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October 31, 2014

Dr. Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, MN 55101-2147

Re: In the Matter of the Petition of Minnesota Energy Resources Corporation for
Approval of a Change in Demand Entitlement for its Northern Natural Gas
Transmission System

Docket No. G011/M-14-660

Dear Dr. Haar:

In accordance with Minnesota Rule 7825.2910, subpart 2, please find enclosed Minnesota Energy Resources Corporation's (MERC) updated demand entitlement information as identified in its August 1, 2014 request filed in this docket. MERC is filing both Excel and PDF versions of the attachments.

Pursuant to Minnesota Rule 7825.2910, subpart 3, a Notice of Availability was sent on August 1, 2014 to all intervenors in the Company's previous two rate cases.

Please contact me at 612-340-2881 if you have any questions regarding the information in this filing. Thank you for your attention to this matter.

Sincerely yours,

/s/ Michael J. Ahern

Michael J. Ahern

cc: Service List

August 1, 2014

To: Service List

RE: Minnesota Energy Resources Corporation-Consolidated Petition for Approval of Change in Demand Entitlement

Notice of Availability

Please take notice that Minnesota Energy Resources Corporation has filed a petition with the Minnesota Public Utilities Commission for approval of a change in demand entitlement for its Northern Natural Gas transmission system.

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

Amber Lee
Minnesota Energy Resources Corporation
2665 145th Street West
Rosemount, MN 55065
(651) 322-8965

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

Beverly Jones Heydinger	Chair
David C. Boyd	Commissioner
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Betsy Wergin	Commissioner

In the Matter of the Petition of Minnesota
Energy Resources Corporation for Approval of
a Change in Demand Entitlement for its
Northern Natural Gas Transmission System

Docket No. G011/14-660

REVISED FILING UPON CHANGE IN DEMAND

On August 1, 2014, pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand), Minnesota Energy Resources Corporation (MERC or the Company), petitioned the Minnesota Public Utilities Commission (Commission) for approval of changes in demand entitlements for MERC customers served off of the Northern Natural Gas Company (NNG or Northern) system. MERC requested that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2014. MERC further stated that it would provide an update to the petition.

This filing includes the following

- Notice of Availability.
- One paragraph summary of the filing in accordance with Minn. R. 7829.1300, subp. 1.
- Revised Petition for Change in Demand with Attachments.
- Affidavit of Service and Service List.

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

1. Summary of Filing

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

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 was been sent to all intervenors in the Company's previous two rate cases along with the August 1, 2014 filing.

3. General Filing Information

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

Minnesota Energy Resources
Corporation 2665 145th Street West
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: October 31, 2014
Originally Proposed Effective Date: November 1, 2014

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. Under Minn. R. 7829.1400, initial comments are due within 30 days of filing, with reply comments due 10 days thereafter.

E. Utility Employee Responsible for the Filing

Amber S. Lee
2665 145th Street West
Rosemount, MN 55068
(651) 322-8965

If additional information is required, please contact Amber S. Lee at (651) 322-8965, Shawn Gillespie at (402) 614-0076, or Michael J. Ahern at (612) 340-2881.

DATED: October 31, 2014

Respectfully Submitted,
DORSEY & WHITNEY
LLP

By: /s/ Michael J. Ahern
Michael J. Ahern
Suite 1500, 50 South Sixth
Street Minneapolis, MN 55402-

Attorney for Minnesota
Energy Resources
Corporation

STATE OF MINNESOTA
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SUMMARY OF REVISED FILING

On August 1, 2014, pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand), Minnesota Energy Resources Corporation (MERC or the Company), petitioned the Minnesota Public Utilities Commission (Commission) for approval of changes in demand entitlements for MERC customers served off of the Northern Natural Gas Company (NNG or Northern) system. MERC requested that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2014. MERC further stated that it would provide an update to the petition, and this filing is that update.

STATE OF MINNESOTA
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
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REVISED PETITION FOR CHANGE IN DEMAND

I. INTRODUCTION

Pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand), Minnesota Energy Resources Corporation - NNG (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 customers served off of the Northern Natural Gas Company (NNG or Northern) system.¹ MERC requests that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2014.

¹ MERC also serves Minnesota customers off of the MERC-Consolidated pipeline system (Centra Pipelines (Centra), Viking Gas Transmission (Viking) and Great Lakes Gas Transmission (GLGT)). MERC requests approval of a demand entitlement change for the 2014-2015 heating season for its MERC-Consolidated in a separate docket.

II. DISCUSSION

A. MERC's NNG Design Day Requirements

MERC's 2014-2015 NNG design day requirements increased 15,124 Dth (or approximately 6.15 percent) from 245,878 Dth to 261,002 Dth.

**Table 1: MERC's Proposed NNG Reserve Margins
For the 2014-2015 Heating Season**

	Reserve Margin 2014-2015 Heating Season	Reserve Margin 2013-2014 Heating Season	Change
NNG Zone EF	2.06%	4.27%	-2.21%

As shown in Table 1, MERC's proposed system wide reserve margin, Zone EF for the 2014-2015 heating season is positive.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day requirement for Northern Natural Gas (NNG), is 261,002 Dth as calculated in Attachment 5 and Attachment 7 under the NNG Entitlement Allocation.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day capacity on Northern Natural Gas (NNG), is 266,385 Dth as calculated in Attachment 5 and Attachment 7 under the NNG Entitlement Allocation. The difference between the total Design Day requirement and total Design Day capacity results in a 2.06% positive reserve margin.

B. Forecast Methodology for MERC Demand Entitlement Nov. 1, 2014

Peakday

Purpose

Gather data and perform analysis used in the “Petition for Approval of Change in Demand Entitlement” for Minnesota Energy Resources Corporation (MERC) to be sent to the Minnesota Public Utilities Commission, otherwise known as the “MERC Demand Entitlement Filings”.

Background

MERC is served by four pipelines:

1. Centra - Centra pipeline
2. GLGT - Great Lakes Gas Transmission pipeline
3. VGT - Viking Gas Transmission system
4. NNG- Northern Natural Gas pipeline

Two Demand Entitlement Filings are prepared (one for each PGA):

- A. All customers served off Centra, GLGT & VGT = MERC Consolidated
- B. All customers served off NNG = NNG

Weather data is obtained from eight weather stations:

International Falls, Bemidji, Cloquet, Fargo, Minneapolis, Rochester, Worthington and Ortonville.

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

	Pipeline	PGA	Weather Station(s)
1	Centra	Consolidated	International Falls
2	GLGT	Consolidated	Bemidji & Cloquet
3	VGT	Consolidated	Fargo
4	NNG – All except Ortonville	NNG	Minneapolis, Rochester, Cloquet & Worthington
5	NNG – Ortonville Only	NNG	Ortonville

Analytical Approach

Summary

1. Obtain daily weather data for each weather station
2. Obtain daily total throughput volumes by pipeline

3. Perform total throughput peak day regressions. In response to comments from the DOC (Minnesota Department of Commerce):
 - a. Review and potentially change the regression methodology to mitigate the impact of autocorrelation.
 - b. Provide a reasonable explanation whenever we choose to use a regression model that does not have an intercept.
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 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 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.

The Team followed an approach generally consistent with the one used last year that would:

- Make the best use of the best available data; and
- 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.

The Peak Day Process consisted of:

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

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

1. Identify the coldest Adjusted Heating Degree Day (AHDD) in the last 20 years for each weather station.
2. Determine the most recent three years of December through February daily total metered throughput for each of the demand areas by weather station.
3. Subtract the daily pipeline meter readings for all non-firm customers with daily pipeline meter readings available for all three 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)

4. Determine how to map the monthly billing data to the demand areas.

Each daily weather station data file was searched to find the coldest Adjusted Heating Degree Day (AHDD65) in the last 20 years. This 1-in-20 approach is consistent with prior years. The results are provided in the following table:

<u>Station</u>	<u>Date</u>	<u>Avg. Temp</u>	<u>Avg. Wind</u>	<u>HDD65</u>	<u>AHDD65</u>
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	2/1/1996	-34	8	99	107
Minneapolis	2/2/1996	-25	8	90	97
Rochester	2/2/1996	-27	10	92	101
Worthington	1/18/1996	-8	32	73	96
Ortonville	1/14/2009	-21	11	86	96

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. As noted above, some of the meters represented a TBS. Some meters were dedicated to a customer who is not a firm service customer. 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 daily telemetered data from each interruptible, transportation, and joint interruptible customer mapped to each of the 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.

Similar to the process used the prior year, the Team generated regressions of the daily throughput data available less the known daily meter readings for non-firm customers and adjusted those regressions for the estimated peak day impact of the other non-firm customers who do not have daily readings. This approach was used because it 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 Demand Areas:

1. Gather the net daily metered volumes and weather station data including AHDD65².
2. If more than one weather station is represented in a given demand area, weight each weather station's AHDD65 by the total December through February metered volumes attributable to that weather station.
3. Add indicator variables for weekend days and months. Day 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 ordinary least squares linear regressions for the 3-year time frame using the AHDD65 weather variable and the significant indicator variables.
5. In response to comments from the DOC (Minnesota Department of Commerce), review and potentially change the regression methodology to mitigate the impact of autocorrelation. See section below on autocorrelation.
6. In response to comments from the DOC, provide a reasonable explanation whenever we choose to use a regression model that does not have an intercept.
7. Summarize the Baseload and Use/AHDD65 from each regression.
8. Calculate a point estimate from each regression based on the baseload value plus the Use/AHDD65 coefficient times the coldest AHDD65 in 20 years (volume weighted if using more than one weather station in a single Demand Area).

Autocorrelation Review

In regression analysis using time series data, autocorrelation of the errors is a problem. Autocorrelation of the errors, which themselves are unobserved, can generally be detected because it produces autocorrelation in the observable residuals. (Errors are also known as "error terms" in econometrics.) Autocorrelation violates the ordinary least squares (OLS) assumption that the error terms are uncorrelated. While it does not bias the OLS coefficient estimates, the standard errors tend to be underestimated (and the t-scores overestimated) when the autocorrelations of the errors at low lags are positive. The traditional test for the presence of first-order autocorrelation is the Durbin–Watson statistic or, if the explanatory variables include a lagged dependent variable, Durbin's h statistic. To correct for this used we used the MetrixND software package to employ an AR(1) regression which then showed that

² Temperature and weather data was obtained from Weather Bank/DTN via TherMaxx then converted to HDD65 and AHDD65 in an Excel spreadsheet by MERC – Gas Supply. Temperature and wind data is 24-hour average based on the 9am to 9am gas day.

the Durbin –Watson statistics are all either close to 2 or above. The AR (1) is similar to that of the Cochrane-Orcutt method to correct for autocorrelation.

III. Volume Risk Adjustments

Volume risk adjustments were incorporated into the forecast to provide a confidence level that the daily metered load under design conditions would not exceed the daily metered regression estimate. An appropriate volume risk adjustment was determined for each regression group by multiplying the standard error of each regression analysis (sigma) by a factor needed to attain a desired confidence level. The desired confidence level chosen was 97.5%.

IV. 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 records³. 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 the prior winter was obtained. The database contained detail by customer class⁴, 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,

³ Individual daily volumes were available for a handful of paper mills, direct-connects, taconites, and off-system end users.

⁴ Transportation, Interruptible, Joint Interruptible, Residential, Large Commercial & Industrial and Small Commercial & Industrial.

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

The MERC 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 the “joint interruptible” customers from the prior winter that showed the volume that each customer has selected to receive as firm service from MERC each month. Based on the direction from MERC Gas Supply, the Small Volume Joint Firm / Interruptible customers who were relying on MERC to provide peak day firm supply were identified and their daily firm capacity volumes were summed by month for each demand area. The total volumes were then added back to the adjusted regression results.

C. Apply Sales Forecast Growth Rates

The throughput volumes used in the data regressions were from the last three winters and needed to be adjusted to properly forecast the next year. The Revenue Forecasting Department provided a growth rate for each demand area, which were then applied to the adjusted regression results.

Exhibit 1
Pipeline Regression Notes

A. Interruptible, Transportation and Joint Interruptible

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

VGT Lamb Weston.

NNG Taconites / Direct Connects =

- CCI EMPIRE IND DEL PT 2 TILDEN
- CCI NORTSHORE
- UNITED TACONITE (was EVELETH TACONITE)
- HIBBING TACONITE CO.
- U.S. STEEL
- NATIONAL STEEL PELLET
- COTTAGE GROVE TBS LS POWER
- INLAND STEEL
- HANNA MINING

NNG OSEU (End Users) =

- ASSOCIATED MILK PRODUCTS, INC.
- CORRECTIONAL CTR
- KEMPS LLC
- KERRY BIO-SCIENCE
- LAKESIDE
- MILK SPECIALTIES
- LAND OF LAKES
- PRO-CORN
- SWIFT
- SENECA FOODS-ROCHERSTER
- ENGINEERED POLYMERS
- SANDSTONE FEDERAL CORRECTIONAL INSTITUTE
- Glenville #1
- Agra Resources(Exol)
- Halcon Corporation
- Engineered Polymers
- Foremost Farms USA – Preston
- REG ALBERT LEA, LLC
- Zinpro North Branch

B. Daily Firm Capacity

PNG-VGT

- DETROIT LAKES MIDDLE SCHOOL
- ROSSMAN SCHOOL

PNG-GLGT

- AMERIPRIDE
- NORTHLAND APTS
- NW TECH COLLEGE - BEMIDJI

PNG-NNG

- HENDRICKS HOSPITAL
- GLASSTITE INC

Daily Design Day Estimate to Actual Comparison

In the 2007 demand entitlement docket, 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 are 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 the 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 docket, 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- Northern (NNG) 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 Attachment 3, MERC- NNG proposes no change in Design Day Deliverability. Please see Table 4 for the portfolio of capacity services.

Table 4

Capacity Entitlement	Propose Change Increase / (Decrease)
TF12B & TF12V	0 Mcf/Day
TF5	0 Mcf/Day
TFX12	0 Mcf/Day
TFX5	30,000 Mcf/Day
TFX- (Apr) *	0 Mcf/Day
TFX- (Oct) *	0 Mcf/Day
Bison *	0 Mcf/Day
NBPL *	0 Mcf/Day
Northwestern Energy	0 Mcf/Day
NNG Zone Delivery Call Option	(20,000) Mcf/Day
Net Change	10,000 Mcf/Day

* Volumes not part of heating season volumes

MERC contracted for capacity on Bison Pipeline for 50,000 Dth/day which went into service on January 14, 2011. The contracted capacity with Northern Border Pipeline (NBPL) went into effect at the in-service of Bison. This capacity does not add any incremental capacity but is utilized to deliver Rockies supply to NNG customers at Northern Border Pipeline (NBPL) interconnects with NNG.

On MERC's NNG contract 112561, MERC contracted for 6,000 Dth/day capacity during the winter months (November through March). The 6,000 Dth/day capacity on this contract has been rolled into MERC's NNG contract 112486 and NNG contract 112561 has been terminated. This has no impact on

total contracted capacity or costs. It merely reduced the number of contracts MERC has to deal with.

In the previous Demand Entitlement filing, MERC had contracted for a NNG Zone Delivery Call Option of 20,000 Dth. MERC tried to purchase the same product for this Demand Entitlement period except the volume was 30,000 Dth but due to lack of firm deliverability by suppliers, MERC received no proposals to the Request-For-Proposal (RFP). As an alternative to the aforementioned product, MERC contracted for firm winter (November 1, 2014 through March 31, 2015) TFX capacity with NNG pipeline. Net change in Demand Entitlement from the previous filing is 10,000 Dth. The increase is necessary to meet the theoretical design day.

2. Other Demand Entitlement Changes

As shown in the Attachment 10, MERC- NNG proposes no change in TFX Apr and TFX Oct. MERC's Firm Deferred Delivery (storage) decreased from a total Maximum Storage Quantity of 5,619,321 Dth to 5,469,321 Dth as indicated in "Other Entitlements Not Included in Peak Day Deliverability". This is a decrease of 150,000 Dth or approximately 2.67%. The decrease is due to LS Power reducing the amount of Firm Deferred Delivery storage that could be released and acquired. Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand and balancing charges will be allocated through the commodity charge effective November 1, 2014.

D. Financial Units and Premiums

- i. MERC is entering into New York Mercantile Exchange (NYMEX) financial Call Options for the upcoming 2014/2015 winter (November through March). MERC will be making purchases through October 2014. The Call Option contracts are projected for the entire 2014/2015 winter. Please see Attachment 8.
- ii. MERC is projecting total premium costs entered into the financial Call Options on behalf of MERC's NNG firm customers amounts to \$1,348,434 for the 2014/2015 winter. Please see Attachment 8.
- iii. MERC will be entering into 513 contracts (10,000/contract) or 5,130,000. Total projected premium per contract is projected at \$.2629. 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 will be entering into 176 futures contracts (10,000/contract) or 1,760,000. Please see Attachment 8.
- vii. Please see Attachment 8.
- viii. 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 futures contracts), 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 NNG 2014-2015 Winter Portfolio Plan - Minnesota Energy Resources Corporation for NNG gas supply purchases for the Hedging Plan is in Attachment 9, page 2.

F. Price Volatility

MERC hedging strategy as described in section 2.(D).(vii.) provides the opportunity to ensure MERC customers are seventy percent (70%) hedged assuming normal winter volumes. The 70% hedged is accomplished by 40% of normal winter volumes hedged by a fixed price, which is comprised of storage and futures contracts. MERC is projecting the weighted average cost of gas (WACOG) for futures contracts of natural gas to be approximately \$4.12. Please see Attachment 15, page 1 of 3. MERC is projecting the NNG Storage WACOG for NNG to be approximately \$4.31. Please see Attachment 15, page 2 of 3. The remaining 30% of the 70% is hedged by financial call options. MERC purchased call options at an average strike price of \$4.31, which means if NYMEX contract(s) settle above that price, the options are exercised and MERC's customers gas cost is capped at the average strike price. Please see Attachment 15, page 3 of 3. Since financial futures and options are paper only MERC purchases physical

index supply to back the financial derivatives. MERC projects the gas costs to be approximately \$4.20 for 70% of normal winter volumes assuming that the NYMEX prices are above the average strike price plus the physical index basis spread. If the NYMEX prices are below the average strike price, the average natural gas cost for 70% of the normal winter volumes will be lower. The remaining 30% of normal winter volumes are purchased at index or market prices. All numbers reflected are natural gas costs only and do not include any transportation, storage, hedge premium or margin costs. Since actual purchases are only through July 2014, this section will be updated in the November 1, 2014 filing.

G. PGA Cost Recovery

MERC proposes to begin recovering the costs associated with the change in demand-related costs in its monthly PGA effective November 1, 2014. Rate impacts associated with this change can be found on Attachment 4, pages 1 through 3, and on page 1 of Attachment 11.

H. Impacts of Telemetry

Based on the requirement that all interruptible and transportation customers on MERC's system must have telemetry, some customers have switched from interruptible to firm service. MERC's design day analysis takes these switches into account. Any switching of additional customers that occurred before the date of this filing would be sufficiently within MERC's design day limits.

II. CONCLUSION

Based upon the foregoing, MERC respectfully requests the Minnesota Public Utilities Commission grant the demand changes requested herein effective November 1, 2014. If any further information, clarification, or substantiation is required to support this filing please advise.

DATED: October 31, 2014

Respectfully Submitted,

DORSEY & WHITNEY LLP

By /s/Michael J. Ahern
Michael J. Ahern
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Attorney for Minnesota Energy
Resources Corporation

MINNESOTA ENERGY RESOURCES - NNG
DESIGN-DAY DEMAND SUMMARY
NOVEMBER 1, 2014
NNG

Design Day Requirement	261,002
Total Peak Day Entitlement	266,385
Firm Peak Day Actual Sendout -Non Coincidental (Jan. 6)	212,806
Firm Annual Throughput - Minnesota	21,803,847
No. of Firm Customers	178,388
Department Load Factor Calculation	28.07%

MINNESOTA ENERGY RESOURCES - NNG

NNG MINNESOTA DESIGN DAY REQUIREMENTS

NOVEMBER 1, 2014

NNG

Pipeline Group	Nov13-Mar 14 Avg. Customer Count	Zone Total Customer Count	1/20 Design DDD	Regression Factors		Regression Total Footnote 1	Regression Adjustment Footnote 2	1/20 Requirements Regression Load Footnote 3	Nov13-Mar 14 Avg. Customer Growth	Total *
				Intercept	Slope					

PEAK

NNG	178,388	178,388	98	31,490	2,359	303,606	44,255	259,351	0.60%	260,907
Total	178,388	178,388								260,907

OFF PEAK

NNG	178,388	178,388	55	31,490	2,359	189,027	28,518	160,509	0.60%	161,472
Total	178,388	178,388								161,472

* Adjusted for customer growth

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

Footnote 2: Regression Adjustment subtracts out Interruptible, Transportation and Joint Interruptible volumes and adds adjustment to achieve 97.5% confidence level that actual demand under design conditions will not exceed estimate.

Footnote 3: Total equals Regression Total minus Regression Adjustment.

*55 is the 30 yr unadjusted heating degree days from NOAA, not adjusted for windspeed.

