

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

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-

Consolidated for Approval of a Change in Demand Entitlement

Docket No. G011/M-14-661

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-Consolidated for Approval of a Change in Demand Entitlement

Docket No. G011/14-661

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-Consolidated's customers. 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

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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-Consolidated's customers. 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

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In the Matter of the Petition of Minnesota Energy Resources Corporation-Consolidated for Approval of a Change in Demand Entitlement

Docket No. G011/14-661

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 - Consolidated (MERC or the Company), a division of
Integrys Energy Group, Inc. (TEG), hereby petitions the Minnesota Public Utilities Commission
(Commission) to approve changes in demand entitlements for MERC-Consolidated customers.

MERC requests that the Commission approve the requested changes to be recovered in the

Purchased Gas Adjustment (PGA) effective on November 1, 2014.

II. DISCUSSION

A. MERC's Consolidated Design Day Requirements

MERC's 2014-2015 Consolidated design day requirements decreased 1,342 Dth (or approximately 2.68 percent) from 50,048 Dth to 48,706 Dth.

Table 1: MERC's Proposed Consolidated Reserve Margins For the 2014-2015 Heating Season Consolidated (GLGT, VGT & Centra)

	Reserve Margin 2014-2015	Reserve Margin 2013-2014	
	Heating Season	Heating Season	Change
NNG Zone E-F	5.65%	5.82%	-0.17%

As shown in Table 1 and Attachment 3, MERC's proposed system wide reserve margin for Consolidated for the 2014-2015 heating season is positive.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day requirement for Consolidated-Centra is 7,129 Dth as calculated in Attachment 1, page 2 of 3.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day capacity for Consolidated-Centra is 9,500 Mcf as calculated in Attachment 4, page 2 of 2.

The difference between the total Design Day requirement and total Design Day capacity results in an approximate 33.26% positive reserve margin.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day requirement for Consolidated-GLGT is 25,720 Dth as calculated in Attachment 1, page 2 of 3.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day capacity for Consolidated-GLGT is 26,368 Mcf as calculated in Attachment 4, Page 2 of 3. The difference between the total Design Day requirement and total Design Day capacity results in an approximate 2.52% positive reserve margin.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day requirement for Consolidated-VGT is 15,858 Dth as calculated in Attachment 1, page 2 of 3.

For the Demand Entitlement filing effective November 1, 2014, the total Design Day capacity for Consolidated-VGT is 15,591 Mcf as calculated in Attachment 4, page 2 of 3.

The difference between the total Design Day requirement and total Design Day capacity results in a 1.68% negative 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: A 770

		Avg.	Avg.		
Station	Date	Temp	Wind	HDD65	AHDD65
Bemidji	$2/\overline{1/1996}$	-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

A ---

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 AHDD65¹.
- 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 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.

¹ 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.

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 records². 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 class³, calendar month, (service) area, city, location, zip code and responsibility center. The billing database was provided by ADS/Vertex, an outside firm that has been providing billing services to MERC. Sales and Revenue Forecasting had previously adjusted the billing data to properly fit the appropriate calendar month of consumption by apportioning billed volumes, i.e. for a bill covering February 15 to March 15, volumes were split evenly between February and March.

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

 $^{^2}$ Individual daily volumes were available for a handful of paper mills, direct-connects, taconites, and off-system end users.

³ Transportation, Interruptible, Joint Interruptible, Residential, Large Commercial & Industrial and Small Commercial & Industrial.

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

<u>GLGT</u> 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 NORTHSHORE
- 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 dockets, MERC agreed to include a daily estimate utilizing the design day model which is calculated in Attachment 11. 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 any interstate pipeline(s). 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. The calculated base load natural gas usage at zero heating degree days is 6,734 Dth which includes interruptible and transportation volumes. Since daily volume consumption is not available for all interruptible and transportation customers, MERC is not able to determine an exact number to deduct from the 6,734 Dth to determine the firm base load natural gas consumption at zero (0) HDD.

Average Customer Counts

In the 2007 demand entitlement dockets, MERC agreed to include average customer counts which is provided in Attachment 12.

C. MERC's Specific Consolidated Proposed Demand-Related Changes

There are two types of demand entitlement changes. The first type is design day deliverability, which, in this case, increases the amount of firm transportation and storage capacity actually available to MERC's Consolidated 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

On GLGT there is no planned change in winter capacity. However, due a contract extension of a seasonal contract, GLGT had to change the contract number from FT0155 to FT17891. The contract change has no impact on contracted volume or demand cost.

In the August 1, 2014 petition, MERC anticipated purchasing 1,500 Dth firm winter (December 2014 through February 2015) capacity from VGT, however, VGT has no firm capacity to sell. This filing reflects the decrease of 1,500 Dth capacity (see Table 4).

On Centra there is no planned change in winter capacity.

Table 4

Capacity	Propose Change
Entitlement	Increase / (Decrease)
GLGT FT0016	0 Dth/Day
GLGT FT0155 (12)	-3600 Dth/Day
GLGT FT0155 (5)	-3638 Dth/Day
GLGT FT15782	0 Dth/Day
GLGT FT17891 (12)	3600 Dth/Day
GLGT FT17891 (5)	3638 Dth/Day
VGT AF0012	0 Dth/Day
VGT AF0014	0 Dth/Day
VGT AF0102	0 Dth/Day
VGT AF0203	-1500 Dth/Day
Centra FT	-1500 Dth/Day

Total Overall Change

2. Other Demand Entitlement Changes

MERC has AECO Storage, to deliver the supply from storage to MERC-Consolidated markets, MERC plans to enter into an AECO/Emerson swap.

MERC sells gas at the storage point (AECO) to a supplier and buys an equivalent volume at Emerson/Spruce, which MERC then transports to its Consolidated customers. The swap substituted the need to contract for firm transport on TransCanada Pipeline (TCPL) to transport the gas from AECO to Emerson/Spruce. There is no planned change in volume from previous year. Once MERC has revised Design Day numbers this may change and will be revised in the November 1, 2014 filing. 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. <u>Financial Option Units and Premiums</u>

- 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 5.
- ii. Total premium costs to date entered into the financial Call Options on behalf of MERC's Consolidated firm customers amounted to \$320,916 for the 2014/2015 winter. Please see Attachment 8.

- iii. MERC will be entering into 122 contracts (10,000/contract) or 1,220,000.Total premium per contract to date is approximately \$0.2630. Please seeAttachment 5.
- iv. Please see Attachment 5 for the various contract dates.
- v. Please see Attachment 5 for the various contract prices.
- vi. MERC will be entering into 76 futures contracts (10,000/contract) or 760,000. Please see Attachment 5.
- vii. 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 10, pages 1 through 2.

E. <u>Gas Supply.</u>

The Consolidate 2014-2015 Winter Portfolio Plans - Minnesota Energy Resources Corporation for GLGT, VGT and Centra gas supply purchases for the Hedging Plans is in Attachment 10 pages 1 and 2. This Attachment includes the projected sales number by month for the November 2014 through March 2015 period as well as the planned physical fixed price, financial call options and storage and/or exchange volumes by month.

F. Price Volatility

MERC's 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 \$4.14. Please see Attachment 13, page 1 of 3. MERC is projecting the storage WACOG on AECO Storage to be approximately \$4.09. This is an estimate based upon the purchases through July. Please see Attachment 13, 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 customers' gas cost is capped at the average strike price. Please see Attachment 13, page 3 of 3. Since financial options are paper only MERC purchases physical index supply to back the financial call options. MERC projects the gas costs to be approximately \$4.56 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.

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 7.

H. <u>Impacts of Telemetry</u>

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. <u>CONCLUSION</u>

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 Suite 1500, 50 South Sixth Street Minneapolis, MN 55402-1498

Telephone: (612) 340-2600

Attorney for Minnesota Energy Resources Corporation

DESIGN-DAY DEMAND SUMMARY NOVEMBER 1, 2014

Design Day Requirement	48,706
Total Peak Day Entitlement	51,459
Firm Peak Day Actual Sendout -Non Coincidental (Jan. 5)	38,906
Firm Annual Throughput - Minnesota	4,807,824
No. of Firm Customers	34,397
Department Load Factor Calculation	33.86%

MINNESOTA DESIGN DAY REQUIREMENTS NOVEMBER 1, 2014

HDD

Pipeline	2013/14	1/20	Regression	Regression Factors		Regression	1/20 Requirements	2008/09	
Group	Customer	Design	Intercept	Slope	Total	Adjustment	Regression Load	Customer	Total
	Count	DDD	<u> </u>		Footnote 1	Footnote 2	Footnote 3	Growth	<u> </u>
								<u> </u>	
		v	/GT						!
Peak	10,461	109	1,573	140	21,322	5,559	15,763	0.6%	15,858
Off Peak	10,461	57	1,573	140	13,074	3,584	9,490	0.6%	9,547
									
		GI	LGT						
Peak	18,256	106	5,087	233	34,818	9,251	25,567	0.6%	25,720
Off Peak	18,256	57	5,087	233	22,672	5,892	16,780	0.6%	16,881
		Ce	entra						
Peak	5,680	107	1,724	79	11,572	4,486	7,086	0.6%	7,129
Off Peak	5,680	57	1,724	79	7,329	2,894	4,435	0.6%	4,462
		Total Co	nsolidated	-					
Peak	34,397	107	8,384	452	67,712	19,296	48,416	0.6%	48,706
Off Peak	34,397	57	8,384	452	43,075	12,370	30,705	0.6%	30,889

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

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

Footnote 3: Total equals Regression Total minus Regression Adjustment.

**Dual Supplied

DESIGN-DAY DEMAND PER CUSTOMER NOVEMBER 1, 2014

Heating <u>Season</u>	No. of Firm <u>Customers</u>	Design Day <u>Requirements</u>	MMBtus /Customer <u>/Day</u>
14/15	34,397	48,706	1.42
13/14	34,007	50,048	1.47
12/13	33,630	52,289	1.55
11/12	33,384	50,366	1.51
10/11	33,399	50,779	1.52
09/10	34,053	53,931	1.58
08/09	32,632	59,654	1.83
07/08	32,454	57,202	1.76

SUMMER/WINTER USAGE - Mcf PROJECTED 12 MONTHS ENDING JUNE 2014 Consolidated

<u>Class</u>	Summer <u>Apr-Oct</u>	Winter <u>Nov-Mar</u>	<u>Total</u>
GS	1,331,975	3,450,566	4,782,541
SVI	0	0	0
SVJ	11,634	13,649	25,283
LVI	0	0	0
LVJ	0	0	0
SLV	0	0	0
IS	<u>358,718</u>	<u>537,399</u>	<u>896,117</u>
Total	<u>1,702,327</u>	<u>4,001,614</u>	<u>5,703,941</u>

ENTITLEMENT LEVELS PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2014

Type of Capacity or Entitlement		Current Amount Mcf or MMBtu	Proposed Change Mcf or MMBtu	Proposed Amount Mcf or <u>MMBtu</u>
FT Western Zone	FT0016	10,130	0	10,130
FT Western Zone (12)	FT0155 (12)	3,600	(3,600)	0
FT Western Zone (5)	FT0155 (5)	3,638	(3,638)	0
FT Western Zone	FT15782	9,000	0	9,000
FT Western Zone (12)	FT17891 (12)	0	3,600	3,600
FT Western Zone (5)	FT17891 (5)	0	3,638	3,638
FT-A ZONE 1 - 1	AF0012	12,493	0	12,493
FT-A ZONE 1 - 1	AF0209	1,098		1,098
FT-A ZONE 1 - 1	AF0102	2,000	0	2,000
FA-A ZONE 1 - 1	AF0203	1,500	(1,500)	0
CENTRA FT-1		9,500	0	9,500
Total Entitlement		<u>52,959</u>	<u>(1,500)</u>	<u>51,459</u>
Forecasted Design Day-A	Adjusted	50,048	(1,342)	48,706
Capacity Surplus/Shortag	ge	2,911	(158)	2,753
Reserve Margin		5.82%		5.65%

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

RATE IMPACT OF THE PROPOSED DEMAND CHANGE (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)

NOVEMBER 1, 2014

All costs in	Last Base		Last	Most	Current	I	Result of Pro	ige		
\$/Dth	Cost of	Demand	Demand	Recent	Proposal	Change	Change	Change	Change	
	Gas	Change	Change	PGA		from	from	from	from	
	G011/	G011-	G011-	Effective	Effective	Last	Last	Last	Last	
	MR-13-732*	12-1193	13-670	Oct. 1, 2014	Nov. 1,2014	Rate	Demand	PGA	PGA	
	Jan. 14	Jul 13	Nov. 13			Case	Change	%	\$	
) General Service Residential Avg. Annual Use: 93 Dth									
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	11.34%	15.17%	\$0.6481	
Demand Cost	\$0.8258	\$0.9176	\$0.8968	\$0.8586	\$0.8147	-1.34%	-1.21%	-5.11%	(\$0.0439)	
Commodity Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	0.00%	0.00%	0.00%	\$0.0000	
Total Cost of Gas	\$7.5373	\$6.7415	\$6.6466	\$7.3586	\$7.9628	5.65%	6.31%	8.21%	\$0.6042	
Avg Annual Cost	\$700.97	\$626.96	\$618.13	\$684.35	\$740.54	5.65%	6.31%	8.21%	\$56.19	
Effect of proposed co									\$60.27	
Effect of proposed de	emand change o	n average annual	bills:						(\$4.08)	
2) Large General Serv	vice: Avg. Annua	l Use:		5,383	Dth					
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	27.82%	15.17%	\$0.6481	
Demand Cost	\$0.8258	\$0.9176	\$0.8968	\$0.8586	\$0.8147	-1.34%	-11.21%	-5.11%	(\$0.0439)	
Commodity Margin	\$2.2290	\$1.6868	\$1.6868	\$2.2290	\$2.2290	0.00%	32.14%	0.00%	\$0.0000	
Total Cost of Gas	\$7.5373	\$6.4529	\$6.3580	\$7.3586	\$7.9628	5.65%	23.40%	8.21%	\$0.6042	
Avg Annual Cost	\$40,573.29	\$34,735.96	\$34,225.11	\$39,611.34	\$42,863.79	5.65%	23.40%	8.21%	\$3,252.44	
Effect of proposed co	ommodity change	e on average ann	ual bills:						\$3,488.72	
Effect of proposed de									(\$236.28)	
-										
SV Interruptible Se	rvice: Avg. Annu	al Use:		6,699	Dth					
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	27.82%	15.17%	\$0.6481	
Commodity Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	0.00%	12.84%	0.00%	\$0.0000	
Total Cost of Gas	\$5.6839	\$4.9132	\$4.8391	\$5.4724	\$6.1205	7.68%	24.57%	11.84%	\$0.6481	
Avg Annual Cost	\$38,076.45	\$32,913.53	\$32,417.13	\$36,659.61	\$41,001.23	7.68%	24.57%	11.84%	\$4,341.62	
Effect of proposed co	ommodity change	e on average ann	ual bills:						\$4,341.62	
4) LV Interruptible Se				42,000	Dth					
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	27.82%	15.17%	\$0.6481	
Commodity Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	0.00%	12.84%	0.00%	\$0.0000	
Total Cost of Gas	\$4.8851	\$4.2053	\$4.1312	\$4.6736	\$5.3217	8.94%	26.55%	13.87%	\$0.6481	
Avg Annual Cost	\$205,174.20	\$176,622.60	\$173,510.40	\$196,291.20	\$223,511.40	8.94%	26.55%	13.87%	\$27,220.20	
Effect of proposed co	ommodity change	e on average ann	ual bills:			· · · · · · · · · · · · · · · · · · ·			\$27,220.20	

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Docket No. E,G999/AA-12-756
*As approved in Docket No. G007,011/MR-10-978; with implementation consolidated PGA rates on 7/1/13 in Docket No. G007,011/MR-10-977
**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 - CONSOLIDATED

