

MICHAEL J. AHERN (612) 340-2881 FAX (612) 340-2643 ahern.michael@dorsey.com

November 1, 2008

Burl W. Haar Executive Secretary Minnesota Public Utilities Commission 121 Seventh Place East, Suite 350 St. Paul, MN 55101

# PUBLIC DOCUMENT – TRADE SECRET DATA HAS BEEN EXCISED

Re:	In the Matter of the Petition of Minnesota Energy Resources Corporation – PNG
	for Approval of a Change in Demand Entitlement for its Northern Natural Gas
	Transmission System; Docket No.
	•

Dear Dr. Haar:

In accordance with Minnesota Rule 7825.2910, subpart 2, please find the public and nonpublic versions of Minnesota Energy Resources Corporation's (MERC) request to change demand entitlement. In particular, MERC proposes to change demand levels by type on the Northern Natural Gas Transmission (NNG) system for customers served by MERC-PNG effective November 1, 2008.

Please note that page 17 of the Petition and Attachments 8 and 9 contain financial information with independent economic value that is not generally known to, and not readily ascertainable by, competitors of MERC, who could obtain economic value from its disclosure. MERC maintains this information as secret. Accordingly this data qualifies as trade secret data as defined in Minn. Stat. § 13.37, subd. 1(b), and MERC requests that the data be treated as trade secret information.

In accordance with Minnesota Rule 7825.2910, subpart 3, a Notice of Availability has been sent to all intervenors in Aquila Networks-PNG's previous two rate cases.

Please feel free to contact me at (612) 340-2881 if you have any questions regarding this matter.

many /

Enclosures

cc: Service List

# STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

David C. Boyd J. Dennis O'Brien Thomas Pugh Phyllis A. Reha Betsy Wergin		Chair Commissioner Commissioner Commissioner Commissioner	
In the Matter of the Petition of Minnesota Energy Resources Corporation – PNG for Approval of a Change in Demand Entitlement for its Northern Natural Gas Transmission System	) ) ) )	Docket No	

#### FILING UPON CHANGE IN DEMAND

Pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand), Minnesota Energy Resources Corporation - PNG (MERC or the Company), hereby petitions the Minnesota Public Utilities Commission (Commission) for approval of changes in demand entitlements for MERC's Minnesota customers served off of the Northern Natural Gas Company (NNG or Northern) system. MERC requests that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2008.

This filing includes the following attachments:

Attachment 1: Notice of Availability.

Attachment 2: One paragraph summary of the filing in

accordance with Minn. R. 7829.1300, subp. 1.

**Attachment 3**: Petition for Change in Demand with

Attachments.

#### **Attachment 4**: Affidavit of Service and Service List.

The following information is provided in accordance with Minn. R. 7829.1300:

### 1. <u>Summary of Filing</u>

Pursuant to Minn. R. 7829.1300, subp. 1, a one-paragraph summary of the filing is attached.

#### 2. Service

Pursuant to Minn. R. 7829.1300, subp. 2, MERC has served a copy of this filing on the Department of Commerce and the Office of the Attorney General – Residential Utilities Division. The summary of the filing has been served on all parties on the attached service list. Additionally, pursuant to Minn. R. 7825.2910, subp. 3, a Notice of Availability has been sent to all intervenors in Aquila Networks – PNG's previous two rate cases.

#### 3. General Filing Information

#### A. Name, Address, and Telephone Number of the Utility

Minnesota Energy Resources Corporation 2665 145th Street West Box 455 Rosemount, MN 55068-0455 (651) 322-8901

## B. Name, Address, and Telephone Number of Attorney for the Utility

Michael J. Ahern Dorsey & Whitney LLP 50 S. Sixth Street, Suite 1500 Minneapolis, MN 55402-1498 (612) 340-2881

## C. Date of the Filing and Proposed Effective Date

Date of filing: November 3, 2008

Proposed Effective Date: November 1, 2008

## D. Statute Controlling Schedule for Processing the Filing

Minnesota Statutes and related rules do not provide an explicit time frame for action by the Commission.

## E. Utility Employee Responsible for the Filing

Gregory J. Walters 519 First Avenue SW P.O. Box 6538 Rochester, MN 55903-6538 (507) 529-5100

If additional information is required, please contact Michael J. Ahern at: (612)

By

340-2881.

DATED: November 3, 2008 Respectfully Submitted,

DORSEY & WHITNEY LLP

Michael J. Ahern

Suite 1500, 50 South Sixth Street Minneapolis, MN 55402-1498 Telephone: (612) 340-2600

Attorney for Minnesota Energy Resources Corporation

All Intervenors

#### **Notice of Availability**

Please take notice that Minnesota Energy Resources Corporation-PNG has filed a petition with the Minnesota Public Utilities Commission for approval of a change in demand entitlements.

To obtain copies, or if you have any questions, please contact:

Gregory J. Walters Minnesota Energy Resources Corporation 519 1st Ave SW Rochester, MN 55902 507-529-5100.

Please note that this filing is also available through the eDockets system maintained by the Minnesota Department of Commerce and the Minnesota Public Utilities Commission. You can access this document by going to eDockets through the websites of the Department of Commerce or the Public Utilities Commission or going to the eDockets homepage at:

https://www.edockets.state.mn.us/EFiling/home.jsp

Once on the eDockets homepage, this document can be accessed through the Search Documents link and by entering the date of the filing.

# STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Davia C. Boya		Cnair	
J. Dennis O'Brien		Commissioner	
Thomas Pugh		Commissioner	
Phyllis A. Reha		Commissioner	
Betsy Wergin		Commissioner	
In the Matter of the Petition of Minnesota	)		
Energy Resources Corporation – PNG	)		
for Approval of a Change in Demand	)	Docket No.	
Entitlement for its Northern Natural Gas	)		
Transmission System	)		

#### **SUMMARY OF FILING**

Pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand), Minnesota Energy Resources Corporation - PNG (MERC or the Company), hereby petitions the Minnesota Public Utilities Commission (Commission) for approval of changes in demand entitlements for MERC's Minnesota customers served off of the Northern Natural Gas Company (NNG or Northern) system. MERC requests that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2008.

#### PUBLIC DOCUMENT - TRADE SECRET DATA EXCISED

# STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

David C. Boyd	Chair				
J. Dennis O'Brien	Commissioner				
Thomas Pugh	Commissioner				
Phyllis A. Reha	Commissioner				
Betsy Wergin	Commissioner				
In the Matter of the Petition of )	FILING UPON CHANGE IN DEMAND				
Minnesota Energy Resources )					
Corporation – PNG For Approval )					
of a Change inDemand Entitlement )	DOCKET NO				

#### PETITION FOR CHANGE IN DEMAND

#### I. <u>INTRODUCTION</u>

Pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand),
Minnesota Energy Resources Corporation - PNG (MERC or the Company), a division of
Integrys Energy Group, Inc. (TEG), hereby petitions the Minnesota Public Utilities Commission
(Commission) for approval of changes in demand entitlements for MERC's PNG customers
served off of the Northern Natural Gas Company (NNG or Northern) system. MERC requests
that the Commission approve the requested changes to be recovered in the Purchased Gas
Adjustment (PGA) effective on November 1, 2008.

<sup>&</sup>lt;sup>1</sup> MERC-PNG also serves Minnesota customers off of the Viking Gas Transmission (Viking) pipeline system and the Great Lakes Gas Transmission (GLGT) pipeline system. MERC requests approval of a demand entitlement change for the 2008-2009 heating season for its Viking customers in a separate Docket No., and requests approval of a demand entitlement change on the GLGT system in a separate Docket No..

#### II. DISCUSSION

#### A. MERC's PNG-NNG Design Day Requirements

MERC's 2008-2009 NNG design day requirements increased 23,134 Mcf (or approximately 11.44 percent) from 202,263 Mcf to 225,397 Mcf.

<b>Table 1: MERC's Proposed NNG Reserve Margins</b>
For the 2008-2009 Heating Season
PNG/NMU

	Reserve Margin	Reserve Margin	
	2008-2009	2007-2008	
	Heating Season	Heating Season	Change
NNG Zone EF	1.32%	11.93%	-10.61%

As shown in Table 1, MERC's proposed system wide reserve margin, Zone EF for the 2008-2009 heating season is positive.

For the Demand Entitlement filing effective November 1, 2008, the total Design Day requirement for Northern Natural Gas (NNG), which includes PNG and NMU is 247,188 Dth as calculated in Attachments 5 and Attachments 7 under the NNG Entitlement Allocation.

For the Demand Entitlement filing effective November 1, 2007, the total Design
Day capacity on Northern Natural Gas (NNG), which includes PNG and NMU is 250,448
Dth as calculated in Attachments 5 and Attachments 7 under the NNG Entitlement
Allocation. The difference between the total Design Day requirement and total Design
Day capacity results in a 1.32% positive reserve margin.

#### B. Forecast Methodology for MERC Demand Entitlement Nov. 1, 2008

#### Peakday

#### Purpose

Gather data and perform analysis used in the "Petition for Change in Demand" for

Minnesota Energy Resources Corporation – PNG and Minnesota Energy Resources Corporation

– NMU for "Approval of a Change in Demand Entitlement" to be sent to the Minnesota Public

Utilities Commission, otherwise known as the "MERC Demand Entitlement Filings".

#### **Background**

MERC is composed of two service areas:

- 1. PNG Peoples Natural Gas (company approximately 170,000 customers)
- 2. NMU Northern Minn Utility (company approximately 40,000 customers)

Which are served by four pipelines:

- 3. VGT Viking Gas Transmission system (serves both PNG and NMU)
- 4. NNG- Northern Natural Gas pipeline (serves both PNG and NMU)
- 5. GLGT Great Lakes Gas Transmission pipeline (serves both PNG and NMU)
- 6. Centra Centra pipeline (serves NMU)

Four Petitions for Change in Demand are filed (one for each of PGAC):

- A. PNG customers served off of VGT = PNG VGT
- B. PNG customers served off of GLGT = PNG GLGT
- C. PNG customers served off of NNG = PNG NNG
- D. All NMU customers served off NNG, GLGT, VGT & Centra = NMU

Weather data is obtained from six weather stations:

- 1. International Falls
- 2. Bemidji
- 3. Cloquet
- 4. Fargo
- 5. Minneapolis
- 6. Rochester

For analytical purposes, data is subdivided, analyzed and regressed by the following eight demand areas:

	Demand Area		
	(Service Area / Pipeline)	<b>PGAC</b>	Weather Station(s)
1	NMU-Centra	NMU	International Falls
2	NMU-GLGT *	NMU	Bemidji & Cloquet
3	NMU-NNG	NMU	Cloquet
4	NMU-VGT *	NMU	Bemidji & Fargo
5	NMU-GLGT&VGT*	NMU	Bemidji & Fargo
6	PNG-GLGT	PNG-GLGT	Bemidji & Cloquet
7	PNG-NNG	PNG-NNG	Minneapolis, Rochester & Cloquet
8	PNG-VGT	PNG-VGT	Bemidji & Fargo

<sup>\*</sup> Thief River Falls is included only in NMU-GLGT&VGT

## 2008 Analytical Approach

#### **Summary**

- 1. Obtain daily weather data for each weather station as shown in Attachment 13
- 2. Obtain daily total throughput volumes by pipeline
- 3. Perform total throughput peak day regressions
- 4. Subtract interruptible, transport, and joint interruptible expected peak day load volumes based on monthly billing data
- 5. Add back Daily Firm Capacity (DFC) customer selections

#### 6. Apply sales forecast growth rates

#### Detail

The Peak Day Forecasting Team (the Team) followed a data-driven approach for the MERC 2008/09 Peak Day Forecast. Since the forecast is for a peak day, the best daily data available is required to provide the best estimate. Theoretically, the peak day regression should be performed using daily net firm load by service area, pipeline, and weather station. A review of the data available indicated that the two best daily data sources are the daily weather data by weather station and the daily throughput data by Town Border Station (TBS) and pipeline meter. (Some pipeline meters are dedicated to a TBS, and some are dedicated to individual customers.)

Most of the interruptible, transportation, and joint interruptible data available is from monthly billing record excerpts provided by ADS/Vertex, an external vendor that has been providing billing services to MERC-PNG and MERC-NMU.

The Team proposed an approach different from the one used last year that would:

- Make the best use of the best available data.
- Isolate the effects the monthly billing cycle data has on the Peak Day forecast so that the new process can be easily updated as better data is available.
- Provide a basis for future risk adjustment to the forecast.