MINNESOTA ENERGY RESOURCES - NNG

DESIGN-DAY DEMAND PER CUSTOMER - GS

NOVEMBER 1, 2014

NNG

<u>Heating Season</u>	<u>No. of Firm Customers</u>	<u>Design Day Requirements</u>	<u>MMBtus /Customer /Day</u>
14/15	178,388	261,002	1.46
13/14	178,578	245,878	1.38
12/13	176,937	225,883	1.28
11/12	175,241	235,055	1.34
10/11	176,027	218,213	1.24
09/10	175,228	228,040	1.30
08/09	173,962	247,188	1.42
07/08	172,116	223,754	1.30

MINNESOTA ENERGY RESOURCES - NNG
SUMMER/WINTER USAGE - Mcf
PROJECTED 12 MONTHS ENDING JUNE 2015
NNG

<u>Class</u>	<u>Summer Apr-Oct</u>	<u>Winter Nov-Mar</u>	<u>Total</u>
GS	5,975,516	15,812,613	21,788,129
SVI	1,408,810	1,257,722	2,666,533
SVJ	6,017	9,702	15,718
LVI			0
LVJ	0	0	0
SLV	<u>0</u>	<u>0</u>	0
Total	<u>7,390,343</u>	<u>17,080,037</u>	<u>24,470,380</u>

MINNESOTA ENERGY RESOURCES - NNG

ENTITLEMENT LEVELS

PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2014

<u>Type of Capacity or Entitlement</u>	<u>Current Amount Mcf or MMBtu</u>	<u>Proposed Change Mcf or MMBtu</u>	<u>Proposed Amount Mcf or MMBtu</u>
TF-12 Base & Variable	76,079	0	76,079
TF5	31,515	0	31,515
TFX - 12	32,297	0	32,297
TFX - 5	93,084	30,000	123,084
TFX- (Apr) Offpeak*	2,000	0	2,000
TFX- (Oct) Offpeak*	2,000	0	2,000
Bison	50,000	0	50,000
NBPL	50,000	0	50,000
Northwest Gas (Windom)	2,500	0	2,500
Northwestern Energy (Ortonville)	910	0	910
NNG Zone Delivery Call Option	20,000	(20,000)	0
Heating Season Total	256,385	10,000	266,385
Non-Heating Season Total	113,786	0	113,786
Heating Season			
Forecasted Design Day-Adjusted	245,878	15,124	261,002
Non-Heating Season			
Forecasted Design Day	156,089	5,383	161,472
Heating Season			
Capacity Surplus/Shortage	10,507	(5,124)	5,383
Non-Heating Season			
Capacity Surplus/Shortage	(42,303)	(5,383)	(47,686)

*Not included in Heating Season Total entitlement

MINNESOTA ENERGY RESOURCES - NNG

RATE IMPACT OF THE PROPOSED DEMAND CHANGE (**FDD storage contract costs shifted from Demand costs to Commodity costs)
NOVEMBER 1, 2014

All costs in \$/Dth	Last Base Cost of Gas G011/ MR13-732* Jan. 14	NNG				Result of Proposed Change			
		Last Demand Change G011- 12-1193 Jul. 13	Last Demand Change G011- 13-977 Nov. 13	Most Recent PGA Oct. 14	Current Proposal Effective Nov.1,2014	Change from Last Rate Case**	Change from Last Demand Change	Change from Last PGA %	Change from Last PGA \$
1) General Service Residential: Avg. Annual Use:		93		Dth					
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost	\$1.7955	\$1.6968	\$1.7177	\$1.7822	\$1.6999	(\$0.0956)	(\$0.0178)	-4.62%	(\$0.0823)
Commodity Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	\$0.0000	\$0.2536	0.00%	\$0.0000
Total Cost of Gas	\$8.5880	\$7.5547	\$7.7406	\$8.1710	\$8.2324	(\$0.3556)	\$0.4918	0.75%	\$0.0614
Avg Annual Cost	\$798.68	\$702.59	\$719.88	\$759.90	\$765.61	(\$33.0741)	\$45.73	0.75%	\$5.71
Effect of proposed commodity change on average annual bills: \$13.36									
Effect of proposed demand change on average annual bills: (\$7.65)									
2) Small Vol. Interruptible: Avg. Annual Use:		6,699		Dth					
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost									
Commodity Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	\$0.0000	\$0.1367	0.00%	\$0.0000
Total Cost of Gas	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	(\$0.2600)	\$0.3927	2.68%	\$0.1437
Avg Annual Cost	\$38,619.07	\$33,141.29	\$34,246.63	\$35,914.68	\$36,877.09	(\$1,741.9770)	\$2,630.46	2.68%	\$962.41
Effect of proposed commodity change on average annual bills: \$962.41									
Effect of proposed demand change on average annual bills: \$0.00									
3) Large Vol. Interruptible: Avg. Annual Use:		42,000		Dth		0			
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost									
Commodity Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	\$0.0000	\$0.0458	0.00%	\$0.0000
Total Cost of Gas	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$4.7061	(\$0.2600)	\$0.3018	3.15%	\$0.1437
Avg Annual Cost	\$208,576.20	\$178,050.60	\$184,980.60	\$191,620.80	\$197,654.71	(\$10,921.49)	\$12,674.11	3.15%	\$6,033.91
Effect of proposed commodity change on average annual bills: \$6,033.91									
Effect of proposed demand change on average annual bills: \$0.00									
4) Small Vol. Firm: Avg. Annual Use		6,699		Dth		DTh			
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	\$0.0000	(\$1.5825)	-8.44%	(\$1.5940)
Commodity Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	\$0.0000	\$0.1367	0.00%	\$0.0000
Demand Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	\$2.5953	\$0.2953	0.00%	\$0.0000
Total Cost of Gas	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	(\$0.2600)	\$0.3927	2.68%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	(\$1.5825)	(\$1.2872)	-7.42%	(\$1.5940)
Avg Annual Cost	\$39,155.94	\$33,684.14	\$34,776.12	\$36,451.84	\$37,374.40	(\$1,781.54)	\$2,598.28	2.53%	\$922.56
Effect of proposed commodity change on average annual bills: \$922.56									
Effect of proposed demand change on average annual bills: (\$39.85)									
5) Large Vol. Firm: Avg. Annual Use:		42,000		Dth		DTh			
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	(\$1.5825)	(\$1.5825)	-8.44%	(\$1.5940)
Commodity Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	\$0.0000	\$0.0458	0.00%	\$0.0000
Demand Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	\$2.5953	\$0.2953	0.00%	\$0.0000
Total Cost of Gas	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$4.7061	(\$0.2600)	\$0.3018	3.15%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	(\$1.5825)	(\$1.2872)	-7.42%	(\$1.5940)
Avg Annual Cost	\$210,186.82	\$179,679.15	\$186,569.07	\$193,232.28	\$199,146.65	(\$9,429.55)	\$12,577.58	3.06%	\$5,914.37
Effect of proposed commodity change on average annual bills: \$6,033.91									
Effect of proposed demand change on average annual bills: (\$119.55)									

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Decoket No. E, G999/AA-13-60I

* As Approved in Docket No. G011/MR-13-732; to coincide with implementation of interim rates in Docket No. G011/GR-13-611

**Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand charges will be allocated through the commodity charge effective 11/1/2014

MINNESOTA ENERGY RESOURCES - NNG

RATE IMPACT OF THE PROPOSED DEMAND CHANGE

Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs
NOVEMBER 1, 2014

NNG						01-Nov-14
IV. NORTHERN NATURAL GAS COMPANY'S RATES -- CURRENT COST OF GAS EFFECTIVE						
	Tariff-Summer(7 mths)	Tariff-Winter(5 mths)	Wt. Annual	GRI	Total	
TF-12B	112495 \$ 5.6830	\$ 10.2300	\$ 7.5776	\$0.0000	\$ 7.5776	
TF-12B Discount	112495 \$ 5.6830	\$ 10.0320	\$ 7.4951	\$0.0000	\$ 7.4951	
TF-12V	112495 \$ 5.6830	\$ 13.8660	\$ 9.0926	\$0.0000	\$ 9.0926	
TF-5	112495 \$ -	\$ 15.1530	\$ 15.1530	\$0.0000	\$ 15.1530	
TFX	112486 \$ 5.6830	\$ 15.1530	\$ 9.6288	\$0.0000	\$ 9.6288	
TFX-5	112486 \$ -	\$ 15.1530	\$ 15.1530	\$0.0000	\$ 15.1530	
TFX-5 Discount	112486 \$ -	\$ 10.0320	\$ 10.0320	\$0.0000	\$ 10.0320	
TFX - Discount	111866 \$ 2.2192	\$ 15.1392	\$ 7.6025	\$0.0000	\$ 7.6025	
TFX - Discount	111866 \$ 4.8640	\$ 4.8640	\$ 4.8640	\$0.0000	\$ 4.8640	
TFX - Discount	111866 \$ 5.4720	\$ 5.4720	\$ 5.4720	\$0.0000	\$ 5.4720	
TFX-5	127852 \$ -	\$ 15.1530	\$ 15.1530	\$0.0000	\$ 15.1530	
Gas Cost						\$4,0451

V. ANNUAL SALES -- As approved in Docket No. G011/MR-13-732 234,442,025

VI. PNG'S CURRENT COST OF GAS EFFECTIVE: 01-Nov-14

A. GS	Contract #s)	Monthly Entitlements (Dth)	Months	Rate \$/Dth	Contract Costs	Rate/Therm	
						Contract Costs	Rate/Therm
TF12B (Max Rate) Winter	112495	49,819	5	\$ 10.2300	=	\$ 2,548,242	\$ 0.01185
TF12B (Max Rate) Summer	112495	49,056	7	\$ 5.6830	=	\$ 1,951,497	\$ 0.00908
TF12V (Max Rate)	112495	21,060	12	\$ 9.0926	=	\$ 2,297,882	\$ 0.01069
TF5 (Max Rate)	112495	31,515	5	\$ 15.1530	=	\$ 2,387,734	\$ 0.01110
TF12B (Discount-Winter)	112495	5,200	12	\$ 7.4951	=	\$ 467,694	\$ 0.00218
TFX5 (Discount)	112561	0	5	\$ -	=	\$ 0	\$ -
TFX12 (Max Rate)	112486	10,822	12	\$ 9.6288	=	\$ 1,250,434	\$ 0.00582
TFX Apr (Max Rate)	112486	2,000	1	\$ 5.6830	=	\$ 11,366	\$ 0.00005
TFX Oct (Max Rate)	112486	2,000	1	\$ 5.6830	=	\$ 11,366	\$ 0.00005
TFX5 (Max Rate)	112486	66,271	5	\$ 15.1530	=	\$ 5,021,022	\$ 0.02335
TFX5 (Discount)	112486	1,800	5	\$ 10.0320	=	\$ 90,288	\$ 0.00042
TFX12 (Discount)	111866	1,283	12	\$ 4.8640	=	\$ 74,886	\$ 0.00035
TFX12 (Discount)	111866	8,271	12	\$ 5.4720	=	\$ 543,107	\$ 0.00253
TFX12 (Discount)	111866	11,921	12	\$ 7.6025	=	\$ 1,087,553	\$ 0.00506
TFX5 (Discount)	111866	379	5	\$ 4.8640	=	\$ 9,217	\$ 0.00004
TFX5 (Discount)	111866	2,445	5	\$ 5.4720	=	\$ 66,895	\$ 0.00031
TFX5 (Discount)	111866	22,189	5	\$ 15.1392	=	\$ 1,679,619	\$ 0.00781
TFX5 (Max Rate)	127852	30,000	5	\$ 15.1530	=	\$ 2,272,950	\$ 0.01057
Bison	FT0003	50,000	12	\$ 17.4896	=	\$ 10,493,750	\$ 0.04880
NBPL	T8673F	50,000	12	\$ 6.9958	=	\$ 4,197,500	\$ 0.01952
Windom	118657	2,500	12	\$ -	=	\$ 0	\$ -
Ortonville		910	12	\$ 8.0000	=	\$ 87,360	\$ 0.00041
NNG Zone GDD Call Option		0	3	\$ -	=	\$ 0	\$ -
Total Demand Cost						\$36,550,362	\$ 0.16999
Rate Case volume as approved in Docket No. G0011/MR-13-732 in therms						215,014,955	
GS-1 Demand Current Cost of Gas/Ccf						\$ 0.16999	
GS-1 Commodity Current Cost of Gas/Ccf						\$ 0.43034	
Total GS-1 Current Cost of Gas/Ccf						\$ 0.60033	

B. GS-1, SVI, LVI, SJ-1, LJ-1, SLV-Commodity							
	Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Contract Costs	Rate (\$/therm)	
						Contract Costs	Rate (\$/therm)
FDD: FDD - Reservation	118657	75,437	12 \$ 1.7140	=	\$ 1,551,588	\$ 0.00662	
FDD - Storage Cycle	118657	869,864	5 \$ 0.3567	=	\$ 1,551,402	\$ 0.00662	
FDD - Reservation	118657	5,550	12 \$ 3.3157	=	\$ 220,826	\$ 0.00094	
FDD - Storage Cycle	118657	64,000	5 \$ 0.6901	=	\$ 220,832	\$ 0.00094	
FDD - Reservation	125915	2,602	12 \$ 1.7140	=	\$ 53,518	\$ 0.00023	
FDD - Storage Cycle	125915	30,000	5 \$ 0.3567	=	\$ 53,505	\$ 0.00023	
FDD - Reservation	125916	11,274	12 \$ 1.7140	=	\$ 231,884	\$ 0.00099	
FDD - Storage Cycle	125916	130,000	5 \$ 0.3567	=	\$ 231,855	\$ 0.00099	
Firm Deferred Delivery Storage Contracts					\$ 4,115,410	\$ 0.01755	
	Annual Sales (Dth)		Rate (\$/Dth)	Commodity Cost	Rate Case Sales (therm)	Rate (\$/therm)	
CD-1 Commodity	23,444,203	x	\$ 4.0451	\$ 94,834,144	234,442,025	\$ 0.40451	
SMS-Bal Service	272,160	x	\$ 2.1800	\$ 593,309	234,442,025	\$ 0.00253	
Call Option Premium				\$ 1,348,434	234,442,025	\$ 0.00575	
GS-1, SVI-1, SJ-1, LJ-1, SLV Commodity Current Cost of Gas/therm				\$ 100,891,296	234,442,025	\$ 0.43034	

* Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand charges will be allocated through the commodity charge effective 11/1/2014.

MINNESOTA ENERGY RESOURCES - NNG**RATE IMPACT OF THE PROPOSED DEMAND CHANGE**

Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs

NOVEMBER 1, 2014

NNG

COSTS ASSIGNED IN JOINT RATE:							
	<u>Units</u>	<u>Contract #</u>	<u>Month</u>	<u>Cost/Unit</u>		<u>Cost</u>	<u>\$/Ccf</u>
TF12B (Max Rate) Winter	49,819	112495	5	\$10.2300	=	\$2,548,242	\$0.12059
TF12B (Max Rate) Summer	49,056	112495	7	\$5.6830	=	\$1,951,497	\$0.09235
TF12V (Max Rate)	21,060	112495	12	\$9.0926	=	\$2,297,882	\$0.10875
TF5 (Max Rate)	31,515	112495	5	\$15.1530	=	\$2,387,734	\$0.11300
TF12B (Discount-Winter)	5,200	112495	12	\$7.4951	=	\$467,694	\$0.02213
TFX5 (Discount)	0	112561	5	\$0.0000	=	\$0	\$0.00000
TFX12 (Max Rate)	10,822	112486	12	\$9.6288	=	\$1,250,434	\$0.05918
TFX Apr (Max Rate)	2,000	112486	1	\$5.6830	=	\$11,366	\$0.00054
TFX Oct (Max Rate)	2,000	112486	1	\$5.6830	=	\$11,366	\$0.00054
TFX5 (Max Rate)	66,271	112486	5	\$15.1530	=	\$5,021,022	\$0.23762
TFX5 (Discount)	1,800	112486	5	\$10.0320	=	\$90,288	\$0.00427
TFX12 (Discount)	1,283	111866	12	\$4.8640	=	\$74,886	\$0.00354
TFX12 (Discount)	8,271	111866	12	\$5.4720	=	\$543,107	\$0.02570
TFX12 (Discount)	11,921	111866	12	\$7.6025	=	\$1,087,553	\$0.05147
TFX5 (Discount)	379	111866	5	\$4.8640	=	\$9,217	\$0.00044
TFX5 (Discount)	2,445	111866	5	\$5.4720	=	\$66,895	\$0.00317
TFX5 (Discount)	22,189	111866	5	\$15.1392	=	\$1,679,619	\$0.07949
TFX5 (Max Rate)	30,000	127852	5	\$15.1530	=	\$2,272,950	\$0.10757
Bison	50,000	FT0003	12	\$17.4896	=	\$10,493,750	\$0.49661
NBPL	50,000	T8673F	12	\$6.9958		\$4,197,500	\$0.19864
Windom	2,500	118657	12	\$0.0000	=	\$0	\$0.00000
Ortonville	910		12	\$8.0000	=	\$87,360	\$0.00413
				TOTAL		\$36,550,362	
				Annualized Entitlement		21,130,860	
				Demand Component		\$1.72971	\$1.72971

MINNESOTA ENERGY RESOURCES - NNG

NNG Entitlement Allocation Heating Season 2014-2015

	Total Entitlement Levels	Total
1 Design Day	260,907	260,907
2 Customer Requirements moving to Transport	-	-
3 Adjusted Design Day	261,002	261,002
	100.00%	100.00%
5 Total Design Day Capacity	265,475	265,475
6 Less: Windom	(2,500)	(2,500)
7 Less: Northwestern Energy	(910)	(910)
8 Less: LS Power	0	-
9 Less: Chisago Delivery to Viking	0	-
10 Less: Contract Demand Units	(95)	(95)
	261,970	261,970
Direct Assigned Entitlement		
11 TF12B (112495)	55,019	55,019
12 TF12V (112495)	21,060	21,060
13 TF5 (112495)	31,515	31,515
14 TFX12 (112486)	10,822	10,822
15 TFX April Only (112486)	2,000	2,000
16 TFX October Only (112486)	2,000	2,000
17 TFX5 (112486)	68,071	68,071
18 TFX12 (111866)	21,475	21,475
19 TFX5 (111866)	25,013	25,013
20 TFX5 (112561)	0	-
21 TFX5 (127852)	30,000	30,000
22 Bison (FT 0003) *	50,000	50,000
23 NBPL (T6873F) *	50,000	50,000
24 Total Winter Allocated Entitlement	262,975	262,975
25 Northwest Gas (Windom)	2,500	2,500
26 Northwestern Energy (Ortonville)	910	910
27 NNG Zone Delivery Call Option	0	-
28 LS Power	0	-
29 Total Design Day Capacity	266,385	266,385
30 Contract Demand	-	-
31 Total Design Day Capacity	266,385	266,385
		100.00%
32 <u>Storage</u>		
33 Storage MSQ - 118657	4,669,321	4,669,321
34 Storage MSQ -125915	150,000	150,000
35 Storage MSQ - 125916	650,000	650,000
36 SMS	22,680	22,680
37 Total Entitlement	266,385	266,385
38 Design Day	261,002	261,002
39 Reserve Margin	5,383	5,383
	2.06%	2.06%

* Bison/NBPL does not add incremental capacity but is utilized to deliver Rockies supply to NNG.
Volume is not included in Total Design Day capacity.

MINNESOTA ENERGY RESOURCES - NNG

CALCULATION OF DESIGN DAY REQUIREMENTS

2014-2015

<u>State</u>	<u>1/20 Design DDD</u>	<u>13/14 Customer Counts*</u>	<u>Regression Factors Intercept</u>	<u>Slope</u>	<u>Regression Total</u>	<u>Adjustment Total *</u>	<u>1/20 Requirements Regression Load</u>	<u>Nov13-Mar14 Customer Growth</u>	<u>Total</u>
MERC - Peak Day									
NNG	98	178,388	31,490	2,359	303,606	44,255	259,351	0.60%	260,907
TOTAL	98	178,388	31,490	2,359	303,606	44,255	259,351		260,907
MERC - Non-Peak Day									
NNG	55	178,388	31,490	2,359	189,027	28,518	160,509	0.60%	161,472
TOTAL	55	178,388	31,490	2,359	189,027	28,518	160,509		161,472

* Adjustment to remove interruptible and transportation volumes and add adjustment to achieve 97.5% confidence level that actual demand under design conditions will not exceed estimate.

Attachment 7

MINNESOTA ENERGY RESOURCES-PNG/NMU CAPACITY RESOURCE ANALYSIS

2014-2015 VS. 2013-2014

	2014-2015 Proposed		2013-2014		Difference	
	NNG	NNG	NNG	NNG	Winter	Total
	Winter	Total	Winter	Total	Winter	Total
TF12(base)	55,019	55,019	49,153	49,153	5,866	5,866
TF12(variable)	21,060	21,060	26,926	26,926	(5,866)	(5,866)
TF12	76,079	76,079	76,079	76,079	-	-
Peak Capacity	-	-	-	-	-	-
TF5	31,515	31,515	31,515	31,515	-	-
TF Total	107,594	107,594	107,594	107,594	-	-
TFX12	32,297	32,297	32,297	32,297	-	-
TFX5	123,084	123,084	93,084	93,084	30,000	30,000
TFX Total	155,381	155,381	125,381	125,381	30,000	30,000
NNG Total	262,975	262,975	232,975	232,975	30,000	30,000
Bison	50,000	50,000	50,000	50,000	-	-
NBPL	50,000	50,000	50,000	50,000	-	-
Windom	2,500	2,500	2,500	2,500	-	-
Ortonville	910	910	910	910	-	-
NNG Zone GDD Call Option	-	-	20,000	20,000	(20,000)	(20,000)
Total	266,385	266,385	256,385	256,385	10,000	10,000
	NNG-Total					
	EF					
Design Day	261,002					
Capacity	266,385					
Reserve Margin	5,383					
	2.06%					

MINNESOTA ENERGY RESOURCES - NNG

Financial Options Heating Season 2014-2015

Units - Gas Daily Peaker Packages (Physical)

November		December		January		February		March		Daily Total	Term Total
Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume		
N/A		N/A		N/A		N/A		N/A		-	-

Premium - Gas Daily Peaker (Monthly Cost)

November		December		January		February		March		Total	
Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost
N/A		N/A		N/A		N/A		N/A			

Units - Futures (Daily Volume)

November		December		January		February		March		Daily Total	Term Total	
Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume			
1	06/25/14	2,718	06/16/14	114	06/11/14	224	06/30/14	1,272	06/20/14	1,243	5,572	166,187
2	07/25/14	2,966	06/16/14	228	06/11/14	1,567	07/30/14	1,484	06/20/14	1,243	7,488	224,700
3	08/22/14	2,966	07/16/14	455	07/10/14	448	08/28/14	636	06/20/14	1,243	5,748	173,315
4	09/24/14	2,966	08/13/14	455	07/10/14	2,014	08/28/14	848	06/20/14	1,243	7,527	227,824
5	10/01/14	2,718	09/11/14	342	08/07/14	2,238	09/29/14	1,272	07/21/14	4,973	11,544	351,319
6			10/09/14	342	09/04/14	2,238	10/23/14	1,272	08/18/14	249	4,101	123,309
7					10/08/14	2,238			08/18/14	4,476	6,714	208,138
8									09/18/14	4,724	4,724	146,458
9									10/20/14	4,476	4,476	138,750
10												
Total		14,333		1,935		10,968		6,786		23,871		1,760,000
		430,000		60,000		340,000		190,000		740,000		1,760,000
		580,000		170,000		490,000		320,000		960,000		2,520,000

Units - Call Options (Daily Volume)

November		December		January		February		March		Daily Total	Term Total	
Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume			
1	06/13/14	4,584	06/27/14	6,452	06/23/14	7,867	06/18/14	8,156	06/10/14	5,935	32,994	993,768
2	07/14/14	4,584	07/28/14	6,710	07/24/14	8,129	07/18/14	8,156	07/08/14	6,194	33,773	1,017,897
3	08/11/14	4,584	08/26/14	6,710	08/20/14	8,129	08/15/14	8,156	08/05/14	6,194	33,773	1,017,897
4	09/09/14	5,124	09/26/14	6,710	09/22/14	8,129	09/16/14	8,156	09/02/14	6,194	34,312	1,034,077
5	10/06/14	5,124	10/22/14	6,968	10/21/14	8,391	10/10/14	8,447	10/07/14	6,452	35,382	1,066,362
6												
7												
Total		24,000		33,548		40,645		41,071		30,968		5,130,000
		720,000		1,040,000		1,260,000		1,150,000		960,000		5,130,000
		890,000		1,300,000		1,550,000		1,410,000		1,200,000		6,350,000

Premium - Call Option (Monthly Cost)

November		December		January		February		March		Total		
Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	
1	\$ 0.2380	\$ 32,732	\$ 0.3100	\$62,000	\$ 0.3450	\$84,135	\$ 0.3750	\$85,638	\$ 0.3960	\$ 72,864	\$ 0.3395	\$ 337,369
2	\$ 0.2220	\$ 30,531	\$ 0.2230	\$46,384	\$ 0.2370	\$59,724	\$ 0.3050	\$69,652	\$ 0.4110	\$ 78,912	\$ 0.2802	\$ 285,204
3	\$ 0.1350	\$ 18,566	\$ 0.2010	\$41,808	\$ 0.2420	\$60,984	\$ 0.2640	\$60,289	\$ 0.3030	\$ 58,176	\$ 0.2356	\$ 239,824
4	\$ 0.0880	\$ 13,526	\$ 0.1660	\$34,528	\$ 0.2160	\$54,432	\$ 0.3350	\$76,504	\$ 0.2940	\$ 56,448	\$ 0.2277	\$ 235,438
5	\$ 0.0780	\$ 11,989	\$ 0.1640	\$35,424	\$ 0.2080	\$54,107	\$ 0.2650	\$62,679	\$ 0.4320	\$ 86,400	\$ 0.2277	\$ 250,599
6												
7												
Total	\$ 0.1491	\$ 107,345	\$ 0.2117	\$ 220,144	\$ 0.2487	\$ 313,382	\$ 0.3085	\$ 354,763	\$ 0.3675	\$ 352,800	\$ 0.2629	\$ 1,348,434
		\$ 132,690		\$ 275,180		\$ 385,510		\$ 434,970		\$ 441,000		\$ 1,669,350

Units - Collar Floor (put)

No Puts were purchased.