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

DEMAND	strates FDD	storage c	ontract cos	sts snirted	from Demand (osts	to Commodity co	sts)	
Contract Type			Monthly					Rate Case	
Community Po			Entitlement		Rate		Contract	Sales	
		Season	(Dth)	Months	(\$/Dth)		Costs	(therms)	Cost/Ccf
Viking (VGT)									
	AF0012	Annual	12,493	12			630,921	45,118,157	\$0.01398
	AF0209	Winter	1,098	3			13,863	45,118,157	\$0.00031
	AF0102	Annual	2,000 0	12 3			101,003	45,118,157	\$0.00224
FA-A ZONE 1 - 1	AF0203	Dec-Feb	U	3	4.3977	Ф	-	45,118,157	\$0.00000
VGT Demand	•					\$	745,787	45,118,157	\$0.01653
Great Lakes (GLGT)						_			
	T0016	Annual	10,130	12			467,886	45,118,157	\$0.01037
` ,	FT0155 (12)	Annual	0	12			-	45,118,157	\$0.00000
` ,	FT0155 (5)	Winter	0	5			-	45,118,157	\$0.00000
	FT15782	Annual	9,000	12			415,693	45,118,157	\$0.00921
	FT17891 (12)	Annual	3,600	12			166,277	45,118,157	\$0.00369
FT Western Zone (5) F	FT17891 (5)	Winter	3,638	5	\$3.8490	\$	70,013	45,118,157	\$0.00155
GLGT Demand						\$	1,119,869	45,118,157	\$0.02482
Centra					.				
,	\$Cdn/103M3)				\$445.7690				
Conversion (103M3 x Rate(C\$ 103	,	Annual	9,500	12			1,439,535	45,118,157	\$0.03191
CENTRA MINNESOTA PIPELINE	S	Annual	9,500	12	\$3.2510	\$	370,614	45,118,157	\$0.00821
Centra Demand						\$	1,810,149	45,118,157	\$0.04012
AECO		A	0.47.000	4	#0.000F	•			
Niska Storage (AECO)		Annual	947,820	1	\$0.6225		-	0	
AECO/Emerson Swap		Annual	940,428	1	\$0.9025	\$	-	0	
AECO Demand						\$	-	0	
NMU DEMAND - \$/Ccf						\$	3,675,805		\$0.08147
E I-i-t B-t- B					45 440 457	1.			
For Joint Rate Demand					45,118,157	JAnnı	ual Firm Sales in thern	ns	
			Units Dth's	Months	Annual Dth's				
Viking (VGT)			Duis	MOHUIS	Duis				
FT-A ZONE 1 - 1			12,493	12	149,916				
FT-A ZONE 1 - 1			1,098	3	3,294				
FT-A ZONE 1 - 1			2,000	12	24,000				
FA-A ZONE 1 - 1			0	3	-				
Creek Lakes (CL CT)									
Great Lakes (GLGT)			40.400	40	404 500				
FT Western Zone			10,130	12	121,560				
FT Western Zone (12)			3,600	12	43,200				
FT Western Zone (5) FT Western Zone			3,638	5	18,190				
FT Western Zone			9,000	12	108,000				
Centra									
CENTRA TRANSMISSION									
Conversion (103M3 x Rate(C\$ 103			9,500	12	114,000				
CENTRA MINNESOTA PIPELINE	S		9,500	12	114,000				
Total Demand Cost						œ	2 67E 00E		
Total Demand Weighted Vol in N	/Icf					\$	3,675,805 5,821,600		
							อ.ดิว เ ถนน		
Total Joint Demand Rate \$/Mcf							5,621,600		\$0.63141

MINNESOTA ENERGY RESOURCES - CONSOLIDATED November 1, 2013 (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)

PRESENT AVERAGE COST OF GAS COMMODITY

EFFECTIVE: 01-Oct-14

	Annual	Call Option	Balancing	Total Annual	Cost/therm		
Rate	Dth	Premium	Service	Cost		REFERENCE	Effective
\$4.54060							_
\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
\$0.01270						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
<u>\$0.00120</u>						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
\$4.55450	1,933,108	\$115,421	\$89,580	\$9,009,339	\$0.16762	VGT Commodity	
						-	
\$4.54060							
\$0.02644							
\$0.00394						5 Revised Sheet 4	Jun 1, 1997
\$0.00000						Contract	Jun. 1, 2004
\$0.00120						18th Revised Sheet No. 7	Oct. 1, 2005
\$4.57218	2,436,860	\$145,498	\$0	\$11,287,259	\$0.21000	GLGT Commodity	
1.062						Sheet 1 (N.E.B.)	
\$0.02687							
\$4.54060							
\$0.00040							
\$4.56787	1,004,857	\$59,997	\$54,000	\$4,704,048	\$0.08752	Centra Commodity	
	5,374,824	\$320,916	\$143,580	\$25,000,646	\$0.46514		
Total Annual Sales in therms	53,748,240						
					\$0.02677		
					\$0.49191	Total Consolidated WACOG-\$/th	erm
	\$4,54060 \$0,00000 \$0,01270 \$0,00000 \$0,00120 \$4,55450 \$4,54060 \$0,02644 \$0,00394 \$0,00000 \$0,00120 \$4,57218 \$1,062 \$0,02687 \$4,54060 \$0,00040 \$4,56787	Rate Dth \$4,54060 \$0,00000 \$0,01270 \$0,00000 \$0,00120 \$4,55450 1,933,108 \$4,55450 1,933,108 \$4,544600 \$0,02644 \$0,00394 \$0,00000 \$0,00120 \$4,57218 2,436,860 1,062 \$0,02687 \$4,54060 \$0,00040 \$4,56787 1,004,857 5,374,824	Rate Dth Premium \$4,54060 \$0,0000 \$0,0000 \$0,00000 \$0,001270 \$0,00000 \$4,55450 1,933,108 \$115,421 \$4,56460 \$0,02644 \$0,0034 \$0,00120 \$4,57218 \$145,498 \$0,00120 \$4,57218 \$145,498 \$0,02687 \$4,54060 \$145,498 \$0,002697 \$4,50787 \$59,997 \$3,374,824 \$320,916	Rate Dth Premium Service \$4,54060 \$0.00000 \$0.00000 \$0.001270 \$0.000000 \$0.001270 \$0.000000 \$0.00120 \$115,421 \$89,580 \$4,55450 1,933,108 \$115,421 \$89,580 \$0.00000 \$0.002644 \$0.00344 \$0.00394 \$0.00000 \$0.00120 \$4,57218 \$0.00000 \$0.00120 \$145,498 \$0 \$4,57218 2,436,860 \$145,498 \$0 \$0.00267 \$4,54060 \$0.00040 \$4,56787 \$1,004,857 \$59,997 \$54,000 \$4,56787 \$374,824 \$320,916 \$143,580	Rate Dth Premium Service Cost \$4,54060 \$0,00000 \$0,00000 \$0,00120 \$80,001270 \$89,000120 \$9,009,339 \$4,54560 1,933,108 \$115,421 \$89,580 \$9,009,339 \$4,54060 \$0,02844 \$0,00344 \$0,00000 \$0,00120 \$1,000,0000 \$0,00120 \$4,57218 \$2,436,860 \$145,498 \$0 \$11,287,259 \$0,00287 \$4,54060 \$0,00040 \$0,00040 \$59,997 \$54,000 \$4,704,048 \$3,74,824 \$320,916 \$143,580 \$25,000,646	Rate Dth Premium Service Cost \$4.54050 \$0.00000 \$0.001270 \$0.00000 \$0.01270 \$0.00000 \$0.00120 \$0.00120 \$0.00120 \$0.00120 \$0.00120 \$0.00120 \$0.002644 \$0.002644 \$0.002644 \$0.00394 \$0.00000 \$0.00120 \$0.00120 \$145,498 \$0 \$11,287,259 \$0.21000 \$0.002687 \$4,57218 2,436,860 \$145,498 \$0 \$11,287,259 \$0.21000 \$0.002687 \$4,54060 \$0.00640 \$0.00040 \$4,704,048 \$0.08752 \$4,56787 \$0.004,057 \$59,997 \$54,000 \$4,704,048 \$0.08752 Total Annual Sales in therms \$3,748,240 \$320,916 \$143,580 \$25,000,646 \$0.04674	Rate Dth Premium Service Cost REFERENCE \$4.54060 \$0.00000 Sub 16th Revised Sheet No. 5B Sub 16th Revised Sheet N

Balancing	g Service					
Pipeline VGT	Description Balancing Agreement	Season Annual	Monthly Entitlement (Dth) 7,465	Months 12	Rate (\$/Dth) \$1.0000	Contract Costs \$89,580
GLGT			0	0	\$0.0000	\$0
Centra	Union Balancing	Annual	4,453	12	\$1.0106	\$54,000

_		Monthly				Annual	
		Entitlement		Rate	Contract	Sales	Rate
	Season	(Dth)	Months	(\$/Dth)	Costs	(therms)	(\$/therm)
Niska Storage (AECO)	Annual	947,820	1	\$ 0.62250	\$590,018	53,748,240	\$0.01098
AECO/Emerson Swap	Annual	940,428	1	\$ 0.90250	\$848,736	53,748,240	\$0.01579
				_	\$1,438,754	53,748,240	\$0.02677

Total Commodity Cost: \$0.49191

N:Group/Rates/Gas/MERC/PGAC/2013/Con1113

^{*} Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand charges will be allocated through the commodity charge effective 11/01/2014.

MINNESOTA ENERGY RESOURCES - PNG-NNG

Financial Options Heating Season 2014-2015

Contract Daily Contract Daily Contract Daily Da								
Premium - Gas								
N/A N/B								
November Option Premium Premium Option Premium Premium Option Optio								
November Option Premium Premium Option Premium Premium Option Optio								
Option Premium Cost Premium								
Premium Cost Pre								
Ni/A								
No-part No-								
No-part No-								
Contract Daily Contract Daily Contract Daily Date Date Volume Date Date Volume Date Date Volume Date Date Date Date Volume Date								
1 06/25/14 948 06/16/14 209 06/11/14 99 06/30/14 871 06/20/14 370 2,496 73,81 2 07/25/14 1,034 07/16/14 835 07/10/14 197 08/28/14 1,016 06/20/14 370 3,528 105,30 3 08/22/14 1,034 07/16/14 835 07/10/14 197 08/28/14 1,580 06/20/14 370 2,872 86,68 4 09/24/14 1,034 08/13/14 835 07/10/14 889 08/28/14 580 06/20/14 370 3,708 112,17 5 10/01/14 948 09/11/14 626 08/07/14 987 09/29/14 871 07/21/14 1,478 4,911 148,68 6 1 10/09/14 626 09/04/14 987 10/23/14 871 08/18/14 74 2,558 76,89 7 1 0/08/14 987 10/08/14 871 08/18/14 1,478 4,911 148,68 8 1 10/09/14 626 09/04/14 987 10/23/14 871 08/18/14 1,405 1,405 43,54 9 10/08/14 1,405 1,405 43,54 9 10/08/14 1,405 1,405 43,54 10/20/14 1,331 1,331 1,331 41,25 10 Total 5.000 3.548 4.839 4.839 10/09/14 1,301 1,331 1,331 41,25 Total 5.000 150,000 110,000 150,000 130,000 220,000 760,000 Units - Call Options / Daily Volume Date Volum								
2								
3								
4 09/24/14 1,034 08/13/14 835 07/10/14 889 08/28/14 580 06/20/14 370 3,708 112,175 5 10/01/14 948 09/11/14 626 08/07/14 987 09/29/14 871 07/21/14 1,478 4,911 148,68 6 10/09/14 626 09/04/14 987 10/23/14 871 08/18/14 1,478 4,911 148,68 7 10/09/14 626 09/04/14 987 10/23/14 871 08/18/14 1,331 2,318 71,86 8 10/09/14 1,405 1,405 43,54 9 10/08/14 987 10/23/14 1,331 1,331 41,25 10 150,000 110,000 150,000 150,000 130,000 10/20/14 1,331 1,331 41,25 10 150,000 110,000 150,000 150,000 130,000 10/20/14 1,331 1,331 10 10 10/20/14 1,331 1,331 41,25 10 10 150,000 110,000 150,000 130,000 130,000 130,000 10 10 10/20/14 1,331 1,331 41,25 10 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,331 1,331 41,25 10 10 10/20/14 1,445 1,445 10 10 10/20/14 1,445 1,445 10 10 10/20/14 1,445 1,445 10 10 10/20/14 1,445 1,445 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 10 10 10/20/14 1,548 8,023 24,10 1								
5 10/01/14 948 09/11/14 626 08/07/14 987 09/29/14 871 07/21/14 1,478 4,911 148,68 6 6 09/04/14 987 10/23/14 871 08/18/14 74 2,558 76,89 76,89 76,89 8 10/08/14 987 10/23/14 871 08/18/14 1,431 2,318 71,86 78,89 8 08/18/14 1,405 1,405 43,54 9 10/20/14 1,405 1,405 43,54 9 10/20/14 1,331 1,331 41,25 1,201 1,201 1,201 4,643 1,002 25,127 760,00 760,00 20,000 1,000 <t< td=""></t<>								
6								
7 10/08/14 987 08/18/14 1,331 2,318 71,866								
8 09/18/14								
9 10 10 10 10 10 10 10 10 10 10 10 10 10								
Total 5,000 3,548 4,839 4,643 7,097 25,127 760,00 150,000 150,000 150,000 150,000 220,000 760								
Total 5,000 150,000 3,548 10,000 4,839 150,000 4,643 130,000 7,097 25,127 220,000 760,000 760,000 Units - Call Options (Daily Volume) December Janux Februsy Number March Contract Daily Date Volume Date Volume Date Volume Daily Date Volume Contract Daily Date Volume Date Volume Date Volume Daily Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volume Date Volum								
Total								
Units - Call Options (Daily Volume) November Date December Date January February March Contract Daily Date Daily Date Contract Volume Daily Date Volume Date Volume <th< td=""></th<>								
Units - Call Options (Daily Volume) November Date December Date January February March Contract Daily Date Daily Date Contract Volume Daily Date Volume Date Volume <th< td=""></th<>								
November December January February March Contract Daily Daily Term 1 06/13/14 1,082 06/27/14 1,613 06/23/14 1,811 06/18/14 1,844 06/10/14 1,484 7,834 236,23 2 07/14/14 1,082 07/28/14 1,677 07/24/14 1,871 07/18/14 1,844 06/10/14 1,548 8,023 242,10 3 08/11/14 1,082 08/26/14 1,677 08/20/14 1,871 08/15/14 1,844 08/05/14 1,548 8,023 242,10 4 09/09/14 1,210 09/26/14 1,677 09/22/14 1,871 09/16/14 1,844 09/02/14 1,548 8,150 245,92 5 10/06/14 1,210 00/22/14 1,742 </td								
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3 08/11/14 1,082 08/26/14 1,677 08/20/14 1,871 08/15/14 1,844 08/05/14 1,548 8,023 242,10 4 09/09/14 1,210 09/26/14 1,677 09/22/14 1,871 09/16/14 1,844 09/02/14 1,548 8,150 245,92 5 10/06/14 1,210 10/22/14 1,742 10/21/14 1,931 10/10/14 1,910 10/07/14 1,613 8,406 253,63 6 7 Total 5,667 8,387 9,355 9,286 7,742 40,436 1,220,000								
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5 10/06/14 1,210 10/22/14 1,742 10/21/14 1,931 10/10/14 1,910 10/07/14 1,613 8,406 253,63 6 7 Total 5,667 8,387 9,355 9,286 7,742 40,436 1,220,00								
6 7 Total <u>5,667</u> <u>8,387</u> <u>9,355</u> <u>9,286</u> <u>7,742</u> <u>40,436</u> <u>1,220,00</u>								
7 Total <u>5,667</u> <u>8,387</u> <u>9,355</u> <u>9,286</u> <u>7,742</u> <u>40,436</u> <u>1,220,00</u>								
Total <u>5,667</u> <u>8,387</u> <u>9,355</u> <u>9,286</u> <u>7,742</u> <u>40,436</u> <u>1,220,00</u>								
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110,000 200,000 200,000 200,000								
Premium - Call Option (Monthly Cost)								
November December January February March Total								
Option Premium Option Premium Option Premium Option Premium Option Premium								
<u>Premium Cost Premium Cost Premium Cost Premium Cost Premium Cost Premium Cost</u>								
1 \$ 0.2380 \$ 7,728 \$ 0.3100 \$15,500 \$ 0.3450 \$19,365 \$ 0.3750 \$19,362 \$ 0.3960 \$ 18,216 \$ 0.3394 \$ 80,17								
2 \$ 0.2220 \$ 7,209 \$ 0.2230 \$11,596 \$ 0.2370 \$13,746 \$ 0.3050 \$15,748 \$ 0.4110 \$ 19,728 \$ 0.2810 \$ 68,02								
3 \$ 0.1350 \$ 4,384 \$ 0.2010 \$10,452 \$ 0.2420 \$14,036 \$ 0.2640 \$13,631 \$ 0.3030 \$ 14,544 \$ 0.2356 \$ 57,04								
4 \$ 0.0880 \$ 3,194 \$ 0.1660 \$8,632 \$ 0.2160 \$12,528 \$ 0.3350 \$17,296 \$ 0.2940 \$ 14,112 \$ 0.2267 \$ 55,76								
5 \$ 0.0780 \$ 2,831 \$ 0.1640 \$8,856 \$ 0.2080 \$12,453 \$ 0.2650 \$14,171 \$ 0.4320 \$ 21,600 \$ 0.2362 \$ 59,91								
6								
6 7								
6								
6 7								

No Puts were purchased.