The MERC 2009 Peak Day Process consisted of:

- I. Data Preparation
- II. Regression Generation of Net Daily Metered Volumes
- III. Adjusting the Regression Results to a Firm peak day estimate

#### I. The **Data Preparation** Steps consisted of:

- Identify the coldest Adjusted Heating Degree Day (AHDD) in the last 20 years for each weather station.
- Determine the most recent three, four, and five years of December through February daily total metered throughput for the eight demand areas by weather station.
- Subtract the daily pipeline meter readings for all non-firm customers with daily pipeline meter readings available for all three, four, or five December through February years from the total throughput for each demand area and weather station. Use the resulting net daily metered volumes for regressions. Examples of non-firm customer meter readings subtracted from the demand area total daily throughputs are paper mills, direct-connects, taconites, and off-system end users. (see "Adjusting the Regression Results to a Firm Peak Day Estimate" below)
- Determine how to map the monthly billing data to the eight demand areas.
   Each daily weather station data file was searched to find the coldest Adjusted Heating
   Degree Day (AHDD) in the last 20 years. This 1-in-20 approach is consistent with prior years. The results are provided in the following table:

		<u>Avg.</u>	Avg.		
<b>Station</b>	<b>Date</b>	<u>Temp</u>	<b>Wind</b>	<b>HDD</b>	<b>AHDD</b>
Bemidji	2/1/1996	-34	8	99	107
Cloquet	2/2/1996	-31	7	96	103
Fargo	1/18/1996	-16	34	81	109
International					
Falls	2/2/1996	-34	8	99	107
Minneapolis	2/2/1996	-25	8	90	97
Rochester	2/2/1996	-27	10	92	101

The daily throughput data was provided by pipeline and meter, with each meter on each pipeline mapped to one of the weather stations shown in the above chart. Each meter was also designated as either PNG or NMU. As noted above, some of the meters represented a TBS. Some meters were dedicated to a customer who is not a firm service customer of either PNG or NMU. For example, certain transportation, interruptible, direct-connect, and taconite customers have their own meter, but are not counted as firm service customers.

In a more nearly ideal world, the Team would have also had <u>daily</u> telemetered data from each interruptible, transportation, and joint interruptible customer mapped to each of the eight demand areas and related weather stations. This was the case for a handful of paper mills, direct-connects, taconites, and off-system end users. The rest of the interruptible, transportation, and joint interruptible data was available based on monthly billing cycle data that introduces billing lag, meter read lag (not all meters were read every month resulted in billing cycle estimates and reversals), and other potential errors into their volumes.

The Team was faced with the choice of either:

Trying to "invent" daily meter readings from this monthly data and subtract the
estimated daily meter readings from the actual metered daily throughput to arrive at a
daily firm load estimate, or

2. Generate regressions of the daily throughput data available less the known daily meter readings for non-firm customers and adjust those regressions for the estimated peak day impact of the other non-firm customers who do not have daily readings.

The Team's consensus was that the second approach introduced much less error into the data and regressions than trying to guess how to allocate monthly billing cycle data to daily when the load factors and relative temperature sensitivity of the non-daily-metered customers was not known. Using only the daily metered data for the regressions makes the best use of the best data available and provides insights into the total daily metered load that could be active on a peak day even if supply access at the non-firm pipeline meters were shut off.

#### II. The **Regression Generation of Net Daily Metered Volumes** consisted of:

- For each of the eight Demand Areas (Service Area / Pipeline):
  - 1. Gather the net daily metered volumes and weather station  $AHDD^2$ .
  - 2. If more than one weather station is represented in a given demand area, weight each weather station's AHDD by the total December through February metered volumes attributable to that weather station. This weighting is computed separately for the five-year, four-year, and three-year regressions as the relative load attributed to the different weather stations changes based on factors such as customer growth (or loss) and conservation.

<sup>&</sup>lt;sup>2</sup> Temperature and weather data was obtained from Weather Bank/DTN via TherMaxx then converted to HDD and AHDD in an Excel spreadsheet by MERC – Gas Supply. Temperature and wind data is from midnight to midnight.

- 3. Add indicator variables for day-type and month. Day-type variables are used to isolate load that changes by day of the week, such as commercial or industrial customers who may change their consumption on weekends when they run fewer shifts. Month indicator variables are used to isolate load that changes based on winter month, such as businesses that are open extra hours in December and resume normal operating hours in January.
- 4. Perform three ordinary least squares linear regressions for each of the 5-year, 4-year, and 3-year time frames:
  - All: Use the weighted AHDD and all indicator variables to determine which are statistically significant.
  - Significant or S: Use only the independent variables that the "All" run showed to be statistically significant, i.e. those having T-Stats higher than 2.0 or less than minus 2.0.
  - AHDD: Use only the AHDD variable.
- 5. Summarize the Baseload and Use/AHDD from each regression.
- 6. Calculate a point estimate from each regression based on the baseload value plus the Use/AHDD coefficient times the coldest AHDD in 20 years (weighted if using more than one weather station).

After reviewing the results of the above regressions internally, the 3-year regressions using statistically significant independent variables were selected as being the most representative of the current system customers. The results of the 3-Year Significant, or "3-Yr S" regressions were then checked for reasonableness by comparing the

point estimate against every day of the original five years of data, adding the estimated heat load required to weather-adjust the actual data to design AHDD conditions. For a perfectly normal distribution based on a perfectly homogeneous population, the point estimate would have 50% of the adjusted data above it, and 50% of the adjusted data below it. In practice, perfectly normal distributions and perfectly homogeneous populations are rare. For instance, over a five year time period, customers may be added or lost, and the customers that are present for all five years may change their preferences for usage (such as setting the thermostat higher or lower or by adding insulation or adopting other conservation measures). Taking those factors into consideration, the results of the reasonableness test were reasonable, with the AHDD-adjusted actual daily metered volumes exceeding the "3-Yr S" point estimates an average of 46% of the time (PNG-GLGT was lowest with 34.7% and NMU-VGT was highest with 59.1%).

#### III. Adjusting the Regression Results to a Firm Peak Day Estimate consisted of:

# A. Subtract interruptible, transport, and joint interruptible expected peak day load volumes based on monthly billing data

In order to determine firm peak day load, volumes contained in the daily pipeline meter readings for interruptible, joint interruptible and transportation customers needed to be isolated and removed. While it would have been ideal to have daily billing data for all customers, most of the interruptible, transportation, and joint interruptible data was, in most cases, only available

from monthly billing records<sup>3</sup>. An unfortunate, but unavoidable consequence was that this data was based on monthly billing cycles that introduce billing lag, meter read lag (not all meters were read every month resulted in billing cycle estimates and reversals), and other potential errors into their volumes.

A database of volumes billed for all customers from July 2006 through February 2008 was obtained. The database contained detail by customer class<sup>4</sup>, calendar month, (service) area, city, location, zip code and responsibility center. The billing database was provided by ADS/Vertex, an outside firm that has been providing billing services to MERC. Sales and Revenue Forecasting had previously adjusted the billing data to properly fit the appropriate calendar month of consumption by apportioning billed volumes, i.e. for a bill covering February 15 to March 15, volumes were split evenly between February and March.

Volumes for the interruptible, transportation and joint interruptible customer classes (INTER, TRANS and JINTER classes) needed to be mapped to the appropriate regression demand area, and were then summed. This billing data included consumption that was billed, but not included in the daily metered volumes for several large specific customers (paper mills, direct-connects, taconites, and off-system end users), and therefore needed to be removed from the gross interruptible, transportation and joint interruptible totals. Such customers were identified, mapped to the demand areas, summed and subtracted from the interruptible, transportation and joint interruptible customer classes totals. The following peak demand estimation method based

 $<sup>^{3}</sup>$  Individual daily volumes were available for a handful of paper mills, direct-connects, taconites, and off-system end users.

<sup>&</sup>lt;sup>4</sup> Transportation, Interruptible, Joint Interruptible, Residential, Large Commercial & Industrial and Small Commercial & Industrial

on the highest monthly total from the winter of 2008 was then used to calculate the amount to subtract from the results of the data regressions for each demand area:

The MERC-PNG and MERC-NMU tariff General Rules, Regulations, Terms, and Conditions Section 1.N "Maximum Daily Quantity (MDQ)" on Original Sheet No. 8.04:

#### N. Maximum Daily Quantity (MDQ):

The amount calculated by dividing the volumes consumed by a particular customer during the highest historical peak month of usage for that customer by twenty (20). Company will estimate a peak month for new customers. A Maximum Daily Quantity may also be established through direct measurement or other means (i.e. estimating the peak day requirements after installation of new processing equipment or more energy efficient heating systems) if approved by [the] Company.

#### B. Add back Daily Firm Capacity (DFC) customer selections

While interruptible, joint interruptible and transportation customer volumes were removed (as described above), in order to determine firm peak day load, daily firm capacity selections needed to be added back. The Sales and Revenue Forecasting department provided historical monthly DFC data for 59 "joint interruptible" customers from January 2007 through May 2008 that showed the volume that each customer has selected to receive as firm service from MERC each month. Assistance was required from MERC Gas Supply to properly assign these 59 customers to the appropriate regression demand area. Once assigned, the daily firm

capacity volumes were summed by month for each demand area. The total volumes for January 2008 were than added back to the adjusted regression results.

#### C. Apply Sales Forecast Growth Rates

The throughput volumes used in the data regressions were from 2008 and needed to be adjusted to properly forecast 2009. The sales forecast "MERC Fcst 200806", as approved by the Gas Planning Committee, was used to determine a growth rate for each demand area. Because the Peak Day Forecast is based on firm load, General Service volumes (GS - residential, commercial and industrial firm) were used as a proxy to calculate growth rates. These growth rates were then applied to the adjusted regression results.

#### Major Differences from 2007 Approach to the 2008 Approach

- 1. In 2007, estimates of the daily transport and interruptible volumes were removed from the total metered daily throughput to get estimated daily firm load before any regressions were performed. This was done by dividing monthly billing data by the number of days in the month, then subtracting these daily estimated volumes for transport and interruptible customers from total daily metered throughput. This method assumed transport and interruptible loads are not weather sensitive, but more process load. In 2008, no attempt was made to convert monthly volumes to daily amounts. Transport and interruptible volumes were backed out after regressions were performed on measured daily throughput volumes.
- In 2007, changes in customer counts were used to calculate growth rates. In 2008, forecasted changes in volumes were used

3. In 2007, Farm Taps were handled uniquely, whereas in 2008, they were not treated different from any other customer.

#### Demand Area / (Service Area / Pipeline) Regression Notes

#### **NMU-GLGT**

Paper Mills = Ainsworth and Blandon in Bemidji, and Sappi and USG in Cloquet

#### **NMU-GLGT**

Direct Connects = U.S Gypsum

#### NMU-VGT

Note: Discussions were held regarding how best to handle Lamb Weston (RDO) and the decision was to include these volumes in the regression analysis. If 3 years of daily usage were available, consideration would have been given to excluding from the regression and then consistently removing comparable volumes along with the interruptible and transportation volumes.

#### PNG-NNG

Taconites / Direct Connects =

- CCI EMPIRE IND DEL PT 2 TILDEN
- CCI NORTHSHORE
- EVELETH TACONITE
- HIBBING TACONITE CO.
- U.S. STEEL
- NATIONAL STEEL PELLET
- COTTAGE GROVE TBS LS POWER

- INLAND STEEL
- HANNA MINING

#### PNG-NNG

OSEU (EndUsers) =

- CORRECTIONAL CTR
- GRAND CASINO HINCKLEY
- KEMPS LLC
- KERRY BIO-SCIENCE
- LAKESIDE
- LAND OF LAKES
- PRO-CORN
- SWIFT

## **Daily Design Day Estimate to Actual Comparison**

In the 2007 demand entitlement dockets, MERC agreed to include a daily estimate utilizing the design day model which is calculated in Attachment 13. The daily estimate is compared to actual consumption. The actual volumes is total through-put which includes interruptible and transportation volumes that are located behind MERC citygates. This does not include any transportation volumes that are directly connected with NNG pipeline. The Design Day model only calculates firm volumes. MERC does not forecast on a daily/monthly basis utilizing the Design Day model. The Design Day model is utilized to calculate the theoretical peak day.

#### **Average Customer Counts**

In the 2007 demand entitlement dockets, MERC agreed to include average customer counts which is provided in Attachment 14.

#### C. MERC's Specific PNG Proposed Northern System Demand-Related Changes

There are two types of demand entitlement changes. The first type is design day deliverability, which, in this case, increases the amount of firm transportation and storage capacity actually available to MERC's PNG Northern system customers during winter peak periods. 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 Peoples' Attachment 3, MERC PNG\_NNG proposes no changes in total heating season. Though there is no change in overall proposed entitlement level, the Company proposes changes to its portfolio of capacity services identified below in Table 4.

Table 4

Capacity	Propose Change			
Entitlement	Increase / (Decrease)			
TF12B & TF12V	2,792 Mcf/Day			
TF5	(2,792) Mcf/Day			
TFX12	10,837 Mcf/Day			
TFX5	(10,837) Mcf/Day			
Total Overall Change	0 Mcf/Day			

#### PUBLIC DOCUMENT – TRADE SECRET DATA EXCISED

#### 2. Other Demand Entitlement Changes

As shown in the Attachment 10, MERC's PNG\_NNG proposes an increase of Firm Deferred Delivery (storage) in other pipeline entitlements that are not included in peak day deliverability and the termination of the Tenaska PSO.