14/15 Winter Portfolio Plan - MERC NNG Consolidated Hedging Plan

10,000 Contract Size

REVISED: 7/1/2014

System	Purchase Month	Nov-14		Dec-14		Jan-15		Feb-15		Mar-15		Total		Percent of Requirements
		Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	
MN Requirements			2,404,840		3,483,485		4,187,889		3,826,379		3,177,443		17,080,036	17,080,036
NNG -MN			80,161		112,370		135,093		136,656		102,498		113,113	
70%			1,683,388		2,438,440		2,931,522		2,678,465		2,224,210		11,956,025	
40%			961,936		1,393,394		1,675,156		1,530,552		1,270,977		6,832,014	
			<u>533,259</u>		<u>1,339,984</u>		<u>1,339,984</u>		<u>1,339,984</u>		<u>533,259</u>		<u>5,086,470</u>	
			428,677		53,410		335,172		190,568		737,718		1,745,544	
			721,452	0	1,045,046	0	1,256,367	0	1,147,914	0	953,233		5,124,011	
Contracts	Feb-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-14	0	0	0	0	0	0	0	0	0	0	0	0	
	May-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jun-14	8	80,000	0	0	5	50,000	3	30,000	15	150,000	31	310,000	
	Jul-14	9	90,000	2	20,000	8	80,000	4	40,000	15	150,000	38	380,000	
	Aug-14	9	90,000	2	20,000	7	70,000	4	40,000	15	150,000	37	370,000	
	Sep-14	9	90,000	1	10,000	7	70,000	4	40,000	15	150,000	36	360,000	
	Oct-14	8	80,000	1	10,000	7	70,000	4	40,000	14	140,000	34	340,000	
	Total	43	430,000	6	60,000	34	340,000	19	190,000	74	740,000	176	1,760,000	10.30%
Call Options	Feb-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-14	0	0	0	0	0	0	0	0	0	0	0	0	
	May-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jun-14	14	140,000	20	200,000	25	250,000	23	230,000	19	190,000	101	1,010,000	
	Jul-14	14	140,000	21	210,000	25	250,000	23	230,000	19	190,000	102	1,020,000	
	Aug-14	14	140,000	21	210,000	25	250,000	23	230,000	19	190,000	102	1,020,000	
	Sep-14	15	150,000	21	210,000	25	250,000	23	230,000	19	190,000	103	1,030,000	
	Oct-14	15	150,000	21	210,000	26	260,000	23	230,000	20	200,000	105	1,050,000	
	Total	72	720,000	104	1,040,000	126	1,260,000	115	1,150,000	96	960,000	513	5,130,000	30.04%
Collars	Feb-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Aug-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Sep-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Oct-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Index (back financial)	May-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jun-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jul-14	9,584	287,520	8,871	275,001	12,904	400,024	11,965	335,020	13,709	424,979	57,033	1,722,544	
	Aug-14	9,584	287,520	8,871	275,001	12,903	399,993	11,964	334,992	13,710	425,010	57,032	1,722,516	
	Sep-14	9,583	287,490	8,871	275,001	12,903	399,993	11,964	334,992	13,710	425,010	57,031	1,722,486	
	Oct-14	9,583	287,490	8,871	275,001	12,903	399,993	11,964	334,992	13,710	425,010	57,031	1,722,486	
	Total		1,150,020		1,100,004		1,600,003		1,339,996		1,700,009		6,890,032	40.34%
Physical Hedges			0		0		0		0		0		0	
Storage			533,259		1,339,984		1,339,984		1,339,984		533,259		5,086,470	29.78%
Prepaid Obl			0		0		0		0		0		0	0.00%
			70.00%		70.04%		70.20%		70.04%		70.29%		70.12%	
Term Index		0	0	0	0	0	0	0	0	0	0	0	0	0.00%
		0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Total NNG MN													1,760,000	10.30%
Fixed Price													5,130,000	30.04%
Call Options													0	0.00%
Costing Collar													5,086,470	29.78%
Storage													0	0.00%
Prepaid Obl													0	0.00%
Term Index													0	0.00%
Month/Daily													5,103,566	29.88%
Total													17,080,036	100.00%

MINNESOTA ENERGY RESOURCES

**NNG WINTER PLAN
NOVEMBER, 2014 THROUGH MARCH, 2015**

<u>PHYSICAL FIXED PRICE HEDGES</u>	<u>Deal #</u>	<u>Trigger Locked</u>	<u>Trigger Exercised</u>	<u>Receipt Point</u>	<u>Daily Volumes</u>					<u>Monthly Total</u>
					<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	
No Physical Fixed Price Hedges										-
Total Actual Fixed/Option Physical					-	-	-	-	-	-

<u>INDEX</u>	<u>Contract</u>			<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Total</u>
	<u>Number</u>	<u>Date</u>	<u>Receipt Point</u>						
Index - Back Financial Options	16238	09.04.14	NBPL Stateline	590	-	10,000	10,000	10,000	917,700
Index - Back Financial Options	2946	1/11/2011	NNG Welcome	8,957	8,957	8,957	8,957	8,957	1,352,507
Index - Back Financial Options	16443	9/11/2014	NNG Welcome	7,740	5,480	7,740	7,740	7,740	1,098,680
Index - Back Financial Options	2946	1/11/2011	NNG Aberdeen	3,244	3,244	3,244	3,244	3,244	489,844
Index - Back Financial Options	16162	8/28/2014	NNG Beatrice	5,623	5,623	5,623	5,623	5,623	849,073
Index - Back Financial Options	2946	1/11/2011	NNG Marshall	12,180	12,180	12,180	12,180	12,180	1,839,180
Index - Back Financial Options	TBD	TBD	NNG Ventura	-		3,869	113	7,095	343,048
Total Actual Seasonal Index				38,334	35,484	51,613	47,857	54,839	6,890,032

GAS DAILY PACKAGES
N/A -

<u>STORAGE</u>	<u>Contract #</u>	<u>Contract #</u>	<u>Contract #</u>	<u>Total Volume Injected</u>
	<u>118657</u>	<u>125915</u>	<u>125916</u>	
<u>Injection Month</u>	<u>Volume Injected</u>	<u>Volume Injected</u>	<u>Volume Injected</u>	
May - balance forward	79,831	0	0	79,831
June	817,150	29,760	127,770	974,680
July	899,736	30,039	131,378	1,061,153
August	1,034,097	30,070	131,688	1,195,855
Sept	893,700	29,160	127,440	1,050,300
Oct (est)	944,807	30,971	131,724	1,107,502
Total	4,669,321	150,000	650,000	5,469,321

MINNESOTA ENERGY RESOURCES - NNG

	M-10- Peoples Mn GS	M-11- Peoples Mn GS	M-12- Peoples Mn GS	M-13- Peoples Mn GS	M-14- Peoples Mn GS	Proposed Change
Design Day	194,598	211,182	200,785	245,878	261,002	15,124
Customer Requirements moving to Transportation 2005-6						
Adjusted Design Day						
Design Day Percentages	35.92%	33.31%	38.29%	28.43%	28.07%	-0.36%
Total Design Day Capacity (includes non-recallable capacity)	233,627	221,436	208,007	256,385	266,385	10,000
Less: Windom	2,500	2,500	2,500	2,500	2,500	0
Less: Northwestern Energy	0	910	910	910	910	0
Less: LS Power	25,951	0	0	0	0	0
Less: TF12B	0	0	0	0	0	0
Less: TF5						
Less: TFX(5)						
Total Design Day Capacity	205,176	218,026	204,597	252,975	262,975	10,000
Factors for All Winter Capacity	100.00%	100.00%	100.00%	100.00%	100.00%	
<u>Allocated Entitlements in PGA</u>						
TF12B	34,875	42,396	41,156			0
TF12V	32,290	25,298	25,820			0
TF5	28,785	29,011	28,704			0
TFX12	28,802	29,029	28,721			0
TFX(5)	80,424	81,057	80,197			0
TFX(5) (12-V)	0	0	0			0
TFX (October Only)	1,784	1,798	1,779			0
TFX (April Only)	1,784	1,798	1,779			0
NNG Zone Delivery Call Option	0	11,235	0			0
LS Power	25,951	0	0			0
Bison *	44,589	44,940	44,463			0
NBPL *	44,589	44,940	44,463			0
Peak Capacity	231,127	218,026	205,508			0
Total Allocated Entitlements in PGA	323,873	311,502	297,082	0	0	0
* Bison/NBPL does not add incremental capacity but is utilized to deliver Rockies supply to NNG. Volume is not included in Peak Capacity.						
<u>Direct Assigned Entitlements in PGA</u>						
TF12B				49,153	55,019	5,866
TF12V				26,926	21,060	(5,866)
TF5				31,515	31,515	0
TFX12				32,297	32,297	0
TFX(5)				93,084	123,084	30,000
TFX(5) (12-V)						0
TFX (October Only)				2,000	2,000	0
TFX (April Only)				2,000	2,000	0
Windom	2,500	2,500	2,500	2,500	2,500	0
Northwestern Energy	0	910	910	910	910	0
NNG Zone Delivery Call Option				20,000	0	(20,000)
LS Power	0	0	0	0	0	0
Bison *				50,000	50,000	0
NBPL *				50,000	50,000	0
TFX (October Only)	0	0	0	0	0	0
TFX (April Only)	0	0	0	0	0	0
TFX(5)	0	0	0	0	0	0
TFX(7)	0	0	0	0	0	0
TFX(5)	0	0	0	0	0	0
Total Direct Assignments	2,500	3,410	3,410	256,385	266,385	(10,000)
Total Capacity before Peak Shaving	233,627	221,436	208,918	256,385	266,385	10,000
LP Peak Shaving	0	0	0			0
Total Design Day Capacity	233,627	221,436	208,918	256,385	266,385	10,000
Total Transp. (with TFX Offpeak less LSP)	207,676	221,436	208,918	256,385	266,385	10,000
Total Annual Transportation	98,467	100,133	99,107	111,786	111,786	0
Total Seasonal Transportation	135,160	110,068	108,901	144,599	154,599	10,000
Total Percent Seasonal	57.9%	49.7%	52.1%	56.4%	58.0%	1.6%
LS Power as % of Total DD Capacity	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Reserve Margin	20.06%	4.86%	4.05%	4.27%	2.06%	-2.2%
<u>Direct Assigned Demand Not in PGA</u>						
TF-12-B Contract Demand	0	0	0	0	0	0
Total Design Day Capacity w/ contract demand	233,627	221,436	208,007	256,385	266,385	10,000
Factors	35.92%	33.31%	38.29%	28.43%	28.07%	-0.36%
<u>Other Entitlements not included in Peak Day Deliverability</u>						
Field TF (TFF) (NMU direct assigned)	0	0	0	0	0	0
TFX Offpeak Old Oct. (60,000)	0	0	0	0	0	0
TFX Offpeak Old Oct. (35,000)	0	0	0	0	0	0
TFX Offpeak New Oct. (14,600)	0	0	0	0	0	0
TFX Offpeak New Apr. (39,600)	0	0	0	0	0	0
TFX Oct	1,784	1,798	1,779	2,000	2,000	0
TFX Apr	1,784	1,798	1,779	2,000	2,000	0
TFX Apr-Oct	0	0	0	0	0	0
TFX May-Sept	0	0	0	0	0	0
FDD Storage reservation	78,409	84,483	86,671	97,463	94,863	-2,600
FDD Storage capacity	4,520,719	4,870,885	4,997,056	5,619,321	5,469,321	-150,000
Nexen PSO	0	0	0	0	0	0
Tenaska PSO New	0	0	0	0	0	0
NGPL	0	0	0	0	0	0
SMS	20,226	20,385	20,168	22,680	22,680	0
SBA	0	0	0	0	0	0

MINNESOTA ENERGY RESOURCES - NNG

Rate Impacts (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)
NNG

1) General Service Residential: Avg. Annual Use: 93 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$1.7955	\$1.6968	\$1.7177	\$1.7822	\$1.6999	-5.32%	-1.04%	-4.62%	(\$0.0823)
Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	0.00%	12.84%	0.00%	\$0.0000
Total Recovery	\$8.5880	\$7.5547	\$7.7406	\$8.1710	\$8.2324	-4.14%	6.35%	0.75%	\$0.0614
Avg. Annual Bill	\$798.68	\$702.59	\$719.88	\$759.90	\$765.61	-4.14%	6.35%	0.75%	\$5.71
Effect of proposed commodity change on average annual bills:									\$13.36
Effect of proposed demand change on average annual bills:									(\$7.65)
2) Small Volume Interruptible: Avg. Annual Use: 6,699 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	0.00%	12.84%	0.00%	\$0.0000
Margin	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	-4.51%	7.68%	2.68%	\$0.1437
Total Recovery	\$8.5880	\$7.5547	\$7.7406	\$8.1710	\$8.2324	-4.14%	6.35%	0.75%	\$0.0614
Avg. Annual Bill	\$38,619.07	\$33,141.29	\$34,246.63	\$35,914.68	\$36,877.09	-4.51%	7.68%	2.68%	\$962.41
Effect of proposed commodity change on average annual bills:									\$962.41
Effect of proposed demand change on average annual bills:									\$0.00
3) Large Volume Interruptible: Avg. Annual Use: 42,000 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$1.2014	198.41%	236.72%	198.41%	\$0.7988
Margin	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$5.5049	10.85%	24.99%	20.66%	\$0.9425
Total Recovery	\$208,576.20	\$178,050.60	\$184,980.60	\$191,620.80	\$231,204.31	10.85%	24.99%	20.66%	\$39,583.51
Avg. Annual Bill	\$208,576.20	\$178,050.60	\$184,980.60	\$191,620.80	\$231,204.31	10.85%	24.99%	20.66%	\$39,583.51
Effect of proposed commodity change on average annual bills:									\$6,033.91
Effect of proposed demand change on average annual bills:									\$0.00
4) Small Volume Firm: Avg. Annual Use: 6,699 Dth Avg. Annual CD Volumes: 25 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	-8.38%	-8.38%	-8.44%	(\$1.5940)
Comm. Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	0.00%	12.84%	0.00%	\$0.0000
SV Dem. Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	0.00%	12.84%	0.00%	\$0.0000
Total Commodity Cost	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	-4.51%	7.68%	2.68%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	-7.37%	-6.08%	-7.42%	(\$1.5940)
Avg. Annual Bill	\$39,155.94	\$33,684.14	\$34,776.12	\$36,451.84	\$37,374.40	-4.55%	7.47%	2.53%	\$922.56
Effect of proposed commodity change on average annual bills:									\$962.41
Effect of proposed demand change on average annual bills:									(\$39.85)
5) Large Volume Firm: Avg. Annual Use: 42,000 Dth Avg. Annual CD Units: 75 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	-8.38%	-8.38%	-8.44%	(\$1.5940)
Comm. Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	0.00%	12.84%	0.00%	\$0.0000
LV Dem. Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	0.00%	12.84%	0.00%	\$0.0000
Total Commodity Cost	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$4.7061	-5.24%	6.85%	3.15%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	-7.37%	-6.08%	-7.42%	(\$1.5940)
Avg. Annual Bill	\$210,186.82	\$179,679.15	\$186,569.07	\$193,232.28	\$199,146.65	-5.25%	6.74%	3.06%	\$5,914.37
Effect of proposed commodity change on average annual bills:									\$6,033.91
Effect of proposed demand change on average annual bills:									(\$119.55)

* Average Annual Bill amount does not include customer charges.

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	\$0.1437	3.45%	14.37%	(\$0.0823)	-4.62%	0.0614	0.75%
Sm Vol Inter. Service	\$0.1437	3.45%	14.37%	\$0.0000	0.00%	0.1437	2.68%
Lrg Vol Inter. Service	\$0.1437	3.45%	14.37%	\$0.0000	0.00%	0.9425	20.66%
Sm Vol Joint Service	\$0.1437	3.45%	14.37%	(\$1.5940)	-8.44%	0.1437	***
Lrg Vol Joint Service	\$0.1437	3.45%	14.37%	(\$1.5940)	-8.44%	0.1437	***

*** Joint total change includes only commodity change since not all joint customers purchase CD units.

MINNESOTA ENERGY RESOURCES - NNG

Change in Costs due to November 1, 2014 Change in Entitlement Levels and Related Demand Costs

NNG									
Contract	Oct-14 PGA	Nov-14 Entitlement	Entitlement Change	Months	Nov-14 Rate/MCF	Oct-14 Total Cost	Entitlement Total Cost	Entitlement Change	
TF12B (Max Rate) Winter	112495	43,953	49,819	5,866	5	\$10.2300	\$2,248,196	\$2,548,242	\$300,046
TF12B (Max Rate) Summer	112495	43,190	49,056	5,866	7	\$5.6830	\$1,718,141	\$1,951,497	\$233,356
TF12V (Max Rate)	112495	26,926	21,060	(5,866)	12	\$9.0926	\$2,937,928	\$2,297,882	(\$640,046)
TF5 (Max Rate)	112495	31,515	31,515	0	5	\$15.1530	\$2,387,734	\$2,387,734	(\$0)
TF12B (Discount-Winter)	112495	5,200	5,200	0	12	\$7.4951	\$467,694	\$467,694	\$0
TFX5 (Discount)	112561	6,000	0	(6,000)	5	\$0.0000	\$136,800	\$0	(\$136,800)
TFX12 (Max Rate)	112486	10,822	10,822	0	12	\$9.6288	\$1,250,434	\$1,250,434	\$0
TFX Apr (Max Rate)	112486	2,000	2,000	0	1	\$5.6830	\$11,366	\$11,366	\$0
TFX Oct (Max Rate)	112486	2,000	2,000	0	1	\$5.6830	\$11,366	\$11,366	\$0
TFX5 (Max Rate)	112486	60,271	66,271	6,000	5	\$15.1530	\$4,566,432	\$5,021,022	\$454,590
TFX5 (Discount)	112486	1,800	1,800	0	5	\$10.0320	\$68,400	\$90,288	\$21,888
TFX12 (Discount)	111866	1,283	1,283	0	12	\$4.8640	\$74,886	\$74,886	\$0
TFX12 (Discount)	111866	8,271	8,271	0	12	\$5.4720	\$543,107	\$543,107	(\$0)
TFX12 (Discount)	111866	11,921	11,921	0	12	\$7.6025	\$1,087,553	\$1,087,553	(\$0)
TFX5 (Discount)	111866	379	379	0	5	\$4.8640	\$9,217	\$9,217	\$0
TFX5 (Discount)	111866	2,445	2,445	0	5	\$5.4720	\$66,895	\$66,895	\$0
TFX5 (Discount)	111866	22,189	22,189	0	5	\$15.1392	\$1,679,619	\$1,679,619	(\$0)
TFX5 (Max Rate)	127852	0	30,000	30,000	5	\$15.1530	\$0	\$2,272,950	\$2,272,950
Bison	FT0003	50,000	50,000	0	12	\$17.4896	\$10,493,760	\$10,493,750	(\$10)
NBPL	T8673F	50,000	50,000	0	12	\$6.9958	\$4,197,480	\$4,197,500	\$20
WINDOM	118657	2,500	2,500	0	12	\$0.0000	\$0	\$0	\$0
Northwestern Energy		910	910	0	12	\$8.0000	\$87,360	\$87,360	\$0
NNG Zone GDD Call Option		20,000	0	(20,000)	3	\$0.0000	\$54,000	\$0	(\$54,000)
Total Demand Cost							\$34,098,368	\$36,550,362	\$2,451,994
Costs Assigned In Commodity:									
<u>Upstream</u>								\$0	\$0
<u>Surcharges:</u>								\$0	\$0
<u>Storage (FDD)</u>								\$0	\$0
Storage Reservation	118657	75,437	75,437	0	12	\$ 1.7140	\$1,551,588	\$1,551,588	\$0
Storage Storage Cycle	118657	869,864	869,864	0	5	\$ 0.3567	\$1,551,402	\$1,551,402	\$0
Storage Reservation	118657	5,550	5,550	0	12	\$ 3.3157	\$220,826	\$220,826	(\$0)
Storage Storage Cycle	118657	64,000	64,000	0	5	\$ 0.6901	\$220,832	\$220,832	\$0
Storage Reservation	125915	13,009	2,602	(10,407)	12	\$ 1.7140	\$267,549	\$53,518	(\$214,031)
Storage Storage Cycle	125915	150,000	30,000	(120,000)	5	\$ 0.3567	\$267,525	\$53,505	(\$214,020)
Storage Reservation	125916	3,468	11,274	7,806	12	\$ 1.7140	\$71,330	\$231,884	\$160,554
Storage Storage Cycle	125916	40,000	130,000	90,000	5	\$ 0.3567	\$71,340	\$231,855	\$160,515
SMS_Balancing Service		272,160	272,160	0	1	\$ 2.1800	\$593,309	\$593,309	(\$0)
Producer Demand Payments/Option Premium							\$1,269,879	\$1,348,434	\$78,555
Total Commodity Costs							\$6,085,581	\$6,057,152	(\$28,428)