Attachment 6

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

	M-11- Consolidated GS	M-12- Consolidated GS	M-13- Consolidated GS	M-14- Consolidated GS	Proposed Change
Viking Gas Transmission (VGT) FT-A ZONE 1 - 1 FT-A ZONE 1 - 1 FT-A ZONE 1 - 1 FA-A ZONE 1 - 1 Wadena Delivered GDD Option	12,493 1,098 2,000 0	12,493 1,098 2,000 0 3500	12,493 1,098 2,000 1,500	1,098 2,000	0 0 0 -1,500 0
Great Lakes Gas Transmission (GLGT) FT Western Zone FT Western Zone (12) FT Western Zone (5) FT Western Zone FT Western Zone (12) FT Western Zone (5)	10,130 3,600 3,638 9,000 0	10,130 3,600 3,638 9,000 0	10,130 3,600 3,638 9,000 0	0 0 9,000	0 -3,600 -3,638 0 3,600 3,638
Centra Transmission Holding/Centra Minnesota Pipeli Centra FT-1	ines (CTHI/CPN 9,858	11) 9,500	9,500	9,500	0
Total VGT Transportation Total GLGT Transportation Total CTHI/CPMI Transportation	15,591 26,368 9,858	19,091 26,368 9,500	17,091 26,368 9,500	15,591 26,368 9,500	-1,500 0 0
Total Transportation Total Seasonal Transportation Total Seasonal Transportation %	51,817 6,736 13.00%	54,959 6,736 12.26%	52,959 6,736 12.72%	6,736	-1,500 0 0.37%
Other Entitlements not included in Peak Day Deliverability AECO Storage AECO/Emerson Swap	947,820 947,823	947,820 947,823	947,820 947,823	947,820 940,428	0 -7,395

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

Consolidated

	Base Cost of Gas Change	Demand Change	Last Demand Change	Most Recent PGA	Nov. 1, 2014 w/ Proposed	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
General Service-Residential	MR13-732	Jul'13	Nov'13	Oct'14	Demand Changes**			PGA	PGA
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	30.33%	15.17%	\$0.6481
Demand Cost	\$0.8258	\$0.9176	\$0.8968	\$0.8586	\$0.8147	-1.34%	-9.15%	-5.11%	(\$0.0439)
Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	0.00%	12.84%	0.00%	\$0.0000
Total Cost of Gas	\$7.5373	\$6.7415	\$6.6466	\$7.3586	\$7.9628	5.65%	19.80%	8.21%	\$0.6042
Average Annual Use	90	90	90	90	90				,
Average Annual Cost of Gas*	\$678.36	\$606.74	\$598.19	\$662.27	\$716.65	5.65%	19.80%	8.21%	\$54.38
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		_							
	Base Cost of Gas	Demand	Last Demand	Most Recent	Nov. 1, 2014	% Change	% Change	% Change	\$ Change
	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Large General Service	MR13-732	Jul'13	Nov'13	Oct'14	Demand Changes**			PGA	PGA
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	30.33%	15.17%	\$0.6481
Demand Cost	\$0.8258	\$0.9176	\$0.8968	\$0.8586	\$0.8147	-1.34%	-9.15%	-5.11%	(\$0.0439)
Margin	\$2.2290	\$1.6868	\$1.6868	\$2.2290	\$2.2290	0.00%	32.14%	0.00%	\$0.0000
Total Cost of Gas	\$7.5373	\$6.4529	\$6.3580	\$7.3586	\$7.9628	5.65%	25.24%	8.21%	\$0.6042
Average Annual Use	4,932	4,932	4,932	4,932	4,932	F 0F0/	05.040/	0.040/	#0.070.05
Average Annual Cost of Gas*	\$37,173.96	\$31,825.70	\$31,357.66	\$36,292.62	\$39,272.56	5.65%	25.24%	8.21%	\$2,979.95
	5 0					0/ 0/	0/ 01	۰, ۵	• •
	Base Cost of Gas	Demand	Last Demand	Most Recent	Nov. 1, 2014	% Change	% Change	% Change	\$ Change
0.44.4	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
SV Interruptible Service	MR13-732	Jul'13	Nov'13	Oct'14	Demand Changes** \$4.9191			PGA	PGA CO 6491
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74% 0.00%	30.33%	15.17%	\$0.6481
Commodity Margin Total Cost of Gas	\$1.2014 \$5.6839	\$1.0647 \$4.9132	\$1.0647 \$4.8391	\$1.2014 \$5.4724	\$1.2014	7.68%	12.84% 26.48%	0.00% 11.84%	\$0.0000 \$0.6481
Average Annual Use	6,068		6,068	6,068	6,068	7.00%	20.40%	11.04%	Ф 0.046 I
Average Annual Cost of Gas*	\$34,489.91	6,068 \$29,813.30	\$29,363.66	\$33,206.52	\$37,139.19	7.68%	26.48%	11.84%	\$3,932.67
Average Armual Cost of Gas	φ34,469.91	φ29,013.30	φ29,303.00	φ33,200.32	φ37,139.19	7.00%	20.46 /6	11.04 /0	φ3,932.07
	Base Cost of Gas	Demand	Last Demand	Most Recent	Nov. 1, 2014	% Change	% Change	% Change	\$ Change
	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
LV Interruptible Service	MR13-732	Jul'13	Nov'13	Oct'14	Demand Changes**			PGA	PGA
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	30.33%	15.17%	\$0.6481
Commodity Margin	\$0.4026	\$0.3568	\$0.3568	\$0.4026	\$0.4026	0.00%	12.84%	0.00%	\$0.0000
Total Cost of Gas	\$4.8851	\$4.2053	\$4.1312	\$4.6736	\$5.3217	8.94%	28.82%	13.87%	\$0.6481
Average Annual Use	40,821	40,821	40,821	40,821	40,821				
Average Annual Cost of Gas*	\$199,414.67	\$171,664.55	\$168,639.72	\$190,781.03	\$217,237.12	8.94%	28.82%	13.87%	\$26,456.09
	Commodity	Commodity	Demand	Demand		Total	Total	Average	
	Change	Change	Change	Change		Change	Change	Annual	
November Change Summary	\$/Mcf	%	\$/Mcf	%		\$/Mcf	%	Change	
General Service	\$0.6481	15.17%	•	-5.11%		\$0.6042	8.21%	\$54.38	
Large General Service	\$0.6481	15.17 %	, ,	-5.11% -5.11%		\$0.6042	8.21%	\$2,979.95	
SV Interruptible Service	\$0.6481	15.17%	, ,	-5.11/0		\$0.6481	11.84%	\$3,932.67	
LV Interruptible Service	\$0.6481	15.17%				\$0.6481	13.87%	\$26,456.09	
	ψ0.0-101	10.17 /0				ψ0.0101	10.01 /0	ş <u>_</u> _0,.00.00	

^{*} Average Annual Bill amount does not include customer charges.

^{**} Commodity includes Upstream costs.

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

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

									Attachment 8
			Consoli						
	Oct. 2014	Nov. 2014	Entitlement	No	ov. 2014		Oct. 2014	Nov. 2014	Total Annual Cost
	Entitlements	Entitlements	Change		Rate	Months	Total Annual Cost	Total Annual Cost	Change
Costs Assigned in Demand Charge									
Viking Pipeline									
FT-A ZONE 1 - 1	12,493	12,493	0	Ф	4.2085	12	\$510,212	\$630,921	\$120,709
FT-A ZONE 1 - 1 FT-A ZONE 1 - 1	1,098	1,098	0		4.2085	3	\$11,211	\$13,863	\$2,652
FT-A ZONE 1 - 1 FT-A ZONE 1 - 1	2,000	2,000	0		4.2085	12	\$81,680	\$101,003	\$19.323
	,	,					, ,		+ -,
FA-A ZONE 1 - 1	1,500	0	-1,500	\$	4.3977	3	\$16,669	\$0	-\$16,669
GLGTPipeline									
FT Western Zone	10,130	10,130	0	\$	3.8490	12	\$467,886	\$467.886	\$0
FT Western Zone (12)	3,600		-3,600		3.8490	12	\$166,277	\$0	-\$166,277
FT Western Zone (5)	3,638		-3,638		3.8490	5	\$70,013	\$0	-\$70,013
FT Western Zone	9,000		0,000		3.8490	12	\$415,693	\$415,693	\$0
FT Western Zone (12)	9,000	3,600	3,600	-	3.8490	12	\$0	\$166,277	\$166,277
FT Western Zone (12)	0	3,638	3,638		3.8490	5	\$0 \$0	\$70,013	\$70,013
F1 Western Zone (5)	U	3,030	3,036	Φ	3.0490	5	Φ0	\$70,013	\$70,013
CENTRA Pipeline									
CENTRA TRANSMISSION	9,500	9,500	0	\$	12.6275	12	\$826,161	\$1,439,535	\$613,374
CENTRA MINNESOTA PIPELINES	9,500	,		\$	3.2510	12	\$202,692	\$370,614	\$167,922
Total Costs Assigned to Demand Charge	,	-,		•			\$2,768,494	\$3,675,805	
							. , ,	· , , ,	<u> </u>
Costs Assigned in Commodity Charge									
Niska Storage (AECO)									
Niska Storage (AECO)	947,820	947,820	0	\$	0.6225	1	\$688,362	\$590,018	-\$98,344
AECO/Emerson Swap	947,823	940,428	-7,395	\$	0.9025	1	\$417,042	\$848,736	\$431,694
Polonoing									
Balancing VGT Balancing Agreement	7,465	7,465	0	\$	1.0000	12	\$89,580	\$89.580	\$0
Union Balancing	4,500				1.0106	12	\$54,000	\$54,000	\$0
cc Data noning	1,500	1, 100	77	Ψ	7.0100		ψο 1,000	ψο 1,000	ΨΟ
Call Options Premium							\$295,511	\$320,916	\$25,405
Total Costs Assigned to Commodity Cha	arge						\$1,544,495	\$1,903,250	\$358,755
- · · · · · · · · · · · · · · · · · · ·									

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

		GLGT				
		update formul	a			
	1/20		HDD	1/20	Customer	
	Design Day HDI	D Regression Intercept	Slope	Regression Load	Growth	Total
Peak	106	5,087	233	25,567	0.60%	25,720
Off Peak	57	5,087	233	16,780	0.60%	16,881
		VGT				
	1/20		HDD	1/20	Customer	
	Design Day HDI	Regression Intercept	Slope	Regression Load	Growth	Total
Peak	109	1,573	140	15,763	0.60%	15,858
Off Peak	57	1,573	140	9,490	0.60%	9,547
		Centra				
	1/20		HDD	1/20	Customer	
	Design Day HDI	Regression Intercept	Slope	Regression Load	Growth	Total
Peak	107	1,724	79	7,086	0.60%	7,129
Off Peak	57	1,724	79	4,435	0.60%	4,462
		Consolidated				
	1/20		HDD	1/20	Customer	
	Design Day HDI	D Regression Intercept	Slope	Regression Load	Growth	Total
Peak	-	8,384	452	48,416	0.60%	48,706
Off Peak		8,384	452	30,705	0.60%	30,889

14/15 Winter Portfolio Plan - GLGT/VGT/Centra Hedging Plan

10.000	Contract Si	70		14/15 W	inter Port	tolio Piai	n - GLG I/	vG i/Cen	itra Heag	ing Plan		REVISED:		
10,000	Contract Si		v-14	De	c-14	.la	n-15	Fe	b-15	Ma	ır-15	KEVISED:	Total	Percent
	Purchase	Number	Contract	Number	Contract	Number	Contract	Number	Contract	Number	Contract	Number	Contract	of
System	Month	Contracts	Volume	Contracts	Volume	Contracts	Volume	Contracts	Volume	Contracts	Volume	Contracts	Volume	Requirements
MN Requirements			569,086		848,644		950,643		849,068		784,176		4,001,617	4,001,617
GLGT -MN			18,970		27,376		30,666		784,176		25,296		26,501	
70%			398,360		594,051		665,450		594,348		548,923		2,801,132	
40%			227,634		339,458		380,257		339,627		313,670		1,600,647	
			<u>85,304</u>		<u>231,769</u>		<u>231,769</u>		209,339		96,374		<u>854,555</u>	
			142,330		107,689		148,488		130,288		217,296		746,092	
30%			398,360		594,051		665,450		594,348		548,923		2,801,132	
Contracts	Feb-14	0	0	0	0	0	0	0	0	0	0	0	0	
Contracts	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	3	30,000	3	30,000	3	30,000	3	30,000	5	50,000	17	170,000	
	Jul-14	3	30,000	2	20,000	3	30,000	3	30,000	5	50,000	16	160,000	
	Aug-14	3	30,000	2	20,000	3	30,000	3	30,000	4	40,000	15	150,000	
	Sep-14	3	30,000	2	20,000	3	30,000	2	20,000	4	40,000	14	140,000	
	Oct-14	3	30,000	2	20,000	3	30,000	2	20,000	4	40,000	14	140,000	
0 11 0 11	Total	15	150,000	11	110,000	15	150,000	13	130,000	22	220,000	76	760,000	18.99%
Call Options	Feb-14	0	0 0	0	0 0	0	0 0	0 0	0	0	0 0	0	0 0	
	Mar-14 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	3	30,000	5	50,000	5	50,000	5	50,000	4	40,000	22	220.000	
	Jul-14	3	30,000	5	50,000	6	60,000	5	50,000	5	50,000	24	240,000	
	Aug-14	3	30,000	5	50,000	6	60,000	5	50,000	5	50,000	24	240,000	
	Sep-14	4	40,000	5	50,000	6	60,000	5	50,000	5	50,000	25	250,000	
	Oct-14	4	40,000	6	60,000	6	60,000	6	60,000	5	50,000	27	270,000	
	Total	17	170,000	26	260,000	29	290,000	26	260,000	24	240,000	122	1,220,000	30.49%
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 Total	0 0	0 0	0 0	0 0	0 0	0 0	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	0.00%
index (back iirianciai)	Jun-14	0	0	0	0	0	0	0	0	0	0	0	0	
	Jul-14	2,666	79,980	2,984	92,504	3,549	110,019	3,483	97,524	3,709	114,979	16,391	495,006	
	Aug-14	2,667	80,010	2,984	92,504	3,549	110,019	3,482	97,496	3,710	115,010	16,392	495,039	
	Sep-14	2,667	80,010	2,984	92,504	3,548	109,988	3,482	97,496	3,710	115,010	16,391	495,008	
	Oct-14	2,667	80,010	2,984	92,504	3,548	109,988	3,482	97,496	3,710	115,010	16,391	495,008	
	Total		320,010		370,016		440,014		390,012		460,009		1,980,061	49.48%
Physical Hedges			0		0		0		0		0		0	
Storage			85,304		231,769		231,769		209,339		96,374		854,555	21.36%
Prepaid Obl			0		0		0		0		0		0	0.00%
			71.22%	_	70.91%		70.67%		70.59%		70.95%		70.84%	
Term Index	Aug-14	0	0	0	0	0	0	0	0	0	0		0	0.00%
	Sep-14 Oct-14	0	0 0	0	0 0	0	0 0	0 0	0	0	0		0 0	0.00% 0.00%
Total NNG MN	OCI-14	U	U	U	U	U	U	U	U	U	U		U	0.00 /6
Contracts													760,000	18.99%
Call Options													1,220,000	30.49%
Costing Collar													0	0.00%
Storage													854,555	21.36%
Prepaid Obl													0	0.00%
Term Index													0	0.00%
Month/Daily													1,167,062	29.16%
Total									•	•			4,001,617	100.00%
-	r .												/ ·/ - ··	

NOTE:

WINTER PLAN - CONSOLIDATED NOVEMBER, 2013 THROUGH MARCH, 2014

PHYSICAL FIXED PRICE HEDGE No Physical Fixed Price Hedges	<u>:S</u> <u>Deal #</u>	Trigger <u>Locked</u>	Trigger Exercised	Receipt Point	<u>Nov</u>	Dec Dec	aily Volumes <u>Jan</u>	<u>Feb</u>	<u>Mar</u>	Monthly <u>Total</u> - -
	Total Actual	Fixed/Option	Physical	_	-	-	-	-	-	-
INDEX	Contract									
	<u>Number</u>	<u>Date</u>	Receipt Point	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Total</u>	
Index - Back Financial Options	16153	8/28/2014	VGT-Emerson #1	3,555	3,979	4,732	4,643	-	506,695	
Index - Back Financial Options	16395	9/10/2014	GLGT-Emerson #2	3,556	3,979	4,731	4,643	7,419	736,683	
Index - Back Financial Options	16616	9/18/2014	Centra-Spruce	3,280	3,978	4,618	4,235	3,670	597,226	
Index - Back Financial Options	16775	9/23/2014	VGT-Emerson #1	276	-	113	408	3,750	139,457	

10,667

14,194

11,936

13,929

14,839 1,980,061

GAS DAILY PACKAGES

No GDD Options

STORAGE

		Contract # AECO	Total
	Injection	Volume	Volume
	<u>Month</u>	<u>Injected</u>	<u>Injected</u>
	May - balance forward	191,115	191,115
	June	184,950	184,950
	July	191,115	191,115
	August	191,115	191,115
	Sept	93,240	93,240
	Oct (est)	96,285	96,285
Total		947,820	947,820