#### D. <u>Financial Option Units and Premiums</u>

- MERC entered into New York Mercantile Exchange (NYMEX) financial Call Options for the upcoming 2008/2009 winter (November through March). Please see attachment 8.
- Total premium costs to enter into the financial Call Options on behalf of MERC's firm customers amounted to \$5,216,072 for the 2008/2009
   winter. Please see attachment 8.
- iii. MERC entered into [TRADE SECRET DATA BEGINS

TRADE SECRET DATA ENDS] Total premium per contract is approximately [TRADE SECRET DATA BEGINS TRADE SECRET DATA ENDS]. Please see attachment 8.

- iv. Please see attachment 8 for the various contract dates.
- v. Please see attachment 8 for the various contract prices.
- vi. MERC believes a diversified portfolio approach towards hedging is in the best interest of MERC's firm customers. MERC implemented a 40% fixed price (storage and physical fixed price purchases), 30% financial call

options and 30% market based prices, assuming normal weather. A dollar-cost-averaging approach is utilized in purchasing the hedging portfolio. Although this hedging strategy will most likely not provide the lowest priced supply, it does meet MERC's stated objectives of providing reliable and reasonably priced natural gas and mitigates natural gas price volatility. Please see Attachment 9, Page 1 of 2.

#### E. Gas Supply.

The PNG\_NNG 2008-2009 Winter Portfolio Plan - Minnesota Energy Resources Corporation for NNG gas supply purchases for the Hedging Plan is in Attachment 9 page 2.

#### F. <u>PGA Cost Recovery</u>

MERC proposes to begin recovering the costs associated with the change in demand-related costs in its monthly PGA effective November 1, 2008. Rate impacts can be found on attachment 4 and 11.

## II. <u>CONCLUSION</u>

Based upon the foregoing, MERC respectfully requests the Minnesota Public Utilities Commission grant the demand changes requested herein effective November 1, 2008. If any further information, clarification, or substantiation is required to support this filing please advise.

DATED: November 3, 2008

Respectfully Submitted,

DORSEY & WHITNEY LP

Michael J. Akern

Suite 1500, 50 South Sixth Street Minneapolis, MN 55402-1498 Telephone: (612) 340-2600

Attorney for Minnesota Energy Resources Corporation

#### AFFIDAVIT OF SERVICE

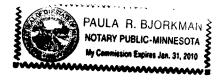
STATE OF MINNESOTA	)	
	)	SS
COUNTY OF HENNEPIN	)	

Sarah J. Kerbeshian, being first duly sworn on oath, deposes and states that on the 3rd day of November, 2008, the Petition of Minnesota Energy Resources Corporation-PNG for Approval of a Change in Demand Entitlement was electronically filed with the Minnesota Public Utilities Commission and the Minnesota Department of Commerce, the Petition was provided via United States first class mail to the individuals on the attached service list at the Office of the Attorney General, and a Summary of the Filing was provided via United States first class mail to the remaining individuals on the attached service list. Additionally, a Notice of Availability was provided via United States First Class Mail to all intervenors in Aquila Networks-PNG's previous two rate cases.

Sarah J. Kerly

Subscribed and sworn to before me this 3rd day of November, 2008/

Notary Public, State of Minnesota



Burl W. Haar MN Public Utilities Commission 350 Metro Square Building 121 Seventh Place East St. Paul, MN 55101-5147

Sharon Ferguson MN Department of Commerce 85 Seventh Place East Suite 500 St. Paul, MN 55101-2198

Julia Anderson Attorney General's Office 1400 Bremer Tower 445 Minnesota Street St. Paul, MN 55101-2131

Ronald M. Giteck Attorney General's Office-RUD 900 Bremer Tower 445 Minnesota Street St. Paul, MN 55101

Karen Finstad Hammel Attorney General's Office 1400 Bremer Tower 445 Minnesota Street St. Paul, MN 55101-2131

John Lindell Attorney General's Office-RUD 900 Bremer Tower 445 Minnesota Street St. Paul, MN 55101-2130

Robert S. Lee Mackall Crounse & Moore PLC 1400 AT&T Tower 901 Marquette Avenue Minneapolis, MN 55402-2859 Michael Ahern Dorsey & Whtiney LLP 50 South Sixth Street, Suite 1500 Minneapolis, MN 55402-1498

Ann Seha Dorsey & Whtiney LLP 50 South Sixth Street, Suite 1500 Minneapolis, MN 55402-1498

Michael J. Bradley Moss & Barnett 4800 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402-4129

Marie Doyle CenterPoint Energy 800 LaSalle Avenue – Fl. 11 P.O. Box 59038 Minneapolis, MN 55459-0038

Bob Freund Rochester Post-Bulletin P.O. Box 6118 Rochester, MN 55903-61188

Jack Kegel MN Municipal Utilities Assn. 3025 Harbor Lane N. Suite 400 Plymouth, MN 55447-5142 James D. Larson Dahlen Berg & Co. 200 South Sixth Street Suite 300 Minneapolis, MN 55402

Pam Marshall Energy CENTS Coalition 823 East Seventh Street St. Paul, MN 55106

Brian Meloy Leonard, Street & Deinard 150 South Fifth Street Suite 2300 Minneapolis, MN 55402

Eric F. Swanson Winthrop & Weinstine 225 South Sixth Street Suite 350 Minneapolis, MN 55402-4629

James R. Talcott Northern Natural Gas Company 1111 South 103rd Street Omaha, NE 68124

Greg Walters Minnesota Energy Resources 519 First Avenue SW P.O. Box 6538 Rochester, MN 55903-6538

# DESIGN-DAY DEMAND SUMMARY NOVEMBER 1, 2008 NNG

Design Day Requirement		225,397
Total Peak Day Entitlement		226,785
Firm Peak Day Actual Sendout -Non Coincidental	(Jan. 29)	182,809
Firm Annual Throughput - Minnesota		20,387,988
No. of Firm Customers		156,973
Department Load Factor Calculation		30.56%

-0.70%

## MINNESOTA ENERGY RESOURCES - PNG

#### NNG MINNESOTA DESIGN DAY REQUIREMENTS NOVEMBER 1, 2008 NNG

Pipeline Group	-	Zone Total	1/20 Design DDD	Regressi Intercept	on Factors Slope	Regression Total Footnote 1	Regression Adjustment Footnote 2	1/20 Requirements Regression Load Footnote 3	Nov06-Mar07 Avg. Customer Growth	Total *
		ı	I		PE	AK	1	T		
PNG <b>Total</b>	156,973 156,973	156,973 156,973	99	30,318	2,189	248,585	21,599 	226,986	-0.70%	225,397 225,397
					OFF I	PEAK				
		1	<u> </u>		OFF I	PEAK		1		

155,091

(1,264)

156,355

156,973 156,973

PNG

Total

Footnote 1: Regression Total is based on total through-put data.

156,973

Footnote 2: Regression Adjustment substracts out Interruptible, Transportation and Joint Interruptible volumes and adds Firm Joint volumes.

2,189

Footnote 3: Total equals Regression Total minus Regression Adjustment.

30,318

57

<sup>\*</sup> Adjusted for customer growth

<sup>\*57</sup> is the 30 yr unadjusted heating degree days from NOAA, not adjusted for windspeed.

# DESIGN-DAY DEMAND PER CUSTOMER - GS NOVEMBER 1, 2008

NNG

Heating <u>Season</u>	No. of Firm <u>Customers</u>	Design Day <u>Requirements</u>	MMBtus /Customei <u>/Day</u>
08/09	156,973	225,397	1.44
07/08	155,910	202,263	1.30
06/07	149,049	200,484	1.35
05/06	148,308	200,421	1.35
04/05	143,896	207,834	1.44
03/04	140,705	198,521	1.41
02/03	136,748	195,479	1.43

## SUMMER/WINTER USAGE - Mcf PROJECTED 12 MONTHS ENDING JUNE 2008 NNG

Class	Summer <u>Apr-Oct</u>	Winter <u>Nov-Mar</u>	<u>Total</u>
GS	5,110,108	15,277,880	20,387,988
SVI	746,386	1,517,607	2,263,993
SVJ	0	0	0
LVI	0	0	0
LVJ	0	0	0
SLV	<u>0</u>	<u>0</u>	0
Total	5,856,494	16,795,487	22,651,981

# ENTITLEMENT LEVELS PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2008

NNG

Type of Capacity or <u>Entitlement</u>	Current Amount Mcf or <u>MMBtu</u>	Proposed Change Mcf or <u>MMBtu</u>	Proposed Amount Mcf or <u>MMBtu</u>
TF-12 Base & Variable	59,804	2,792	62,596
TF5	29,619	(2,792)	26,827
TFX - 12	18,409	10,837	29,246
TFX - 5	90,130	(10,837)	79,293
TFX-Offpeak*	12,837	(10,837)	2,000
Windom	2,500	0	2,500
LSP Peaking Service	<u>26,323</u>	<u>(0)</u>	<u>26,323</u>
Heating Season Total	226,785	(0)	226,785
Non-Heating Season Total	93,550	2,792	96,342
Heating Season Forecasted Design Day-Adjusted	202,263	23,134	225,397
Non-Heating Season Forecasted Design Day	132,307	22,954	155,261
Heating Season Capacity Surplus/Shortage	24,522	(23,134)	1,388
Non-Heating Season Capacity Surplus/Shortage	(38,757)	(20,162)	(58,919)

<sup>\*</sup>Not included in total firm entitlement

## MINNESOTA ENERGY RESOURCES - PNG

## RATE IMPACT OF THE PROPOSED DEMAND CHANGE NOVEMBER 1, 2008 NNG

Last

			11110							
All costs in	Last	Last	Last	Most	Current	R	esult of Propo	sed Chan	ge	
\$/MMBtu	Rate	Demand	Demand	Recent	Proposal	Change	Change	Change	∷ Change ∷	
	Case	Change	Change	PGA		from	from	from	from	
	G011/		G011-		Effective		Last	Last	Last	
	MR03-1372	M-06-	M-07-:	Oct. 2008	Nov.1,2008	Rate	.∷Demand∷	PGA	PGA	
		Oct 06	Oct. 07			Case	Change		\$1111	
1) General Service: Avg. Annual Use:		127		Mcf						
Commodity Cost	\$2.7873	\$5.1834	\$6.8682	\$5.9792	\$6.0000	\$3.2127	(\$0.8682)	0.35%	\$0.0208	
Demand Cost	\$0.7886	\$1.1097	\$1.1741	\$1.0903	\$1.0909	\$0.3023	(\$0.0832)	0.06%	\$0.0006	
Commodity Margin	\$1.2628	\$1.1771	\$1.1771	\$1.6263	\$1.6263	\$0.3635	\$0.4492	0.00%	\$0.0000	
Total Cost of Gas	\$4.8387	\$7.4702	\$9.2194	\$8.6958	\$8.7172	\$3.8785	(\$0.5022)	0.25%	\$0.0214	
Avg Annual Cost	\$614.51	\$948.72	\$1,170.86	\$1,104.37	\$1,107.08	\$492.57	(\$63.78)	0.25%	\$2.7178	
Effect of proposed commodity change on average annual bills: \$2.6										
Effect of proposed demand change on average	Effect of proposed demand change on average annual bills: \$0.0									

2) Small Vol. Interruptible: Avg. Annual Use:		4,9	48	Mcf					
Commodity Cost	\$2.7873	\$5.1834	\$6.8682	\$5.9792	\$6.0000	\$3.2127	(\$0.8682)	0.35%	\$0.0208
Demand Cost	\$0.0000						, <u>1</u>		
Commodity Margin	\$0.9000	\$0.9000	\$0.9000	\$1.2434	\$1.2434	\$0.3434	\$0.3434	0.00%	\$0.0000
Total Cost of Gas	\$3.6873	\$6.0834	\$7.7682	\$7.2226	\$7.2434	\$3.5561	(\$0.5248)	0.29%	\$0.0208
	\$18,244.76		\$38,437.05	\$35,737.42	\$35,840.34	\$17,595.58	(\$2,596.71)	0.29%	\$102.9184
Effect of proposed commodity change on average annual bills:									
Effect of proposed demand change on average annual bills:									\$0.00