MINNESOTA ENERGY RESOURCES - NNG

Daily Total Throughput Data - July 1, 2013 through June 30, 2014

NNG

Base	41,361
Variable	2,341

Date	12.04%	28.20%	47.24%	12.52%	100.00%	Actual	Estimated
	Cloquet Adjusted HDD	Minneapolis Adjusted HDD	Rochester Adjusted HDD	Worthington Adjusted HDD	Weighted Adjusted HDD	Total Through- Put *	Through- Put **
7/1/13	4	0	0	0	0	50,494	42,522
7/2/13	2	0	0	0	0	49,986	41,936
7/3/13	0	0	0	0	0	45,362	41,361
7/4/13	0	0	0	0	0	37,892	41,361
7/5/13	0	0	0	0	0	42,393	41,361
7/6/13	5	0	0	0	1	39,459	42,883
7/7/13	1	0	0	0	0	44,996	41,651
7/8/13	1	0	0	0	0	52,003	41,657
7/9/13	0	0	0	0	0	49,286	41,361
7/10/13	0	0	0	0	0	52,536	41,361
7/11/13	0	0	0	0	0	51,561	41,361
7/12/13	0	0	0	0	0	45,400	41,361
7/13/13	0	0	0	0	0	38,769	41,361
7/14/13	0	0	0	0	0	43,076	41,361
7/15/13	0	0	0	0	0	50,907	41,361
7/16/13	0	0	0	0	0	60,710	41,361
7/17/13	0	0	0	0	0	63,035	41,361
7/18/13	0	0	0	0	0	58,928	41,361
7/19/13	4	0	0	0	1	51,847	42,556
7/20/13	6	0	0	0	1	37,692	43,187
7/21/13	0	0	0	0	0	42,140	41,361
7/22/13	4	0	0	0	1	50,762	42,545
7/23/13	5	0	0	1	1	51,676	43,134
7/24/13	0	0	0	0	0	52,292	41,361
7/25/13	11	1	5	0	4	50,465	50,165
7/26/13	17	7	12	9	11	47,195	66,763
7/27/13	9	2	8	10	6	42,411	56,470
7/28/13	6	0	3	5	3	44,081	48,139
7/29/13	0	0	0	0	0	52,512	41,361
7/30/13	0	0	0	1	0	57,396	41,666
7/31/13	0	0	0	0	0	54,470	41,361
8/1/13	3	0	0	0	0	53,062	42,266
8/2/13	6	0	0	5	1	45,603	44,677
8/3/13	6	0	2	4	2	42,470	46,690
8/4/13	1	0	0	0	0	40,920	41,648
8/5/13	1	0	0	0	0	50,499	41,654
8/6/13	5	0	0	0	1	52,285	42,869
8/7/13	3	0	0	0	0	52,753	42,232
8/8/13	8	0	0	1	1	56,898	43,805
8/9/13	2	0	1	1	1	48,154	43,408
8/10/13	3	0	0	0	0	41,956	42,232
8/11/13	5	0	0	0	1	43,303	42,855
8/12/13	8	0	3	0	3	50,787	47,222
8/13/13	7	0	3	2	3	51,494	47,484
8/14/13	3	0	2	3	2	55,399	45,517
8/15/13	0	0	0	7	1	50,708	43,495
8/16/13	0	0	0	2	0	43,348	41,994
8/17/13	0	0	0	0	0	37,087	41,361
8/18/13	0	0	0	0	0	45,236	41,361
8/19/13	0	0	0	0	0	51,818	41,361
8/20/13	0	0	0	0	0	51,712	41,361
8/21/13	0	0	0	0	0	50,062	41,361
8/22/13	1	0	0	0	0	51,602	41,651
8/23/13	0	0	0	0	0	47,374	41,361
8/24/13	0	0	0	0	0	39,972	41,361
8/25/13	0	0	0	0	0	44,225	41,361
8/26/13	0	0	0	0	0	51,305	41,361
8/27/13	0	0	0	0	0	49,798	41,361
8/28/13	0	0	0	0	0	51,870	41,361
8/29/13	0	0	0	0	0	54,405	41,361
8/30/13	0	0	0	0	0	46,048	41,361
8/31/13	2	0	0	0	0	39,408	41,987
9/1/13	11	4	9	4	7	39,784	57,963
9/2/13	7	0	5	4	4	47,644	50,433
9/3/13	6	0	0	0	1	54,040	43,119
9/4/13	7	0	0	0	1	55,983	43,393
9/5/13	0	0	0	0	0	54,327	41,361
9/6/13	0	0	0	0	0	48,291	41,361
9/7/13	5	0	0	0	1	45,163	42,855
9/8/13	3	0	0	0	0	45,642	42,223
9/9/13	0	0	0	0	0	58,803	41,361
9/10/13	1	0	0	0	0	62,275	41,665
9/11/13	12	0	3	0	3	59,864	48,391
9/12/13	15	5	8	7	8	55,170	60,623
9/13/13	10	3	7	5	6	48,760	55,107
9/14/13	20	8	10	3	10	43,909	63,917
9/15/13	18	10	12	13	12	51,015	69,408
9/16/13	13	7	13	9	11	60,142	66,668

MERC

9/17/13	5	0	0	3	1	56,716	43,834
9/18/13	1	0	0	0	0	57,047	41,654
9/19/13	11	8	10	4	9	57,654	62,139
9/20/13	15	10	12	20	12	58,282	70,608
9/21/13	16	4	9	6	8	50,044	60,508
9/22/13	9	1	6	0	4	49,170	50,767
9/23/13	6	1	7	0	4	56,012	51,058
9/24/13	8	1	7	5	5	56,736	53,204
9/25/13	7	0	0	0	1	56,527	43,472
9/26/13	1	0	0	0	0	56,188	41,663
9/27/13	8	4	8	0	6	52,067	55,294
9/28/13	9	2	8	11	7	50,978	57,194
9/29/13	0	0	1	0	1	51,303	42,677
9/30/13	6	0	0	0	1	59,219	42,911
10/1/13	8	3	6	4	5	69,594	53,192
10/2/13	13	8	3	0	5	65,369	53,702
10/3/13	16	9	6	9	8	66,160	60,699
10/4/13	21	12	13	17	14	58,469	74,338
10/5/13	18	18	19	21	19	62,374	85,490
10/6/13	17	10	11	23	13	73,237	71,418
10/7/13	8	1	5	8	4	76,747	51,624
10/8/13	2	0	3	1	2	68,211	46,050
10/9/13	5	0	4	0	3	65,127	47,750
10/10/13	3	0	2	0	2	54,427	44,879
10/11/13	11	15	16	8	14	54,022	74,621
10/12/13	21	15	19	19	18	65,048	83,861
10/13/13	23	18	19	15	19	74,019	85,251
10/14/13	23	17	16	18	17	93,518	81,770
10/15/13	21	18	27	24	23	93,772	96,000
10/16/13	26	15	23	22	21	103,116	90,200
10/17/13	24	22	26	22	24	108,623	97,545
10/18/13	29	24	29	26	28	111,310	106,025
10/19/13	34	27	28	26	28	117,112	107,556
10/20/13	38	34	38	25	35	123,082	123,624
10/21/13	36	32	36	28	34	163,407	121,264
10/22/13	36	32	35	33	34	157,487	121,069
10/23/13	33	29	33	35	32	168,604	116,858
10/24/13	29	23	29	31	28	156,612	106,119
10/25/13	28	25	27	24	26	123,727	102,086
10/26/13	28	21	24	32	25	124,993	99,681
10/27/13	34	28	27	23	28	117,072	106,435
10/28/13	37	31	25	32	29	151,427	109,732
10/29/13	30	24	20	26	23	139,226	94,603
10/30/13	24	20	17	25	20	113,393	88,065
10/31/13	26	25	27	29	27	127,997	103,751
11/1/13	31	25	26	27	26	130,046	102,882
11/2/13	30	24	29	23	27	138,715	104,554
11/3/13	22	18	21	19	20	114,180	87,763
11/4/13	30	26	28	29	28	141,938	106,655
11/5/13	34	29	31	40	32	152,358	116,692
11/6/13	39	33	35	39	35	150,822	124,000
11/7/13	41	36	36	38	37	163,725	127,874
11/8/13	36	30	32	27	31	138,186	115,079
11/9/13	36	30	32	36	32	133,889	117,298
11/10/13	41	36	34	40	36	135,223	125,857
11/11/13	56	50	55	61	55	195,890	169,095
11/12/13	47	45	51	52	49	184,801	155,994
11/13/13	32	27	34	27	31	146,246	113,990
11/14/13	28	24	31	24	28	142,533	106,655
11/15/13	25	20	22	23	22	120,393	92,879
11/16/13	23	22	21	21	21	100,929	91,012
11/17/13	36	33	35	31	34	137,135	121,127
11/18/13	46	38	41	33	40	167,552	134,604
11/19/13	37	32	35	24	33	145,391	118,438
11/20/13	30	27	31	34	30	143,060	111,936
11/21/13	50	46	46	61	48	183,219	154,285
11/22/13	54	50	55	56	54	199,322	166,930
11/23/13	63	55	62	60	60	215,695	181,042
11/24/13	49	48	57	50	53	179,535	164,281
11/25/13	47	41	41	42	42	167,090	139,004
11/26/13	60	54	58	59	57	215,488	175,111
11/27/13	53	49	51	52	51	190,639	160,414
11/28/13	59	46	49	51	49	180,957	157,191
11/29/13	48	43	44	44	44	169,625	144,463
11/30/13	36	35	33	35	34	141,935	121,306
12/1/13	43	36	37	36	37	154,330	128,481
12/2/13	39	33	34	30	34	159,074	120,390
12/3/13	41	35	34	40	36	166,309	125,381
12/4/13	52	52	51	60	53	201,073	164,683
12/5/13	73	70	70	79	71	259,103	208,271
12/6/13	82	75	72	81	75	275,153	217,215
12/7/13	81	71	67	71	70	261,158	205,833
12/8/13	73	65	64	71	66	243,830	196,598
12/9/13	77	68	71	71	71	279,992	206,997
12/10/13	80	68	70	71	71	272,689	207,068
12/11/13	80	68	72	73	72	281,572	210,125
12/12/13	67	54	52	52	54	233,152	168,168
12/13/13	69	57	54	60	58	235,989	176,164
12/14/13	75	63	66	64	66	242,974	195,278

MERC

12/15/13	79	66	66	65	67	250,607	199,375
12/16/13	58	51	53	52	53	228,493	164,719
12/17/13	59	51	55	48	53	222,310	165,739
12/18/13	58	41	41	49	44	193,728	144,371
12/19/13	61	54	52	64	55	225,365	169,946
12/20/13	57	49	49	59	51	215,440	161,236
12/21/13	54	50	51	61	52	205,398	163,513
12/22/13	70	63	68	75	68	241,629	200,467
12/23/13	79	77	81	80	79	285,291	227,444
12/24/13	71	67	70	62	68	235,724	200,574
12/25/13	58	49	52	46	51	200,830	160,399
12/26/13	57	46	46	47	47	193,806	151,954
12/27/13	39	37	40	38	38	161,373	131,474
12/28/13	63	48	50	60	52	183,175	163,968
12/29/13	86	77	78	76	78	275,395	225,128
12/30/13	79	72	75	64	73	281,745	213,032
12/31/13	86	74	75	77	76	278,833	219,476
1/1/14	83	74	75	82	77	277,248	220,836
1/2/14	79	72	78	75	76	288,267	220,135
1/3/14	62	52	58	53	56	232,162	173,002
1/4/14	79	68	70	72	71	256,427	207,358
1/5/14	91	90	95	92	93	300,315	258,242
1/6/14	95	89	94	85	92	310,124	255,593
1/7/14	82	71	73	63	73	295,830	211,469
1/8/14	78	70	77	66	74	297,517	213,785
1/9/14	61	57	61	57	59	238,587	179,986
1/10/14	44	41	41	46	42	181,551	139,779
1/11/14	45	41	45	41	44	174,737	143,403
1/12/14	39	33	35	39	36	152,994	124,551
1/13/14	49	43	42	41	43	182,482	141,841
1/14/14	67	61	67	61	64	234,565	191,996
1/15/14	56	50	58	54	55	219,620	169,879
1/16/14	67	60	60	63	61	251,340	183,892
1/17/14	62	62	66	54	63	235,470	188,286
1/18/14	51	49	56	51	53	194,608	165,362
1/19/14	55	37	41	36	41	168,616	137,552
1/20/14	82	68	68	66	69	267,929	203,742
1/21/14	79	72	75	71	74	275,195	215,192
1/22/14	88	82	84	78	84	305,545	236,900
1/23/14	78	69	78	71	75	290,343	216,053
1/24/14	61	54	57	50	56	213,218	171,564
1/25/14	70	67	64	50	64	230,378	190,859
1/26/14	84	77	81	70	79	246,423	225,283
1/27/14	89	83	89	81	86	277,268	242,860
1/28/14	83	77	82	76	80	271,765	228,407
1/29/14	65	51	60	50	57	217,374	174,560
1/30/14	76	67	64	65	66	258,878	196,320
1/31/14	73	67	71	62	69	256,280	202,297
2/1/14	71	62	67	68	66	243,535	195,691
2/2/14	67	64	70	62	67	248,006	197,845
2/3/14	64	59	60	62	60	249,302	182,646
2/4/14	72	68	68	77	70	266,648	204,470
2/5/14	76	75	80	78	78	290,770	223,487
2/6/14	75	74	79	78	77	284,856	221,769
2/7/14	76	66	70	67	69	261,562	203,161
2/8/14	67	62	65	69	65	244,121	193,637
2/9/14	77	75	79	78	78	276,780	222,919
2/10/14	78	70	79	75	76	296,445	218,740
2/11/14	69	66	73	67	70	260,795	204,977
2/12/14	55	48	54	53	52	225,638	164,263
2/13/14	64	55	58	54	57	247,712	175,842
2/14/14	67	61	69	65	66	244,443	195,713
2/15/14	63	57	60	51	58	223,836	178,132
2/16/14	63	55	60	56	58	208,034	178,087
2/17/14	46	44	47	39	45	199,032	147,187
2/18/14	37	34	40	38	38	165,814	130,059
2/19/14	33	36	39	33	37	153,192	127,584
2/20/14	52	52	53	53	52	196,704	164,167
2/21/14	68	63	65	54	64	228,687	190,352
2/22/14	66	64	68	60	65	222,741	194,583
2/23/14	66	64	71	59	67	232,251	197,636
2/24/14	73	66	72	65	70	259,187	204,117
2/25/14	78	74	81	75	78	289,751	224,283
2/26/14	82	74	79	73	77	291,062	221,614
2/27/14	77	75	80	73	77	288,662	221,748
2/28/14	73	65	66	68	67	262,972	197,832
3/1/14	86	81	82	83	82	290,099	234,099
3/2/14	81	73	81	76	78	287,677	224,741
3/3/14	69	66	69	66	68	268,127	199,482
3/4/14	61	53	55	59	55	225,355	171,267
3/5/14	59	50	58	57	56	212,031	171,740
3/6/14	48	46	50	44	48	191,559	153,134
3/7/14	50	46	41	56	45	188,843	147,723
3/8/14	49	45	52	50	49	169,607	157,060
3/9/14	36	32	39	30	35	137,893	124,242
3/10/14	24	21	28	23	25	117,272	99,636
3/11/14	46	38	41	39	41	167,613	136,863
3/12/14	50	39	48	38	45	183,505	145,795
3/13/14	32	24	31	21	28	130,788	107,338

MERC

3/14/14	45	37	39	33	38	158,184	131,243
3/15/14	59	49	50	49	51	177,122	160,289
3/16/14	46	44	48	47	47	179,674	150,410
3/17/14	42	36	38	31	37	165,660	127,328
3/18/14	41	38	35	38	37	158,642	128,534
3/19/14	46	36	39	34	38	166,001	130,570
3/20/14	33	29	34	28	32	135,837	116,045
3/21/14	54	44	42	44	45	172,277	145,676
3/22/14	64	55	57	53	57	198,578	173,753
3/23/14	60	44	45	46	47	195,002	150,606
3/24/14	59	52	52	51	53	200,270	164,334
3/25/14	59	47	51	50	51	211,232	159,631
3/26/14	40	32	35	30	34	158,730	121,377
3/27/14	45	36	37	42	38	162,980	130,709
3/28/14	46	36	37	45	39	150,573	132,234
3/29/14	32	26	28	32	28	118,070	107,677
3/30/14	24	13	18	11	16	100,127	79,600
3/31/14	45	30	30	29	32	137,588	116,358
4/1/14	46	37	36	41	38	175,169	130,696
4/2/14	36	32	30	38	32	138,246	116,381
4/3/14	39	37	40	40	39	163,682	133,194
4/4/14	36	30	32	38	33	144,608	118,436
4/5/14	23	15	19	31	20	106,202	87,370
4/6/14	26	17	19	17	19	90,062	85,723
4/7/14	30	23	25	21	24	103,963	98,679
4/8/14	24	13	20	26	19	112,266	86,734
4/9/14	25	14	17	9	16	83,843	79,195
4/10/14	20	13	15	16	15	92,638	77,000
4/11/14	31	17	21	8	19	77,622	86,044
4/12/14	35	31	32	12	30	88,614	110,522
4/13/14	47	40	42	45	42	139,985	139,986
4/14/14	46	40	40	46	42	172,196	138,727
4/15/14	44	37	29	38	34	150,964	121,499
4/16/14	36	33	32	36	33	150,497	119,584
4/17/14	39	28	26	33	29	144,168	109,601
4/18/14	28	11	14	18	16	105,337	77,890
4/19/14	19	5	5	6	7	73,894	57,672
4/20/14	19	10	12	0	11	59,301	66,292
4/21/14	24	19	21	19	21	88,098	89,790
4/22/14	27	24	26	11	23	97,687	96,110
4/23/14	33	25	25	22	26	122,600	101,809
4/24/14	31	16	18	20	19	126,572	86,520
4/25/14	32	22	21	11	21	90,363	91,144
4/26/14	38	29	27	15	28	90,599	105,837
4/27/14	34	26	27	20	27	119,095	104,447
4/28/14	31	32	32	29	32	137,739	115,234
4/29/14	31	28	31	32	30	142,398	112,703
4/30/14	26	25	26	30	26	130,985	103,185
5/1/14	25	16	17	28	19	114,402	85,857
5/2/14	24	16	17	17	18	86,076	82,444
5/3/14	24	19	18	18	19	79,875	86,669
5/4/14	25	9	11	22	13	77,868	72,782
5/5/14	28	10	12	11	13	79,417	72,288
5/6/14	21	8	8	6	9	76,626	63,534
5/7/14	22	5	0	0	4	70,931	51,292
5/8/14	26	13	18	6	16	72,525	78,125
5/9/14	14	10	13	13	12	82,643	69,994
5/10/14	12	6	4	6	6	54,506	55,384
5/11/14	27	10	4	12	10	53,997	63,775
5/12/14	20	19	22	26	21	80,194	91,612
5/13/14	23	17	19	22	20	88,383	87,126
5/14/14	26	22	23	21	23	85,978	94,394
5/15/14	22	19	22	32	23	102,029	94,472
5/16/14	21	13	16	21	16	87,539	78,820
5/17/14	6	6	8	9	7	57,073	58,293
5/18/14	16	12	11	0	10	51,295	65,079
5/19/14	5	0	0	4	1	72,103	44,116
5/20/14	13	7	7	2	7	62,361	57,575
5/21/14	12	6	8	8	8	67,382	59,540
5/22/14	9	2	2	1	3	58,628	47,935
5/23/14	1	0	1	0	1	46,617	42,879
5/24/14	0	0	0	0	0	37,057	41,361
5/25/14	0	0	0	0	0	38,704	41,361
5/26/14	11	0	0	0	1	47,309	44,404
5/27/14	11	0	0	0	1	65,305	44,348
5/28/14	4	0	0	0	0	55,545	42,522
5/29/14	5	0	0	0	1	55,336	42,840
5/30/14	5	0	0	0	1	53,706	42,826
5/31/14	2	0	0	0	0	43,904	41,942
6/1/14	2	0	0	0	0	46,347	41,975
6/2/14	2	0	1	1	1	58,867	43,504
6/3/14	5	0	0	1	1	34,875	43,157
6/4/14	9	0	0	0	1	58,901	43,999
6/5/14	0	0	0	0	0	56,271	41,361
6/6/14	11	6	1	0	4	52,135	49,848
6/7/14	11	4	3	11	5	44,262	54,171
6/8/14	7	0	0	3	1	45,560	44,351
6/9/14	8	0	0	5	2	58,413	45,259
6/10/14	7	0	0	0	1	59,435	43,413

MERC

6/11/14	18	6	7	0	7	59,601	58,238
6/12/14	9	2	3	8	4	61,776	51,345
6/13/14	15	3	0	0	3	49,029	47,979
6/14/14	7	0	0	2	1	43,098	43,907
6/15/14	0	0	0	0	0	46,623	41,361
6/16/14	0	0	0	0	0	59,635	41,361
6/17/14	6	0	0	0	1	56,975	42,981
6/18/14	13	0	0	0	2	56,330	45,047
6/19/14	15	0	0	0	2	56,109	45,622
6/20/14	6	0	0	0	1	50,436	43,119
6/21/14	9	0	0	0	1	39,496	43,973
6/22/14	0	0	0	0	0	46,058	41,361
6/23/14	13	0	0	0	2	55,396	45,047
6/24/14	14	2	0	0	2	56,699	46,694
6/25/14	11	0	0	0	1	59,819	44,376
6/26/14	9	0	0	0	1	56,040	43,773
6/27/14	0	0	0	0	0	50,652	41,361
6/28/14	0	0	0	0	0	41,907	41,361
6/29/14	0	0	0	0	0	47,729	41,361
6/30/14	1	0	3	0	2	55,559	45,450
Totals	11,522	9,475	10,104	9,840	10,064	#####	38,657,124

* Volumes include interruptible and transportation volumes except for transportation volumes that are not located behind MERC citygates.