Total Actual Seasonal Index

Daily Total Throughput Data - July 1, 2012 through June 30, 2013

Base	6,734	
Variable	495	

						Base Variable	6,734 495
	28.53%	13.34%	35.13%	23.00%	100.00%	Actual	
	Bemidji	Cloquet	Fargo	Intl. Falls	Weighted	Total	Estimated
Date	Adjusted HDD	Adjusted HDD	Adjusted HDD	Adjusted HDD	Adjusted HDD	Through- Put *	Through- Put **
7/1/13	0	4	0	0	1	6,011	7,006
7/1/13	0	2	0	0	0	4,381	6,869
7/3/13	0	0	0	0	0	5,300	6,734
7/4/13 7/5/13	0 0	0 0	0 0	0 0	0 0	4,381 3,946	6,734 6,734
7/6/13	0	5	0	0	1	4,158	7,091
7/7/13 7/8/13	0 0	1 1	0 0	0 0	0 0	5,357 5,141	6,802 6,803
7/9/13	0	0	0	1	0	6,275	6,856
7/10/13 7/11/13	0 0	0 0	0 0	1 0	0 0	7,115 6,217	6,852 6,734
7/12/13	0	Ö	0	0	0	5,545	6,734
7/13/13 7/14/13	0 0	0 0	0 0	0 0	0 0	3,886 4,739	6,734 6,734
7/15/13	0	0	0	0	0	6,144	6,734
7/16/13	0	0	0	0	0	5,589	6,734
7/17/13 7/18/13	0 0	0 0	0 0	0 3	0 1	5,325 5,628	6,734 7,110
7/19/13	4	4	0	10	4	5,241	8,786
7/20/13 7/21/13	0 3	6 0	0 1	7 4	3 2	4,173 5,837	8,007 7,911
7/22/13	7	4	2	6	5	6,425	9,122
7/23/13 7/24/13	4 0	5 0	0 0	7 6	4 1	5,362 6,584	8,499 7,444
7/25/13	12	11	6	14	10	7,186	11,802
7/26/13 7/27/13	13 9	17 9	6 4	13 7	11 7	7,188 5,316	12,174 10,200
7/28/13	6	6	0	8	4	5,750	8,961
7/29/13	0	0	0	1	0	6,235	6,852
7/30/13 7/31/13	0 1	0 0	0 0	2 3	1 1	6,858 7,271	6,982 7,250
8/1/13	4	3	0	5	3	6,929	8,160
8/2/13 8/3/13	7 11	6 6	0 1	8 10	5 7	5,465 3,976	9,158 9,976
8/4/13	3	1	0	5	2	4,788	7,835
8/5/13 8/6/13	6 8	1 5	0 3	8 12	4 7	7,248 7,356	8,640 10,155
8/7/13	8	3	0	14	6	8,133	9,656
8/8/13	9	8 2	5 3	11	8	12,868	10,608
8/9/13 8/10/13	5 2	3	0	8 4	5 2	6,501 4,660	9,062 7,701
8/11/13	6	5	0	7	4	4,969	8,819
8/12/13 8/13/13	9 8	8 7	3 3	10 10	7 7	6,847 6,235	10,319 10,068
8/14/13	5	3	0	7	4	6,994	8,480
8/15/13 8/16/13	0 0	0 0	0 0	3 0	1 0	5,092 3,341	7,089 6,734
8/17/13	0	0	0	0	0	4,313	6,734
8/18/13 8/19/13	0 0	0 0	0 0	0 0	0 0	6,977 6,438	6,734 6,734
8/20/13	0	0	0	0	0	5,292	6,734
8/21/13 8/22/13	3 1	0 1	0 0	5 4	2 1	6,443 6,419	7,755 7,422
8/23/13	0	0	0	0	0	5,926	6,734
8/24/13	0	0	0	0	0	4,323	6,734
8/25/13 8/26/13	0 0	0 0	0 0	0 0	0 0	6,370 6,521	6,734 6,734
8/27/13	0	0	0	0	0	5,083	6,734
8/28/13 8/29/13	0 0	0 0	0 0	0 0	0 0	6,453 5,795	6,734 6,734
8/30/13	0	0	0	0	0	5,685	6,734
8/31/13 9/1/13	6 9	2 11	4 6	9 10	5 9	4,918 5,537	9,438 11,008
9/2/13	4	7	0	5	3	6,901	8,426
9/3/13	7 5	6 7	0 0	10 9	5 5	7,703	9,358
9/4/13 9/5/13	0	0	0	0	0	8,306 7,405	9,014 6,734
9/6/13	0	0	0	2	0	6,100 5,005	6,975
9/7/13 9/8/13	4 0	5 3	0 0	6 3	3 1	5,095 6,468	8,417 7,288
9/9/13	0	0	0	4	1	7,888	7,208
9/10/13 9/11/13	2 12	1 12	0 4	3 12	1 9	7,663 7,875	7,472 11,217
9/12/13	12	15	3	11	9	8,237	11,262
9/13/13 9/14/13	6 18	10 20	7 10	3 20	6 16	6,859 6,638	9,765 14,582
9/14/13	17	18	8	20 19	14	8,321	13,747
9/16/13	15	13	6	12	11	8,979	11,966

11

8,979

11,966

12

9/16/13

15

13

Attachment 11	7,905	8,918	2	3	0	5	3	9/17/13
Attachment	7,105	8,276	1	0	0	1	2	9/18/13
	13,532	8,798	14	15	12	11	16	9/19/13
	14.912	9.540	17	22	13	15	18	9/20/13

919813 2 1 0 0 1 1 8.276 7.1052 92013 18 15 13 22 17 7 9.540 14.912 92013 11 16 0 1 9 10 7.645 11.59 92013 1 1 16 0 1 9 10 7.645 11.59 92013 4 6 0 4 3 7.699 8.948 92013 4 6 0 4 3 7.699 8.948 92013 8 8 0 5 4 7.629 8.948 92013 0 7 0 3 2 6.835 7.808 92013 0 7 0 3 2 5 6.855 10.503 92013 17 8 10 10 12 6.622 12.59 92013 0 7 0 0 3 2 6.825 10.593 92013 0 7 0 0 3 2 6.825 10.593 92013 0 7 0 0 3 2 6.825 10.593 92013 0 7 0 0 1 1 8 7.855 10.503 92013 17 8 10 10 10 12 6.622 10.593 92013 0 7 0 0 1 1 8 7.855 10.503 92013 17 8 10 10 10 12 6.622 10.593 92013 18 7 8 10 10 10 12 6.622 10.593 92013 18 17 8 112 19 14 17 11.610 10.283 93013 18 17 8 112 19 14 17 14.0145 11.793 100413 17 18 112 12 12 14 19 14 19 10.283 100413 17 18 15 20 17 17 15.050 11.5257 100413 17 18 15 20 17 17 15.050 11.5257 100413 17 18 15 20 17 17 15.050 11.5257 100413 17 18 14 12 11 14 19 7.424 16.023 100413 19 17 14 20 17 16.508 11.5257 100413 19 17 14 20 17 17.333 10.430 100413 19 17 14 20 17 17.333 10.430 100413 19 17 14 20 17 17.333 10.430 100413 19 17 14 20 17 17.333 10.430 100413 19 17 14 20 17 18.508 11.5257 100413 19 17 14 20 17 17.333 10.430 100413 19 17 14 20 17 17.333 10.430 100413 19 17 14 20 17 18.508 11.5257 100413 19 17 14 20 17 18.508 11.5257 100413 19 17 14 20 17 14.508 11.5257 100413 19 17 14 20 17 14.508 11.5257 100413 19 17 14 20 17 14.508 11.5257 100413 19 17 14 20 17 14.508 11.5257 100413 19 17 14 20 17 14.508 11.508 11.5257 100413 19 17 14 20 14 19 7.424 16.023 100413 19 17 2 14 10 14 19 7.424 16.023 100413 19 17 2 14 10 14 19 7.424 16.023 100413 19 17 2 14 10 14 19 19 7.424 16.023 100413 19 17 14 20 17 18.508 11.5257 100413 3 3 3 5 2 4 5 5 14.115 9.118 100413 19 17 17 18 18 15 10 14 14 19 7.424 16.023 100413 3 10 2 2 2 11 19 24 21 11 14 19 19 7.424 16.023 100413 3 10 2 2 2 11 19 2 2 2 2 13 13.02 17.777 100413 3 2 2 2 2 14 2 2 2 2 13 13.02 17.777 100413 3 2 2 2 2 3 19 2 7 2 2 13.302 17.777 100413 3 2 2 2 2 3 19 2 7 2 2 13.302 17.777 100413 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	9/17/13	3 2	5 1	0	3	2 1	8,918 8,276	7,905 7,105
9/23/13								
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1004/13	10/1/13	17	8	12	19	14	17,019	13,798
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101/12/13 22 21 19 24 21 11,391 17,327 101/13/13 22 23 19 27 22 13,302 17,777 28 17,369 20,384 101/16/13 24 21 21 26 23 18,956 18,217 101/16/13 30 26 28 29 29 20,624 20,898 101/16/13 31 24 27 31 29 20,624 20,898 101/16/13 32 29 29 29 29 30 16,620 21,536 10/19/13 34 34 32 32 33 31,165 22,986 10/19/13 34 36 32 33 33 36,146 23,229 29 29 30 16,620 21,536 10/20/13 34 36 32 33 33 36,146 23,29 30 10/20/13 34 36 32 33 33 36,146 23,29 30 10/20/13 34 36 32 33 33 36,146 23,29 30 10/20/13 35 33 30 34 33 32 33 33 36,146 23,29 30 10/20/13 35 33 30 34 33 32 34 33 32 34 33 32 34 33 32 34 33 32 34 33 32 34 33 32 34 33 32 34 33 32 34 33 34 33 32 34 33 34 33 32 34 33 34 33 34 33 28 36 35 22,745 24,051 10/25/13 33 28 37 31 29 19/794 21,301 10/27/13 31 34 38 38 38 22,243 25,698 10/29/13 31 30 28 37 31 29 19/794 21,301 10/28/13 39 37 37 39 38 25,716 25,604 10/29/13 31 30 28 37 31 23,822 22,149 10/31/13 35 26 29 27 30 20,598 21,561 11/17/13 36 31 28 30 31 27 24,891 19,866 11/37/13 29 30 20 31 27 24,891 19,866 11/37/13 29 30 20 31 27 24,891 19,866 11/37/13 29 30 20 31 27 24,891 19,666 11/37/13 36 36 36 39 39 39 26,128 26,101 11/17/13 41 34 34 38 38 40 29,474 26,426 31/17/13 41 34 34 38 38 38 40 29,474 26,426 31/17/13 41 34 34 38 38 38 40 29,474 26,426 31/17/13 41 34 34 38 38 38 40 29,474 26,426 39,921 31/17/13 42 41 34 41 39 25,732 25,941 31/17/13 42 41 34 44 39 36 39 39 39 26,128 26,101 31/17/13 41 41 41 4	10/10/13	3	3	5	2	4		
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11/28/13 62 59 53 59 58 33,109 35,433 11/29/13 49 48 41 50 46 28,178 29,688 11/30/13 45 36 44 41 43 26,866 27,833 12/1/13 51 43 44 50 47 28,649 30,088 12/2/13 45 39 43 45 43 31,197 28,266 12/3/13 48 41 46 50 47 34,717 29,865 12/3/13 48 41 46 50 47 34,717 29,865 12/413 63 52 67 58 62 39,551 37,373 12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85	11/26/13	60	60	57	60	59	35,812	35,833
11/29/13 49 48 41 50 46 28,178 29,688 11/30/13 45 36 44 41 43 26,866 27,833 12/1/13 51 43 44 50 47 28,649 30,088 12/2/13 45 39 43 45 43 31,197 28,266 12/3/13 48 41 46 50 47 34,717 29,865 12/4/13 63 52 67 58 62 39,551 37,373 12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 40,089 12/9/13 83 77 76 85								
11/30/13 45 36 44 41 43 26,866 27,833 12/1/13 51 43 44 50 47 28,649 30,088 12/2/13 45 39 43 45 43 31,197 28,266 12/3/13 48 41 46 50 47 34,717 29,865 12/4/13 63 52 67 58 62 39,551 37,373 12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 40,089 12/9/13 83 77 76 85 80 54,545 46,889 12/10/13 83 80 77 83								
12/1/13 51 43 44 50 47 28,649 30,088 12/2/13 45 39 43 45 43 31,197 28,266 12/3/13 48 41 46 50 47 34,717 29,865 12/4/13 63 52 67 58 62 39,551 37,373 12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 44,089 12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,682 12/11/13 81 80 78 85								
12/2/13 45 39 43 45 43 31,197 28,266 12/3/13 48 41 46 50 47 34,717 29,865 12/4/13 63 52 67 58 62 39,551 37,373 12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 44,089 12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,652 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80								
12/3/13 48 41 46 50 47 34,717 29,865 12/4/13 63 52 67 58 62 39,551 37,373 12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 44,089 12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,652 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78								
12/4/13 63 52 67 58 62 39,551 37,373 12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 44,089 12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,523 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/5/13 79 73 80 73 77 46,144 45,004 12/6/13 87 82 82 82 83 49,692 48,025 12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 44,089 12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,523 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/7/13 87 81 83 85 84 49,879 48,492 12/8/13 76 73 74 78 75 48,555 44,089 12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,523 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/8/13 76 73 74 78 75 48,555 44,089 12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,523 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/9/13 83 77 76 85 80 54,545 46,489 12/10/13 83 80 77 83 80 55,031 46,523 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/10/13 83 80 77 83 80 55,031 46,523 12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/11/13 81 80 78 85 81 55,503 46,682 12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/12/13 68 67 64 80 69 48,378 40,955 12/13/13 74 69 70 78 73 50,474 42,911								
12/13/13 74 69 70 78 73 50,474 42,911								
			69					
	12/14/13	82	75	76	83	79	46,969	46,002

File Name: CON Schedules.xlsx Worksheet Name: C11

12/15/13	80	79	70	80	76	44,862	44,593
12/16/13	57	58	52	59	56	41,647	34,320
12/17/13	68	59	56	72	64	44,087	38,193
12/18/13	60	58	61	64	61	39,525	37,034
12/19/13	76	61	78	72	74	45,264	43,352
12/20/13	69	57 54	72	64	67	44,262	40,043
12/21/13	66	54 70	80	65 70	69	43,252	40,905
12/22/13	82	70 70	87	79 00	81	47,388	47,063
12/23/13	85 69	79 71	82	86	83 67	49,625	47,976
12/24/13		58	61	73 75	61	38,272	40,053
12/25/13 12/26/13	60 51	56 57	52 45	75 63	53	35,433 33,336	36,717
		39		39	37		32,790
12/27/13 12/28/13	37 68	63	33 74	75	71	27,660	24,847
12/29/13	85	86	7 4 79	93	85	39,449 46,465	41,818 48,770
12/30/13	82	79	79	88	82	45,019	47,293
12/30/13	89	86	86	92	88	45,162	50,235
1/1/14	87	83	82	92	86	53,405	49,283
1/2/14	87	79	82	87	84	57,376	48,519
1/3/14	62	62	61	64	62	47,061	37,477
1/4/14	87	79	82	87	84	54,615	48,464
1/5/14	99	91	97	97	97	56,481	54,525
1/6/14	95	95	87	96	92	56,328	52,424
1/7/14	89	82	79	86	84	56,998	48,254
1/8/14	77	78	76	80	78	55,825	45,112
1/9/14	55	61	54	54	55	43,540	33,882
1/10/14	49	44	47	43	46	32,547	29,537
1/11/14	44	45	43	46	44	30,889	28,702
1/12/14	39	39	43	38	40	28,725	26,458
1/13/14	54	49	51	65	55	40,421	33,889
1/14/14	74	67	68	65	69	42,138	40,782
1/15/14	60	56	55	55	57	38,119	34,726
1/16/14	81	67	81	77	78	46,836	45,411
1/17/14	71	62	64	72	68	41,581	40,303
1/18/14	55	51	51	63	55	32,566	33,827
1/19/14	58	55	53	67	58	34,676	35,336
1/20/14	87	82	82	86	84	51,663	48,492
1/21/14	82	79	76	81	79	48,955	45,983
1/22/14	90	88	90	94	91	55,438	51,600
1/23/14	74	78	70	75	73	48,597	42,881
1/24/14	66	61	57	65	62	40,694	37,291
1/25/14	73	70	65	76	71	42,558	41,700
1/26/14	91	84	84	88	87	46,733	49,830
1/27/14	94	89	85	92	90	51,779	51,158
1/28/14	87	83	79	87	84	50,800	48,124
1/29/14	63	65	60	65	63	41,792	37,745
1/30/14	83	76 70	80	84	81	50,030	46,964
1/31/14	73	73 71	70 70	74	72	46,743	42,480
2/1/14	73	71 67	70	81	73	46,885	43,106
2/2/14	70 75	67	63	73 67	68	44,672	40,340
2/3/14 2/4/14	75 77	64 72	68 75	67 81	69 76	46,251	40,987 44,561
2/4/14	83	76	75 77	84	76 80	48,696 50,627	46,332
2/6/14	80	75	72	78	76	48,781	44,318
2/7/14	80	76	74	77	77	47,440	44,644
2/8/14	78	67	77	75	75	47,578	43,966
2/9/14	81	77	78	84	80	54,632	46,514
2/10/14	79	78	78	80	79	57,640	45,695
2/11/14	69	69	66	70	68	50,581	40,530
2/12/14	65	55	61	68	63	47,498	37,818
2/13/14	70	64	76	75	72	50,355	42,562
2/14/14	71	67	68	68	69	45,790	40,803
2/15/14	67	63	65	73	67	42,358	40,036
2/16/14	66	63	65	68	65	40,685	39,121
2/17/14	48	46	42	48	46	38,768	29,371
2/18/14	41	37	42	40	41	34,318	26,877
2/19/14	43	33	38	42	40	32,502	26,382
2/20/14	57	52	62	50	56	42,056	34,615
2/21/14	75	68	69	70	71	48,067	41,799
2/22/14	72	66	66	68	68	44,642	40,442
2/23/14	78	66	71	71	72	44,498	42,393
2/24/14	79	73	76	77	77	52,294	44,722
2/25/14	82	78	76	80	79	56,306	45,948
2/26/14	89	82 77	78	91	84	56,924	48,529
2/27/14	81	77 72	83	84	82	51,194	47,229
2/28/14	82	73 86	78 97	81	79 00	50,248	46,004
3/1/14	92 95	86 81	87 75	92 86	90 91	53,440 53,114	51,132
3/2/14	85	81 60	75 65	86	81	52,114	46,912
3/3/14	72 64	69 61	65 61	72 60	69 64	49,633	40,895
3/4/14	64 58	61 59	61 56	69 58	64 57	41,856 36,651	38,346 35,113
3/5/14 3/6/14	58 44	59 48	56 45	58 40	57 44	36,651 33,091	35,113 28 539
3/6/14	44 64	40 50	45 60	40 66	61	33,091 37,366	28,539 37,011
3/8/14	54	49	50	54	52	34,113	32,433
3/9/14	33	36	29	32	32	24,817	32, 4 33 22,453
3/10/14	33	24	28	32	30	19,620	21,591
3/10/14	55	46	46	59	51	34,883	32,149
3/12/14	37	50	38	46	41	36,611	27,053
3/13/14	33	32	28	32	31	26,818	22,042
		-	-	-	-	-,- :=	,