3) Large Vol. Interruptible: Avg. Annual Use:		14,841	***************************************	Mcf					
Commodity Cost	\$2.7873	\$5.1834	\$6.8682	\$5.9792	\$6.0000	\$3.2127	(\$0.8682)	0.35%	\$0.0208
Demand Cost			]		-		``		·
Commodity Margin	\$0.2600	\$0.2600	\$0.2600	\$0.3592	\$0.3592	\$0.0992	\$0.0992	0.00%	\$0.0000
Total Cost of Gas	\$3.0473	\$5.4434	\$7.1282	\$6.3384	\$6.3592	\$3.3119	(\$0.7690)	0.33%	\$0.0208
Avg Annual Cost	\$45,224.98	\$80,785.50	\$105,789.62	\$94,068.19	\$94,376.89	\$49,151.91	(\$11,412.73)	0.33%	\$308.6928
Effect of proposed commodity change on average annual bills:									\$308.69
Effect of proposed demand change on average annual bills: \$0,									\$0.00

4) Small Vol. Firm: Avg. Annual Use:		4,948		Mcf					-
		25		Mcf					
Commodity Cost	\$2.7873	\$5.1834	\$6.8682	\$5.9792	\$6.0000	\$3.2127	(\$0.8682)	0.35%	\$0.0208
Demand Cost	\$10.1223	\$12.9002	\$13.1430	\$12.0195	\$12.0195	\$1.8972	(\$1.1235)	0.00%	\$0.0000
Commodity Margin	\$0.9000	\$0.9000	\$0.9000	\$1.2434	\$1.2434	\$0.3434	\$0.3434	0.00%	\$0.0000
Demand Margin	\$1.5000	\$1.5000	\$1.5000	\$2.0724	\$2.0724	\$0.5724	\$0.5724	0.00%	\$0.0000
Total Cost of Gas	\$3.6873	\$6.0834	\$7.7682	\$7.2226	\$7.2434	\$3.5561	(\$0.5248)	0.29%	\$0.0208
Total Demand Cost	\$11.6223	\$14.4002	\$14.6430	\$14.0919	\$14.0919	\$2.4696	(\$0.5511)	0.00%	\$0.0000
Avg Annual Cost	\$18,535.32	\$30,460.67	\$38,803.13	\$36,089.72	\$36,192.64	\$17,657.32	(\$2,610.49)	0.29%	\$102.9184
Effect of proposed commodity change on average annual bills: \$102.93									
Effect of proposed demand change on average annual bills: \$0.00									

5) Large Vol. Firm: Avg. Annual Use:		14,841		Mcf	•				
		75		Mcf					
Commodity Cost	\$1.6138	\$5.1834	\$6.8682	\$5.9792	\$6.0000	\$4.3862	(\$0.8682)	0.35%	\$0.0208
Demand Cost	\$10.1223	\$12.9002	\$13.1430	\$12.0195	\$12.0195	\$1.8972	(\$1.1235)	0.00%	\$0.0000
Commodity Margin	\$1.8069	\$0.2600	\$0.2600	\$0.3592	\$0.3592	(\$1.4477)	\$0.0992	0.00%	\$0.0000
Demand Margin	\$1.2000	\$1.2000	\$1.2000	\$1.6579	\$1.6579	\$0.4579	\$0.4579	0.00%	\$0.0000
Total Cost of Gas	\$3.4207	\$5.4434	\$7.1282	\$6.3384	\$6.3592	\$2.9385	(\$0.7690)	0.33%	\$0.0208
Total Demand Cost	\$11.3223	\$14.1002	\$14.3430	\$13.6774	\$13.6774	\$2.3551	(\$0.6656)	0.00%	\$0.0000
Avg Annual Cost	\$51,615.78	\$81,843.01	\$106,865.34	\$95,094.00	\$95,402.69	\$14,598.58	(\$11,462.65)	0.32%	\$308.6928
Effect of proposed commodity change on average annual bills:									\$308.69
Effect of proposed demand change on average annual bills:									\$0.00

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Docket No. E,G999/AA-05-1403

#### Attachment 4

MINNESOTA EN	ERGY RESOURCES - PN	G						Page 2 of 3
	OF PURCHASED GAS AD		(PGA)				CURRENT	NNG .
	NATURAL GAS COMPAN			ST OF GAS E	FFECTIVE		01-Nov-08	
		•	Tariff-Summer(7) T	ariff-Winter(5)	Wt. Annual		Total	
	TF-12B		\$5.6830	\$10.2300	\$7.5776	\$0.0000	\$7.5776	
	TF-12V		\$5.6830	\$13.8660	\$9.0926	\$0.0000	\$9.0926	
	TF-5			\$15.1530	\$15.1530	\$0.0000	\$15.1530	
	TFX		\$5.6830	\$15.1530	\$9.6288	\$0.0000	\$9.6288	
	TF-12B Discount		\$5.6830	\$7.6050	\$6.4838	\$0.0000	\$6.4838	
	Gas Cost						\$6.0000	
V. ANNUAL SA	LES RATE CASE 2000	TOTAL					200,990,260	
VI. PNG'S CURF	RENT COST OF GAS EFF	ECTIVE:				01-Nov-08		
								Rate/CCF
		Contract #(s	,	Months				
A. GS	TF12B (Max Rate)	112495	25,469	12	\$7.5776	=	\$2,315,922	\$0.01224
	TF12V (Max Rate)	112495	32,690	12	\$9.0926	=	\$3,566,839	\$0.01886
	TF5 (Max Rate)	112495	26,064	5	\$15.1530	=	\$1,974,739	\$0.01044
	TF12B (Discount-Winter)	112495	4,437	12	\$6.4838	=	\$345,225	\$0.00183
	TF5 (Discount-Winter)	112495	763	5	\$7.6050	=	\$29,013	\$0.00015
	TFX5 (Discount)	112561	6,000	5	\$4.5600	=	\$136,800	\$0.00072
	TFX12 (Max Rate)	112486	9,724	12	\$9.6288	=	\$1,123,569	\$0.00594
	TFX Apr (Max Rate)	112486	2,000	1	\$5.6830	=	\$11,366	\$0.00006
	TFX Oct (Max Rate)	112486	2,000	1	\$5.6830	=	\$11,366	\$0.00006
	TFX5 (Max Rate)	112486	46,558	5	\$15.1530	=	\$3,527,467	\$0.01865
	TFX5 (Discount)	112486	2,196	5	\$13.8736	=	\$152,332	\$0.00081
	TFX5 (Discount)	112486	1,800	5	\$7.6050	=	\$68,445	\$0.00036
	TFX12 (Discount)	111866	414	12	\$4.8667	=	\$24,178	\$0.00013
	TFX12 (Discount)	111866	8,271	12	\$5.4570	=	\$541,618 \$400,407	\$0.00286
	TFX7 (Discount)	111866	10,837	7	\$2.2204	=	\$168,437	\$0.00089
	TFX5 (Discount)	111866	122	5	\$4.8667	=	\$2,969	\$0.00002
	TFX5 (Discount)	111866	2,445	5	\$5.4570		\$66,712	\$0.00035
	TFX5 (Discount)	111866	31,009	5	\$15.1475	=	\$2,348,544	\$0.01242
	SMS	112521	20,537	12	\$2.1800	=	\$537,251	\$0.00284
	LS Power		26 222	3	\$4.3463	=	\$343,217	\$0.00181
			26,323 2,500	12	\$0.0000	=	\$343,217 \$0	\$0.00000
	WINDOM		2,500	12	\$0.0000	-	φυ	\$0.00000
EDD	: Storage Reservation	118657	68,309	12	\$1.7140	=	\$1,404,989	\$0.00743
100	Storage Cycle Volume	118657	787,676	5	\$0.3567	=	\$1,404,821	\$0.00743
	Storage Reservation	118657	5,026	12	\$3.3157	=	\$199,961	\$0.00106
	Storage Cycle Volume	118657	57,953	5	\$0.6901	=	\$199,967	\$0.00106
	Storage Reservation	118215	3,141	12	\$1.7140	=	\$64,609	\$0.00034
	Storage Cycle Volume	118215	36,221	5	\$0.3567	=	\$64,600	\$0.00034
	Total Demand Cost	110210	00,221	ŭ	ψυ.υυυ.		\$20,634,956	\$0.10909
	Total Bolliana Cook						<b>\$20,001,000</b>	<b>\$</b> 0000
	Rate Case 2000 volume	in Ccf					189,157,400	
	GS-1 Demand Current C		Cof				100,101,100	\$0.10909
	GS-1 Commodity Currer							#REF!
	Total GS-1 Current Cost							#REF!
B. GS-1, SVI, LV	I, SJ-1, LJ-1, SLV-Commo	dity						
• •	-	-						
	CD-1 Commodity		21,021,013	x	\$6.0000		\$126,126,078	\$0.60000
	Commodity Assigned 636	Costs from	Schedule C				#REF!	#REF!
							#REF!	#REF!
	CURRENT FIRM TRANS	PORTATION	N COST OF GAS (	CCF)				\$0.75776
<b>.</b>					<b>.</b>			<b>A.</b>
C. JOINT RATE	E DEMAND CALCULATIO	N (SEE SCH	EDULE C)		\$1.18206			\$1.18206

**PGA** 

EFFECTIVE DATE:

11/01/08

CURRENT

Attachment 4
Page 3 of 3

NNG

COSTS ASSIGNED IN CO	MMODITY	:					
Canadian Contracts			<u>Units</u> (b)	Cost/Unit	<u>Day/Mo</u>	Cost (d)	<u>\$/Ccf</u>
<u>Upstream:</u>			(~)			(,	
Great Lakes			0	\$3.458	12	\$0	\$0.00000 \$0.00000
Storage:	Contract #						φο.σσσσσ
FDD Withdrawal	112490		4,669,321	\$0.0149		\$69,573	\$0.00033
FDD Injection	112490		4,669,321	\$0.0149		\$69,573	\$0.00033
FDD Withdrawal	113407		300,000	\$0.0149		\$4,470	\$0.00002
FDD Injection	113407		300,000	\$0.0149		\$4,470	\$0.00002
•			·				<u>\$0.00070</u>
Call Option Premiums Total Commodity Costs			#REF!	#REF!		#REF! #REF!	#REF! #REF!
COSTS ASSIGNED IN JO	INT PATE:					<u> </u>	
COSTS ASSIGNED IN 30	<u>Units</u>	Contract #	<u>Month</u>	Cost/Unit		Cost	\$/Ccf
TF12B (Max Rate)	25,469	112495	12	\$7.5776	=	\$2,315,922	\$0.13267
TF12V (Max Rate)	32,690	112495	12	\$9.0926	=	\$3,566,839	\$0.20432
TF5 (Max Rate)	26,064	112495	5	\$15.1530	=	\$1,974,739	\$0.11312
TF12B (Discount-Winter)	4,437	112495	12	\$6.4838	=	\$345,225	\$0.01978
TF5 (Discount-Winter)	763	112495	5	\$7.6050	=	\$29,013	\$0.00166
TFX5 (Discount)	6,000	112561	5	\$4.5600	=	\$136,800	\$0.00784
TFX12 (Max Rate)	9,724	112486	12	\$9.6288	=	\$1,123,569	\$0.06436
TFX Apr (Max Rate)	2,000	112486	1	\$5.6830	=	\$11,366	\$0.00065
TFX Oct (Max Rate)	2,000	112486	: 1	\$5.6830	=	\$11,366	\$0.00065
TFX5 (Max Rate)	46,558	112486	5	\$15.1530	=	\$3,527,467	\$0.20207
TFX5 (Max Rate)	2,196	112486	5	\$13.8736	=	\$152,332	\$0.00873
TFX5 (Discount)	1,800	112486	5	\$7.6050	=	\$68,445	\$0.00392
TFX12 (Discount)	414	111866	12	\$4.8667	=	\$24,178	\$0.00332
TFX12 (Discount)	8,271	111866	12	\$5.4570	=	\$541,618	\$0.03103
TFX7 (Discount)	10,837	111866	7	\$2.2204	=	\$168,437	\$0.00965
TFX5 (Discount)	10,637	111866	5	\$4.8667	=	\$2,969	\$0.00903
TFX5 (Discount)	2,445	111866	5	\$5.4570	=	\$66,712	\$0.00017
TFX5 (Discount)	31,009	111866	5	\$5.4570 \$15.1475	=	\$2,348,544	\$0.00362
SMS	20,537	112521	12	\$2.1800	=	\$537,251	\$0.03078
LS Power	26,323		3	\$4.3463	=	\$343,217	\$0.01966
WINDOM	2,500		12	\$0.0000	=	\$0	\$0.00000
Storage Reservation	68,309	118657	12	\$1.7140	=	\$1,404,989	\$0.08048
Storage Cycle Volume	787,676	118657	5	\$0.3567	=	\$1,404,821	\$0.08047
Storage Reservation	5,026	118657	12	\$3.3157	=	\$199,961	\$0.01145
Storage Cycle Volume	57,953	118657	5	\$0.6901	=	\$199,967	\$0.01146
Storage Reservation	3,141	118215	12	\$1.7140	=	\$64,609	\$0.00370
Storage Cycle Volume	36,221	118215	5	\$0.3567	=	\$64,600	\$0.00370
				TOTAL		\$20,634,956	
				Annualized I		17,456,724	<b>.</b>
1				Demand Co	mponent	<u>\$1.18206</u>	\$1.18206