** Design Model numbers are used to calculate firm volumes only

MINNESOTA ENERGY RESOURCES - NNG

Attachment 14

Customer Counts by PGAC Class - July 1, 2013 through June 30, 2014

Rate Class	Tariff Rate Designation	Jul-13 Average Customers	Aug-13 Average Customers	Sep-13 Average Customers	Oct-13 Average Customers	Nov-13 Average Customers	Dec-13 Average Customers	Jan-14 Average Customers	Feb-14 Average Customers	Mar-14 Average Customers	Apr-14 Average Customers	May-14 Average Customers	Jun-14 Average Customers	Annual Average Customers
GS- Residential (w/ Heat)	2H801 / 2HS01 2HS02	160,366	161,713	161,822	162,267	162,257	163,703	167,028	163,698	164,199	158,550	162,775	163,807	162,682
GS-Residential (w/o Heat)	2R801 / 2RS01 2RS02	921	939	933	938	932	942	965	942	945	917	929	935	937
GS-C&I <1,500 therms/yr (Small)	2C805 / 2CS05 2I805 / 2IS05 2C806 / 2CS06 2CS07 / 2IS07 2CS08	8,197	8,230	8,222	8,253	8,255	8,332	8,545	8,405	8,398	8,139	8,291	8,359	8,302
GS-C&I <1,500 therms/yr (Small) Emmons, IA	2CE05	2	2	2	2	2	2	2	2	2	2	2	2	2
GS-C&I >1,500 therms/yr (Large)	2C810 / 2CS10 2I810 / 2IS10 2CS11 / 2IS11 2C812/ 2CS12 2IS12	7,813	7,824	7,810	7,835	7,843	7,862	8,079	7,918	7,876	7,680	7,848	7,893	7,857
GS-C&I >1,500 therms/yr (Large) Emmons, IA	2CE10	1	1	1	1	1	1	1	1	1	1	1	1	1
Small Volume Interruptible (SVI)	2D820 / 2DS20 2J820 / 2JS20 2DS22	308	311	312	317	316	308	315	306	305	302	304	301	309
Small Volume Interrupt	2C830 / 2CS30 2C830	0	0	0	0	0	0	0	3	3	3	3	3	1
Large Volume Interrupt	2D840 / 2DS40 2J840 / 2JS40 2D842	57	56	59	62	59	57	61	58	58	63	67	60	60
Large Volume Interrupt	2IS50 / 2JS50	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Large Volume In	2DS60 / 2JS60	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Large Volume In	2IS70 / 2JS70	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		177,665	179,076	179,161	179,675	179,665	181,207	184,996	181,333	181,787	175,657	180,220	181,361	180,150

MINNESOTA ENERGY RESOURCES - NNG

Projected Storage Cost - November 2014 through March 2015

Month/ Year	K#118657 NNG Storage	Storage K#125915 NNG Storage	Storage K#125916 NNG Storage	Total NNG Storage	Projected Storage NNG WACOG	K#118657 NNG Storage Cost	K#125915 NNG Storage Cost	K#125916 NNG Storage Cost	Total NNG Storage Cost	AECO Storage GLGT/VGT Centra Emerson	AECO Storage GLGT/VGT Centra Emerson WACOG	AECO Storage GLGT/VGT Centra Emerson Cost
Nov-14	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 1,962,895	\$ 63,057	\$ 273,248	\$ 2,299,200	85,304	\$ 4.0841	\$ 348,390
Dec-14	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4,932,401	\$ 158,451	\$ 686,622	\$ 5,777,475	231,769	\$ 4.0841	\$ 946,568
Jan-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4,932,401	\$ 158,451	\$ 686,622	\$ 5,777,475	231,769	\$ 4.0841	\$ 946,568
Feb-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4,932,401	\$ 158,451	\$ 686,622	\$ 5,777,475	209,339	\$ 4.0841	\$ 854,961
Mar-15	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 1,962,895	\$ 63,057	\$ 273,248	\$ 2,299,200	96,374	\$ 4.0841	\$ 393,601
Total	4,342,470	139,500	604,500	5,086,470	\$ 4.3116	\$18,722,994	\$ 601,468	\$ 2,606,362	\$21,930,824	854,555	\$ 4.0841	\$ 3,490,088

Month/ Year	NNG Storage Volume	NNG Indexes Price	NNG Indexes Cost	AECO Storage Volume	Emerson LDS + Basis	Emerson LDS + Cost
Nov-14	533,259	\$ 3.5925	\$ 1,915,733	85,304	\$ 3.7210	\$ 317,416
Dec-14	1,339,984	\$ 3.9085	\$ 5,237,327	231,769	\$ 4.2170	\$ 977,370
Jan-15	1,339,984	\$ 4.1645	\$ 5,580,363	231,769	\$ 4.3830	\$ 1,015,844
Feb-15	1,339,984	\$ 4.1605	\$ 5,575,003	209,339	\$ 4.3390	\$ 908,322
Mar-15	533,259	\$ 3.8485	\$ 2,052,247	96,374	\$ 4.4120	\$ 425,202
Total	5,086,470	\$ 4.0029	\$20,360,674	854,555	\$ 4.2644	\$ 3,644,154

Max NNG Storage (Storage plan withdrawals through Apr 14)	5,086,470	5,469,321	09/30/14 Storage Balance - NNG	4,361,819	79.75%	4,056,493
Max AECO Storage	854,555	947,820	09/30/14 Storage Balance - AECO	851,535	89.84%	767,744
						81.20%

Month/ Year	K#118657 NNG Storage	Storage K#125344 LS Power	Storage K#125345 LS Power	Total NNG Storage	Projected K#118657 NNG WACOG	Projected K#125344 NNG WACOG	K#118657 K#125345 NNG WACOG	WACOG NNG PNG Cost	Projected NNG Indexes Price	Projected NNG Index Cost	Additional Storage (Savings)/ Cost
Nov-14	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 2,299,200	\$ 3.5925	\$ 1,915,733	\$ 383,467
Dec-14	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 5,777,475	\$ 3.9085	\$ 5,237,327	\$ 540,148
Jan-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 5,777,475	\$ 4.1645	\$ 5,580,363	\$ 197,112
Feb-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 5,777,475	\$ 4.1605	\$ 5,575,003	\$ 202,472
Mar-15	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 2,299,200	\$ 3.8485	\$ 2,052,247	\$ 246,952
Total	4,342,470	139,500	604,500	5,086,470	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$21,930,824	\$ 4.0029	\$20,360,674	\$ 1,570,150

\$ 4.3116 \$ (0.2690) \$ 1,570,150

Month/ Year	AECO Storage	AECO Storage Other WACOG	Total AECO Cost	Projected Emerson Index Price	Projected Emerson Index Cost	Additional Storage (Savings)/ Cost
Nov-14	85,304	\$ 4.0841	\$ 348,390	\$ 3.7210	\$ 317,416	\$ 30,974
Dec-14	231,769	\$ 4.0841	\$ 946,568	\$ 4.2170	\$ 977,370	\$ (30,802)
Jan-15	231,769	\$ 4.0841	\$ 946,568	\$ 4.3830	\$1,015,844	\$ (69,276)
Feb-15	209,339	\$ 4.0841	\$ 854,961	\$ 4.3390	\$ 908,322	\$ (53,361)
Mar-15	96,374	\$ 4.0841	\$ 393,601	\$ 4.4120	\$ 425,202	\$ (31,601)
Total	854,555	\$ 4.0841	\$ 3,490,088	\$ 4.2644	\$3,644,154	\$ (154,066)

\$ 3.2341 \$ (0.8488) \$ (154,066)

MINNESOTA ENERGY RESOURCES - NNG
Projected Call Option Costs - November 2014 through March 2015

Call/Put Options WACOG
Contract = 10,000

Table with columns for Deal Number, Purchase Date, % (Nov-14, Dec-14, Jan-15) and rows for various call options including Total, NNG-Cons, and Other-Cons.

Table with columns for Deal Number, Purchase Date, % (Feb-15, Mar-15) and rows for various call options including Total, NNG-Cons, and Other-Cons.

Summary table with columns for Deal Number, Purchase Date, % and rows for Total, NNG-Cons, and Other-Cons.

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Michael	Ahern	ahern.michael@dorsey.com	Dorsey & Whitney, LLP	50 S 6th St Ste 1500 Minneapolis, MN 554021498	Electronic Service	No	OFF_SL_14-660_M-14-660
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_14-660_M-14-660
Michael	Bradley	mike.bradley@lawmoss.com	Moss & Barnett	150 S. 5th Street, #1200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-660_M-14-660
Seth	DeMerritt	ssdemerritt@integrysgroup.com	Integrys Business Support	700 North Adams P.O. Box 19001 Green Bay, WI 543079001	Electronic Service	No	OFF_SL_14-660_M-14-660
Ian	Dobson	ian.dobson@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, BRM Tower St. Paul, MN 55101	Electronic Service 1400	Yes	OFF_SL_14-660_M-14-660
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_14-660_M-14-660
Daryll	Fuentes	N/A	USG	550 W. Adams Street Chicago, IL 60661	Paper Service	No	OFF_SL_14-660_M-14-660
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_14-660_M-14-660
Robert	Harding	robert.harding@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_14-660_M-14-660
Linda	Jensen	linda.s.jensen@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota Street St. Paul, MN 551012134	Electronic Service	No	OFF_SL_14-660_M-14-660

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Harry W	John	HWJohn@integrysgroup.com	MERC, Integrys	700 North Adams PO Box 19001 Green Bay, WI 54307-9001	Electronic Service	No	OFF_SL_14-660_M-14-660
David G.	Kult	dgkult@minnesotaenergyresources.com	Minnesota Energy Resources Corporation	2665 145th St. NW Rosemount, MN 55068	Electronic Service	No	OFF_SL_14-660_M-14-660
David	Kyto	djkyto@integrysgroup.com	Integrys Business Support	700 North Adams PO Box 19001 Green Bay, WI 543079001	Electronic Service	No	OFF_SL_14-660_M-14-660
Amber	Lee	ASLee@minnesotaenergyresources.com	Minnesota Energy Resources Corporation	2665 145th Street West Rosemount, MN 55068	Electronic Service	No	OFF_SL_14-660_M-14-660
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_14-660_M-14-660
Eric	Lipman	eric.lipman@state.mn.us	Office of Administrative Hearings	PO Box 64620 St. Paul, MN 551640620	Electronic Service	Yes	OFF_SL_14-660_M-14-660
Peter	Madsen	peter.madsen@ag.state.mn.us	Office of the Attorney General-DOC	Bremer Tower, Suite 1800 445 Minnesota Street St. Paul, Minnesota 55101	Electronic Service	No	OFF_SL_14-660_M-14-660
Chad T	Marriott	ctmarriott@stoel.com	Stoel Rives LLP	900 SW 5th Ave Ste 2600 Portland, OR 97204	Electronic Service	No	OFF_SL_14-660_M-14-660
Brian	Meloy	brian.meloy@stinsonleonard.com	Stinson, Leonard, Street LLP	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-660_M-14-660
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-660_M-14-660

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Barbara	Nick	banick@integrysgroup.com	Minnesota Energy Resources Corporation	2665 145th Street PO Box 455 Rosemount, MN 55068-0455	Electronic Service	No	OFF_SL_14-660_M-14-660
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_14-660_M-14-660
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	Ste 122 9100 W Bloomington Frwy Bloomington, MN 55431	Electronic Service	Yes	OFF_SL_14-660_M-14-660
Kristin	Stastny	stastny.kristin@dorsey.com	Dorsey & Whitney LLP	50 South 6th Street Suite 1500 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-660_M-14-660
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_14-660_M-14-660
Gregory	Walters	gjwalters@minnesotaenergyresources.com	Minnesota Energy Resources Corporation	3460 Technology Dr. NW Rochester, MN 55901	Electronic Service	No	OFF_SL_14-660_M-14-660
James P.	Zakoura	Jim@smizak-law.com	Smithyman & Zakoura Chartered	750 Commerce Plaza II 7400 West 110th Street Overland Park, KS 662102362	Electronic Service	No	OFF_SL_14-660_M-14-660

MINNESOTA ENERGY RESOURCES - NNG

DESIGN-DAY DEMAND SUMMARY

NOVEMBER 1, 2014

NNG

Design Day Requirement	#REF!
Total Peak Day Entitlement	#REF!
Firm Peak Day Actual Sendout -Non Coincidental (Jan. 6)	212,806
Firm Annual Throughput - Minnesota	21,803,847
No. of Firm Customers	178,388
Department Load Factor Calculation	28.07%

MINNESOTA ENERGY RESOURCES - NNG

NNG MINNESOTA DESIGN DAY REQUIREMENTS

NOVEMBER 1, 2014

NNG

Pipeline Group	Nov13-Mar 14 Avg. Customer Count	Zone Total Customer Count	1/20 Design DDD	Regression Factors		Regression Total Footnote 1	Regression Adjustment Footnote 2	1/20 Requirements Regression Load Footnote 3	Nov13-Mar 14 Avg. Customer Growth	Total *
				Intercept	Slope					

PEAK										
NNG	178,388	178,388	98	31,490	2,359	303,606	44,255	259,351	0.60%	260,907
Total	178,388	178,388								260,907

OFF PEAK										
NNG	178,388	178,388	55	31,490	2,359	189,027	28,518	160,509	0.60%	161,472
Total	178,388	178,388								161,472

* Adjusted for customer growth

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

Footnote 2: Regression Adjustment subtracts out Interruptible, Transportation and Joint Interruptible volumes and adds adjustment to achieve 97.5% confidence level that actual demand under design conditions will not exceed estimate.

Footnote 3: Total equals Regression Total minus Regression Adjustment.

*55 is the 30 yr unadjusted heating degree days from NOAA, not adjusted for windspeed.

MINNESOTA ENERGY RESOURCES - NNG

DESIGN-DAY DEMAND PER CUSTOMER - GS
NOVEMBER 1, 2014

NNG

<u>Heating Season</u>	<u>No. of Firm Customers</u>	<u>Design Day Requirements</u>	<u>MMBtus /Customer /Day</u>
14/15	178,388	#REF!	#REF!
13/14	178,578	245,878	1.38
12/13	176,937	225,883	1.28
11/12	175,241	235,055	1.34
10/11	176,027	218,213	1.24
09/10	175,228	228,040	1.30
08/09	173,962	247,188	1.42
07/08	172,116	223,754	1.30

MINNESOTA ENERGY RESOURCES - NNG

SUMMER/WINTER USAGE - Mcf
PROJECTED 12 MONTHS ENDING JUNE 2015
NNG

<u>Class</u>	<u>Summer Apr-Oct</u>	<u>Winter Nov-Mar</u>	<u>Total</u>
GS	5,975,516	15,812,613	21,788,129
SVI	1,408,810	1,257,722	2,666,533
SVJ	6,017	9,702	15,718
LVI			0
LVJ	0	0	0
SLV	0	0	0
Total	<u>7,390,343</u>	<u>17,080,037</u>	<u>24,470,380</u>

MINNESOTA ENERGY RESOURCES - NNG

ENTITLEMENT LEVELS

PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2014

<u>Type of Capacity or Entitlement</u>	<u>Current Amount Mcf or MMBtu</u>	<u>Proposed Change Mcf or MMBtu</u>	<u>Proposed Amount Mcf or MMBtu</u>
TF-12 Base & Variable	76,079	#REF!	#REF!
TF5	31,515	#REF!	#REF!
TFX - 12	32,297	#REF!	#REF!
TFX - 5	93,084	#REF!	#REF!
TFX- (Apr) Offpeak*	2,000	#REF!	#REF!
TFX- (Oct) Offpeak*	2,000	#REF!	#REF!
Bison	50,000	#REF!	#REF!
NBPL	50,000	#REF!	#REF!
Northwest Gas (Windom)	2,500	#REF!	#REF!
Northwestern Energy (Ortonville)	910	#REF!	#REF!
NNG Zone Delivery Call Option	20,000	#REF!	#REF!
Heating Season Total	256,385	#REF!	#REF!
Non-Heating Season Total	113,786	#REF!	#REF!
Heating Season Forecasted Design Day-Adjusted	245,878	#REF!	#REF!
Non-Heating Season Forecasted Design Day	156,089	5,383	161,472
Heating Season Capacity Surplus/Shortage	10,507	#REF!	#REF!
Non-Heating Season Capacity Surplus/Shortage	(42,303)	#REF!	#REF!

*Not included in Heating Season Total entitlement

MINNESOTA ENERGY RESOURCES - NNG

RATE IMPACT OF THE PROPOSED DEMAND CHANGE (**FDD storage contract costs shifted from Demand costs to Commodity costs)
NOVEMBER 1, 2014

NNG

All costs in \$/Dth	Last Base Cost of Gas G011/ MR13-732* Jan. 14	Last Demand Change G011- 12-1193 Jul. 13	Last Demand Change G011- 13-977 Nov. 13	Most Recent PGA Oct. 14	Current Proposal Effective Nov.1,2014	Result of Proposed Change			
						Change from Last Rate Case**	Change from Last Demand Change	Change from Last PGA %	Change from Last PGA \$
1) General Service Residential: Avg. Annual Use:		93	Dth						
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost	\$1.7955	\$1.6968	\$1.7177	\$1.7822	\$1.6999	(\$0.0956)	(\$0.0178)	-4.62%	(\$0.0823)
Commodity Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	\$0.0000	\$0.2536	0.00%	\$0.0000
Total Cost of Gas	\$8.5880	\$7.5547	\$7.7406	\$8.1710	\$8.2324	(\$0.3556)	\$0.4918	0.75%	\$0.0614
Avg Annual Cost	\$798.68	\$702.59	\$719.88	\$759.90	\$765.61	(\$33.0741)	\$45.73	0.75%	\$5.71
Effect of proposed commodity change on average annual bills:									\$13.36
Effect of proposed demand change on average annual bills:									(\$7.65)
2) Small Vol. Interruptible: Avg. Annual Use:		6,699	Dth						
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost									
Commodity Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	\$0.0000	\$0.1367	0.00%	\$0.0000
Total Cost of Gas	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	(\$0.2600)	\$0.3927	2.68%	\$0.1437
Avg Annual Cost	\$38,619.07	\$33,141.29	\$34,246.63	\$35,914.68	\$36,877.09	(\$1,741.9770)	\$2,630.46	2.68%	\$962.41
Effect of proposed commodity change on average annual bills:									\$962.41
Effect of proposed demand change on average annual bills:									\$0.00
3) Large Vol. Interruptible: Avg. Annual Use:		42,000	Dth						
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost									
Commodity Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	\$0.0000	\$0.0458	0.00%	\$0.0000
Total Cost of Gas	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$4.7061	(\$0.2600)	\$0.3018	3.15%	\$0.1437
Avg Annual Cost	\$208,576.20	\$178,050.60	\$184,980.60	\$191,620.80	\$197,654.71	(\$10,921.49)	\$12,674.11	3.15%	\$6,033.91
Effect of proposed commodity change on average annual bills:									\$6,033.91
Effect of proposed demand change on average annual bills:									\$0.00
4) Small Vol. Firm: Avg. Annual Use:		6,699	Dth						
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	\$0.0000	(\$1.5825)	-8.44%	(\$1.5940)
Commodity Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	\$0.0000	\$0.1367	0.00%	\$0.0000
Demand Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	\$2.5953	\$0.2953	0.00%	\$0.0000
Total Cost of Gas	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	(\$0.2600)	\$0.3927	2.68%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	(\$1.5825)	(\$1.2872)	-7.42%	(\$1.5940)
Avg Annual Cost	\$39,155.94	\$33,684.14	\$34,776.12	\$36,451.84	\$37,374.40	(\$1,781.54)	\$2,598.28	2.53%	\$922.56
Effect of proposed commodity change on average annual bills:									\$962.41
Effect of proposed demand change on average annual bills:									(\$39.85)
5) Large Vol. Firm: Avg. Annual Use:		42,000	Dth						
Commodity Cost	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	(\$0.2600)	\$0.2560	3.45%	\$0.1437
Demand Cost	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	(\$1.5825)	(\$1.5825)	-8.44%	(\$1.5940)
Commodity Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	\$0.0000	\$0.0458	0.00%	\$0.0000
Demand Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	\$0.0000	\$0.2953	0.00%	\$0.0000
Total Cost of Gas	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$4.7061	(\$0.2600)	\$0.3018	3.15%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	(\$1.5825)	(\$1.2872)	-7.42%	(\$1.5940)
Avg Annual Cost	\$210,186.82	\$179,679.15	\$186,569.07	\$193,232.28	\$199,146.65	(\$9,429.55)	\$12,577.58	3.06%	\$5,914.37
Effect of proposed commodity change on average annual bills:									\$6,033.91
Effect of proposed demand change on average annual bills:									(\$119.55)

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Deccket No. E,G999/AA-13-600

* As Approved in Docket No. G011/MR-13-732; to coincide with implementation of interim rates in Docket No. G011/GR-13-617

**Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand charges will be allocated through the commodity charge effective 11/1/2014.

MINNESOTA ENERGY RESOURCES - NNG

RATE IMPACT OF THE PROPOSED DEMAND CHANGE

Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs

NOVEMBER 1, 2014

NNG

IV. NORTHERN NATURAL GAS COMPANY'S RATES -- CURRENT COST OF GAS EFFECTIVE						01-Nov-14
	Tariff-Summer(7 mths)	Tariff-Winter(5 mths)	Wt. Annual	GRI	Total	
TF-12B	112495 \$ 5.6830	\$ 10.2300	\$7.5776	\$0.0000	\$7.5776	
TF-12B Discount	112495 \$ 5.6830	\$ 10.0320	\$7.4951	\$0.0000	\$7.4951	
TF-12V	112495 \$ 5.6830	\$ 13.8660	\$9.0926	\$0.0000	\$9.0926	
TF-5	112495 \$ -	\$ 15.1530	\$15.1530	\$0.0000	\$15.1530	
TFX	112486 \$ 5.6830	\$ 15.1530	\$9.6288	\$0.0000	\$9.6288	
TFX-5	112486 \$ -	\$ 15.1530	\$15.1530	\$0.0000	\$15.1530	
TFX-5 Discount	112486 \$ -	\$ 10.0320	\$10.0320	\$0.0000	\$10.0320	
TFX - Discount	111866 \$ 2.2192	\$ 15.1392	\$7.6025	\$0.0000	\$7.6025	
TFX - Discount	111866 \$ 4.8640	\$ 4.8640	\$4.8640	\$0.0000	\$4.8640	
TFX - Discount	111866 \$ 5.4720	\$ 5.4720	\$5.4720	\$0.0000	\$5.4720	
TFX-5	127852 \$ -	\$ 15.1530	\$15.1530	\$0.0000	\$15.1530	
Gas Cost					\$4.0451	

V. ANNUAL SALES -- As approved in Docket No. G011/MR-13-732 234,442,025

VI. PNG'S CURRENT COST OF GAS EFFECTIVE: 01-Nov-14

		Contract #(s)	Monthly Entitlements (Dth)	Months	Rate (\$/Dth)	Contract Costs	Contract Costs	Rate/Therm
A. GS	TF12B (Max Rate) Winter	112495	49,819	5	\$ 10.2300	=	\$2,548,242	\$ 0.01185
	TF12B (Max Rate) Summer	112495	49,056	7	\$ 5.6830	=	\$1,951,497	\$ 0.00908
	TF12V (Max Rate)	112495	21,060	12	\$ 9.0926	=	\$2,297,882	\$ 0.01069
	TF5 (Max Rate)	112495	31,515	5	\$ 15.1530	=	\$2,387,734	\$ 0.01110
	TF12B (Discount-Winter)	112495	5,200	12	\$ 7.4951	=	\$467,694	\$ 0.00218
	TFX5 (Discount)	112561	0	5	\$ -	=	\$0	\$ -
	TFX12 (Max Rate)	112486	10,822	12	\$ 9.6288	=	\$1,250,434	\$ 0.00582
	TFX Apr (Max Rate)	112486	2,000	1	\$ 5.6830	=	\$11,366	\$ 0.00005
	TFX Oct (Max Rate)	112486	2,000	1	\$ 5.6830	=	\$11,366	\$ 0.00005
	TFX5 (Max Rate)	112486	66,271	5	\$ 15.1530	=	\$5,021,022	\$ 0.02335
	TFX5 (Discount)	112486	1,800	5	\$ 10.0320	=	\$90,288	\$ 0.00042
	TFX12 (Discount)	111866	1,283	12	\$ 4.8640	=	\$74,886	\$ 0.00035
	TFX12 (Discount)	111866	8,271	12	\$ 5.4720	=	\$543,107	\$ 0.00253
	TFX12 (Discount)	111866	11,921	12	\$ 7.6025	=	\$1,087,553	\$ 0.00506
	TFX5 (Discount)	111866	379	5	\$ 4.8640	=	\$9,217	\$ 0.00004
	TFX5 (Discount)	111866	2,445	5	\$ 5.4720	=	\$66,895	\$ 0.00031
	TFX5 (Discount)	111866	22,189	5	\$ 15.1392	=	\$1,679,619	\$ 0.00781
	TFX5 (Max Rate)	127852	30,000	5	\$ 15.1530	=	\$2,272,950	\$ 0.01057
	Bison FT0003		50,000	12	\$ 17.4896	=	\$10,493,750	\$ 0.04880
	NBPL T8673F		50,000	12	\$ 6.9958	=	\$4,197,500	\$ 0.01952
	Windom	118657	2,500	12	\$ -	=	\$0	\$ -
	Ortonville		910	12	\$ 8.0000	=	\$87,360	\$ 0.00041
	NNG Zone GDD Call Option		0	3	\$ -	=	\$0	\$ -
	Total Demand Cost						\$36,550,362	\$ 0.16999

Rate Case volume as approved in Docket No. G0011/MR-13-732 in therms 215,014,955

GS-1 Demand Current Cost of Gas/Ccf	\$	0.16999
GS-1 Commodity Current Cost of Gas/Ccf	#REF!	
Total GS-1 Current Cost of Gas/Ccf	#REF!	