File Name: CON Schedules.xlsx Worksheet Name: C11

*****		45					
3/14/14 3/15/14	58 60	45 59	52 58	56 71	54 62	35,184 34,498	33,451
3/16/14	42	46	37	48	42	33,648	37,189 27,673
3/17/14	36	42	33	42	37	28,323	25,169
3/18/14	37	41	39	39	39	28,935	25,874
3/19/14	45	46	35	43	41	30,160	26,986
3/20/14	35 63	33 54	37 61	34	35 60	23,991	24,136
3/21/14 3/22/14	68	64	57	59 76	66	36,705 36,011	36,522 39,164
3/23/14	59	60	47	73	58	38,828	35,472
3/24/14	62	59	53	63	59	37,122	35,748
3/25/14	57	59	42	65	54	37,690	33,416
3/26/14	42	40	35	44	40	28,968	26,372
3/27/14	52	45 46	49	54 55	51	30,311	31,754
3/28/14 3/29/14	45 29	46 32	37 29	55 29	45 29	27,741 19,669	28,889 21,227
3/30/14	23	24	30	28	27	21,922	19,941
3/31/14	46	45	57	54	51	27,952	32,159
4/1/14	48	46	48	50	48	32,356	30,557
4/2/14	36	36	33	37	35	24,744	24,300
4/3/14 4/4/14	36	39 36	37 24	36	37	25,344	24,926
4/4/14	30 25	36 23	22	33 25	30 24	21,579 15,937	21,430 18,497
4/6/14	27	26	24	26	26	15,239	19,437
4/7/14	28	30	25	32	28	19,611	20,746
4/8/14	13	24	8	21	15	18,463	13,988
4/9/14	26	25	21	32	25	15,941	19,344
4/10/14	27	20 31	19 10	31	24	16,571	18,644
4/11/14 4/12/14	29 45	35	19 41	31 41	26 41	15,635 16,909	19,635 27,205
4/13/14	50	47	47	51	49	25,792	30,879
4/14/14	51	46	43	50	47	33,191	30,211
4/15/14	39	44	36	42	39	27,016	26,194
4/16/14	38	36	35	38	37	28,051	25,010
4/17/14	35	39	26	37	33	22,596	23,048
4/18/14 4/19/14	17 17	28 19	12 13	20 21	17 17	18,386 13,832	15,353 14,977
4/20/14	29	19	20	27	24	9,726	18,715
4/21/14	28	24	20	27	25	20,467	18,882
4/22/14	27	27	24	27	26	21,359	19,458
4/23/14	32	33	21	32	28	23,689	20,712
4/24/14	32	31	22	29	27	24,394	20,319
4/25/14 4/26/14	30 34	32 38	24 29	28 31	28 32	21,654 17,489	20,483 22,466
4/27/14	32	34	28	27	30	22,876	21,492
4/28/14	25	31	22	26	25	29,467	19,259
4/29/14	31	31	30	30	30	25,289	21,774
4/30/14	25	26	21	31	25	22,500	19,156
5/1/14	23	25	13	27	21	17,736	16,991
5/2/14 5/3/14	32 30	24 24	24 27	30 30	28 28	13,385 15,416	20,445 20,610
5/4/14	23	25	16	27	22	13,315	17,520
5/5/14	21	28	11	26	19	14,645	16,372
5/6/14	13	21	12	14	14	14,806	13,752
5/7/14	22	22	22	22	22	12,930	17,725
5/8/14	22	26	16	30	22	15,826	17,790
5/9/14	17	14	14	16	15	15,187	14,338
5/10/14 5/11/14	5 23	12 27	13 26	12 22	10 24	7,650 7,322	11,899 18,731
5/11/14	27	20	26	26	25	16,449	19,338
5/13/14	31	23	29	29	29	15,841	20,939
5/14/14	30	26	23	25	26	18,232	19,367
5/15/14	28	22	19	24	23	17,252	18,132
5/16/14	19	21	12	20	17	13,233	15,062
5/17/14 5/18/14	11 13	6 16	8 7	12 8	9 10	6,481 6,301	11,339 11,798
5/19/14	6	5	4	4	5	11,639	9,142
5/20/14	18	13	10	17	14	8,888	13,737
5/21/14	12	12	9	14	12	12,870	12,433
5/22/14	7	9	0	8	5	9,100	9,354
5/23/14	0	1	0	0	0	5,927	6,805
5/24/14	0	0 0	0	0 0	0 0	1,744	6,734
5/25/14 5/26/14	0 0	11	0 0	0	1	3,718 5,939	6,734 7,447
5/27/14	0	11	0	0	1	7,965	7,434
5/28/14	0	4	0	0	1	7,111	7,006
5/29/14	0	5	0	0	1	7,319	7,081
5/30/14	0	5	0	0	1	5,619	7,077
5/31/14 6/1/14	0 7	2 2	0 6	0 10	0	4,276 6.089	6,870 9 928
6/1/14 6/2/14	4	2	6 2	5	6 3	6,089 11,685	9,928 8,462
6/3/14	4	5	0	4	3	13,270	8,137
6/4/14	1	9	0	1	2	13,033	7,623
6/5/14	5	0	8	3	5	10,291	9,217
6/6/14	12	11	3	10	8	10,314	10,795
6/7/14	11 4	11 7	5	11 4	9	6,748 6,736	11,214
6/8/14 6/9/14	4 1	7 8	0 0	4 4	3 2	6,736 11,678	8,283 7,917
6/10/14	8	7	5	6	6	12,057	9,802
	-	-	-	-	-	_,	-,

6/11/14	13	18	5	20	12	13,088	12,760
6/12/14	10	9	3	14	8	12,037	10,818
6/13/14	9	15	2	11	8	8,225	10,706
6/14/14	6	7	0	12	5	5,563	9,337
6/15/14	3	0	0	2	1	6,961	7,427
6/16/14	0	0	0	3	1	12,374	7,099
6/17/14	0	6	0	0	1	11,821	7,114
6/18/14	6	13	0	1	4	12,254	8,517
6/19/14	2	15	0	0	3	9,125	8,035
6/20/14	0	6	0	0	1	5,836	7,146
6/21/14	0	9	0	0	1	3,434	7,346
6/22/14	0	0	0	0	0	5,223	6,734
6/23/14	1	13	0	7	4	7,314	8,492
6/24/14	7	14	0	7	6	8,691	9,547
6/25/14	1	11	0	4	3	7,654	8,083
6/26/14	0	9	0	0	1	6,272	7,299
6/27/14	0	0	0	0	0	4,465	6,734
6/28/14	0	0	0	0	0	2,916	6,734
6/29/14	0	0	0	0	0	5,432	6,734
6/30/14	7	1	4	9	6	5,355	9,554
Totals	12,070	11,522	10,880	12,320	11,636	8,286,815	8,217,921

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

 $^{^{\}star\star}$ Design Model numbers are used to calculate firm volumes only

Attachment 12

MINNESOTA ENERGY RESOURCES - Consolidated

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

	Tariff	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Annual
Rate	Rate	Average												
Class	Designation	Customers												
GS- Residential (w/ Heat)	3H801/3HS01	28,294	28,073	27,904	28,147	27,844	28,934	29,653	28,595	28,375	28,589	28,564	28,778	28,479
GS-Residential (w/o Heat)	3R801/3RS02	9	11	10	10	9	12	12	11	10	11	11	11	11
GS-C&I <1,500 therms/yr (Small)	3C805 / 3CS05 3I805 / 3IS05 3C806 / 3CS06	2,681	2,608	2,577	2,598	2,560	2,654	2,735	2,648	2,610	2,615	2,612	2,639	2,628
GS-C&I >1,500 therms/yr (Large)	3C810 / 3CS10 3I810 / 3IS10 3C812 / 3CS12 3IS12	2,566	2,513	2,445	2,482	2,460	2,521	2,605	2,516	2,487	2,508	2,505	2,521	2,511
Small Volume Interruptible (SVI)	3D820 / 3DS20 3J820 / 3JS20 3DS22	74	79	75	76	74	73	76	79	78	77	76	74	76
Small Volume Interruptible w/Joint (SVJ)	3DS30 / 3C830	5	5	5	5	5	5	5	5	5	5	5	5	5
Large Volume Interruptible (LVI)	3D840 / 3DS40 3J840 / 3JS40 3D842	7	7	8	8	7	7	7	7	7	7	7	7	7
Large Volume Interruptible w/Joint (LVJ)	3D850 / 3J850	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		33,636	33,296	33,024	33,326	32,959	34,206	35,093	33,861	33,572	33,812	33,780	34,035	33,717

\$ 3,143,941

4.1368

3,214,180 \$

4.2292

(70.239)

(0.0924)

760,000

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

Projected Fixed Cost - November 2014 through March 2015

Futures Contracts WACOG

130,000

Total WACOG \$ 542.535

4.1733

NMU

Futures Nov-14 Dec-14 Jan-15 Purchase Purchase Financial Purchase Total Emerson Emerson Index Over/(Under) Purchase Financial Purchase Total Emerson Emerson Index Over/(Under) Purchase Financial Total Emerson Emerson Index Over/(Under) Date Volume Price Cost Index Cost Market Date Volume Price Cost Index Market Date Volume Price Cost Index Market 06/25/14 28,448 \$ 4.5750 \$ 130,151 \$ 3.7210 105,856 24,295 06/16/14 6,471 \$ 4.7950 31,026 \$ 4.2170 27,286 \$ 3,740 06/11/14 3,061 \$ 4.6790 \$ 14,323 \$4.3830 \$ 13,417 906 07/25/14 \$ 3.8470 \$ 119.390 \$ 115.479 \$ 4.8020 \$ 4.2170 7.571 06/11/14 100.286 \$4.3830 \$ 93.921 6.364 31.034 3.7210 \$ 3.910 06/16/14 12.941 62.144 54.573 21.429 \$ 4.6800 \$ 08/22/14 31,034 \$ 3.9560 \$ 122,772 \$ 3.7210 \$ 115,479 7,293 07/16/14 25,882 \$ 4.2330 \$ 109,560 \$ 4.2170 109,146 \$ 414 07/10/14 6,122 \$ 4.2950 \$ 26,296 \$4.3830 \$ 26,835 (539) 09/24/14 115,479 08/13/14 \$ 4.0310 104,332 \$ 4.2170 109,146 \$ (4,814) 07/10/14 27,551 \$ 4.2960 \$ \$4.3830 \$ 120,756 (2,397)31.034 \$ 3.9650 \$ 123.052 \$ 3.7210 \$ 7.572 25.882 \$ \$ 118.359 10/01/14 28,448 \$ 4.0230 \$ 114,447 \$ 3.7210 \$ 105,856 \$ 8,591 09/11/14 19,412 \$ 3.9590 76,851 \$ 4.2170 \$ 81,859 \$ (5,008) 08/07/14 30,612 \$ 4.1210 \$ 126,153 \$4.3830 \$ 134,173 \$ (8,020)19,412 \$ 3.9370 134,173 \$ 10/09/14 76,424 \$ 4.2170 81,859 \$ (5,435)09/04/14 30,612 \$ 4.0280 \$ 123,306 \$4.3830 \$ (10,867) \$ \$ 10/08/14 30,612 \$ 4.0370 \$ 123,582 \$4.3830 \$ 134,173 \$ (10,592)\$ \$ \$ \$ 150,000 \$ 609,812 558,150 \$ 51,662 110,000 460,337 463,870 \$ (3,533) 150,000 632,305 657,450 Total \$ (25.145)WACOG 4.0654 3.7210 0.3444 4.1849 4.2170 (0.0321)4.2154 4.3830 (0.1676)28 31 Feb-15 Mar-15 Total Physical Purchase Purchase Total Emerson Index Over/(Under) Total Emerson Index Over/(Under) Financial Purchase Emerson Emerson Index Over/(Under) Emerson Purchase Physical Purchase Emerson Total Date Volume Cost Market Index Volume Cost Index Volume 06/30/14 24,375 \$ 4.5720 \$ 111,442 \$ 4.3390 105,763 06/20/14 11,458 \$ 4.5650 52,307 \$ 4.4120 50,554 \$ 1,753 \$ 4.5961 339,251 \$4.1033 \$ 302,877 36,373 07/30/14 28.438 \$ 4.0100 \$ 114.034 \$ 4.3390 \$ 123.390 (9,356)11.458 \$ 4.5750 \$ 4.4120 50.554 \$ 1.868 105,300 \$ 4.2571 \$ 448.275 \$4.1588 \$ 437,918 \$ 10.357 \$ 06/20/14 52 422 08/28/14 12,188 \$ 4.2410 \$ 51,687 4.3390 52,882 (1,194)06/20/14 11,458 \$ 4.5770 52,445 \$ 4.4120 50,554 1,891 86,685 \$ 4.1848 362,760 \$4.0941 354,896 7,865 \$ 4.4120 \$4.1581 466,444 08/28/14 16,250 \$ 4.2420 \$ 68,932 \$ 4.3390 70,509 \$ (1,576)06/20/14 11,458 \$ 4.5790 52,468 50,554 \$ 1,914 112,176 \$ 4.1644 \$ 467,143 699 09/29/14 24,375 \$ 4.2720 \$ 104,130 \$ 4.3390 \$ 105,763 \$ (1,633) 07/21/14 45,833 \$ 3.9850 182,646 \$ 4.4120 202,217 \$ (19,571) 148,681 \$ 4.0639 \$ 604,227 \$4.2364 \$ 629,869 \$ (25,641)\$ 3.9960 9,157 \$ 4.4120 \$ 3.9274 \$ \$4.3279 \$ 331,907 \$ 10/23/14 24,375 \$ 3.7870 \$ 92,308 \$ 4.3390 \$ 105,763 \$ (13,455) 08/18/14 2,292 \$ 10,111 \$ (953) 76.691 301,196 (30,711)08/18/14 41,250 \$ 3.9990 164,959 \$ 4.4120 181,995 \$ (17,036) 71,862 \$ 4.0152 \$ 288,540 \$4.3996 \$ 316,168 \$ (27,628)192,106 \$ 176,170 09/18/14 43,542 \$ 4.0460 \$ 4.4120 192,106 \$ (15,936)43,542 \$ 4.0460 \$ 176,170 \$4.4120 \$ \$ \$ (15,936)10/20/14 41,250 \$ 3.7910 \$ 156,379 \$ 4.4120 \$ 181,995 \$ (25,616)41,250 \$ 3.7910 \$ 156,379 \$4.4120 \$ 181,995 \$ (25,616)