# MINNESOTA ENERGY RESOURCES

# NNG Entitlement Allocation Heating Season 2008-2009

	0			
	Total			
	Entitlement	PNG	NMU	Total
	Levels	GS	GS	
4 Pasiem Pau	047.400	225 207	04 704	247 400
1 Design Day	247,188	225,397	21,791	247,188
2 Customer Requirements moving to Transport	247.400	205 207	24 704	247 100
3 Adjusted Design Day	247,188	225,397	21,791	247,188
5 Total Design Day Capacity	257,448 	233,785	23,663	257,448
6 Less: Windom	(2,500)	(2,500)		(2,500)
7 Less: LS Power	(29,100)	(26,323)	(2,777)	(29,100)
8 Less: Chisago Delivery to Viking	(7,000)	(7,000)	, , ,	(7,000)
9 Less: Contract Demand Units	`´ o´ <b>l</b>	) o		-
	218,848	197,962	20,886	218,848
Direct Assigned Entitlement	<i>,</i>	•	,	·
10 TF12B (112495)	32,559	29,906	2,653	32,559
11 TF12V (112495)	39,333	32,690	6,643	39,333
12 TF5 (112495)	32,278	26,827	5,451	32,278
13 TFX12 (112486)	9,724	9,724	. 0	9,724
14 TFX April Only (112486)	2,000	2,000	0	2,000
15 TFX October Only (112486)	2,000	2,000	0	2,000
16 TFX5 (112486)	56,693	50,554	6,139	56,693
17 TFX12 (111866)	19,522	19,522	0	19,522
18 TFX5 (111866)	22,739	22,739	0	22,739
19 TFX5 (112561)	6,000	6,000	0	6,000
20 Total Winter Allocated Entitlement	218,848	197,962	20,886	218,848
21 Windom	2,500	2,500	0	2,500
22 LS Power	<u>29,100</u>	26,323	2,777	29,100
23 Total Design Day Capacity	250,448	226,785	23,663	250,448
24 Contract Demand			20,000	
25 Total Design Day Capacity	250,448	226,785	23,663	250,448
	,	90.55%	9.45%	100.00%
Other Entitlements not included in Peak Day Deli	verability: allocati			
26 Storage	Í			
27 Storage MSQ - 118657	4,669,321	4,228,147	441,174	4,669,321
28 Storage MSQ - 118215	20,000	18,110	1,890	20,000
29 SMS	22,680	20,537	2,143	22,680
30 Total Entitlement	250,448	226,785	23,663	250,448
31 Design Day	247,188	225,763	23,003	230,448 247,188
32 Reserve Margin *	3,260	1,388	1,872	3,260
Note:	· ·		-	•
NOLG.	1.32%	0.62%	8.59%	1.32%

## MINNESOTA ENERGY RESOURCES - PNG CALCULATION OF DESIGN DAY REQUIREMENTS

## NNG

					2008-2009				
<u>State</u>	1/20 Design <u>DDD</u>	07/08 Customer Counts*	Regressio Intercept	n Factors <u>Slope</u>	Regression <u>Total</u>	Adjustment <u>Total *</u>	1/20 Requirements Regression Load	Nov06-Mar07 Customer <u>Growth</u>	<u>Total</u>
MERC - Peak Day									
PNG	99	156,973	30,318	2,189	248,585	21,599	226,986	-0.70%	225,397
NMU	103	16,989	2,847	241	27,684	5,980	21,704	0.40%	21,791
TOTAL		173,962	33,165	2,430	276,269	27,579	248,690		247,188

## MINNESOTA ENERGY RESOURCES-PNG/NMU CAPACITY RESOURCE ANALYSIS

## 2008-2009 VS. 2007-2008

### Attachment 7

		2008-2009 Proposed			2007-2008				Difference			
	NNG	NNG	NNG	NNG	NNG	NNG	NNG	NNG				
	<u>Winter</u>	<u>PNG</u>	<u>NMU</u>	<u>Total</u>	<u>Winter</u>	<u>PNG</u>	<u>NMU</u>	<u>Total</u>	<u>Winter</u>	<u>PNG</u>	<u>NMU</u>	<u>Total</u>
TF12(base)	32,559	29,906	2,653	32,559	46,812	43,858	2,954	46,812	(14,253)	(13,952)	(301)	(14,253)
TF12(variable)	39,333	32,690	6,643	39,333	25,748	<u> 15,946</u>	9,802	25,748	13,585	16,744	(3,159)	<u> 13,585</u>
TF12	71,892	62,596	9,296	71,892	72,560	59,804	12,756	72,560	(668)	2,792	(3,460)	(668)
Peak Capacity	-			-	-			-	-			-
TF5	32,278	26,827	5,451	32,278	31,610	29,619	<u>1,991</u>	<u>31,610</u>	668	_(2,792)	3,460	<u>668</u>
TF Total	104,170	89,423	14,747	104,170	104,170	89,423	14,747	104,170	-	-	-	-
TFX12	29,246	29,246	-	29,246	18,409	18,409	-	18,409	10,837	10,837	-	10,837
TFX5	85,432	79,293	6,139	85,432	96,269	90,130	6,139	96,269	(10,837)	<u>(10,837</u> )	<u> </u>	<u>(10,837</u> )
TFX Total	114,678	108,539	6,139	114,678	114,678	108,539	6,139	114,678	-	•	-	-
NNG Total	218,848	197,962	20,886	218,848	218,848	197,962	20,886	218,848	-	-	•	•
Windom	2,500	2,500	-	2,500	2,500	2,500	-	2,500	-	-	•	-
LSP Peaking	29,100	26,323	2,777	29,100	29,100	26,323	2,777	29,100		(0)	0	0
Total	250,448	226,785	23,663	250,448	250,448	226,785	23,663	250,448	-	(0)	0	0
	NNG-					-PNG	]		NNG-			
	<u>EF</u>	TOTAL			<u>EF</u>	TOTAL	1		<u>EF</u>	<u>TOTAL</u>		
Design Day	247,188	247,188		Design Day	225,397	225,397	1	Design Day	21,791	21,791		
Capacity	250,448	250,448		Capacity	226,785	226,785		Capacity	23,663	23,663		
Reserve Margin	3,260	3,260		Reserve Margin	1,388	1,388		Reserve Margin	1,872	1,872		
	1.32%	1.32%			0.62%	0.62%	J		8.59%	8.59%		

### \*\*\*PUBLIC DOCUMENT - TRADE SECRET DATA EXCISED\*\*\*

## MINNESOTA ENERGY RESOURCES - NNG

Attachment 8

**Financial Options** Heating Season 2008-2009

[TRADE SECRET DATA BEGINS

Units - Gas Daily Packages

No Gas Daily Peakers were purchased

Units - Call Option (Daily Volume)

Nove	<u>mber</u>	Dece	mber	<u>Jan</u>	<u>uary</u>	<u>Febr</u>	uary	<u>M</u> a	<u>arch</u>		
Contract	Daily	Contract	Daily	Contract	Daily	Contract	Daily	Contract	Daily	Daily	Term
<u>Date</u>	<u>Volume</u>	Date	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Total</u>	<u>Total</u>

Total

24,000

33,226

36,129

33,929

25,484 152,767 4,610,000

Premium - Call Option (Monthly Cost)

<u>November</u> December <u>January</u> **February** <u>March</u> Total Option Premium Option Premium Option Premium Option Premium Option Premium Premium Cost Premium Cost Premium Cost <u>Premium</u> Cost <u>Premium</u> Cost Premium Cost

Total \$ 0.9405 \$677,177 \$ 0.9620 \$990,846 \$ 1.1427 \$1,279,855 \$ 1.3178 \$1,296,662 \$ 1.2298 \$ 971,533 \$1.1315 \$5,216,072

Units - Collar Floor (put)

# \*\*\*NONPUBLIC DOCUMENT - CONTAINS TRADE SECRET DATA\*\*\*

Attachment 9, Page 1 of 2

08/09 Winter Portfolio Plan - MERC NNG-PNG Hedging Plan [TRADE SECRET DATA BEGINS

	П			
	Ш			
	l L			
	$\vdash$			
	-			-
	Н			
	Н-			
	П			
	I			
	H			
			•	
	П			
	$\vdash$			
9				
無				
<u>ا</u>	<b> </b>			
<u></u>				
-				
ř				
⋖	Ш			
<b>-</b>				
<b>∭</b>				
55	-			
<u>ы</u> 1				
<u>ග</u>		j		
اسا		· · · · · · · · · · · · · · · · · · ·		
ਰ ∣				
<b>ፈ</b> ∣				
PC				
TRADE SECRET DATA BEGINS				

## \*\*\*PUBLIC DOCUMENT - TRADE SECRET DATA EXCISED\*\*\*

15,272,339 100.00%

## \*\*\*PUBLIC DOCUMENT - TRADE SECRET DATA EXCISED\*\*\*

Attachment 9, Page 2 of 2

## MINNESOTA ENERGY RESOURCES

NNG WINTER PLAN (PNG) NOVEMBER, 2008 THROUGH MARCH, 2009

**[TRADE SECRET DATA BEGINS** 

Total

4,071,031

TRADE SECRET DATA ENDS]

\*\*\*PUBLIC DOCUMENT - TRADE SECRET DATA EXCISED\*\*\*

A.H I 4.0	************					
Attachment 10						
NNG						
As Proposed	M-04-1766	M-05-1728	M-06-1536	M-07-	M-08-	
08-	Peoples Mn	Peoples Mn	Peoples Mn	Peoples Mn	Peoples Mn	Proposed
	GS	GS	GS	GS	GS	Change
Design Day	207,834	200,421	200,484	202,263	225,397	23,134
Customer Requirements moving to Transportation 2005-6		400				
Adjusted Design Day	•	200,021				
Design Day Percentages	33.79%	33.71%	33.79%	32.16%	30.56%	-1.60%
Bedigit Bay Feroentages	00.7070	00.1170	00.7070	02/10/0	0010070	,
Total Design Day Capacity (includes non-recallable capacity)	219,984	210,127	227,526	233,785	233,785	0
Total Design Day Capacity (includes non-recallable capacity)	213,304	210,121	221,020	233,763	200,700	Ū
Loop, Mindon	2.500	2 500	2 500	2 500	2 500	0
Less: Windom	2,500	2,500	2,500	2,500	2,500	
Less: LS Power	6,120	6,120	29,100	26,323	26,323	0
Less: TF12B	5,927	5,927	42,170	7,000	7,000	0
Less: TF5	2,073	2,073	36,772			0
Less: TFX(5)	0	0	73,190		****	0
Total Design Day Capacity	203,364	193,507	195,926	197,962	197,962	0
Factors for All Winter Capacity	45.50%	45.27%	100.00%	100.00%	100.00%	
Allocated Entitlements in PGA						
TF12B	69,105	68,765	42,170	43,858	29,906	-13,952
TF12V	. 0	Ó	34,070	15,946	32,690	16,744
TF5	93,690	84,713	36,772	29,619	26,827	-2,792
TFX12	00,000	0-4,710	9,724	18,409	18,409	-2,732
TFX(5)	23,052	22,598	73,190	90,130	90,130	ŏ
		•	75,190		•	
TFX(5) (12-V)	6,143	6,113		0	0	0
LS Power	0	0	0	26,323	26,323	0
Peak Capacity	11,374	11,318	0	0		0
Total Allocated Entitlements in PGA	203,364	193,507	195,926	224,285	224,285	0
B: 44 : 15 : 15 : 100						
Direct Assigned Entitlements in PGA						_
Windom	2,500	2,500	2,500	2,500	2,500	0
LS Power	6,120	6,120	29,100	26,323	26,323	0
TFX (October Only)	0	0	2,000	2,000	2,000	0
TFX (April Only)	0	0	2,000	2,000	2,000	0
TFX(5)	5,927	5,927	0	0		0
TFX(7)	2,073	2,073	0	0		0
TFX(5)	0	0	0	0		0
Total Direct Assignments	16,620	16,620	35,600	32,823	32,823	0
Total Capacity before Peak Shaving	219,984	210,127	231,526	257,108	257,108	0
LP Peak Shaving	0	0	0	0	0	Õ
Total Design Day Capacity	219,984	210,127	227,526	253,108	253,108	0
Total Transp. (with TFX Offpeak less LSP)	272,069	262,081	198,426	226,785	226,785	ő
Total Annual Transportation	75,032	68,765	88,464	80,713	83,505	2,792
Total Seasonal Transportation	136,332			•		
Total Percent Seasonal		126,815	139,062	172,395	169,603	-2,792
	62.0%	60.4%	61.1%	68.1%	67.0%	-1.10%
LS Power as % of Total DD Capacity	2.8%	2.9%	12.8%	10.4%	10.4%	0.00%
Reserve Margin	5.85%	5.05%	13.49%	25.14%	12.29%	-12.84%
D: 14 : 18 1N : BOA						
Direct Assigned Demand Not in PGA	_			_		_
TF-12-B Contract Demand	0	0	0	0		0
Total Desire Day Occasits and acceptant desired	040.004	040 407	007.500			_
Total Design Day Capacity w/ contract demand	219,984	210,127	227,526	233,785	233,785	0
Factors	33.79%	33.71%	33.79%	32.16%	30.56%	-1.60%
0. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.						
Other Entitlements not included in Peak Day Deliverability						
Field TF (TFF) (NMU direct assigned)	0	0	0	0	0	0
TFX Offpeak Old Oct. (60,000)	20,272	20,227	0	0	0	0
TFX Offpeak Old Oct. (35,000)	11,825	11,799	0	0	0	0
TFX Offpeak New Oct. (14,600)	4,933	4,922	0	0	0	0
TFX Offpeak New Apr. (39,600)	13,380	13,350	0	0	0	0
TFX Oct	0	0	2,000	2,000	2,000	ō
TFX Apr	Ö	ŏ	_,550	2,000	2,000	ő
TFX Apr-Oct	2,861	2,855	0	2,000	10,837	10,837
TFX May-Sept	4,933	4,922	0	0	10,637	10,037
FDD Storage reservation		46,830	69,094			
	46,935	•	•	73,022	76,476	3,454
FDD Storage capacity	2,706,028	2,699,984	4,349,321	4,210,037	4,246,258	36,221
Nexen PSO	86,157	85,964	0	0	0	0
Tenaska PSO New	168,935	168,558	188,000	170,237	0	-170,237
NGPL	1,202,218	1,199,532	0	0	0	0
SMS	18,245	18,204	22,680	20,537	20,537	0
SBA	2,399,879	0	0	0	0	0

