0.0242	1.5246	1.5488	1.0399
2003-2004	37,632		39,283	(5,858)	-12.98%	0.0578	1.6775	1.7353	1.0595
2002-2003	37,076		45,141	10,769	31.33%	0.0594	1.4871	1.5465	1.2380
2001-2002	36,500		34,372	(9,950)	-22.49%	0.0433	1.5116	1.5548	0.9521
2000-2001	35,956		44,322	3,967	9.83%	0.0130	1.5599	1.5729	1.2420
1999-2000	35,822		40,355	(8,001)	-16.55%	0.0106	1.5599	1.5706	1.1540
1998-1999	34,970		48,356	8,320	20.78%	0.0100	1.6069	1.6170	1.4276
1997-1998	33,873		40,036	(7,904)	-16.49%	-0.0616	1.6071	1.5455	1.2167
1996-1997	33,064		47,940	16,790	53.90%	0.0047	1.6075	1.6122	1.5198
1995-1996	32,112		31,150			0.3824	1.6051	1.9876	1.0129
Average:					9.13%	0.0546	1.5845	1.6391	1.1749
Average (Ex. 2003-2004):					11.14%	0.0544	1.5774	1.6317	1.1845

\* The total entitlement includes the 864 Mcf/day of entitlement permanently released to Cornerstone in 2002-2003.

STATE OF MINNESOTA )  
 ) ss  
COUNTY OF RAMSEY )

## AFFIDAVIT OF SERVICE

**I, Sharon Ferguson, being first duly sworn, deposes and says: that on the 4<sup>th</sup> of March, 2009, served the Minnesota Office of Energy Security Comments**

**MNPUC DOCKET NUMBER: G007/M-08-1329**

**XX** by depositing in the United States Mail at the City of St. Paul,  
a true and correct copy thereof, properly enveloped with postage  
prepaid

**XX** electronic filing

/s/Sharon Ferguson

Subscribed and sworn to before me

this 4<sup>th</sup> day of March , 2009

/s/ Lisa Maria DeTomaso

Lisa Maria DeTomaso  
Notary Public-Minnesota  
Commission Expires Jan 31, 2011

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