898.952

4.0861

970.640 \$

4.4120

(71.688)

(0.3259)

220,000

564,070 \$ (21,535)

(0.1657

4.3390

Projected Storage Cost - November 2014 through March 2015

											AECO	AECO
										AECO	Storage	Storage
		Storage	Storage		Projected	K#118657	K#125915	K#125916	Total	Storage	GLGT/VGT	GLGT/VGT
	K#118657	K#125915	K#125916	Total	Storage	NNG	NNG	NNG	NNG	GLGT/VGT	Centra	Centra
Month/	NNG	NNG	NNG	NNG	NNG	Storage	Storage	Storage	Storage	Centra	Emerson	Emerson
Year	Storage	Storage	Storage	Storage	WACOG	Cost	Cost	Cost	Cost	Emerson	WACOG	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 Indexe Price	s Indexes	AECO Storage Volume	_	Emerson LDS + Basis	Emerson LDS + Cost
Nov-14	533,259	\$ 3.59	25 \$ 1,915,73	85,304	\$	3.7210	\$ 317,416
Dec-14	1,339,984	\$ 3.90	85 \$ 5,237,32	27 231,769	\$	4.2170	\$ 977,370
Jan-15	1,339,984	\$ 4.16	45 \$ 5,580,36	3 231,769	\$	4.3830	\$ 1,015,844
Feb-15	1,339,984	\$ 4.16	05 \$ 5,575,00	209,339	\$	4.3390	\$ 908,322
Mar-15	533,259	\$ 3.84	85 \$ 2,052,24	96,374	\$	4.4120	\$ 425,202
Total	5,086,470	\$ 4.00	29 \$20,360,67	4 854,555	\$	4.2644	\$ 3,644,154

Max NNG Storage (Storage plan withdrawals through Apr 14 Max AECO Storage

Total

5,086,470 854,555 5,469,321 09/30/14 Storage Balance - NNG 947,820 09/30/14 Storage Balance - AECO 4,361,819 851,535 79.75% 89.84% 4,056,493 767,744 81,20%

		Storage	Storage		Р	rojected	Р	rojected	F	Projected	WACOG	Projected	Projected		Additional
	K#118657	K#125344	K#125345	Total	K	#118657	K	#125915	K	#125916	NNG	NNG	NNG		Storage
Month/	NNG	LS	LS	NNG		NNG		NNG		NNG	PNG	Indexes	Index	(Savings)/
Year	Storage	Power	Power	Storage	٧	VACOG	٧	VACOG	١	NACOG	Cost	Price	Cost		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		

AECO Projected Projected Additional Storage Total Emerson Emerson Storage **AECO** Month/ Other **AECO** Index Index (Savings)/ Year Storage WACOG Cost Price Cost Cost \$ 4.0841 \$ \$ 3.7210 \$ 317,416 \$ Nov-14 85.304 348,390 30,974 Dec-14 231,769 \$ 4.0841 \$ 946,568 \$ 4.2170 \$ 977,370 \$ (30,802)231,769 \$ 4.0841 \$ 946,568 \$ 4.3830 \$1,015,844 \$ (69,276)Jan-15 209,339 \$ 4.0841 \$ 854,961 \$ 4.3390 \$ 908,322 \$ (53,361)Feb-15 Mar-15 96,374 \$ 4.0841 \$ 393,601 \$ 4.4120 \$ 425,202 \$ (31,601)

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

854,555 | \$ 4.0841 | \$ 3,490,088 | \$ 4.2644 | \$3,644,154 | \$ (154,066)

\$ 1,627,130 \$ 1,627,130 \$ 0.2641 \$ 0.0613 \$ 0.2641 \$ 1,314,278 \$ 1,314,278 \$ 0.2643 \$ 312,852 \$ 312,852 \$ 0.2641 \$ 1,627,130 \$ 1,627,130

10.9840482 \$ 11.6705512 \$

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

Call/Put	Options	

 NNG-Cons
 115

 Other-Cons
 26

 Total
 141

81.56% 18.44%

115 1,150,000 \$ 4.3989 \$ 5,058,777 \$ 26 260,000 \$ 4.3989 \$ 1,143,723 \$

								1	Nov-14												D	ec-14														Jan-15						
Deal	Purchase	Nu	imber Phys	cal Strike ne Price	Stri	ke C	ption Price	Option Cost	Pent Settle	Pent Settle	Over/(Under) Market	Premium Per Unit	Premium Cost	Total	Deal Number	Purchase Date	Number	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Settle Cost	Over/(Und Market	der) Premium Per Unit	Premium Cost	Total Cost	Deal Number	Purchase Date	Number	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Settle Cost	Over/(Under) Market	Premiu	m Premium	Total
Number	Date %	% Cor	ntracts Volu	ne Price	Co	st F	Price	Cost	Settle	Cost	Market	Per Unit	Cost	Cost	Number	Date	% Contracts	Volume	Price	Cost	Price	Cost	Settle	Cost	Market	Per Unit	Cost	Cost	Number	Date	% Contract:	Volume	Price	Cost	Price	Cost	Settle	Cost	Market	Per Un	it Cost	Cost
2 3 4	01/00/00 06/13/14 07/14/14 08/11/14 09/09/14		17 17 17 17 17 17	- \$ - ,000 \$ 5.00 ,000 \$ 4.25 ,000 \$ 4.25 -	00 \$ 72	- \$ 50,000 \$ 22,500 \$ 22,500 \$ 07,500 \$			S - :	5 - 5 - 5 - 5 -	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	\$ 0.2380 \$ 0.2220 \$ 0.1350 \$ 0.0880 \$ 0.0780	\$ - \$ \$ 37,740 \$ \$ 22,950 \$ \$ 14,960 \$ \$ 14,820 \$ \$ - \$	37,740 22,950 14,960 14,820	3 4	06/27/14 07/28/14 08/26/14 09/26/14 10/22/14	25 26 26 26 27	250,000 260,000 260,000 260,000 270,000	\$ 4.0000 \$ 4.0000 \$ 4.0000	\$ 1,250,000 \$ 1,040,000 \$ 1,040,000 \$ 1,040,000 \$ 1,080,000 \$ -	\$ - \$ - \$ -	\$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$ - \$ - \$ - \$ -		***	- \$ 0.3100 - \$ 0.2230 - \$ 0.2010 - \$ 0.1660 - \$ 0.1640	\$ 57,980 \$ 52,260 \$ 43,160	\$ 77,500 \$ 57,980 \$ 52,260 \$ 43,160 \$ 44,280	2 3 4	06/23/14 07/24/14 08/20/14 08/22/14 10/21/14	30 31 31 31 31 32	310,000 310,000	\$ 4.2500 \$ 4.2500	\$ 1,317,500		\$ - \$ - \$ - \$ - \$ -	00000		\$ - \$ - \$ -		60 \$ 66,960 \$	103,500 73,470 75,020 66,960 66,660
7 8 9 10 11 12 13				-	****		- S - S - S - S - S	- - - - -		5 - 5 - 5 - 5 - 5 - 5 - 5 -			5 - S S - S S - S S - S S - S S - S S - S	- - - - - -	7 8 9 10 11 12 13			-		5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -		\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-		5 - 5 - 5 - 5 - 5 - 5 - 5 -	7 8 9 10 11 12 13					- - - - - - - - - - - - - - - - - - -		5 - 5 - 5 - 5 - 5 - 5 -					\$	-
15				-	\$	- \$	- \$	-	:	\$ -	\$ -		s - s	-	15			-		\$ -	\$ -	\$ -		\$ -	\$	-	\$ -	\$ -	15			-		\$ -	\$ -	\$ -		\$ -	\$ -		\$ - 5	-
Total			70 70	,000	\$ 3,10	02,500 1.4321	s s	-	:	\$ - \$ -	\$ - \$ -		\$ 90,470 \$ \$ 0.0292 \$	90,470 0.1292			130	1,300,000		\$ 5,450,000 \$ 4.1923		\$ - \$ -		\$ - \$ -	\$	-	\$ 275,180 \$ 0.0505	\$ 275,180 \$ 0.2117		Total	155	1,550,000		\$ 6,737,500 \$ 4.3468		\$ - \$ -		\$ - \$ -	\$ - \$ -		\$ 385,510 \$ 0.0572	385,510 0.2487
NNG-Cons Other-Cons	72 80.9 17 19.1	90% 10%	57 56 13 13	,292 \$ 4.43 ,708 \$ 4.43	21 \$ 2,50 21 \$ 59	09,888 \$ 92,612 \$	- s	- :	\$ 3.6613 \$ 3.8902	\$ - \$ -			\$ 73,189 \$ 17,281 \$	73,189 17,281	NNG-Cons Other-Cons	104 26	80.00% 104 20.00% 26	1,040,000 260,000	\$ 4.1923 \$ 4.1923	\$ 4,360,000 \$ 1,090,000		\$ - \$ -	\$ - \$ -	\$ - \$ -	\$	- \$ 0.2117 - \$ 0.2117	\$ 220,144 \$ 55,036	\$ 220,144 \$ 55,036	NNG-Cons Other-Cons	126 29	81.29% 126 18.71% 29	1,260,000 290,000	\$ 4.3468 \$ 4.3468	\$ 5,476,935 \$ 1,260,565	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ - \$ -	\$ 0.248 \$ 0.248	87 \$ 313,382 \$ 87 \$ 72,128 \$	313,382 72,128
Total	89 100.	0.0%	70 70	,000 \$ 4.43	21 \$ 3,10	2,500 \$	- \$	- !	\$ 3.7060	\$ -	\$ -	\$ 0.1292	\$ 90,470 \$	90,470	Total	130	100.0% 130	1,300,000	\$ 4.1923	\$ 5,450,000	\$ -	\$ -	\$ 3.7060	s -	\$	- \$ 0.2117	\$ 275,180	\$ 275,180	Total	155	100.0% 155	1,550,000	\$ 4.3468	\$ 6,737,500	\$ -	s -	\$ 3.7060	s -	\$ -	\$ 0.248	87 \$ 385,510 \$	385,510
B	B								eb-15	D 1 D . W .		I B	D	T.111	Beet	B	I March on	E	01-7	01-7		ar-15	D	B 1 B - III -	0		Bernet	7.1.1	But I	D I	T. M. contract	I Brown to al	01.3	01.7	0	Iotal	B	D O	0 (0111)	Lawren		7.11
Deal Number	Purchase Date %	% Cor	imber Phys ntracts Volu	cal Strike ne Price	Stri	ke C	ption Price	Option Cost	Pent Settle	Cost	Over/(Under) Market	Premium Per Unit	Premium Cost	Total Cost	Deal Number	Purcnase	Number % Contracts	Financial Volume	Strike Price	Strike	Option Price	Option Cost	Pent Settle	Pent Settle Cost	Over/(Und Market	der) Premium Per Unit	Premium Cost	Total Cost	Deal Number	Purchase	Number % Contracts	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Settle Cost	Over/(Under) Market	Per Un	m Premium	Total Cost
1 2 3	06/18/14 07/18/14 08/15/14 09/16/14 10/10/14		28 28 28 28 28 28 28 28	,000 \$ 5.00 ,000 \$ 4.25 ,000 \$ 4.25 ,000 \$ 4.25 ,000 \$ 4.25 ,000 \$ 4.25	00 \$ 1,40 00 \$ 1,11 00 \$ 1,11 00 \$ 1,11	00,000 \$	- \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ \$ - \$ \$ \$ \$ - \$	- !	S - :	5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	\$	\$ 0.3750 \$ 0.3050 \$ 0.2640 \$ 0.3350 \$ 0.2650	\$ 105,000 \$ \$ 85,400 \$ \$ 73,920 \$ \$ 93,800 \$	105,000 85,400 73,920 93,800 76,850	1 2 3 4	06/10/14 07/08/14 08/05/14 09/02/14 10/07/14	23 24 24 24 25	230,000 240,000 240,000 240,000	\$ 4.7500 \$ 4.2500 \$ 4.0000	\$ 1,092,500 \$ 1,020,000 \$ 960,000 \$ 960,000 \$ 1,000,000 \$ - \$ - \$ - \$ -	\$ - \$ - \$ -	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ - \$ - \$ - \$ - \$ - \$ -		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	- \$ 0.3960 - \$ 0.4110 - \$ 0.3030 - \$ 0.2940 - \$ 0.4320	\$ 91,080 \$ 98,640 \$ 72,720 \$ 70,560	\$ 91,080 \$ 98,640 \$ 72,720 \$ 70,560 \$ 108,000 \$ - \$ - \$ - \$ -	1 2 3 4		106 126 126 126 126 132	1,060,000 1,260,000 1,260,000 1,260,000	\$ 4.8750 \$ 4.2996 \$ 4.1508 \$ 4.1508	\$ 5,167,500 \$ 5,417,500 \$ 5,230,000 \$ 5,230,000 \$ 5,230,000 \$ 5,480,000	0000	\$ - \$ - \$ - \$ - \$ -	0 0 0 0 0 0	\$ - \$ - \$ - \$ - \$ - \$ -	s	\$ 0.355 \$ 0.286 \$ 0.235 \$ 0.225	57 \$ 377,080 : 33 \$ 353,230 : 56 \$ 296,870 : 97 \$ 289,440 : 52 \$ 310,510 :	\$ 377,080 \$ 353,230 \$ 296,870 \$ 289,440 \$ 310,510

- \$ 3.6613 \$ - \$ 3.8902 \$

. J 1,200,000 \$ 5,032,500 \$ 4,1938 \$ 5,032,500 \$ - \$ 24 240,000 \$ 4,1938 \$ 1,006,500 \$ - \$ \$ 1,200,000 \$ 4,1938 \$ 5,032,500 \$ -

80.00% 20.00%

- \$ 0.3085 \$ 354,763 \$ 5 0.3085 \$ 80,207 \$

- \$ 3.6613 \$ - \$ 3.8902 \$

AFFIDAVIT OF SERVICE

STATE OF MINNESOTA)
) ss
COUNTY OF HENNEPIN)

Bradley W. Hammer hereby certifies that on the 31st day of October, 2014, on behalf of Minnesota Energy Resources Corporation (MERC) he electronically filed a true and correct copy of MERC's Revised Petition for Change in Demand on www.edockets.state.mn.us. Said documents were also served via U.S. mail and electronic service as designated on the attached service list.

/s/ Bradley W. Hammer Bradley W. Hammer

Subscribed and sworn to before me this 31st day of October, 2014.