## MINNESOTA ENERGY RESOURCES - PNG Attachment 11 Rate Impacts NNG

1) General Service: Avg	. Annual Use			127	Mcf				-
., conoral del vice. Avg	Last Demand	Last Demand	Last Demand	Most Recent	Nov1/08 PGA	% Change	% Change	% Change	\$ Change
	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Recovery	M-04-1766	M-06-XXXX	M-07-XXXX	Oct 1/08	Demand Changes**	Rate Case	Demand Filing	PGA	PGA
Commodity Rate	\$2.7873	\$5.1834	\$6.8682	\$5,9792	\$6,0000	115.26%	-12.64%	0.35%	\$0.0208
Demand Rate	\$0.7886	\$1,1097	\$1.1741	\$1.0903	\$1.0909	38.33%	-7.09%	0.06%	\$0.0006
Margin	\$1.2628	\$1.1771	\$1.1771	\$1.6263	\$1.6263	28.79%	38.16%	0.00%	\$0.0000
Total Recovery	\$4.8387	\$7.4702	\$9.2194	\$8.6958	\$8.7172	80.16%	-5.45%	0.25%	\$0.0214
Avg. Annual Bill*	\$614.51	\$948.72	\$1,170.86	\$1,104.37	\$1,107.08	80.16%	-5.45%	0.25%	\$2.7178
Effect of proposed commo				* - ,				-	\$2.6416
Effect of proposed deman									\$0.0762
2) Small Volume Interru	ptible: Avg. Ann	ual Use:	4,948	4,948	Mcf				
	Last Demand	Last Demand	Most Recent	Most Recent	Nov1/08 PGA	% Change	% Change	% Change	\$ Change
	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Recovery	M-04-1766	M-06-XXXX	M-07-XXXX	Oct 1/08	Demand Changes**	Rate Case	Demand Filing	PGA	PGA
Commodity Rate	\$2.7873	\$5.1834	\$6.8682	\$5.9792	\$6.0000	115.26%	-12.64%	0.35%	\$0.0208
Demand Rate									\$0.0000
Margin	\$0.9000	\$0.9000	\$0.9000	\$1.2434	\$1.2434	38.16%	38.16%	0.00%	\$0.0000
Total Recovery	\$3.6873	\$6.0834	\$7.7682	\$7.2226	\$7.2434	96.44%	-6.76%	0.29%	\$0.0208
Avg. Annuai Biil*	\$18,244.76	\$30,100.66	\$38,437.05	\$35,737.42	\$35,840.34	96.44%	-6.76%	0.29%	\$102.9184
Effect of proposed commo	dity change on av								\$102.9184
Effect of proposed demand	d change on avera	age annual bills:							\$0.0000
3) Large Volume Interru	ptible: Avg. Ann	ual Use:	14,841	14,841					
	Last Demand	Last Demand	Most Recent	Most Recent	Nov1/08 PGA	% Change	% Change	% Change	\$ Change
	Change	Change	PGA	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Recovery	M-04-1766	M-06-XXXX	M-07-XXXX	Oct 1/08	Demand Changes**	Rate Case	Demand Filing	PGA	PGA
Commodity Rate	\$2.7873	\$5.1834	\$6.8682	\$5.9792	\$6.0000	115.26%	-12.64%	0.35%	\$0.0208
Demand Rate									\$0.0000
Margin	\$0.2600	\$0.2600	\$0.2600	\$0.3592	\$0.3592	38.15%	38.15%	0.00%	\$0.0000
Total Recovery	\$3.0473	\$5.4434	\$7.1282	\$6.3384	\$6.3592	108.68%	-10.79%	0.33%	\$0.0208
Avg. Annual Bill*	\$45,224.98	\$80,785.50	\$105,789.62	\$94,068.19	\$94,376.89	108.68%	-10.79%	0.33%	\$308.6928
Effect of proposed commo	dity change on av	erage annual bills	:				•		\$308.6928
Effect of proposed demand		age annual bills:							\$0.0000
4) Small Volume Firm: A				4,948					
Avg. Anı	nual CD Volumes				Mcf				
	Last Demand	Last Demand	Most Recent	Most Recent	Nov1/08 PGA	% Change	% Change	% Change	\$ Change
	Change	Change	PGA	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Recovery	M-04-1766	M-06-XXXX	M-07-XXXX	Oct 1/08	Demand Changes**	Rate Case	Demand Filing	PGA	PGA
Commodity Rate	\$2.7873	\$5.1834	\$6.8682	\$5.9792	\$6.0000	115.26%	-12.64%	0.35%	\$0.0208
Demand Rate	\$10.1223	\$12.9002	\$13.1430	\$12.0195	\$12.0195	18.74%	-8.55%	0.00%	\$0.0000
Comm. Margin	\$0.9000	\$0.9000	\$0.9000	\$1.2434	\$1.2434	38.16%	38.16%	0.00%	\$0.0000
SV Dem. Margin	\$1.5000	\$1.5000	\$1.5000	\$2.0724	\$2.0724	38.16%	38.16%	0.00%	\$0.0000
Total Commodity Cost	\$3.6873	\$6.0834	\$7.7682	\$7.2226	\$7.2434	96.44%	-6.76%	0.29%	\$0.0208
Total Demand Cost	\$11.6223	\$14.4002	\$14.6430	\$14.0919	\$14.0919	21.25%	-3.76%	0.00%	\$0.0000
Avg. Annual Bill*	\$18,535.32	\$30,460.67	\$38,803.13	\$36,089.72	\$36,192.64	95.26%	-6.73%	0.29%	\$102.9184
Effect of proposed commo			:						\$102.9184
Effect of proposed demand		age annual bills:							\$0.0000
5) Large Volume Firm: A				14,841					
Avg. Anı	nual CD Units:				Mcf				
	Last Demand	Last Demand	Most Recent	Most Recent	Nov1/08 PGA	% Change	% Change	% Change	\$ Change
_	Change	Change	PGA	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Recovery	M-04-1766	M-06-XXXX	M-07-XXXX	Oct 1/08	Demand Changes**	Rate Case	Demand Filing	PGA	PGA
Commodity Rate	\$1.6138	\$5.1834	\$6.8682	\$5.9792	\$6.0000	271.79%	-12.64%	0.35%	\$0.0208
Demand Rate	\$10.1223	\$12.9002	\$13.1430	\$12.0195	\$12.0195	18.74%	-8.55%	0.00%	\$0.0000
Comm. Margin	\$1.8069	\$0.2600	\$0.2600	\$0.3592	\$0.3592	-80.12%	38.15%	0.00%	\$0.0000
LV Dem. Margin	\$1.2000	\$1.2000	\$1.2000	\$1.6579	\$1.6579	38.16%	38.16%	0.00%	\$0.0000
Total Commodity Cost	\$3.4207	\$5.4434	\$7.1282	\$6.3384	\$6.3592	85.90%	-10.79%	0.33%	\$0.0208
Total Demand Cost	\$11.3223	\$14.1002	\$14.3430	\$13.6774	\$13.6774	20.80%	-4.64%	0.00%	\$0.0000
Avg. Annual Bill*	\$51,615.78	\$81,843.01	\$106,865.34	\$95,094.00	\$95,402.69	84.83%	-10.73%	0.32%	\$308.6928
Effect of proposed commo			:						\$308.6928
Effect of proposed demand	change on avera	ige annual bills:							\$0.0000

<sup>\*</sup> Average Annual Bill amount does not include customer charges.
\*\* Commodity includes Unstream costs

Customer Class	Commodity Change (\$/Mcf)	Commodity Change (Percent)	Commodity Change (Percent)	Demand Change (\$/Mcf)	Demand Change (Percent)	Total Change (\$/Mcf)		Total Change (Percent)
All Firm	\$0.0208	0.35%	2.08%	\$0.0006	0.06%	0.0214		0.25%
Sm Vol Inter. Service	\$0.0208	0.35%	2.08%	\$0.0000	0.00%	0.0208		0.29%
Lrg Vol Inter. Service	\$0.0208	0.35%	2.08%	\$0.0000	0.00%	0.0208		0.33%
Sm Vol Joint Service	\$0.0208	0.35%	2.08%	\$0.0000	0.00%	0.0208	***	0.29%
Lrg Vol Joint Service	\$0.0208	0.35%	2.08%	\$0.0000	0.00%	0.0208	***	0.33%

<sup>\*\*\*</sup> Joint total change includes only commodity change since not all joint customers purchase CD units.

Attachment 12 Change in Costs due to November 1, 2006 Change in Entitlement Levels and Related Demand Costs NNG

NNG									
	Oct-08	Nov-08	Entitlement			Oct-08	Oct-08	Entitlement	Entitlement
	PGA	Entitlement	Change	Months		Rate/MCF	Total Cost	Total Cost	Change
TF-12-B (Max Rate)	38,658	25,469	(13,189)		12 \$	7.5776	\$3,515,211	\$2,315,922	(\$1,199,289)
TF-12-B (Discount)	5,200	4,437	(763)		12 \$		\$404,591	\$345,225	(\$59,366)
TF-12-V (Max Rate)	15,946	32,690	16,744		12 \$		\$1,739,884	\$3,566,839	\$1,826,955
TF-5 (Max Rate)	29,619	26,064	(3,555)		5 \$	15.1530	\$2,244,084	\$1,974,739	(\$269,345)
TFX-12 (Max Rate)	9,724	9,724	0		12 \$		\$1,123,569	\$1,123,569	\$0
TFX-12 (Discount)	414	414	0		12 \$		\$24,178	\$24,178	\$0
TFX-12 (Discount)	8,271	8,271	0		12 \$	5.4570	\$541,618	\$541,618	\$0
TFX-5 (Max Rate)	46,558	46,558	0		5 \$	15.1530	\$3,527,467	\$3,527,467	\$0
TFX-5 (Discount)	0	0	0		5 \$		\$0	\$0	\$0
TFX-5 (Discount)	0	0	0		5 \$	5.9921	\$0	\$0	\$0
TFX-5 (Discount)	2,196	2,196	0		5 \$	13.8736	\$152,332	\$152,332	\$0
TFX-5 (Discount)	1,800	1,800	0		5 \$	7.6050	\$68,445	\$68,445	\$0
TFX-5 (Discount)	122	122	0		5 \$	4.8667	\$2,969	\$2,969	\$0
TFX-5 (Discount)	2,445	2,445	0		5 \$	5.4570	\$66,712	\$66,712	\$0
TFX-5 (Discount)	31,009	31,009	0		5 \$		\$2,348,544	\$2,348,544	\$0
TFX-7 (Discount)	10,837	10,837	0		7 \$	2.2204	\$168,437	\$168,437	\$0
TFX Oct (Max Rate)	2,000	2,000	0		1 \$		\$11,366	\$11,366	\$0
TFX Apr (Max Rate)	2,000	2,000	0		1 \$	5.6830	\$11,366	\$11,366	\$0
SMS Charge	20,537	20,537	0		12 \$	2.1800	\$537,248	\$537,251	\$3
LS Power	26,323	26,323	(0)		3 \$	4.3463	\$343,219	\$343,217	(\$2)
WINDOM	2,500	2,500	0		12 \$	-	\$0	\$0	\$0
FDD: Res Fee	73,022	76,476	3,454		12 \$	1.7140	\$1,501,916	\$1,572,965	\$71,048
FDD: Capacity	4,210,037	4,246,258	36,221		\$	0.3567	\$0	\$0	\$0
Tenaska Storage	172,193	0	(172,193)		1 \$	2.0035	\$344,989	\$0	(\$344,989)
Total Demand Cost						_	\$18,678,145	\$18,703,160	\$25,015
Costs Assigned In Commodity:	Oct-08	Nov-08	Entitlement			Oct-08	Oct-08	Entitlement	Entitlement
Upstream	PGA			Months		Rate/MCF	Total Cost	Total Cost	Change
Great Lakes	0	Entitlement 0	Change 0	Monus	12	\$3,458	\$20,250	\$0	(\$20,250)
Great Lakes	U	U	0		12	<b>ФЗ.430</b>	\$20,250	\$0 \$0	(\$20,230) \$0
Curcharaco			0					\$0 \$0	\$0 \$0
Surcharges:			0					\$0 \$0	
Stavana			0						\$0 *0
Storage FDD Withdrawal	4 040 007	4 246 252	20.004			PO 0440	#c0 700	\$0 \$63.360	\$0 \$540
	4,210,037	4,246,258	36,221		1	\$0.0149	\$62,730	\$63,269	\$540
FDD Injection	4,210,037	4,246,258	36,221		1	\$0.0149	\$62,730	\$63,269	\$540
								\$0 60	\$0 \$0
Dead.see Demand Desemble/Outline De							\$0.400.400	\$0	* -
Producer Demand Payments/Option Pre	emium					_		\$5,216,072	\$1,753,642
Total Commodity Costs							\$3,608,139	\$5,342,611	\$1,734,472