B. GS-1, SVI, LVI, SJ-1, LJ-1, SLV-Commodity

	Contract #	Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Contract Costs	Rate (\$/therm)
FDD: FDD - Reservation	118657	75,437	12	\$ 1.7140	=	\$1,551,588	\$ 0.00662
FDD - Storage Cycle	118657	869,864	5	\$ 0.3567	=	\$1,551,402	\$ 0.00662
FDD - Reservation	118657	5,550	12	\$ 3.3157	=	\$220,826	\$ 0.00094
FDD - Storage Cycle	118657	64,000	5	\$ 0.6901	=	\$220,832	\$ 0.00094
FDD - Reservation	125915	2,602	12	\$ 1.7140	=	\$53,518	\$ 0.00023
FDD - Storage Cycle	125915	30,000	5	\$ 0.3567	=	\$53,505	\$ 0.00023
FDD - Reservation	125916	11,274	12	\$ 1.7140	=	\$231,884	\$ 0.00099
FDD - Storage Cycle	125916	130,000	5	\$ 0.3567	=	\$231,855	\$ 0.00099
Firm Deferred Delivery Storage Contracts						\$4,115,410	\$ 0.01755

	Annual Sales (Dth)	Rate (\$/Dth)	Commodity Cost	Rate Case Sales (therm)	Rate (\$/therm)
CD-1 Commodity	23,444,203	\$4.0451	\$94,834,144	234,442,025	\$ 0.40451
SMS-Bal Service	#REF!	\$2.1800	#REF!	234,442,025	#REF!
Call Option Premium			\$1,348,434	234,442,025	\$ 0.00575
GS-1, SVI-1, SJ-1, LJ-1, SLV Commodity Current Cost of Gas/therm			#REF!	234,442,025	#REF!

* Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand charges will be allocated through the commodity charge effective 11/1/2014.

MINNESOTA ENERGY RESOURCES - NNG**RATE IMPACT OF THE PROPOSED DEMAND CHANGE**

Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs

NOVEMBER 1, 2014

NNG

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COSTS ASSIGNED IN JOINT RATE:

	<u>Units</u>	<u>Contract #</u>	<u>Month</u>	<u>Cost/Unit</u>		<u>Cost</u>	<u>\$/Ccf</u>
TF12B (Max Rate) Winter	49,819	112495	5	\$10.2300	=	\$2,548,242	\$0.12059
TF12B (Max Rate) Summer	49,056	112495	7	\$5.6830	=	\$1,951,497	\$0.09235
TF12V (Max Rate)	21,060	112495	12	\$9.0926	=	\$2,297,882	\$0.10875
TF5 (Max Rate)	31,515	112495	5	\$15.1530	=	\$2,387,734	\$0.11300
TF12B (Discount-Winter)	5,200	112495	12	\$7.4951	=	\$467,694	\$0.02213
TFX5 (Discount)	0	112561	5	\$0.0000	=	\$0	\$0.00000
TFX12 (Max Rate)	10,822	112486	12	\$9.6288	=	\$1,250,434	\$0.05918
TFX Apr (Max Rate)	2,000	112486	1	\$5.6830	=	\$11,366	\$0.00054
TFX Oct (Max Rate)	2,000	112486	1	\$5.6830	=	\$11,366	\$0.00054
TFX5 (Max Rate)	66,271	112486	5	\$15.1530	=	\$5,021,022	\$0.23762
TFX5 (Discount)	1,800	112486	5	\$10.0320	=	\$90,288	\$0.00427
TFX12 (Discount)	1,283	111866	12	\$4.8640	=	\$74,886	\$0.00354
TFX12 (Discount)	8,271	111866	12	\$5.4720	=	\$543,107	\$0.02570
TFX12 (Discount)	11,921	111866	12	\$7.6025	=	\$1,087,553	\$0.05147
TFX5 (Discount)	379	111866	5	\$4.8640	=	\$9,217	\$0.00044
TFX5 (Discount)	2,445	111866	5	\$5.4720	=	\$66,895	\$0.00317
TFX5 (Discount)	22,189	111866	5	\$15.1392	=	\$1,679,619	\$0.07949
TFX5 (Max Rate)	30,000	127852	5	\$15.1530	=	\$2,272,950	\$0.10757
Bison	50,000	FT0003	12	\$17.4896	=	\$10,493,750	\$0.49661
NBPL	50,000	T8673F	12	\$6.9958		\$4,197,500	\$0.19864
Windom	2,500	118657	12	\$0.0000	=	\$0	\$0.00000
Ortonville	910		12	\$8.0000	=	\$87,360	\$0.00413
TOTAL						\$36,550,362	
Annualized Entitlement						21,130,860	
Demand Component						<u>\$1,72971</u>	<u>\$1.72971</u>

MINNESOTA ENERGY RESOURCES - NNG

NNG Entitlement Allocation Heating Season 2014-2015

	Total Entitlement Levels	Total
1 Design Day	260,907	260,907
2 Customer Requirements moving to Transport	-	-
3 Adjusted Design Day	261,002	261,002
	100.00%	100.00%
5 Total Design Day Capacity	265,475	265,475
6 Less: Windom	(2,500)	(2,500)
7 Less: Northwestern Energy	(910)	(910)
8 Less: LS Power	0	-
9 Less: Chisago Delivery to Viking	0	-
10 Less: Contract Demand Units	(95)	(95)
	261,970	261,970
Direct Assigned Entitlement		
11 TF12B (112495)	55,019	55,019
12 TF12V (112495)	21,060	21,060
13 TF5 (112495)	31,515	31,515
14 TFX12 (112486)	10,822	10,822
15 TFX April Only (112486)	2,000	2,000
16 TFX October Only (112486)	2,000	2,000
17 TFX5 (112486)	68,071	68,071
18 TFX12 (111866)	21,475	21,475
19 TFX5 (111866)	25,013	25,013
20 TFX5 (112561)	0	-
21 TFX5 (127852)	30,000	30,000
22 Bison (FT 0003) *	50,000	50,000
23 NBPL (T6873F) *	50,000	50,000
24 Total Winter Allocated Entitlement	262,975	262,975
25 Northwest Gas (Windom)	2,500	2,500
26 Northwestern Energy (Ortonville)	910	910
27 NNG Zone Delivery Call Option	0	-
28 LS Power	0	-
29 Total Design Day Capacity	266,385	266,385
30 Contract Demand		
31 Total Design Day Capacity	266,385	266,385
		100.00%
32 <u>Storage</u>		
33 Storage MSQ - 118657	4,669,321	4,669,321
34 Storage MSQ -125915	150,000	150,000
35 Storage MSQ - 125916	650,000	650,000
36 SMS	22,680	22,680
37 Total Entitlement	266,385	266,385
38 Design Day	261,002	261,002
39 Reserve Margin	5,383	5,383
	2.06%	2.06%

* Bison/NBPL does not add incremental capacity but is utilized to deliver Rockies supply to NNG.
Volume is not included in Total Design Day capacity.

MINNESOTA ENERGY RESOURCES - NNG

CALCULATION OF DESIGN DAY REQUIREMENTS

2014-2015

<u>State</u>	<u>1/20 Design DDD</u>	<u>13/14 Customer Counts*</u>	<u>Regression Factors Intercept</u>	<u>Slope</u>	<u>Regression Total</u>	<u>Adjustment Total *</u>	<u>1/20 Requirements Regression Load</u>	<u>Nov13-Mar14 Customer Growth</u>	<u>Total</u>
MERC - Peak Day									
NNG	98	178,388	31,490	2,359	303,606	44,255	259,351	0.60%	260,907
TOTAL	98	178,388	31,490	2,359	303,606	44,255	259,351		260,907
MERC - Non-Peak Day									
NNG	55	178,388	31,490	2,359	189,027	28,518	160,509	0.60%	161,472
TOTAL	55	178,388	31,490	2,359	189,027	28,518	160,509		161,472

* Adjustment to remove interruptible and transportation volumes and add adjustment to achieve 97.5% confidence level that actual demand under design conditions will not exceed estimate.

MINNESOTA ENERGY RESOURCES-PNG/NMU CAPACITY RESOURCE ANALYSIS

2014-2015 VS. 2013-2014

	<u>2014-2015 Proposed</u>		<u>2013-2014</u>		<u>Difference</u>	
	<u>NNG</u>	<u>NNG</u>	<u>NNG</u>	<u>NNG</u>	<u>Winter</u>	<u>Total</u>
	<u>Winter</u>	<u>Total</u>	<u>Winter</u>	<u>Total</u>		
TF12(base)	#REF!	#REF!	49,153	49,153	#REF!	#REF!
TF12(variable)	#REF!	#REF!	26,926	26,926	#REF!	#REF!
TF12	#REF!	#REF!	76,079	76,079	#REF!	#REF!
Peak Capacity	-	-	-	-	-	-
TF5	#REF!	#REF!	31,515	31,515	#REF!	#REF!
TF Total	#REF!	#REF!	107,594	107,594	#REF!	#REF!
TFX12	#REF!	#REF!	32,297	32,297	#REF!	#REF!
TFX5	#REF!	#REF!	93,084	93,084	#REF!	#REF!
TFX Total	#REF!	#REF!	125,381	125,381	#REF!	#REF!
NNG Total	#REF!	#REF!	232,975	232,975	#REF!	#REF!
Bison	#REF!	#REF!	50,000	50,000	#REF!	#REF!
NBPL	#REF!	#REF!	50,000	50,000	#REF!	#REF!
Windom	#REF!	#REF!	2,500	2,500	#REF!	#REF!
Ortonville	#REF!	#REF!	910	910	#REF!	#REF!
NNG Zone GDD Call Option	#REF!	#REF!	20,000	20,000	#REF!	#REF!
Total	#REF!	#REF!	256,385	256,385	#REF!	#REF!
	NNG-Total					
		EF				
Design Day	#REF!					
Capacity	#REF!					
Reserve Margin	#REF!					
	#REF!					

MINNESOTA ENERGY RESOURCES - NNG

Financial Options Heating Season 2014-2015

Units - Gas Daily Peaker Packages (Physical)

<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Daily Total</u>	<u>Term Total</u>
<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>		
N/A		N/A		N/A		N/A		N/A		-	-

Premium - Gas Daily Peaker (Monthly Cost)

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

Units - Futures (Daily Volume)

	<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Daily Total</u>	<u>Term Total</u>
	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>		
1	06/25/14	2,718	06/16/14	114	06/11/14	224	06/30/14	1,272	06/20/14	1,243	5,572	166,187
2	07/25/14	2,966	06/16/14	228	06/11/14	1,567	07/30/14	1,484	06/20/14	1,243	7,488	224,700
3	08/22/14	2,966	07/16/14	455	07/10/14	448	08/28/14	636	06/20/14	1,243	5,748	173,315
4	09/24/14	2,966	08/13/14	455	07/10/14	2,014	08/28/14	848	06/20/14	1,243	7,527	227,824
5	10/01/14	2,718	09/11/14	342	08/07/14	2,238	09/29/14	1,272	07/21/14	4,973	11,544	351,319
6			10/09/14	342	09/04/14	2,238	10/23/14	1,272	08/18/14	249	4,101	123,309
7					10/08/14	2,238			08/18/14	4,476	6,714	208,138
8									09/18/14	4,724	4,724	146,458
9									10/20/14	4,476	4,476	138,750
10												
Total		14,333		1,935		10,968		6,786		23,871		1,760,000
		430,000		60,000		340,000		190,000		740,000		1,760,000
		580,000		170,000		490,000		320,000		960,000		2,520,000

Units - Call Options (Daily Volume)

	<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Daily Total</u>	<u>Term Total</u>
	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>	<u>Contract Date</u>	<u>Daily Volume</u>		
1	06/13/14	4,584	06/27/14	6,452	06/23/14	7,867	06/18/14	8,156	06/10/14	5,935	32,994	993,768
2	07/14/14	4,584	07/28/14	6,710	07/24/14	8,129	07/18/14	8,156	07/08/14	6,194	33,773	1,017,897
3	08/11/14	4,584	08/26/14	6,710	08/20/14	8,129	08/15/14	8,156	08/05/14	6,194	33,773	1,017,897
4	09/09/14	5,124	09/26/14	6,710	09/22/14	8,129	09/16/14	8,156	09/02/14	6,194	34,312	1,034,077
5	10/06/14	5,124	10/22/14	6,968	10/21/14	8,391	10/10/14	8,447	10/07/14	6,452	35,382	1,066,362
6												
7												
Total		24,000		33,548		40,645		41,071		30,968		5,130,000
		720,000		1,040,000		1,260,000		1,150,000		960,000		5,130,000
		890,000		1,300,000		1,550,000		1,410,000		1,200,000		6,350,000

Premium - Call Option (Monthly Cost)

	<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Total</u>	
	<u>Option Premium</u>	<u>Premium Cost</u>	<u>Option Premium</u>	<u>Premium Cost</u>	<u>Option Premium</u>	<u>Premium Cost</u>	<u>Option Premium</u>	<u>Premium Cost</u>	<u>Option Premium</u>	<u>Premium Cost</u>	<u>Option Premium</u>	<u>Premium Cost</u>
1	\$ 0.2380	\$ 32,732	\$ 0.3100	\$62,000	\$ 0.3450	\$84,135	\$ 0.3750	\$85,638	\$ 0.3960	\$ 72,864	\$ 0.3395	\$ 337,369
2	\$ 0.2220	\$ 30,531	\$ 0.2230	\$46,384	\$ 0.2370	\$59,724	\$ 0.3050	\$69,652	\$ 0.4110	\$ 78,912	\$ 0.2802	\$ 285,204
3	\$ 0.1350	\$ 18,566	\$ 0.2010	\$41,808	\$ 0.2420	\$60,984	\$ 0.2640	\$60,289	\$ 0.3030	\$ 58,176	\$ 0.2356	\$ 239,824
4	\$ 0.0880	\$ 13,526	\$ 0.1660	\$34,528	\$ 0.2160	\$54,432	\$ 0.3350	\$76,504	\$ 0.2940	\$ 56,448	\$ 0.2277	\$ 235,438
5	\$ 0.0780	\$ 11,989	\$ 0.1640	\$35,424	\$ 0.2080	\$54,107	\$ 0.2650	\$62,679	\$ 0.4320	\$ 86,400	\$ 0.2277	\$ 250,599
6												
7												
Total	\$ 0.1491	\$ 107,345	\$ 0.2117	\$ 220,144	\$ 0.2487	\$ 313,382	\$ 0.3085	\$ 354,763	\$ 0.3675	\$ 352,800	\$ 0.2629	\$ 1,348,434
		\$ 132,690		\$ 275,180		\$ 385,510		\$ 434,970		\$ 441,000		\$ 1,669,350

Units - Collar Floor (put)

No Puts were purchased.

14/15 Winter Portfolio Plan - MERC NNG Consolidated Hedging Plan

10,000 Contract Size

REVISED: 7/1/2014

System	Purchase Month	Nov-14		Dec-14		Jan-15		Feb-15		Mar-15		Total		Percent of Requirements
		Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	
MN Requirements			2,404,840		3,483,485		4,187,889		3,826,379		3,177,443		17,080,036	17,080,036
NNG -MN			80,161		112,370		135,093		136,656		102,498		113,113	
70%			1,683,388		2,438,440		2,931,522		2,678,465		2,224,210		11,956,025	
40%			961,936		1,393,394		1,675,156		1,530,552		1,270,977		6,832,014	
			<u>533,259</u>		<u>1,339,984</u>		<u>1,339,984</u>		<u>1,339,984</u>		<u>533,259</u>		<u>5,086,470</u>	
			428,677		53,410		335,172		190,568		737,718		1,745,544	
30%			721,452	0	1,045,046	0	1,256,367	0	1,147,914	0	953,233		5,124,011	
Contracts	Feb-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-14	0	0	0	0	0	0	0	0	0	0	0	0	
	May-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jun-14	8	80,000	0	0	5	50,000	3	30,000	15	150,000	31	310,000	
	Jul-14	9	90,000	2	20,000	8	80,000	4	40,000	15	150,000	38	380,000	
	Aug-14	9	90,000	2	20,000	7	70,000	4	40,000	15	150,000	37	370,000	
	Sep-14	9	90,000	1	10,000	7	70,000	4	40,000	15	150,000	36	360,000	
	Oct-14	8	80,000	1	10,000	7	70,000	4	40,000	14	140,000	34	340,000	
	Total	43	430,000	6	60,000	34	340,000	19	190,000	74	740,000	176	1,760,000	10.30%
Call Options	Feb-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-14	0	0	0	0	0	0	0	0	0	0	0	0	
	May-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jun-14	14	140,000	20	200,000	25	250,000	23	230,000	19	190,000	101	1,010,000	
	Jul-14	14	140,000	21	210,000	25	250,000	23	230,000	19	190,000	102	1,020,000	
	Aug-14	14	140,000	21	210,000	25	250,000	23	230,000	19	190,000	102	1,020,000	
	Sep-14	15	150,000	21	210,000	25	250,000	23	230,000	19	190,000	103	1,030,000	
	Oct-14	15	150,000	21	210,000	26	260,000	23	230,000	20	200,000	105	1,050,000	
	Total	72	720,000	104	1,040,000	126	1,260,000	115	1,150,000	96	960,000	513	5,130,000	30.04%
Collars	Feb-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Aug-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Sep-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Oct-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Index (back financial)	May-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jun-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jul-14	9,584	287,520	8,871	275,001	12,904	400,024	11,965	335,020	13,709	424,979	57,033	1,722,544	
	Aug-14	9,584	287,520	8,871	275,001	12,903	399,993	11,964	334,992	13,710	425,010	57,032	1,722,516	
	Sep-14	9,583	287,490	8,871	275,001	12,903	399,993	11,964	334,992	13,710	425,010	57,031	1,722,486	
	Oct-14	9,583	287,490	8,871	275,001	12,903	399,993	11,964	334,992	13,710	425,010	57,031	1,722,486	
	Total		1,150,020		1,100,004		1,600,003		1,339,996		1,700,009		6,890,032	40.34%
Physical Hedges			0		0		0		0		0		0	
Storage			533,259		1,339,984		1,339,984		1,339,984		533,259		5,086,470	29.78%
Prepaid Obl			0		0		0		0		0		0	0.00%
			70.00%		70.04%		70.20%		70.04%		70.29%		70.12%	
Term Index		0	0	0	0	0	0	0	0	0	0	0	0	0.00%
		0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Total NNG MN													1,760,000	10.30%
Fixed Price													5,130,000	30.04%
Call Options													0	0.00%
Costing Collar													0	0.00%
Storage													5,086,470	29.78%
Prepaid Obl													0	0.00%
Term Index													0	0.00%
Month/Daily													5,103,566	29.88%
Total													17,080,036	100.00%

MINNESOTA ENERGY RESOURCES

**NNG WINTER PLAN
NOVEMBER, 2014 THROUGH MARCH, 2015**

<u>PHYSICAL FIXED PRICE HEDGES</u>	<u>Deal #</u>	<u>Trigger Locked</u>	<u>Trigger Exercised</u>	<u>Receipt Point</u>	<u>Nov</u>	<u>Dec</u>	<u>Daily Volumes</u>			<u>Monthly Total</u>
							<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	
No Physical Fixed Price Hedges										-
Total Actual Fixed/Option Physical					-	-	-	-	-	-

INDEX

	<u>Contract Number</u>	<u>Date</u>	<u>Receipt Point</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Total</u>
Index - Back Financial Options	16238	09.04.14	NBPL Stateline	590	-	10,000	10,000	10,000	917,700
Index - Back Financial Options	2946	1/11/2011	NNG Welcome	8,957	8,957	8,957	8,957	8,957	1,352,507
Index - Back Financial Options	16443	9/11/2014	NNG Welcome	7,740	5,480	7,740	7,740	7,740	1,098,680
Index - Back Financial Options	2946	1/11/2011	NNG Aberdeen	3,244	3,244	3,244	3,244	3,244	489,844
Index - Back Financial Options	16162	8/28/2014	NNG Beatrice	5,623	5,623	5,623	5,623	5,623	849,073
Index - Back Financial Options	2946	1/11/2011	NNG Marshall	12,180	12,180	12,180	12,180	12,180	1,839,180
Index - Back Financial Options	TBD	TBD	NNG Ventura	-		3,869	113	7,095	343,048
Total Actual Seasonal Index				38,334	35,484	51,613	47,857	54,839	6,890,032

GAS DAILY PACKAGES

N/A -

STORAGE

<u>Injection Month</u>	<u>Contract # 118657 Volume Injected</u>	<u>Contract # 125915 Volume Injected</u>	<u>Contract # 125916 Volume Injected</u>	<u>Total Volume Injected</u>
May - balance forward	79,831	0	0	79,831
June	817,150	29,760	127,770	974,680
July	899,736	30,039	131,378	1,061,153
August	1,034,097	30,070	131,688	1,195,855
Sept	893,700	29,160	127,440	1,050,300
Oct (est)	944,807	30,971	131,724	1,107,502
Total	4,669,321	150,000	650,000	5,469,321

MINNESOTA ENERGY RESOURCES - NNG

	M-10- Peoples Mn GS	M-11- Peoples Mn GS	M-12- Peoples Mn GS	M-13- Peoples Mn GS	M-14- Peoples Mn GS	Proposed Change
Design Day Customer Requirements moving to Transportation 2005-6	194,598	211,182	200,785	245,878	#REF!	#REF!
Adjusted Design Day Design Day Percentages	35.92%	33.31%	38.29%	28.43%	28.07%	-0.36%
Total Design Day Capacity (includes non-recallable capacity)	233,627	221,436	208,007	256,385	#REF!	#REF!
Less: Windom	2,500	2,500	2,500	2,500	#REF!	#REF!
Less: Northwestern Energy	0	910	910	910	#REF!	#REF!
Less: LS Power	25,951	0	0	0	#REF!	#REF!
Less: TF12B	0	0	0	0	0	0
Less: TF5						
Less: TFX(5)						
Total Design Day Capacity	205,176	218,026	204,597	252,975	#REF!	#REF!
Factors for All Winter Capacity	100.00%	100.00%	100.00%	100.00%	100.00%	
<u>Allocated Entitlements in PGA</u>						
TF12B	34,875	42,396	41,156			0
TF12V	32,290	25,298	25,820			0
TF5	28,785	29,011	28,704			0
TFX12	28,802	29,029	28,721			0
TFX(5)	80,424	81,057	80,197			0
TFX(5) (12-V)	0	0	0			0
TFX (October Only)	1,784	1,798	1,779			0
TFX (April Only)	1,784	1,798	1,779			0
NNG Zone Delivery Call Option	0	11,235	0			0
LS Power	25,951	0	0			0
Bison *	44,589	44,940	44,463			0
NBPL *	44,589	44,940	44,463			0
Peak Capacity	231,127	218,026	205,508			0
Total Allocated Entitlements in PGA	323,873	311,502	297,082	0	0	0

* Bison/NBPL does not add incremental capacity but is utilized to deliver Rockies supply to NNG. Volume is not included in Peak Capacity.