/s/ Alice Jaworski
Notary Public, State of Minnesota

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Michael	Ahern	ahern.michael@dorsey.co m	Dorsey & Whitney, LLP	50 S 6th St Ste 1500 Minneapolis, MN 554021498	Electronic Service	No	OFF_SL_14-661_M-14-66
Julia	Anderson	Julia.Anderson@ag.state.m n.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_14-661_M-14-661
Michael	Bradley	mike.bradley@lawmoss.co m	Moss & Barnett	150 S. 5th Street, #1200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-661_M-14-661
Seth	DeMerritt	ssdemerritt@integrysgroup.com	Integrys Business Support	700 North Adams P.O. Box 19001 Green Bay, WI 543079001	Electronic Service	No	OFF_SL_14-661_M-14-661
lan	Dobson	ian.dobson@ag.state.mn.u s	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_14-661_M-14-661
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_14-661_M-14-661
Daryll	Fuentes	N/A	USG	550 W. Adams Street Chicago, IL 60661	Paper Service	No	OFF_SL_14-661_M-14-661
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_14-661_M-14-661
Robert	Harding	robert.harding@state.mn.u s	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_14-661_M-14-661
Linda	Jensen	linda.s.jensen@ag.state.m n.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota Street St. Paul, MN 551012134	Electronic Service	No	OFF_SL_14-661_M-14-661

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Harry W	John	HWJohn@integrysgroup.co m	MERC, Integrys	700 North Adams PO Box 19001 Green Bay, WI 54307-9001	Electronic Service	No	OFF_SL_14-661_M-14-661
David G.	Kult	dgkult@minnesotaenergyre sources.com	Minnesota Energy Resources Corporation	2665 145th St. NW Rosemount, MN 55068	Electronic Service	No	OFF_SL_14-661_M-14-661
David	Kyto	djkyto@integrysgroup.com	Integrys Business Support	700 North Adams PO Box 19001 Green Bay, WI 543079001	Electronic Service	No	OFF_SL_14-661_M-14-661
Amber	Lee	ASLee@minnesotaenergyr esources.com	Minnesota Energy Resources Corporation	2665 145th Street West Rosemount, MN 55068	Electronic Service	No	OFF_SL_14-661_M-14-661
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_14-661_M-14-661
Eric	Lipman	eric.lipman@state.mn.us	Office of Administrative Hearings	PO Box 64620 St. Paul, MN 551640620	Electronic Service	Yes	OFF_SL_14-661_M-14-661
Peter	Madsen	peter.madsen@ag.state.m n.us	Office of the Attorney General-DOC	Bremer Tower, Suite 1800 445 Minnesota Street St. Paul, Minnesota 55101	Electronic Service	No	OFF_SL_14-661_M-14-661
Chad T	Marriott	ctmarriott@stoel.com	Stoel Rives LLP	900 SW 5th Ave Ste 2600 Portland, OR 97204	Electronic Service	No	OFF_SL_14-661_M-14-661
Brian	Meloy	brian.meloy@stinsonleonar d.com	Stinson,Leonard, Street LLP	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-661_M-14-661
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-661_M-14-661

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_14-661_M-14-661
Richard	Savelkoul	rsavelkoul@martinsquires.c om	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_14-661_M-14-661
Janet	Shaddix Elling	jshaddix@janetshaddix.co m	Shaddix And Associates	Ste 122 9100 W Bloomington Bloomington, MN 55431	Electronic Service Frwy	Yes	OFF_SL_14-661_M-14-661
Kristin	Stastny	stastny.kristin@dorsey.com	Dorsey & Whitney LLP	50 South 6th Street Suite 1500 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_14-661_M-14-661
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_14-661_M-14-661
Gregory	Walters	gjwalters@minnesotaenerg yresources.com	Minnesota Energy Resources Corporation	3460 Technology Dr. NW Rochester, MN 55901	Electronic Service	No	OFF_SL_14-661_M-14-661
James P.	Zakoura	Jim@smizak-law.com	Smithyman & Zakoura Chartered	750 Commerce Plaza II 7400 West 110th Stre Overland Park, KS 662102362	Electronic Service et	No	OFF_SL_14-661_M-14-661

MINNESOTA ENERGY RESOURCES - Consolidated

DESIGN-DAY DEMAND SUMMARY NOVEMBER 1, 2014

Design Day Requirement	48,706
Total Peak Day Entitlement	51,459
Firm Peak Day Actual Sendout -Non Coincidental (Jan. 5)	38,906
Firm Annual Throughput - Minnesota	4,807,824
No. of Firm Customers	34,397
Department Load Factor Calculation	33.86%

16,881

0.6%

MINNESOTA ENERGY RESOURCES - Consolidated

MINNESOTA DESIGN DAY REQUIREMENTS

#REF! HDD

Group	Customer Count	Design DDD	Intercept	Slope	Total Footnote 1	Adjustment Footnote 2	. 5	Customer Growth	Total
		V	GT						
Peak	10,461	109	1,573	140	21,322	5,559	15,763	0.6%	15,858
Off Dools	40.404	F.7	4 570	4.40	42.074	2.504	0.400	0.00/	0.547

Oli Peak	10,461	5/	1,573	140	13,074	3,584	9,490	0.6%	9,547
<u> </u>									
			LGT						

22,672

5,892

16,780

		Ce	ntra						
Peak	5,680	107	1,724	79	11,572	4,486	7,086	0.6%	7,129
Off Peak	5,680	57	1,724	79	7,329	2,894	4,435	0.6%	4,462

		Total Co	nsolidated						
Peak	34,397	107	8,384	452	67,712	19,296	48,416	0.6%	48,706
Off Peak	34,397	57	8,384	452	43,075	12,370	30,705	0.6%	30,889

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

57

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

Footnote 3: Total equals Regression Total minus Regression Adjustment.

5,087

233

**Dual Supplied

18,256

Off Peak

201410-104362-02-1C1.2 5/29/2015

#REF!

DESIGN-DAY DEMAND PER CUSTOMER #REF!

Heating <u>Season</u>	No. of Firm <u>Customers</u>	Design Day <u>Requirements</u>	MMBtus /Customer <u>/Day</u>
14/15	#REF!	48,706	#REF!
13/14	34,007	50,048	1.47
12/13	33,630	52,289	1.55
11/12	33,384	50,366	1.51
10/11	33,399	50,779	1.52
09/10	34,053	53,931	1.58
08/09	32,632	59,654	1.83
07/08	32,454	57,202	1.76

MINNESOTA ENERGY RESOURCES - Consolidated

SUMMER/WINTER USAGE - Mcf PROJECTED 12 MONTHS ENDING JUNE 2014 Consolidated

<u>Class</u>	Summer <u>Apr-Oct</u>	Winter <u>Nov-Mar</u>	<u>Total</u>
GS	1,331,975	3,450,566	4,782,541
SVI	0	0	0
SVJ	11,634	13,649	25,283
LVI	0	0	0
LVJ	0	0	0
SLV	0	0	0
IS	<u>358,718</u>	<u>537,399</u>	896,117
Total	<u>1,702,327</u>	<u>4,001,614</u>	<u>5,703,941</u>

#REF!

ENTITLEMENT LEVELS PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2014

Type of Capacity or Entitlement		Current Amount Mcf or <u>MMBtu</u>	Proposed Change Mcf or MMBtu	Proposed Amount Mcf or MMBtu
FT Western Zone	FT0016	10,130	0	10,130
FT Western Zone (12)	FT0155 (12)	3,600	(3,600)	0
FT Western Zone (5)	FT0155 (5)	3,638	(3,638)	0
FT Western Zone	FT15782	9,000	0	9,000
FT Western Zone (12)	FT17891 (12)	0	3,600	3,600
FT Western Zone (5)	FT17891 (5)	0	3,638	3,638
FT-A ZONE 1 - 1	AF0012	12,493	0	12,493
FT-A ZONE 1 - 1	AF0209	1,098		1,098
FT-A ZONE 1 - 1	AF0102	2,000	0	2,000
FA-A ZONE 1 - 1	AF0203	1,500	(1,500)	0
CENTRA FT-1		9,500	0	9,500
Total Entitlement		<u>52,959</u>	<u>(1,500)</u>	<u>51,459</u>
Forecasted Design Day-A	Adjusted	50,048	#REF!	#REF!
Capacity Surplus/Shortage	ge	2,911	#REF!	#REF!
Reserve Margin		5.82%		#REF!

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

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

Commodity Margin \$2.2290 \$1.9754 \$1.9754 \$2.2290 \$2.2290 \$0.00% \$0.00% \$0.00% \$0.00000 \$0.00000 \$0.0000 \$0.00000 \$0.0000000000	All costs in	Last Base		Last	Most	Current		Result of Proposed Change				
Commodity Cost S4.4825 S3.8485 S3.7744 S4.2710 S4.9191 9.74% 11.34% 15.17% S0.6481	\$/Dth	Cost of	Demand	Demand	Recent	Proposal	Change	Change	Change	Change		
MR-13-732* 12-1193 13-670 Oct. 1, 2014 Nov. 1, 2014 Rate Demand PGA PGA S		Gas	Change	Change	PGA		from	from	from	from		
Jan. 14 Jul 13 Nov. 13 Society Case Change % \$		G011/	G011-	G011-	Effective	Effective	Last	Last	Last	Last		
		MR-13-732*	12-1193	13-670	Oct. 1, 2014	Nov. 1,2014	Rate	Demand	PGA	PGA		
Commodity Cost		Jan. 14	Jul 13	Nov. 13			Case	Change	%	\$		
Commodity Cost												
Demand Cost \$0.8258 \$0.9176 \$0.8968 \$0.8586 \$0.8147 -1.34% -1.21% -5.11% \$0.0439		esidential Avg. A						_				
Commodity Margin \$2.2290 \$1.9754 \$1.9754 \$2.2290 \$2.2290 \$0.00% \$0.00% \$0.00% \$0.00000 \$0.00000 \$0.0000 \$0.00000 \$0.0000000000	Commodity Cost				\$4.2710				15.17%	\$0.6481		
Total Cost of Gas \$7.5373 \$6.7415 \$6.6466 \$7.3586 \$7.9628 5.65% 6.31% 8.21% \$0.6042 \$700.97 \$626.96 \$618.13 \$684.35 \$740.54 5.65% 6.31% 8.21% \$56.042 \$56.096 \$618.13 \$684.35 \$740.54 5.65% 6.31% 8.21% \$56.042 \$56.097 \$626.96 \$618.13 \$684.35 \$740.54 5.65% 6.31% 8.21% \$56.027 \$61.0000 \$61.0000 \$61.0000 \$61.0000 \$61.0000 \$61.0000 \$61.0000 \$61.0000 \$61.0000 \$61.0000 \$6		\$0.8258			\$0.8586	*	-1.34%			(\$0.0439)		
Avg Annual Cost \$700.97 \$626.96 \$618.13 \$684.35 \$740.54 5.65% 6.31% 8.21% \$56.19	Commodity Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	0.00%	0.00%	0.00%	\$0.0000		
Effect of proposed commodity change on average annual bills: \$60.27 (\$4.08	Total Cost of Gas	*	\$6.7415	*		\$7.9628		6.31%		\$0.6042		
Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481	Avg Annual Cost				\$684.35	\$740.54	5.65%	6.31%	8.21%	\$56.19		
2) Large General Service: Avg. Annual Use: Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 \$0.8566 \$0.8147 -1.34% -11.21% -5.11% \$0.0439 \$0.0000 \$										*		
Commodity Cost	Effect of proposed d	emand change o	n average annual	bills:						(\$4.08)		
Commodity Cost												
Demand Cost \$0.8258 \$0.9176 \$0.8968 \$0.8586 \$0.8147 -1.34% -11.21% -5.11% \$0.0439					-,							
Commodity Margin \$2.2290 \$1.6868 \$1.6868 \$2.2290 \$2.2290 0.00% 32.14% 0.00% \$0.0000 Total Cost of Gas \$7.5373 \$6.4529 \$6.3580 \$7.3586 \$7.9628 5.65% 23.40% 8.21% \$0.6042 Avg Annual Cost \$40,573.29 \$34,735.96 \$34,225.11 \$39,611.34 \$42,863.79 5.65% 23.40% 8.21% \$3,252.44 Effect of proposed commodity change on average annual bills: \$3,488.72 \$1.620 \$1.000 \$1.00000 \$1.000000 \$1.000000 \$1.000000 \$1.0000000000		*										
Total Cost of Gas \$7.5373 \$6.4529 \$6.3580 \$7.3586 \$7.9628 5.65% 23.40% 8.21% \$0.6042 Avg Annual Cost \$40,573.29 \$34,735.96 \$34,225.11 \$39,611.34 \$42,863.79 5.65% 23.40% 8.21% \$3,252.44 Effect of proposed commodity change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of Gas \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 \$9.74% \$27.82% \$15.17% \$0.6481 Effect Commodity Margin \$1.2014 \$1.0647 \$1.0647 \$1.2014 \$1.2014 \$1.2014 \$0.00% \$12.84% \$0.00% \$0.0000 Effect of Gas \$5.6839 \$4.9132 \$4.8391 \$5.4724 \$6.1205 \$7.68% \$24.57% \$11.84% \$0.6481 Effect of proposed commodity change on average annual bills: \$4,341.62 Effect of proposed commodity change on average annual bills: \$4,000 Effect of proposed commodity change on average annual bills: \$4,2710 \$4.9191 \$9.74% \$27.82% \$15.17% \$0.6481 Effect of Gas \$4.4825 \$3.8485 \$3.8485 \$3.7744 \$4.2710 \$4.9191 \$9.74% \$27.82% \$15.17% \$0.6481 Effect of Gas \$4.4825 \$3.8485 \$3.8485 \$3.7744 \$4.2710 \$4.9191 \$9.74% \$27.82% \$15.17% \$0.6481 Effect Of Gas \$4.4825 \$3.8485 \$3.8485 \$3.7744 \$4.2710 \$4.9191 \$9.74% \$27.82% \$15.17% \$0.6481 Effect Of Gas \$4.4825 \$3.8485 \$3.8485 \$3.7744 \$4.2710 \$4.9191 \$9.74% \$27.82% \$15.17% \$0.6481 Effect Of Gas \$4.4825 \$3.8485 \$3.8485 \$3.7744 \$4.2710 \$4.9191 \$9.74% \$27.82% \$15.17% \$0.6481 Effect Of Gas \$4.4825 \$3.8485 \$3.8485 \$3.7744 \$4.6736 \$5.3217 \$8.94% \$26.55% \$13.87% \$0.6481 Effect Of Gas \$4.4825 \$3.8485 \$3.8485 \$3.7744 \$4.6736 \$5.3217 \$8.94% \$26.55% \$13.87% \$0.6481 Effect Of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 \$8.94% \$26.55% \$13.87% \$0.6481 Effect Of G						*				· · · /		
Avg Annual Cost \$40,573.29 \$34,735.96 \$34,225.11 \$39,611.34 \$42,863.79 5.65% 23.40% 8.21% \$3,252.44 Effect of proposed commodity change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 Effect of proposed demand change on average annual bills: \$3,488.72 3) SV Interruptible Service: Avg. Annual Use: 6,699 Dth Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$1.2014 \$1.0647 \$1.0647 \$1.2014 \$1.2014 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$5.6839 \$4.9132 \$4.8391 \$5.4724 \$6.1205 7.68% 24.57% 11.84% \$0.6481 Avg Annual Cost \$38,076.45 \$32,913.53 \$32,417.13 \$36,659.61 \$41,001.23 7.68% 24.57% 11.84% \$4.341.62 Effect of proposed commodity change on average annual bills: \$4,341.62 4) LV Interruptible Service: Avg. Annual Use: 42,000 Dth Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481		*	*									
Effect of proposed commodity change on average annual bills: S3,488.72												
Sy Interruptible Service: Avg. Annual Use: 6,699 Dth					\$39,611.34	\$42,863.79	5.65%	23.40%	8.21%	. ,		
3) SV Interruptible Service: Avg. Annual Use: Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$1.2014 \$1.0647 \$1.0647 \$1.0647 \$1.2014 \$1.2014 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$5.6839 \$4.9132 \$4.8391 \$5.4724 \$6.1205 7.68% 24.57% 11.84% \$0.6481 Avg Annual Cost \$38,076.45 \$32,913.53 \$32,417.13 \$36,659.61 \$41,001.23 7.68% 24.57% 11.84% \$4.341.62 Effect of proposed commodity change on average annual bills: 4) LV Interruptible Service: Avg. Annual Use: 42,000 Dth Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481										. ,		
Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$1.2014 \$1.0647 \$1.0647 \$1.0647 \$1.2014 \$1.2014 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$5.6839 \$4.9132 \$4.8391 \$5.4724 \$6.1205 7.68% 24.57% 11.84% \$0.6481 Avg Annual Cost \$38,076.45 \$32,913.53 \$32,417.13 \$36,659.61 \$41,001.23 7.68% 24.57% 11.84% \$4.341.62 Effect of proposed commodity change on average annual bills: \$4,341.62 \$4.84825 \$4.84825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481	Effect of proposed d	emand change o	n average annual	bills:						(\$236.28)		
Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$1.2014 \$1.0647 \$1.0647 \$1.0647 \$1.2014 \$1.2014 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$5.6839 \$4.9132 \$4.8391 \$5.4724 \$6.1205 7.68% 24.57% 11.84% \$0.6481 Avg Annual Cost \$38,076.45 \$32,913.53 \$32,417.13 \$36,659.61 \$41,001.23 7.68% 24.57% 11.84% \$4.341.62 Effect of proposed commodity change on average annual bills: \$4,341.62 \$4.84825 \$4.84825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481	0.0414											
Commodity Margin \$1.2014 \$1.0647 \$1.0647 \$1.2014 \$1.2014 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$5.6839 \$4.9132 \$4.8391 \$5.4724 \$6.1205 7.68% 24.57% 11.84% \$0.6481 Avg Annual Cost \$38,076.45 \$32,913.53 \$32,417.13 \$36,659.61 \$41,001.23 7.68% 24.57% 11.84% \$4,341.62 Effect of proposed commodity change on average annual bills: \$4,341.62 4) LV Interruptible Service: Avg. Annual Use: 42,000 Dth Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481				00 == 11			0 = 10/	07.000/	45.450/			
Total Cost of Gas \$5.6839 \$4.9132 \$4.8391 \$5.4724 \$6.1205 7.68% 24.57% 11.84% \$0.6481 Avg Annual Cost \$38,076.45 \$32,913.53 \$32,417.13 \$36,659.61 \$41,001.23 7.68% 24.57% 11.84% \$4,341.62 Effect of proposed commodity change on average annual bills: \$4,341.62 \$4,341.6												
Avg Annual Cost \$38,076.45 \$32,913.53 \$32,417.13 \$36,659.61 \$41,001.23 7.68% 24.57% 11.84% \$4,341.62 Effect of proposed commodity change on average annual bills: 42,000 Dth Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.4026 \$0.4026 \$0.4026 \$0.4026 \$0.00%												
### Effect of proposed commodity change on average annual bills: ### 42,000 Dth Commodity Cost					* -	*						
4) LV Interruptible Service: Avg. Annual Use: 42,000 Dth Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481					\$36,659.61	\$41,001.23	7.68%	24.57%	11.84%			
Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481	Effect of proposed c	ommodity chang	e on average ann	uai bilis:						\$4,341.62		
Commodity Cost \$4.4825 \$3.8485 \$3.7744 \$4.2710 \$4.9191 9.74% 27.82% 15.17% \$0.6481 Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481	4) LV Interruptible Se	ervice: Ava. Annu	al Use:		42.000	Dth				1		
Commodity Margin \$0.4026 \$0.3568 \$0.3568 \$0.4026 \$0.4026 0.00% 12.84% 0.00% \$0.0000 Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481				\$3,7744			9.74%	27.82%	15.17%	\$0.6481		
Total Cost of Gas \$4.8851 \$4.2053 \$4.1312 \$4.6736 \$5.3217 8.94% 26.55% 13.87% \$0.6481		·	· ·	* -								
			*	*								
Avg Annual Cost \$205,174.20 \$176,622.60 \$173,510.40 \$196,291.20 \$223,511.40 8.94% 26.55% 13.87% \$27.220.20	Avg Annual Cost	\$205,174.20	\$176,622.60	\$173,510.40	\$196,291.20	\$223,511.40	8.94%	26.55%	13.87%	\$27,220.20		
					,	,.				\$27,220.20		