Attachment 13
Daily Total Throughput Data - July 1, 2007 through June 30, 2008
NNG

Base Variable 50,260 1,421

					Variable	1,421
Date	3.27% Cloquet Adjusted HDD	32.62% Minneapolis Adjusted HDD	64.11% Rochester Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
714107		•	•	•	00.400	50 700
7/1/07	11	0	0	0	29,492	50,766
7/2/07	9	0	0	0	33,822	50,699
7/3/07	1	0	0	0	34,619	50,307
7/4/07	0	0	0	0	26,910	50,260
7/5/07	0	0	0	0	36,126	50,260
7/6/07	0 0	0	0 0	0 0	35,063 37,982	50,260
7/7/07 7/8/07	0	0 0	0	0	33,520	50,260 50,260
7/9/07	0	0	0	0	47,298	50,260
7/10/07	9	ő	0	0	43,807	50,680
7/11/07	7	ő	1	1	33,655	51,575
7/12/07	7	ő	ò	ò	33,160	50,569
7/13/07	12	Ö	1	1	28,880	51,777
7/14/07	1	0	0	0	25,306	50,311
7/15/07	4	0	0	0	27,747	50,455
7/16/07	2	0	0	0	36,165	50,356
7/17/07	0	0	0	0	54,216	50,260
7/18/07	0	0	0	0	56,015	50,260
7/19/07	3	0	0	0	38,383	50,408
7/20/07	8	0	1	1	28,738	51,599
7/21/07	1	0	0	0	25,255	50,309
7/22/07	2	0	0	0	29,031	50,358
7/23/07 7/24/07	0 0	0 0	0 0	0 0	52,631	50,260
7/25/07	0	0	0	0	65,942 64,447	50,260 50,260
7/26/07	0	0	0	0	57,010	50,260
7/27/07	Ö	0	0	0	39,743	50,260
7/28/07	Ö	ő	ő	Ö	25,709	50,260
7/29/07	Ŏ	ŏ	ŏ	ŏ	30,144	50,260
7/30/07	Ō	ō	ō	Ö	57,891	50,260
7/31/07	Ö	ō	ō	ō	58,644	50,260
8/1/07	0	0	0	0	49,219	50,260
8/2/07	0	0	0	0	45,905	50,260
8/3/07	0	0	0	0	32,348	50,260
8/4/07	0	0	3	2	29,339	53,294
8/5/07	1	0	0	0	29,281	50,308
8/6/07	1	0	0	0	44,442	50,308
8/7/07	0	0	0	0	47,866	50,260
8/8/07	0	0	0	0	49,637	50,260
8/9/07	0	0	0	0	46,585	50,260
8/10/07	0	0	0	0	49,401	50,260
8/11/07	0 2	0	0 0	0	36,281	50,260
8/12/07 8/13/07	6	0 0	0	0 0	36,091 46,578	50,359
8/14/07	Ö	0	0	0	38,568	50,553 50,260
8/15/07	Ö	ő	0	Ö	37,925	50,260
8/16/07	5	Ŏ	Ö	Ö	34,919	50,511
8/17/07	7	Ō	1	1	30,177	51,574
8/18/07	13	4	8	7	27,258	60,070
8/19/07	8	4	3	4	29,344	55,738
8/20/07	8	2	0	1	32,115	51,653
8/21/07	0	0	0	0	32,283	50,260
8/22/07	0	0	0	0	35,184	50,260
8/23/07	0	0	0	0	35,227	50,260
8/24/07	6	0	0	0	30,787	50,553
8/25/07 8/26/07	4 1	0 0	0	0	26,610	50,450
8/27/07	0	0	0 0	0 0	28,444 34,363	50,310 50,260
8/28/07	0	0	0	0	34,933	50,260 50,260
8/29/07	7	0	0	Ö	34,258	50,260
8/30/07	9	Ö	Ö	0	33,959	50,699
8/31/07	4	ő	Ŏ	Ö	29,170	50,457
9/1/07	Ó	Ö	Ö	Ö	24,847	50,260
9/2/07	Ö	Ō	Ö	Ö	24,007	50,260
9/3/07	5	0	0	0	27,637	50,506
9/4/07	8	0	0	0	40,479	50,615
9/5/07	0	0	0	0	44,125	50,260
9/6/07	0	0	0	0	44,570	50,260
9/7/07	2	0	0	0	31,350	50,365
9/8/07	14	3	2	3	28,649	54,320
9/9/07	14	7	4	5	30,476	58,011
9/10/07	12	5 10	7	7	38,307	60,033
9/11/07	21 23	10	14 13	13	41,387	68,742
9/12/07 9/13/07	23 13	12 6	3	13 4	39,162 40,307	68,486 56,613
9/13/07	29	19	3 21	4 21	40,307 46,214	56,612 80,048
9/15/07	25 25	16	18	18	33,754	75,538
9/16/07	8	1	2	2	33,395	53,163
9/17/07	6	ò	ō	0	37,301	50,553
9/18/07	2	ŏ	ő	ő	41,989	50,357
9/19/07	15	1	1	2	39,516	52,467
9/20/07	19	0	0	1	36,454	51,147
9/21/07	3	0	0	0	36,634	50,415
9/22/07	6	2	2	2	29,810	53,539

9/23/07	0	0	0	0	30,184	50,260
9/24/07	0	0	0	0	40,976	50,260
9/25/07	12	6	3	4	41,287	56,401
9/26/07 9/27/07	18 10	8 3	10 3	9 3	42,860 40,067	63,711 55,210
9/28/07	16	8	7	8	35,903	61,652
9/29/07	11	1	1	1	30,895	52,365
9/30/07	4	0	0	0	31,030	50,464
10/1/07	9	5	4	5	35,420	57,161
10/2/07	5	3	5	4	39,199	56,346
10/3/07 10/4/07	9 2	4 0	4 0	5 0	38,140 42,873	56,767 50,359
10/5/07	15	ŏ	0	ő	40,797	50,949
10/6/07	18	0	0	1	36,841	51,085
10/7/07	5	0	0	0	38,403	50,499
10/8/07	11	6	3	5	42,413	56,831
10/9/07 10/10/07	26 27	16 22	17 21	17 22	56,158 70,259	74,259 80,821
10/11/07	30	19	24	22	71,933	82,048
10/12/07	28	20	20	20	58,419	79,230
10/13/07	24	14	11	13	44,478	68,492
10/14/07	27	17	15	16	51,156	73,514
10/15/07 10/16/07	24 24	18 12	14 10	15 11	61,670 55,488	72,216 65,847
10/17/07	17	7	8	8	47,542	61,377
10/18/07	15	8	8	8	49,172	61,847
10/19/07	18	14	15	15	51,089	71,001
10/20/07	16	7	9	9	36,984	62,648
10/21/07 10/22/07	18 25	12 18	10 22	11 21	53,256 72,671	66,132 79,956
10/23/07	22	15	17	17	65,732	73,755
10/24/07	27	20	22	22	71,738	80,957
10/25/07	20	19	22	21	66,627	80,686
10/26/07	24	21	22	22	62,996	81,019
10/27/07	29 34	21	21 23	21 23	63,687 62,792	80,663
10/28/07 10/29/07	3 <del>4</del> 17	21 13	23 14	13	56,145	82,785 69,283
10/30/07	15	7	7	7	46,645	60,534
10/31/07	22	14	21	19	70,196	76,596
11/1/07	29	22	24	23	66,794	83,041
11/2/07 11/3/07	24 29	18 25	22 27	21 27	66,647	79,575
11/4/07	2 <del>9</del> 27	23	22	23	64,693 57,140	88,207 82,253
11/5/07	35	25	30	28	93,613	90,340
11/6/07	38	35	37	37	103,426	102,359
11/7/07	38	33	37	36	102,183	100,920
11/8/07	38 36	33	34	34	103,622	98,328
11/9/07 11/10/07	36 34	33 29	32 29	33 29	94,657 72,525	96,554 91,877
11/11/07	26	17	18	18	55,238	75,583
11/12/07	23	21	28	25	82,985	86,296
11/13/07	23	20	29	26	76,418	87,144
11/14/07 11/15/07	34 39	28	31 35	30 34	101,680	92,630
11/16/07	3 <del>9</del>	32 29	35 28	28	95,542 82,410	99,199 90,244
11/17/07	39	32	36	35	89,086	99,604
11/18/07	39	35	35	35	87,527	100,339
11/19/07	31	27	29	28	87,956	90,624
11/20/07	36 46	31	32 41	32	97,740	95,529
11/21/07 11/22/07	55	38 45	44	40 44	107,994 115,970	107,202 113,421
11/23/07	49	43	47	46	104,745	115,131
11/24/07	42	34	37	36	95,268	101,969
11/25/07	37	30	37	34	90,041	99,179
11/26/07 11/27/07	43 63	35 53	38 51	37 52	120,518 142,746	103,275 123,670
11/28/07	57	49	50	50	147,913	121,172
11/29/07	65	58	56	57	158,044	130,947
11/30/07	68	59	61	61	154,114	136,526
12/1/07	57	50	49 50	50 50	129,726	121,024
12/2/07 12/3/07	51 61	54 56	52 58	52 58	150,498 153,635	124,790 132,236
12/4/07	54	53	52	53	146,913	124,996
12/5/07	70	58	62	61	164,720	137,153
12/6/07	63	55	64	61	149,399	136,877
12/7/07	68	60 66	58	59	161,112	134,567
12/8/07 12/9/07	72 73	66 60	68 59	68 60	161,889 156,735	146,383 134,901
12/10/07	62	55	54	55	143,758	128,238
12/11/07	58	51	49	50	154,211	121,245
12/12/07	59	56	60	59	149,115	133,887
12/13/07	59	50	52	52	153,742	123,965
12/14/07 12/15/07	68 66	61 57	63 52	63 54	168,600 143,172	139,116 126,438
12/16/07	54	50	58	55	140,601	128,951
12/17/07	52	46	55	52	133,063	123,651
12/18/07	47	46	47	47	127,282	116,799
12/19/07	43	46	48	47	128,545	117,059
12/20/07 12/21/07	39 35	40 34	41 33	41 34	108,981 95,761	108,529 97,869
12/21/07	35 49	34 48	49	34 49	140,406	119,727
12/23/07	64	66	72	70	160,551	149,155
12/24/07	55	58	54	56	127,583	129,242
12/25/07	51 42	43	42	43	107,806	111,032
12/26/07 12/27/07	42 57	43 41	43 44	43 44	119,301 126,238	111,503 112,421
12/28/07	57	49	50	50	134,521	120,828
					•	•