Direct Assigned Entitlements in PGA

TF12B				49,153	#REF!	#REF!
TF12V				26,926	#REF!	#REF!
TF5				31,515	#REF!	#REF!
TFX12				32,297	#REF!	#REF!
TFX(5)				93,084	#REF!	#REF!
TFX(5) (12-V)						0
TFX (October Only)				2,000	#REF!	#REF!
TFX (April Only)				2,000	#REF!	#REF!
Windom	2,500	2,500	2,500	2,500	#REF!	#REF!
Northwestern Energy	0	910	910	910	#REF!	#REF!
NNG Zone Delivery Call Option				20,000	#REF!	#REF!
LS Power	0	0	0	0	0	0
Bison *				50,000	#REF!	#REF!
NBPL *				50,000	#REF!	#REF!
TFX (October Only)	0	0	0	0	0	0
TFX (April Only)	0	0	0	0	0	0
TFX(5)	0	0	0	0	0	0
TFX(7)	0	0	0	0	0	0
TFX(5)	0	0	0	0	0	0
Total Direct Assignments	2,500	3,410	3,410	256,385	#REF!	#REF!
Total Capacity before Peak Shaving	233,627	221,436	208,918	256,385	#REF!	#REF!
LP Peak Shaving	0	0				0
Total Design Day Capacity	233,627	221,436	208,918	256,385	#REF!	#REF!
Total Transp. (with TFX Offpeak less LSP)	207,676	221,436	208,918	256,385	#REF!	#REF!
Total Annual Transportation	98,467	100,133	99,107	111,786	#REF!	#REF!
Total Seasonal Transportation	135,160	110,068	108,901	144,599	#REF!	#REF!
Total Percent Seasonal	57.9%	49.7%	52.1%	56.4%	#REF!	#REF!
LS Power as % of Total DD Capacity	11.1%	0.0%	0.0%	0.0%	#REF!	#REF!
Reserve Margin	20.06%	4.86%	4.05%	4.27%	#REF!	#REF!

Direct Assigned Demand Not in PGA

MERC Attachment 10
NNG Demand Entitlements

TF-12-B Contract Demand	0	0	0	0	0	0
Total Design Day Capacity w/ contract demand	233,627	221,436	208,007	256,385	#REF!	#REF!
Factors	35.92%	33.31%	38.29%	28.43%	28.07%	-0.36%
<u>Other Entitlements not included in Peak Day Deliverability</u>						
Field TF (TFF) (NMU direct assigned)	0	0	0	0	0	0
TFX Offpeak Old Oct. (60,000)	0	0	0	0	0	0
TFX Offpeak Old Oct. (35,000)	0	0	0	0	0	0
TFX Offpeak New Oct. (14,600)	0	0	0	0	0	0
TFX Offpeak New Apr. (39,600)	0	0	0	0	0	0
TFX Oct	1,784	1,798	1,779	#REF!	#REF!	#REF!
TFX Apr	1,784	1,798	1,779	#REF!	#REF!	#REF!
TFX Apr-Oct	0	0	0	0	0	0
TFX May-Sept	0	0	0	0	0	0
FDD Storage reservation	78,409	84,483	86,671	97,463	94,863	-2,600
FDD Storage capacity	4,520,719	4,870,885	4,997,056	5,619,321	#REF!	#REF!
Nexen PSO	0	0	0	0	0	0
Tenaska PSO New	0	0	0	0	0	0
NGPL	0	0	0	0	0	0
SMS	20,226	20,385	20,168	#REF!	#REF!	#REF!
SBA	0	0	0	0	0	0

MINNESOTA ENERGY RESOURCES - NNG

Rate Impacts (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)
NNG

1) General Service Residential: Avg. Annual Use: 93 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$1.7955	\$1.6968	\$1.7177	\$1.7822	\$1.6999	-5.32%	-1.04%	-4.62%	(\$0.0823)
Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	0.00%	12.84%	0.00%	\$0.0000
Total Recovery	\$8.5880	\$7.5547	\$7.7406	\$8.1710	\$8.2324	-4.14%	6.35%	0.75%	\$0.0614
Avg. Annual Bill*	\$798.68	\$702.59	\$719.88	\$759.90	\$765.61	-4.14%	6.35%	0.75%	\$5.71
Effect of proposed commodity change on average annual bills:									\$13.36
Effect of proposed demand change on average annual bills:									(\$7.65)
2) Small Volume Interruptible: Avg. Annual Use: 6,699 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate									
Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	0.00%	12.84%	0.00%	\$0.0000
Total Recovery	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	-4.51%	7.68%	2.68%	\$0.1437
Avg. Annual Bill*	\$38,619.07	\$33,141.29	\$34,246.63	\$35,914.68	\$36,877.09	-4.51%	7.68%	2.68%	\$962.41
Effect of proposed commodity change on average annual bills:									\$962.41
Effect of proposed demand change on average annual bills:									\$0.00
3) Large Volume Interruptible: Avg. Annual Use: 42,000 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate									
Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$1.2014	198.41%	236.72%	198.41%	\$0.7988
Total Recovery	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$5.5049	10.85%	24.99%	20.66%	\$0.9425
Avg. Annual Bill*	\$208,576.20	\$178,050.60	\$184,980.60	\$191,620.80	\$231,204.31	10.85%	24.99%	20.66%	\$39,583.51
Effect of proposed commodity change on average annual bills:									\$6,033.91
Effect of proposed demand change on average annual bills:									\$0.00
4) Small Volume Firm: Avg. Annual Use: 6,699 Dth Avg. Annual CD Volumes: 25 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	-8.38%	-8.38%	-8.44%	(\$1.5940)
Comm. Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	0.00%	12.84%	0.00%	\$0.0000
SV Dem. Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	0.00%	12.84%	0.00%	\$0.0000
Total Commodity Cost	\$5.7649	\$4.9472	\$5.1122	\$5.3612	\$5.5049	-4.51%	7.68%	2.68%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	-7.37%	-6.08%	-7.42%	(\$1.5940)
Avg. Annual Bill*	\$39,155.94	\$33,684.14	\$34,776.12	\$36,451.84	\$37,374.40	-4.55%	7.47%	2.53%	\$922.56
Effect of proposed commodity change on average annual bills:									\$962.41
Effect of proposed demand change on average annual bills:									(\$39.85)
5) Large Volume Firm: Avg. Annual Use: 42,000 Dth Avg. Annual CD Units: 75 Dth									
Recovery	Base Cost of Gas Change G011/MR13-732	Demand change Jul'13 12-1193	Last Demand Change Nov'13 13-670	Most Recent PGA Oct'14	Nov'14 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.5635	\$3.8825	\$4.0475	\$4.1598	\$4.3035	-5.70%	6.32%	3.45%	\$0.1437
Demand Rate	\$18.8796	\$19.4140	\$18.8796	\$18.8911	\$17.2971	-8.38%	-8.38%	-8.44%	(\$1.5940)
Comm. Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	0.00%	12.84%	0.00%	\$0.0000
LV Dem. Margin	\$2.5953	\$2.3000	\$2.3000	\$2.5953	\$2.5953	0.00%	12.84%	0.00%	\$0.0000
Total Commodity Cost	\$4.9661	\$4.2393	\$4.4043	\$4.5624	\$4.7061	-5.24%	6.85%	3.15%	\$0.1437
Total Demand Cost	\$21.4749	\$21.7140	\$21.1796	\$21.4864	\$19.8924	-7.37%	-6.08%	-7.42%	(\$1.5940)
Avg. Annual Bill*	\$210,186.82	\$179,679.15	\$186,569.07	\$193,232.28	\$199,146.65	-5.25%	6.74%	3.06%	\$5,914.37
Effect of proposed commodity change on average annual bills:									\$6,033.91
Effect of proposed demand change on average annual bills:									(\$119.55)

* Average Annual Bill amount does not include customer charges.

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	\$0.1437	3.45%	14.37%	(\$0.0823)	-4.62%	0.0614	0.75%
Sm Vol Inter. Service	\$0.1437	3.45%	14.37%	\$0.0000	0.00%	0.1437	2.68%
Lrg Vol Inter. Service	\$0.1437	3.45%	14.37%	\$0.0000	0.00%	0.9425	20.66%
Sm Vol Joint Service	\$0.1437	3.45%	14.37%	(\$1.5940)	-8.44%	0.1437	***
Lrg Vol Joint Service	\$0.1437	3.45%	14.37%	(\$1.5940)	-8.44%	0.1437	***

*** Joint total change includes only commodity change since not all joint customers purchase CD units.

MINNESOTA ENERGY RESOURCES - NNG

Change in Costs due to November 1, 2014 Change in Entitlement Levels and Related Demand Costs

Contract	NNG								
	Oct-14 PGA	Nov-14 Entitlement	Entitlement Change	Months	Nov-14 Rate/MCF	Oct-14 Total Cost	Entitlement Total Cost	Entitlement Change	
TF12B (Max Rate) Winter	112495	43,953	49,819	5,866	5	\$10.2300	\$2,248,196	\$2,548,242	\$300,046
TF12B (Max Rate) Summer	112495	43,190	49,056	5,866	7	\$5.6830	\$1,718,141	\$1,951,497	\$233,356
TF12V (Max Rate)	112495	26,926	21,060	(5,866)	12	\$9.0926	\$2,937,928	\$2,297,882	(\$640,046)
TF5 (Max Rate)	112495	31,515	31,515	0	5	\$15.1530	\$2,387,734	\$2,387,734	(\$0)
TF12B (Discount-Winter)	112495	5,200	5,200	0	12	\$7.4951	\$467,694	\$467,694	\$0
TFX5 (Discount)	112561	6,000	0	(6,000)	5	\$0.0000	\$136,800	\$0	(\$136,800)
TFX12 (Max Rate)	112486	10,822	10,822	0	12	\$9.6288	\$1,250,434	\$1,250,434	\$0
TFX Apr (Max Rate)	112486	2,000	2,000	0	1	\$5.6830	\$11,366	\$11,366	\$0
TFX Oct (Max Rate)	112486	2,000	2,000	0	1	\$5.6830	\$11,366	\$11,366	\$0
TFX5 (Max Rate)	112486	60,271	66,271	6,000	5	\$15.1530	\$4,566,432	\$5,021,022	\$454,590
TFX5 (Discount)	112486	1,800	1,800	0	5	\$10.0320	\$68,400	\$90,288	\$21,888
TFX12 (Discount)	111866	1,283	1,283	0	12	\$4.8640	\$74,886	\$74,886	\$0
TFX12 (Discount)	111866	8,271	8,271	0	12	\$5.4720	\$543,107	\$543,107	(\$0)
TFX12 (Discount)	111866	11,921	11,921	0	12	\$7.6025	\$1,087,553	\$1,087,553	(\$0)
TFX5 (Discount)	111866	379	379	0	5	\$4.8640	\$9,217	\$9,217	\$0
TFX5 (Discount)	111866	2,445	2,445	0	5	\$5.4720	\$66,895	\$66,895	\$0
TFX5 (Discount)	111866	22,189	22,189	0	5	\$15.1392	\$1,679,619	\$1,679,619	(\$0)
TFX5 (Max Rate)	127852	0	30,000	30,000	5	\$15.1530	\$0	\$2,272,950	\$2,272,950
Bison	FT0003	50,000	50,000	0	12	\$17.4896	\$10,493,760	\$10,493,750	(\$10)
NBPL	T8673F	50,000	50,000	0	12	\$6.9958	\$4,197,480	\$4,197,500	\$20
WINDOM	118657	2,500	2,500	0	12	\$0.0000	\$0	\$0	\$0
Northwestern Energy		910	910	0	12	\$8.0000	\$87,360	\$87,360	\$0
NNG Zone GDD Call Option		20,000	0	(20,000)	3	\$0.0000	\$54,000	\$0	(\$54,000)
Total Demand Cost							\$34,098,368	\$36,550,362	\$2,451,994

Costs Assigned In Commodity:

	Oct-14 PGA	Nov-14 Entitlement	Entitlement Change	Months	Nov-14 Rate/MCF	Oct-14 Total Cost	Entitlement Total Cost	Entitlement Change	
<u>Upstream</u>			0				\$0	\$0	
<u>Surcharges:</u>			0				\$0	\$0	
<u>Storage (FDD)</u>			0				\$0	\$0	
Storage Reservation	118657	75,437	75,437	12	\$ 1.7140	\$1,551,588	\$1,551,588	\$0	
Storage Storage Cycle	118657	869,864	869,864	5	\$ 0.3567	\$1,551,402	\$1,551,402	\$0	
Storage Reservation	118657	5,550	5,550	12	\$ 3.3157	\$220,826	\$220,826	(\$0)	
Storage Storage Cycle	118657	64,000	64,000	5	\$ 0.6901	\$220,832	\$220,832	\$0	
Storage Reservation	125915	13,009	2,602	(10,407)	12	\$ 1.7140	\$267,549	\$53,518	(\$214,031)
Storage Storage Cycle	125915	150,000	30,000	(120,000)	5	\$ 0.3567	\$267,525	\$53,505	(\$214,020)
Storage Reservation	125916	3,468	11,274	7,806	12	\$ 1.7140	\$71,330	\$231,884	\$160,554
Storage Storage Cycle	125916	40,000	130,000	90,000	5	\$ 0.3567	\$71,340	\$231,855	\$160,515
SMS_Balancing Service		272,160	#REF!	#REF!	1	\$ 2.1800	\$593,309	#REF!	#REF!
Producer Demand Payments/Option Premium							\$1,269,879	\$1,348,434	\$78,555
Total Commodity Costs							\$6,085,581	#REF!	#REF!

MINNESOTA ENERGY RESOURCES - NNG

Daily Total Throughput Data - July 1, 2013 through June 30, 2014

NNG

Base	41,361
Variable	2,341

Date	12.04%	28.20%	47.24%	12.52%	100.00%	Actual	Estimated Through-Put **
	Cloquet Adjusted HDD	Minneapolis Adjusted HDD	Rochester Adjusted HDD	Worthington Adjusted HDD	Weighted Adjusted HDD	Total Through-Put *	
7/1/13	4	0	0	0	0	50,494	42,522
7/2/13	2	0	0	0	0	49,986	41,936
7/3/13	0	0	0	0	0	45,362	41,361
7/4/13	0	0	0	0	0	37,892	41,361
7/5/13	0	0	0	0	0	42,393	41,361
7/6/13	5	0	0	0	1	39,459	42,883
7/7/13	1	0	0	0	0	44,996	41,651
7/8/13	1	0	0	0	0	52,003	41,657
7/9/13	0	0	0	0	0	49,286	41,361
7/10/13	0	0	0	0	0	52,536	41,361
7/11/13	0	0	0	0	0	51,561	41,361
7/12/13	0	0	0	0	0	45,400	41,361
7/13/13	0	0	0	0	0	38,769	41,361
7/14/13	0	0	0	0	0	43,076	41,361
7/15/13	0	0	0	0	0	50,907	41,361
7/16/13	0	0	0	0	0	60,710	41,361
7/17/13	0	0	0	0	0	63,035	41,361
7/18/13	0	0	0	0	0	58,928	41,361
7/19/13	4	0	0	0	1	51,847	42,556
7/20/13	6	0	0	0	1	37,692	43,187
7/21/13	0	0	0	0	0	42,140	41,361
7/22/13	4	0	0	0	1	50,762	42,545
7/23/13	5	0	0	1	1	51,676	43,134
7/24/13	0	0	0	0	0	52,292	41,361
7/25/13	11	1	5	0	4	50,465	50,165
7/26/13	17	7	12	9	11	47,195	66,763
7/27/13	9	2	8	10	6	42,411	56,470
7/28/13	6	0	3	5	3	44,081	48,139
7/29/13	0	0	0	0	0	52,512	41,361
7/30/13	0	0	0	1	0	57,396	41,666
7/31/13	0	0	0	0	0	54,470	41,361
8/1/13	3	0	0	0	0	53,062	42,266
8/2/13	6	0	0	5	1	45,603	44,677
8/3/13	6	0	2	4	2	42,470	46,690
8/4/13	1	0	0	0	0	40,920	41,648
8/5/13	1	0	0	0	0	50,499	41,654
8/6/13	5	0	0	0	1	52,285	42,869
8/7/13	3	0	0	0	0	52,753	42,232
8/8/13	8	0	0	1	1	56,898	43,805
8/9/13	2	0	1	1	1	48,154	43,408
8/10/13	3	0	0	0	0	41,956	42,232
8/11/13	5	0	0	0	1	43,303	42,855
8/12/13	8	0	3	0	3	50,787	47,222
8/13/13	7	0	3	2	3	51,494	47,484
8/14/13	3	0	2	3	2	55,399	45,517
8/15/13	0	0	0	7	1	50,708	43,495
8/16/13	0	0	0	2	0	43,348	41,994
8/17/13	0	0	0	0	0	37,087	41,361
8/18/13	0	0	0	0	0	45,236	41,361
8/19/13	0	0	0	0	0	51,818	41,361
8/20/13	0	0	0	0	0	51,712	41,361
8/21/13	0	0	0	0	0	50,062	41,361
8/22/13	1	0	0	0	0	51,602	41,651
8/23/13	0	0	0	0	0	47,374	41,361
8/24/13	0	0	0	0	0	39,972	41,361
8/25/13	0	0	0	0	0	44,225	41,361
8/26/13	0	0	0	0	0	51,305	41,361
8/27/13	0	0	0	0	0	49,798	41,361
8/28/13	0	0	0	0	0	51,870	41,361
8/29/13	0	0	0	0	0	54,405	41,361
8/30/13	0	0	0	0	0	46,048	41,361
8/31/13	2	0	0	0	0	39,408	41,987
9/1/13	11	4	9	4	7	39,784	57,963
9/2/13	7	0	5	4	4	47,644	50,433
9/3/13	6	0	0	0	1	54,040	43,119
9/4/13	7	0	0	0	1	55,983	43,393

MERC

9/5/13	0	0	0	0	0	54,327	41,361
9/6/13	0	0	0	0	0	48,291	41,361
9/7/13	5	0	0	0	1	45,163	42,855
9/8/13	3	0	0	0	0	45,642	42,223
9/9/13	0	0	0	0	0	58,803	41,361
9/10/13	1	0	0	0	0	62,275	41,665
9/11/13	12	0	3	0	3	59,864	48,391
9/12/13	15	5	8	7	8	55,170	60,623
9/13/13	10	3	7	5	6	48,760	55,107
9/14/13	20	8	10	3	10	43,909	63,917
9/15/13	18	10	12	13	12	51,015	69,408
9/16/13	13	7	13	9	11	60,142	66,668
9/17/13	5	0	0	3	1	56,716	43,834
9/18/13	1	0	0	0	0	57,047	41,654
9/19/13	11	8	10	4	9	57,654	62,139
9/20/13	15	10	12	20	12	58,282	70,608
9/21/13	16	4	9	6	8	50,044	60,508
9/22/13	9	1	6	0	4	49,170	50,767
9/23/13	6	1	7	0	4	56,012	51,058
9/24/13	8	1	7	5	5	56,736	53,204
9/25/13	7	0	0	0	1	56,527	43,472
9/26/13	1	0	0	0	0	56,188	41,663
9/27/13	8	4	8	0	6	52,067	55,294
9/28/13	9	2	8	11	7	50,978	57,194
9/29/13	0	0	1	0	1	51,303	42,677
9/30/13	6	0	0	0	1	59,219	42,911
10/1/13	8	3	6	4	5	69,594	53,192
10/2/13	13	8	3	0	5	65,369	53,702
10/3/13	16	9	6	9	8	66,160	60,699
10/4/13	21	12	13	17	14	58,469	74,338
10/5/13	18	18	19	21	19	62,374	85,490
10/6/13	17	10	11	23	13	73,237	71,418
10/7/13	8	1	5	8	4	76,747	51,624
10/8/13	2	0	3	1	2	68,211	46,050
10/9/13	5	0	4	0	3	65,127	47,750
10/10/13	3	0	2	0	2	54,427	44,879
10/11/13	11	15	16	8	14	54,022	74,621
10/12/13	21	15	19	19	18	65,048	83,861
10/13/13	23	18	19	15	19	74,019	85,251
10/14/13	23	17	16	18	17	93,518	81,770
10/15/13	21	18	27	24	23	93,772	96,000
10/16/13	26	15	23	22	21	103,116	90,200
10/17/13	24	22	26	22	24	108,623	97,545
10/18/13	29	24	29	26	28	111,310	106,025
10/19/13	34	27	28	26	28	117,112	107,556
10/20/13	38	34	38	25	35	123,082	123,624
10/21/13	36	32	36	28	34	163,407	121,264
10/22/13	36	32	35	33	34	157,487	121,069
10/23/13	33	29	33	35	32	168,604	116,858
10/24/13	29	23	29	31	28	156,612	106,119
10/25/13	28	25	27	24	26	123,727	102,086
10/26/13	28	21	24	32	25	124,993	99,681
10/27/13	34	28	27	23	28	117,072	106,435
10/28/13	37	31	25	32	29	151,427	109,732
10/29/13	30	24	20	26	23	139,226	94,603
10/30/13	24	20	17	25	20	113,393	88,065
10/31/13	26	25	27	29	27	127,997	103,751
11/1/13	31	25	26	27	26	130,046	102,882
11/2/13	30	24	29	23	27	138,715	104,554
11/3/13	22	18	21	19	20	114,180	87,763
11/4/13	30	26	28	29	28	141,938	106,655
11/5/13	34	29	31	40	32	152,358	116,692
11/6/13	39	33	35	39	35	150,822	124,000
11/7/13	41	36	36	38	37	163,725	127,874
11/8/13	36	30	32	27	31	138,186	115,079
11/9/13	36	30	32	36	32	133,889	117,298
11/10/13	41	36	34	40	36	135,223	125,857
11/11/13	56	50	55	61	55	195,890	169,095
11/12/13	47	45	51	52	49	184,801	155,994
11/13/13	32	27	34	27	31	146,246	113,990
11/14/13	28	24	31	24	28	142,533	106,655
11/15/13	25	20	22	23	22	120,393	92,879
11/16/13	23	22	21	21	21	100,929	91,012
11/17/13	36	33	35	31	34	137,135	121,127
11/18/13	46	38	41	33	40	167,552	134,604
11/19/13	37	32	35	24	33	145,391	118,438
11/20/13	30	27	31	34	30	143,060	111,936

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11/21/13	50	46	46	61	48	183,219	154,285
11/22/13	54	50	55	56	54	199,322	166,930
11/23/13	63	55	62	60	60	215,695	181,042
11/24/13	49	48	57	50	53	179,535	164,281
11/25/13	47	41	41	42	42	167,090	139,004
11/26/13	60	54	58	59	57	215,488	175,111
11/27/13	53	49	51	52	51	190,639	160,414
11/28/13	59	46	49	51	49	180,957	157,191
11/29/13	48	43	44	44	44	169,625	144,463
11/30/13	36	35	33	35	34	141,935	121,306
12/1/13	43	36	37	36	37	154,330	128,481
12/2/13	39	33	34	30	34	159,074	120,390
12/3/13	41	35	34	40	36	166,309	125,381
12/4/13	52	52	51	60	53	201,073	164,683
12/5/13	73	70	70	79	71	259,103	208,271
12/6/13	82	75	72	81	75	275,153	217,215
12/7/13	81	71	67	71	70	261,158	205,833
12/8/13	73	65	64	71	66	243,830	196,598
12/9/13	77	68	71	71	71	279,992	206,997
12/10/13	80	68	70	71	71	272,689	207,068
12/11/13	80	68	72	73	72	281,572	210,125
12/12/13	67	54	52	52	54	233,152	168,168
12/13/13	69	57	54	60	58	235,989	176,164
12/14/13	75	63	66	64	66	242,974	195,278
12/15/13	79	66	66	65	67	250,607	199,375
12/16/13	58	51	53	52	53	228,493	164,719
12/17/13	59	51	55	48	53	222,310	165,739
12/18/13	58	41	41	49	44	193,728	144,371
12/19/13	61	54	52	64	55	225,365	169,946
12/20/13	57	49	49	59	51	215,440	161,236
12/21/13	54	50	51	61	52	205,398	163,513
12/22/13	70	63	68	75	68	241,629	200,467
12/23/13	79	77	81	80	79	285,291	227,444
12/24/13	71	67	70	62	68	235,724	200,574
12/25/13	58	49	52	46	51	200,830	160,399
12/26/13	57	46	46	47	47	193,806	151,954
12/27/13	39	37	40	38	38	161,373	131,474
12/28/13	63	48	50	60	52	183,175	163,968
12/29/13	86	77	78	76	78	275,395	225,128
12/30/13	79	72	75	64	73	281,745	213,032
12/31/13	86	74	75	77	76	278,833	219,476
1/1/14	83	74	75	82	77	277,248	220,836
1/2/14	79	72	78	75	76	288,267	220,135
1/3/14	62	52	58	53	56	232,162	173,002
1/4/14	79	68	70	72	71	256,427	207,358
1/5/14	91	90	95	92	93	300,315	258,242
1/6/14	95	89	94	85	92	310,124	255,593
1/7/14	82	71	73	63	73	295,830	211,469
1/8/14	78	70	77	66	74	297,517	213,785
1/9/14	61	57	61	57	59	238,587	179,986
1/10/14	44	41	41	46	42	181,551	139,779
1/11/14	45	41	45	41	44	174,737	143,403
1/12/14	39	33	35	39	36	152,994	124,551
1/13/14	49	43	42	41	43	182,482	141,841
1/14/14	67	61	67	61	64	234,565	191,996
1/15/14	56	50	58	54	55	219,620	169,879
1/16/14	67	60	60	63	61	251,340	183,892
1/17/14	62	62	66	54	63	235,470	188,286
1/18/14	51	49	56	51	53	194,608	165,362
1/19/14	55	37	41	36	41	168,616	137,552
1/20/14	82	68	68	66	69	267,929	203,742
1/21/14	79	72	75	71	74	275,195	215,192
1/22/14	88	82	84	78	84	305,545	236,900
1/23/14	78	69	78	71	75	290,343	216,053
1/24/14	61	54	57	50	56	213,218	171,564
1/25/14	70	67	64	50	64	230,378	190,859
1/26/14	84	77	81	70	79	246,423	225,283
1/27/14	89	83	89	81	86	277,268	242,860
1/28/14	83	77	82	76	80	271,765	228,407
1/29/14	65	51	60	50	57	217,374	174,560
1/30/14	76	67	64	65	66	258,878	196,320
1/31/14	73	67	71	62	69	256,280	202,297
2/1/14	71	62	67	68	66	243,535	195,691
2/2/14	67	64	70	62	67	248,006	197,845
2/3/14	64	59	60	62	60	249,302	182,646
2/4/14	72	68	68	77	70	266,648	204,470
2/5/14	76	75	80	78	78	290,770	223,487

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2/6/14	75	74	79	78	77	284,856	221,769
2/7/14	76	66	70	67	69	261,562	203,161
2/8/14	67	62	65	69	65	244,121	193,637
2/9/14	77	75	79	78	78	276,780	222,919
2/10/14	78	70	79	75	76	296,445	218,740
2/11/14	69	66	73	67	70	260,795	204,977
2/12/14	55	48	54	53	52	225,638	164,263
2/13/14	64	55	58	54	57	247,712	175,842
2/14/14	67	61	69	65	66	244,443	195,713
2/15/14	63	57	60	51	58	223,836	178,132
2/16/14	63	55	60	56	58	208,034	178,087
2/17/14	46	44	47	39	45	199,032	147,187
2/18/14	37	34	40	38	38	165,814	130,059
2/19/14	33	36	39	33	37	153,192	127,584
2/20/14	52	52	53	53	52	196,704	164,167
2/21/14	68	63	65	54	64	228,687	190,352
2/22/14	66	64	68	60	65	222,741	194,583
2/23/14	66	64	71	59	67	232,251	197,636
2/24/14	73	66	72	65	70	259,187	204,117
2/25/14	78	74	81	75	78	289,751	224,283
2/26/14	82	74	79	73	77	291,062	221,614
2/27/14	77	75	80	73	77	288,662	221,748
2/28/14	73	65	66	68	67	262,972	197,832
3/1/14	86	81	82	83	82	290,099	234,099
3/2/14	81	73	81	76	78	287,677	224,741
3/3/14	69	66	69	66	68	268,127	199,482
3/4/14	61	53	55	59	55	225,355	171,267
3/5/14	59	50	58	57	56	212,031	171,740
3/6/14	48	46	50	44	48	191,559	153,134
3/7/14	50	46	41	56	45	188,843	147,723
3/8/14	49	45	52	50	49	169,607	157,060
3/9/14	36	32	39	30	35	137,893	124,242
3/10/14	24	21	28	23	25	117,272	99,636
3/11/14	46	38	41	39	41	167,613	136,863
3/12/14	50	39	48	38	45	183,505	145,795
3/13/14	32	24	31	21	28	130,788	107,338
3/14/14	45	37	39	33	38	158,184	131,243
3/15/14	59	49	50	49	51	177,122	160,289
3/16/14	46	44	48	47	47	179,674	150,410
3/17/14	42	36	38	31	37	165,660	127,328
3/18/14	41	38	35	38	37	158,642	128,534
3/19/14	46	36	39	34	38	166,001	130,570
3/20/14	33	29	34	28	32	135,837	116,045
3/21/14	54	44	42	44	45	172,277	145,676
3/22/14	64	55	57	53	57	198,578	173,753
3/23/14	60	44	45	46	47	195,002	150,606
3/24/14	59	52	52	51	53	200,270	164,334
3/25/14	59	47	51	50	51	211,232	159,631
3/26/14	40	32	35	30	34	158,730	121,377
3/27/14	45	36	37	42	38	162,980	130,709
3/28/14	46	36	37	45	39	150,573	132,234
3/29/14	32	26	28	32	28	118,070	107,677
3/30/14	24	13	18	11	16	100,127	79,600
3/31/14	45	30	30	29	32	137,588	116,358
4/1/14	46	37	36	41	38	175,169	130,696
4/2/14	36	32	30	38	32	138,246	116,381
4/3/14	39	37	40	40	39	163,682	133,194
4/4/14	36	30	32	38	33	144,608	118,436
4/5/14	23	15	19	31	20	106,202	87,370
4/6/14	26	17	19	17	19	90,062	85,723
4/7/14	30	23	25	21	24	103,963	98,679
4/8/14	24	13	20	26	19	112,266	86,734
4/9/14	25	14	17	9	16	83,843	79,195
4/10/14	20	13	15	16	15	92,638	77,000
4/11/14	31	17	21	8	19	77,622	86,044
4/12/14	35	31	32	12	30	88,614	110,522
4/13/14	47	40	42	45	42	139,985	139,986
4/14/14	46	40	40	46	42	172,196	138,727
4/15/14	44	37	29	38	34	150,964	121,499
4/16/14	36	33	32	36	33	150,497	119,584
4/17/14	39	28	26	33	29	144,168	109,601
4/18/14	28	11	14	18	16	105,337	77,890
4/19/14	19	5	5	6	7	73,894	57,672
4/20/14	19	10	12	0	11	59,301	66,292
4/21/14	24	19	21	19	21	88,098	89,790
4/22/14	27	24	26	11	23	97,687	96,110
4/23/14	33	25	25	22	26	122,600	101,809

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4/24/14	31	16	18	20	19	126,572	86,520
4/25/14	32	22	21	11	21	90,363	91,144
4/26/14	38	29	27	15	28	90,599	105,837
4/27/14	34	26	27	20	27	119,095	104,447
4/28/14	31	32	32	29	32	137,739	115,234
4/29/14	31	28	31	32	30	142,398	112,703
4/30/14	26	25	26	30	26	130,985	103,185
5/1/14	25	16	17	28	19	114,402	85,857
5/2/14	24	16	17	17	18	86,076	82,444
5/3/14	24	19	18	18	19	79,875	86,669
5/4/14	25	9	11	22	13	77,868	72,782
5/5/14	28	10	12	11	13	79,417	72,288
5/6/14	21	8	8	6	9	76,626	63,534
5/7/14	22	5	0	0	4	70,931	51,292
5/8/14	26	13	18	6	16	72,525	78,125
5/9/14	14	10	13	13	12	82,643	69,994
5/10/14	12	6	4	6	6	54,506	55,384
5/11/14	27	10	4	12	10	53,997	63,775
5/12/14	20	19	22	26	21	80,194	91,612
5/13/14	23	17	19	22	20	88,383	87,126
5/14/14	26	22	23	21	23	85,978	94,394
5/15/14	22	19	22	32	23	102,029	94,472
5/16/14	21	13	16	21	16	87,539	78,820
5/17/14	6	6	8	9	7	57,073	58,293
5/18/14	16	12	11	0	10	51,295	65,079
5/19/14	5	0	0	4	1	72,103	44,116
5/20/14	13	7	7	2	7	62,361	57,575
5/21/14	12	6	8	8	8	67,382	59,540
5/22/14	9	2	2	1	3	58,628	47,935
5/23/14	1	0	1	0	1	46,617	42,879
5/24/14	0	0	0	0	0	37,057	41,361
5/25/14	0	0	0	0	0	38,704	41,361
5/26/14	11	0	0	0	1	47,309	44,404
5/27/14	11	0	0	0	1	65,305	44,348
5/28/14	4	0	0	0	0	55,545	42,522
5/29/14	5	0	0	0	1	55,336	42,840
5/30/14	5	0	0	0	1	53,706	42,826
5/31/14	2	0	0	0	0	43,904	41,942
6/1/14	2	0	0	0	0	46,347	41,975
6/2/14	2	0	1	1	1	58,867	43,504
6/3/14	5	0	0	1	1	34,875	43,157
6/4/14	9	0	0	0	1	58,901	43,999
6/5/14	0	0	0	0	0	56,271	41,361
6/6/14	11	6	1	0	4	52,135	49,848
6/7/14	11	4	3	11	5	44,262	54,171
6/8/14	7	0	0	3	1	45,560	44,351
6/9/14	8	0	0	5	2	58,413	45,259
6/10/14	7	0	0	0	1	59,435	43,413
6/11/14	18	6	7	0	7	59,601	58,238
6/12/14	9	2	3	8	4	61,776	51,345
6/13/14	15	3	0	0	3	49,029	47,979
6/14/14	7	0	0	2	1	43,098	43,907
6/15/14	0	0	0	0	0	46,623	41,361
6/16/14	0	0	0	0	0	59,635	41,361
6/17/14	6	0	0	0	1	56,975	42,981
6/18/14	13	0	0	0	2	56,330	45,047
6/19/14	15	0	0	0	2	56,109	45,622
6/20/14	6	0	0	0	1	50,436	43,119
6/21/14	9	0	0	0	1	39,496	43,973
6/22/14	0	0	0	0	0	46,058	41,361
6/23/14	13	0	0	0	2	55,396	45,047
6/24/14	14	2	0	0	2	56,699	46,694
6/25/14	11	0	0	0	1	59,819	44,376
6/26/14	9	0	0	0	1	56,040	43,773
6/27/14	0	0	0	0	0	50,652	41,361
6/28/14	0	0	0	0	0	41,907	41,361
6/29/14	0	0	0	0	0	47,729	41,361
6/30/14	1	0	3	0	2	55,559	45,450
Totals	11,522	9,475	10,104	9,840	10,064	#####	38,657,124

* Volumes include interruptible and transportation volumes except for transportation volumes that are not located behind MERC citygates.

MERC

** Design Model numbers are used to calculate firm volumes only

MINNESOTA ENERGY RESOURCES - NNG

Attachment 14

Customer Counts by PGAC Class - July 1, 2013 through June 30, 2014

Rate Class	Tariff Rate Designation	Jul-13 Average Customers	Aug-13 Average Customers	Sep-13 Average Customers	Oct-13 Average Customers	Nov-13 Average Customers	Dec-13 Average Customers	Jan-14 Average Customers	Feb-14 Average Customers	Mar-14 Average Customers	Apr-14 Average Customers	May-14 Average Customers	Jun-14 Average Customers	Annual Average Customers
GS- Residential (w/ Heat)	2H801 / 2HS01 2HS02	160,366	161,713	161,822	162,267	162,257	163,703	167,028	163,698	164,199	158,550	162,775	163,807	162,682
GS-Residential (w/o Heat)	2R801 / 2RS01 2RS02	921	939	933	938	932	942	965	942	945	917	929	935	937
GS-C&I <1,500 therms/yr (Small)	2C805 / 2CS05 2I805 / 2IS05 2C806 / 2CS06 2CS07 / 2IS07 2CS08	8,197	8,230	8,222	8,253	8,255	8,332	8,545	8,405	8,398	8,139	8,291	8,359	8,302
GS-C&I <1,500 therms/yr (Small) Emmons, IA	2CE05	2	2	2	2	2	2	2	2	2	2	2	2	2
GS-C&I >1,500 therms/yr (Large)	2C810 / 2CS10 2I810 / 2IS10 2CS11 / 2IS11 2C812 / 2CS12 2IS12	7,813	7,824	7,810	7,835	7,843	7,862	8,079	7,918	7,876	7,680	7,848	7,893	7,857
GS-C&I >1,500 therms/yr (Large) Emmons, IA	2CE10	1	1	1	1	1	1	1	1	1	1	1	1	1
Small Volume Interruptible (SVI)	2D820 / 2DS20 2J820 / 2JS20 2DS22	308	311	312	317	316	308	315	306	305	302	304	301	309
Small Volume Interrupt	2C830 / 2CS30 2C830	0	0	0	0	0	0	0	3	3	3	3	3	1
Large Volume Interrupt	2D840 / 2DS40 2J840 / 2JS40 2D842	57	56	59	62	59	57	61	58	58	63	67	60	60
Large Volume Interrupt	2IS50 / 2JS50	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Large Volume In	2DS60 / 2JS60	0	0	0	0	0	0	0	0	0	0	0	0	0
Super Large Volume In	2IS70 / 2JS70	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		177,665	179,076	179,161	179,675	179,665	181,207	184,996	181,333	181,787	175,657	180,220	181,361	180,150

MINNESOTA ENERGY RESOURCES - NNG

Projected Storage Cost - November 2014 through March 2015

Month/ Year	K#118657 NNG Storage	Storage K#125915 NNG Storage	Storage K#125916 NNG Storage	Total NNG Storage	Projected Storage NNG WACOG	K#118657 NNG Storage Cost	K#125915 NNG Storage Cost	K#125916 NNG Storage Cost	Total NNG Storage Cost	AECO Storage GLGT/VGT Centra Emerson	AECO Storage GLGT/VGT Centra Emerson WACOG	AECO Storage GLGT/VGT Centra Emerson Cost
Nov-14	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 1,962,895	\$ 63,057	\$ 273,248	\$ 2,299,200	85,304	\$ 4.0841	\$ 348,390
Dec-14	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4,932,401	\$ 158,451	\$ 686,622	\$ 5,777,475	231,769	\$ 4.0841	\$ 946,568
Jan-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4,932,401	\$ 158,451	\$ 686,622	\$ 5,777,475	231,769	\$ 4.0841	\$ 946,568
Feb-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4,932,401	\$ 158,451	\$ 686,622	\$ 5,777,475	209,339	\$ 4.0841	\$ 854,961
Mar-15	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 1,962,895	\$ 63,057	\$ 273,248	\$ 2,299,200	96,374	\$ 4.0841	\$ 393,601
Total	4,342,470	139,500	604,500	5,086,470	\$ 4.3116	\$ 18,722,994	\$ 601,468	\$ 2,606,362	\$ 21,930,824	854,555	\$ 4.0841	\$ 3,490,088

Month/ Year	NNG Storage Volume	NNG Indexes Price	NNG Indexes Cost	AECO Storage Volume	Emerson LDS + Basis	Emerson LDS + Cost
Nov-14	533,259	\$ 3.5925	\$ 1,915,733	85,304	\$ 3.7210	\$ 317,416
Dec-14	1,339,984	\$ 3.9085	\$ 5,237,327	231,769	\$ 4.2170	\$ 977,370
Jan-15	1,339,984	\$ 4.1645	\$ 5,580,363	231,769	\$ 4.3830	\$ 1,015,844
Feb-15	1,339,984	\$ 4.1605	\$ 5,575,003	209,339	\$ 4.3390	\$ 908,322
Mar-15	533,259	\$ 3.8485	\$ 2,052,247	96,374	\$ 4.4120	\$ 425,202
Total	5,086,470	\$ 4.0029	\$ 20,360,674	854,555	\$ 4.2644	\$ 3,644,154

Max NNG Storage (Storage plan withdrawals through Apr 14)	5,086,470	5,469,321	09/30/14 Storage Balance - NNG	4,361,819	79.75%	4,056,493
Max AECO Storage	854,555	947,820	09/30/14 Storage Balance - AECO	851,535	89.84%	767,744
						81.20%

Month/ Year	K#118657 NNG Storage	Storage K#125344 LS Power	Storage K#125345 LS Power	Total NNG Storage	Projected K#118657 NNG WACOG	Projected K#125344 NNG WACOG	K#118657 K#125345 NNG WACOG	WACOG NNG PNG Cost	Projected NNG Indexes Price	Projected NNG Index Cost	Additional Storage (Savings)/ Cost
Nov-14	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 2,299,200	\$ 3.5925	\$ 1,915,733	\$ 383,467
Dec-14	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 5,777,475	\$ 3.9085	\$ 5,237,327	\$ 540,148
Jan-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 5,777,475	\$ 4.1645	\$ 5,580,363	\$ 197,112
Feb-15	1,143,984	36,750	159,250	1,339,984	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 5,777,475	\$ 4.1605	\$ 5,575,003	\$ 202,472
Mar-15	455,259	14,625	63,375	533,259	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 2,299,200	\$ 3.8485	\$ 2,052,247	\$ 246,952
Total	4,342,470	139,500	604,500	5,086,470	\$ 4.3116	\$ 4.3116	\$ 4.3116	\$ 21,930,824	\$ 4.0029	\$ 20,360,674	\$ 1,570,150

\$ 4.3116 \$ (0.2690) \$ 1,570,150

Month/ Year	AECO Storage	AECO Storage Other WACOG	Total AECO Cost	Projected Emerson Index Price	Projected Emerson Index Cost	Additional Storage (Savings)/ Cost
Nov-14	85,304	\$ 4.0841	\$ 348,390	\$ 3.7210	\$ 317,416	\$ 30,974
Dec-14	231,769	\$ 4.0841	\$ 946,568	\$ 4.2170	\$ 977,370	\$ (30,802)
Jan-15	231,769	\$ 4.0841	\$ 946,568	\$ 4.3830	\$ 1,015,844	\$ (69,276)
Feb-15	209,339	\$ 4.0841	\$ 854,961	\$ 4.3390	\$ 908,322	\$ (53,361)
Mar-15	96,374	\$ 4.0841	\$ 393,601	\$ 4.4120	\$ 425,202	\$ (31,601)
Total	854,555	\$ 4.0841	\$ 3,490,088	\$ 4.2644	\$ 3,644,154	\$ (154,066)

\$ 3.2341 \$ (0.8488) \$ (154,066)