12/29/07	50	46	49	48	127,012	118,091
12/30/07	48	50	50	50	127,960	121,325
	54	50	52	52	146,645	
12/31/07						123,514
1/1/08	71	67	70 70	69	170,993	147,877
1/2/08	69	67	70	69	171,420	148,133
1/3/08	58	55	62	60	140,857	135,283
1/4/08	48	47	47	47	113,401	117,069
1/5/08	41	42	36	38	93,954	104,316
1/6/08	34	29	31	30	88,707	93,538
1/7/08	35	34	32	33	98,604	97,013
1/8/08	40	39	40	40	116,412	106,719
1/9/08	47	46	43	44	113,349	112,481
1/10/08	42	35	36	36	108,809	101,213
1/11/08	46	43	44	44		
					117,152	112,341
1/12/08	47 50	45	45 50	45 50	116,195	113,991
1/13/08	52	49	50	50	133,593	120,772
1/14/08	63	61	63	62	168,563	138,564
1/15/08	60	60	62	61	140,451	137,193
1/16/08	57	53	51	52	145,168	124,104
1/17/08	68	65	66	66	169,275	143,992
1/18/08	78	72	75	74	188,381	155,621
1/19/08	83	79	82	81	190,559	165,484
1/20/08	79	75	77	76	174,389	158,351
1/21/08	72	63	64	64	174,842	141,519
1/22/08	69	68	76	73	172,266	154,057
1/23/08	80	73	77	76		
					190,367	157,789
1/24/08	76	71 50	81	78 60	179,594	161,042
1/25/08	60	59	64	62	148,357	138,500
1/26/08	49	47	57	53	133,262	125,748
1/27/08	50	43	46	45	105,909	114,551
1/28/08	35	33	32	32	106,064	96,429
1/29/08	68	64	65	64	209,766	141,898
1/30/08	88	81	81	82	189,774	166,206
1/31/08	70	64	65	65	163,078	142,028
2/1/08	57	51	51	51	123,054	122,689
2/2/08	42	43	45	44	120,439	112,899
2/3/08	42	49	47	47	122,315	117,419
2/4/08	44	40	39	40		
					113,443	106,396
2/5/08	45	39	40	40	120,710	107,121
2/6/08	54	48	52	51	141,281	122,442
2/7/08	55	53	58	56	137,053	130,286
2/8/08	49	46	46	46	120,836	115,994
2/9/08	71	64	65	65	175,882	143,020
2/10/08	89	84	90	88	197,203	175,085
2/11/08	78	71	70	71	176,527	150,584
2/12/08	59	56	63	61	159,638	136,558
2/13/08	62	52	64	60	141,479	135,336
2/14/08	73	59	59	60	162,612	134,907
2/15/08	81	66	69	68	161,055	147,039
2/16/08	56	47	57	53		
2/17/08	49	45			116,136	126,170
			45	45	133,437	114,330
2/18/08	69	69	71	70	182,129	149,912
2/19/08	78	68	73	71	181,675	151,755
2/20/08	78	73	75	74	182,633	156,116
2/21/08	75	62	67	65	163,915	143,275
2/22/08	58	49	60	57	139,345	130,608
2/23/08	52	45	56	52	119,801	124,094
2/24/08	47	40	47	44	101,117	113,421
2/25/08	48	38	37	37	120,614	103,462
2/26/08	56	49	54	52	137,095	124,373
2/27/08	56	49	56	53	135,528	126,246
2/28/08	58	46	58	54	124,446	126,768
2/29/08	53	48	50	49	121,310	120,102
3/1/08	57	49	52	51		
3/2/08	46				112,885	123,183
3/3/08		37	37 50	37	114,108	102,997
	62	55	52	53	141,987	126,212
3/4/08	60	50	51	51	123,505	122,547
3/5/08	57	51	52	52	141,464	124,193
3/6/08	70 70	58	58	58	153,952	132,922
3/7/08	73	65	67	67	168,990	144,819
3/8/08	65	60	66	64	133,269	141,871
3/9/08	58	47	47	48	131,291	117,913
3/10/08	56	47	52	51	116,136	122,152
3/11/08	33	28	35	33	85,290	97,004
3/12/08	36	31	31	31	91,651	94,258
3/13/08	31	25	26	26	76,718	86,766
3/14/08	41	33	32	33	92,633	96,790
3/15/08	46	40	38	39	96,003	105,513
3/16/08	47	38	35	36	97,379	101,990
3/17/08	42	35	34	35	102,225	99,666
3/18/08	34	32	31	31	96,434	94,383
3/19/08	39	30	29	29		
3/20/08	39 47	33			86,083 86,402	91,896
			30	32	86,402	95,523
3/21/08	45	38	38	38	105,828	104,408
3/22/08	38	34	38	37	91,515	102,995
3/23/08	46	39	40	40	105,875	106,971
3/24/08	48	43	44	44	95,646	112,531
3/25/08	37	32	33	33	94,845	96,743
3/26/08	41	33	30	31	85,606	94,629
3/27/08	46	33	34	34	99,805	98,716
3/28/08	44	34	33	34	84,436	98,372
3/29/08	34	31	32	32	77,040	95,328
3/30/08	30	22	25	24	72,226	85,072
3/31/08	39	36	33	34	107,012	98,956
4/1/08	36	35	36	35	94,141	100,518
4/2/08	40	34	33	34	85,232	98,034
4/3/08	27	22	24	24	72,076	83,848
					_,_,_,	,- 10

4/4/08	29	18	21	20	56,889	79,235
4/4/08 4/5/08	28	13	15	15	46,534	71,404
4/6/08 4/7/08	37 37	21 32	17 32	19 32	70,217 89,796	77,532 95,732
4/8/08	37	32	32	32	89,368	95,694
4/9/08 4/10/08	30 40	27 33	31 33	29 33	81,676 97,825	91,878 97,464
4/11/08	45	36	31	33	95,523	97,323
4/12/08 4/13/08	38 35	36 31	39 34	38 33	98,091 82,697	103,875 97,031
4/14/08	36	27	26	26	68,641	87,613
4/15/08 4/16/08	19 20	13 7	20 7	18 8	52,124 47,829	75,563 61,146
4/17/08	24	18	22	21	68,088	80,052
4/18/08 4/19/08	29 28	21 21	25 20	24 20	68,484 53,927	84,427 79,050
4/20/08	29	10	7	9	38,825	62,942
4/21/08 4/22/08	22 20	3 14	1 13	3 14	41,957 45,577	53,878 69,834
4/23/08	16	4	9	8	35,588	61,098
4/24/08 4/25/08	19 28	8 22	8 19	8 20	43,883 70,857	61,953 79,340
4/26/08	41	35	34	35	79,585	99,307
4/27/08 4/28/08	37 36	29 33	28 33	29 33	72,025 87,523	90,884 96,946
4/29/08	31	26	27	27	62,897	88,611
4/30/08 5/1/08	24 28	17 9	20 12	19 11	46,090 42,953	77,060 66,412
5/2/08	30	18	11	14	57,388	70,382
5/3/08 5/4/08	29 22	22 10	24 15	24 14	52,710 40,779	83,852 69,556
5/5/08	24	12	9	10	37,133	64,596
5/6/08 5/7/08	18 18	4 9	0 7	2 8	34,844 44,038	53,047 61,333
5/8/08	24 23	12 11	11 10	11	40,253 37,039	66,331
5/9/08 5/10/08	23 27	13	14	10 14	45,259	65,010 70,563
5/11/08 5/12/08	27 29	19 12	19 16	19 15	46,926	77,456 71,929
5/13/08	23	10	10	11	39,196 45,863	65,497
5/14/08 5/15/08	18 16	13 6	11 8	12 8	38,531 32,374	67,134 61,551
5/16/08	8	0	2	2	27,596	52,716
5/17/08 5/18/08	16 22	2 13	5 15	4 14	29,114 35,641	56,181 70,830
5/19/08	25	15	13	14	43,555	69,875
5/20/08 5/21/08	16 16	13 11	14 13	14 12	39,768 35,886	69,625 67,663
5/22/08 5/23/08	18 18	5 7	6 6	6 6	32,357	59,356
5/24/08	16	3	7	6	29,446 24,478	59,256 58,932
5/25/08 5/26/08	9 17	0 9	0 1	0 4	23,673 33,405	50,695 56,210
5/27/08	23	17	18	18	42,016	75,717
5/28/08 5/29/08	17 13	5 9	10 13	8 11	34,534 37,345	62,142 66,386
5/30/08	11	2	0	1	32,113	51,763
5/31/08 6/1/08	10 5	0 0	1 0	1 0	25,642 27,800	51,723 50,504
6/2/08 6/3/08	14 17	0 7	0 4	0 6	33,815	50,888
6/4/08	19	2	1	2	35,627 33,079	58,159 53,077
6/5/08 6/6/08	15 12	1 0	0 0	1 0	39,623 31,800	51,499 50,794
6/7/08	0	0	0	0	26,171	50,260
6/8/08 6/9/08	5 6	0 0	0 0	0 0	28,951 32,158	50,506 50,558
6/10/08	16	1	0	1	31,340	51,492
6/11/08 6/12/08	25 12	1 0	0 0	1 0	31,669 35,583	51,954 50,817
6/13/08 6/14/08	11 4	0	0	0	28,659	50,780
6/15/08	8	0 0	0 0	0 0	25,043 27,935	50,463 50,618
6/16/08 6/17/08	11 7	2 0	3 0	3 0	31,236 30,561	54,907 50,564
6/18/08	7	0	0	0	31,245	50,602
6/19/08 6/20/08	8 0	0 0	0 0	0 0	30,609 29,162	50,643 50,260
6/21/08	2	0	0	0	25,634	50,360
6/22/08 6/23/08	7 3	0 0	0 0	0 0	28,344 30,759	50,608 50,402
6/24/08	0	0	0	0	31,478	50,260
6/25/08 6/26/08	0 0	0 0	0 0	0 0	36,632 35,467	50,260 50,260
6/27/08 6/28/08	2 2	0 0	0 3	0	28,096	50,357
6/29/08	1	0	0	2 0	28,232 29,757	53,396 50,313
6/30/08	4	0	0	0	32,405	50,459
Totals	10,748	8,568	8,912	8,860	28,428,203 30	,985,087

<sup>\*</sup> Volumes include interruptible and transportation volumes except for transportation volumes that are not located behind MERC citygates.

<sup>\*\*</sup> Design Model numbers are used to calculate firm volumes only

Attachment 14

Customer Counts by PGAC Class - July 1, 2007 through June 30, 2008 NNG

_																					_				
Jun-08	Average	Customers	141,852	974		6,058		7,856	0	364	39	0	0	0	0	0		S	3	0	0	0	0	0	157.151
May-08	Average		143,033	1,011		6,137	-	7,749	0	317.	38	0	2	0	3	0		09	25	0	0	ō	0	0	158.375
Apr-08	Average	'n	143,265	1,007		980'9		7,951	0	362	40	0	5	0	3	0		37	33	0	0	0	0	0	158.789
Mar-08	Average	Customers	142,678	866		6,158		7,893	0	372	40	0	3	0	9	0		40	29	0	0	0	0	0	158.217
Feb-08	Average	Customers Customers	142,307	966		6,160		7,906	0	373	40	0	4	0	8	0		42	31	0	0	0	0	0	157.862
Jan-08	Average	Customers	142,472	1,006		6,140		7,871	0	358	43	0	2	0	6	0		86	100	0	0	0	0	0	158.090
Dec-07	Average	Customers	141,602	977		6,140		7,847	0	313	38	0	0	0	3	0		40	33	0	0	0	0	0	156.993
Nov-07	Average	Customers	140,954	984		6,013		7,761	0	368	40	0	206	45,986	-	5		26	29	0	0	0	0	0	203.074
Oct-07	Average	Customers	140,176	1,073		5,997		7,737	0	318	35	0	0	0	က	0		43	31	0	0	0	0	0	155.413
Sep-07	Average	Customers	139,865	1,000		6,002		7,604	0	366	40	0	ō	0	0	0		15	23	0	0	0	0	0	154.915
Ang-07	Average	Customers	140,679	1,031		6,019		7,640	0	320	9	0	0	0	9	0		9	24	0	0	0	0	0	155.731
Jul-07	Average	Customers Customers Customers Customers Customers Customers	141,319	1,044		6,038		7,652	0	318	32	0	0	0	က	0		45	31	0	0	0	0	0	156.482
Tariff	Rate	tion	MN001/007/008	MN002/009010	MN050/053/054/	070/076/078	MN056/060/063/	064/065/071/077	MN104	MN125/128/135	MN200/201/207/	MN590	MN509/514/589	MN518	MN502/507/82L	MN500/574/81L	MN501/506/522/	523/80L/83L	MN/504/505/539	MN/512	MN/515	MN/517	MN/519	MN/535	
	Rate	$\neg$	Residential w/ Heat	Residential w/o Heat MN002/00	_	Commercial-SV		Commercial-LV (	SV-Joint		ptible	Transport	Transport	Transport	Transport	Transport		Transport	Transport	Transport	Transport	Transport	Transport	Transport	Total