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Docket No. E,G999/AA-12-756

^{*}As approved in Docket No. G007,011/MR-10-978; with implementation consolidated PGA rates on 7/1/13 in Docket No. G007,011/MR-10-977

**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.

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

DEMAND		<u>_</u>						o Commodity cos		
Contract Type			Monthly Entitlement	:	Rate			Contract	Rate Case Sales	
		Season	(Dth)	Months	(\$/Dth)			Costs	(therms)	Cost/Ccf
Viking (VGT)										
FT-A ZONE 1 - 1	AF0012	Annual	12,493	12	4.2	085	\$	630,921	45,118,157	\$0.01398
FT-A ZONE 1 - 1	AF0209	Winter	1,098	3	4.2	085	\$	13,863	45,118,157	\$0.00031
FT-A ZONE 1 - 1	AF0102	Annual	2,000	12	4.2	085	\$	101,003	45,118,157	\$0.00224
FA-A ZONE 1 - 1	AF0203	Dec-Feb	0	3	4.3	977	\$	-	45,118,157	\$0.00000
VGT Demand	•						\$	745,787	45,118,157	\$0.01653
Great Lakes (GLGT)										
FT Western Zone	FT0016	Annual	10,130	12	\$3.84	190	\$	467,886	45,118,157	\$0.01037
FT Western Zone (12)	FT0155 (12)	Annual	0	12	\$3.84	190	\$	-	45,118,157	\$0.00000
FT Western Zone (5)	FT0155 (5)	Winter	0	5	\$3.84	190	\$	-	45,118,157	\$0.00000
` ,	FT15782	Annual	9,000	12	\$3.84		\$	415,693	45,118,157	\$0.00921
	FT17891 (12)	Annual	3,600	12	\$3.84		\$	166,277	45,118,157	\$0.00369
	FT17891 (5)	Winter	3,638	5	\$3.84		\$	70,013	45,118,157	\$0.00355
	()						•			
GLGT Demand Centra							\$	1,119,869	45,118,157	\$0.02482
	(\$Cdn/103M3)				\$445.76	300				
	,		0.500	40			•	4 400 505	45 440 457	# 0.00404
Conversion (103M3 x Rate(C\$ 10	,	Annual	9,500	12	\$12.62			1,439,535	45,118,157	\$0.03191
CENTRA MINNESOTA PIPELINE	:S	Annual	9,500	12	\$3.25	510	\$	370,614	45,118,157	\$0.00821
Centra Demand							\$	1,810,149	45,118,157	\$0.04012
AECO							Ψ	1,010,149	43,110,137	φ0.04012
Niska Storage (AECO)		امیرمم۸	047 920	1	\$0.62	225	Φ			
AECO/Emerson Swap		Annual Annual	947,820 940,428	1	\$0.62 \$0.90		\$ \$	-	0	
map		71111001	040,420	· ·	ψ0.50	20	Ψ		· ·	
AECO Demand							\$	-	0	
NMU DEMAND - \$/Ccf							\$	3,675,805		\$0.08147
For Joint Rate Demand					45,118,157	, J	Annua	I Firm Sales in thern	ns	
			Units		Annual					
				Months	Dth's					
Viking (VGT)										
FT-A ZONE 1 - 1			12,493	12	149,9	916				
FT-A ZONE 1 - 1			1,098	3		294				
FT-A ZONE 1 - 1			2,000	12	24,0					
FA-A ZONE 1 - 1			0	3	27,0	-				
Great Lakes (GLGT)										
FT Western Zone			10,130	12	121,5	560				
			,		,					
FT Western Zone (12)			3,600	12	43,2					
FT Western Zone (5)			3,638	5	18,1					
FT Western Zone			9,000	12	108,0	JUU				
Centra										
CENTRA TRANSMISSION										
Conversion (103M3 x Rate(C\$ 10	,		9,500	12	114,0					
CENTRA MINNESOTA PIPELINE	:S		9,500	12	114,0	000				
Total Demand Cost							\$	3,675,805		
Total Demand Weighted Vol in I	Vicf							5,821,600		
Total Joint Demand Rate \$/Mcf										\$0.63141

November 1, 2013
(Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)

PRESENT AVERAGE COST OF GAS COMMODITY

EFFECTIVE: 01-Oct-14

WACOG		Annual	Call Option	Balancing	Total Annual	Cost/therm		
VGT	Rate	Dth	Premium	Service	Cost		REFERENCE	Effective
GAS COST	\$4.54060							_
FUEL 0.00%	\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
COMMODITY TRANSPORTATION	\$0.01270						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
GRI	\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
ACA	<u>\$0.00120</u>						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
VGT Commodity	\$4.55450	1,933,108	\$115,421	\$89,580	\$9,009,339	\$0.16762	VGT Commodity	
GLGT								
GAS COST	\$4.54060							
FUEL 0.579%	\$0.02644							
COMMODITY TRANSPORTATION	\$0.00394						5 Revised Sheet 4	Jun 1, 1997
GRI	\$0.00000						Contract	Jun. 1, 2004
ACA	\$0.00120						18th Revised Sheet No. 7	Oct. 1, 2005
GLGT Commodity	\$4.57218	2,436,860	\$145,498	\$0	\$11,287,259	\$0.21000	GLGT Commodity	
CENTRA								
CENTRA TRANSMISSION (\$Cdn/103M3)	1.062						Sheet 1 (N.E.B.)	
Conversion	\$0.02687							
GAS COSTS	\$4.54060							
CUSTOMS FEE	\$0.00040							
CENTRA Commodity	\$4.56787	1,004,857	\$59,997	\$54,000	\$4,704,048	\$0.08752	Centra Commodity	
Consolidated WACOG w/Premium & Balancing		5,374,824	\$320,916	\$143,580	\$25,000,646	\$0.46514		
,	Total Annual Sales in therms	53,748,240						
Storage Services						<u>\$0.02677</u>		
						\$0.49191	Total Consolidated WACOG-\$/th	nerm
					=		-	

Balancing	Service					
Pipeline VGT	Description Balancing Agreement	Season Annual	Monthly Entitlement (Dth) 7,465	Months 12	Rate (\$/Dth) \$1.0000	Contract Costs \$89,580
GLGT			0	0	\$0.0000	\$0
Centra	Union Balancing	Annual	4,453	12	\$1.0106	\$54,000

Storage Service							
		Monthly				Annual	
		Entitlement		Rate	Contract	Sales	Rate
	Season	(Dth)	Months	(\$/Dth)	Costs	(therms)	(\$/therm)
Niska Storage (AECO)	Annual	947,820	1	\$ 0.62250	\$590,018	53,748,240	\$0.01098
AECO/Emerson Swap	Annual	940,428	1	\$ 0.90250	\$848,736	53,748,240	\$0.01579
					\$1,438,754	53,748,240	\$0.02677

Total Commodity Cost: \$0.49191

N:Group/Rates/Gas/MERC/PGAC/2013/Con1113

^{*} Per Docket No. G-007/M-07-1402-05 dated August 6th, 2014, storage demand charges will be allocated through the commodity charge effective 11/01/2014.

MINNESOTA ENERGY RESOURCES - PNG-NNG

Financial Options Heating Season 2014-2015

<u>Units</u>	Gas Daily F				I		F-1			orob		
	Contract	<u>mber</u> Daily	<u>Dece</u> Contract	<u>mber</u> Daily	<u>Jan</u> Contract	<u>uary</u> Daily	<u>Febr</u> Contract	<u>uary</u> Daily	Contract	<u>arch</u> Daily	Daily	Term
	<u>Date</u> N/A	<u>Volume</u>	<u>Date</u> N/A	<u>Volume</u>	<u>Date</u> N/A	<u>Volume</u>	<u>Date</u> N/A	<u>Volume</u>	<u>Date</u> N/A	<u>Volume</u>	<u>Total</u>	<u>Total</u>
Premi		•	Monthly Cos	•							_	
	Nove Option	<u>mber</u> Premium	<u>Dece</u> Option	mber Premium	<u>Jan</u> Option	<u>uary</u> Premium	<u>rebr</u> Option	<u>uary</u> Premium	Option	<u>arch</u> Premium	Option I	<u>otal</u> Premium
	Premium	Cost	Premium	Cost	Premium	Cost	Premium	Cost	Premium	Cost	Premium	Cost
	N/A	<u> </u>	N/A	<u> </u>	N/A	<u> </u>	N/A	<u> </u>	N/A	<u>5551</u>	<u>r romanı</u>	<u> </u>
Units	· Futures (Da											
		mber Deibe	<u>Dece</u>			uary Deily		uary Deily	_	arch Daile	Dalle	Т
	Contract Date	Daily Volume	Contract <u>Date</u>	Daily <u>Volume</u>	Contract Date	Daily Volume	Contract Date	Daily <u>Volume</u>	Contract <u>Date</u>	Daily Volume	Daily <u>Total</u>	Term <u>Total</u>
1	06/25/14	948	06/16/14	209	06/11/14	99	06/30/14	<u>voidille</u> 871	06/20/14	370	2,496	73,813
2	07/25/14	1,034	06/16/14	417	06/11/14	691	07/30/14	1,016	06/20/14	370	3,528	105,300
3	08/22/14	1,034	07/16/14	835	07/10/14	197	08/28/14	435	06/20/14	370	2,872	86,685
4	09/24/14	1,034	08/13/14	835	07/10/14	889	08/28/14	580	06/20/14	370	3,708	112,176
5	10/01/14	948	09/11/14	626	08/07/14	987	09/29/14	871	07/21/14	1,478	4,911	148,681
6			10/09/14	626	09/04/14	987	10/23/14	871	08/18/14	74	2,558	76,691
7					10/08/14	987			08/18/14	1,331	2,318	71,862
8									09/18/14	1,405	1,405	43,542
9 10									10/20/14	1,331	1,331 -	41,250 -
Total		5,000		3,548		4,839		4,643		7,097	25,127	760,000
rotai		150,000		110,000		150,000		130,000		220,000	20,121	760,000
						100,000		<u>,</u>				
<u>Units</u>	- Call Option	ns (Daily Vo	lume) <u>Dece</u>	mber	<u>Jan</u>	<u>uary</u>	<u>Febr</u>	uary	<u>M</u>	arch		
<u>Units</u>				mber Daily	<u>Jan</u> Contract		<u>Febr</u> Contract		<u>M</u> Contract		Daily	Term
Units :	Nove	mber_	<u>Dece</u> Contract <u>Date</u>		Contract <u>Date</u>	uary		uary	Contract <u>Date</u>	arch	Daily <u>Total</u>	Term Total
1	Nove Contract <u>Date</u> 06/13/14	mber Daily Volume 1,082	Dece Contract Date 06/27/14	Daily Volume 1,613	Date 06/23/14	uary Daily <u>Volume</u> 1,811	Contract <u>Date</u> 06/18/14	uary Daily <u>Volume</u> 1,844	Contract Date 06/10/14	arch Daily <u>Volume</u> 1,484	<u>Total</u> 7,834	<u>Total</u> 236,232
1 2	Nove Contract <u>Date</u> 06/13/14 07/14/14	mber Daily Volume 1,082 1,082	Dece Contract <u>Date</u> 06/27/14 07/28/14	Daily <u>Volume</u> 1,613 1,677	Contract <u>Date</u> 06/23/14 07/24/14	uary Daily <u>Volume</u> 1,811 1,871	Contract <u>Date</u> 06/18/14 07/18/14	Daily Volume 1,844 1,844	Contract <u>Date</u> 06/10/14 07/08/14	arch Daily Volume 1,484 1,548	Total 7,834 8,023	<u>Total</u> 236,232 242,103
1 2 3	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14	mber Daily Volume 1,082 1,082 1,082	Dece Contract Date 06/27/14 07/28/14 08/26/14	Daily <u>Volume</u> 1,613 1,677 1,677	Contract <u>Date</u> 06/23/14 07/24/14 08/20/14	uary Daily Volume 1,811 1,871 1,871	Contract <u>Date</u> 06/18/14 07/18/14 08/15/14	Daily Volume 1,844 1,844 1,844	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14	arch Daily <u>Volume</u> 1,484 1,548 1,548	Total 7,834 8,023 8,023	<u>Total</u> 236,232 242,103 242,103
1 2 3 4	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14 09/09/14	mber Daily Volume 1,082 1,082 1,082 1,210	Dece Contract <u>Date</u> 06/27/14 07/28/14 08/26/14 09/26/14	Daily <u>Volume</u> 1,613 1,677 1,677 1,677	Contract Date 06/23/14 07/24/14 08/20/14 09/22/14	uary Daily Volume 1,811 1,871 1,871 1,871	Date 06/18/14 07/18/14 08/15/14 09/16/14	Daily Volume 1,844 1,844 1,844 1,844	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14	arch Daily Volume 1,484 1,548 1,548 1,548	Total 7,834 8,023 8,023 8,150	Total 236,232 242,103 242,103 245,923
1 2 3 4 5	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14	mber Daily Volume 1,082 1,082 1,082	Dece Contract Date 06/27/14 07/28/14 08/26/14	Daily <u>Volume</u> 1,613 1,677 1,677	Contract <u>Date</u> 06/23/14 07/24/14 08/20/14	uary Daily Volume 1,811 1,871 1,871	Contract <u>Date</u> 06/18/14 07/18/14 08/15/14	Daily Volume 1,844 1,844 1,844	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14	arch Daily <u>Volume</u> 1,484 1,548 1,548	Total 7,834 8,023 8,023	Total 236,232 242,103 242,103 245,923
1 2 3 4 5	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14 09/09/14	mber Daily Volume 1,082 1,082 1,082 1,210	Dece Contract <u>Date</u> 06/27/14 07/28/14 08/26/14 09/26/14	Daily <u>Volume</u> 1,613 1,677 1,677 1,677	Contract Date 06/23/14 07/24/14 08/20/14 09/22/14	uary Daily Volume 1,811 1,871 1,871 1,871	Date 06/18/14 07/18/14 08/15/14 09/16/14	Daily Volume 1,844 1,844 1,844 1,844	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14	arch Daily Volume 1,484 1,548 1,548 1,548	Total 7,834 8,023 8,023 8,150	Total 236,232 242,103 242,103 245,923
1 2 3 4 5 6 7	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14 09/09/14	mber Daily Volume 1,082 1,082 1,210 1,210	Dece Contract <u>Date</u> 06/27/14 07/28/14 08/26/14 09/26/14	Daily Volume 1,613 1,677 1,677 1,677 1,742	Contract Date 06/23/14 07/24/14 08/20/14 09/22/14	uary Daily Volume 1,811 1,871 1,871 1,871 1,871	Date 06/18/14 07/18/14 08/15/14 09/16/14	Daily Volume 1,844 1,844 1,844 1,910	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14	arch Daily Volume 1,484 1,548 1,548 1,548 1,613	Total 7,834 8,023 8,023 8,150 8,406	Total 236,232 242,103 242,103 245,923 253,638
1 2 3 4 5 6 7	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14 09/09/14	mber Daily Volume 1,082 1,082 1,082 1,210	Dece Contract <u>Date</u> 06/27/14 07/28/14 08/26/14 09/26/14	Daily <u>Volume</u> 1,613 1,677 1,677 1,677	Contract Date 06/23/14 07/24/14 08/20/14 09/22/14	uary Daily Volume 1,811 1,871 1,871 1,871	Date 06/18/14 07/18/14 08/15/14 09/16/14	Daily Volume 1,844 1,844 1,844 1,844	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14	arch Daily Volume 1,484 1,548 1,548 1,548	Total 7,834 8,023 8,023 8,150	Total 236,232 242,103 242,103 245,923 253,638
1 2 3 4 5 6 7 Total	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14 09/09/14	mber Daily Volume 1,082 1,082 1,082 1,210 1,210 5,667 170,000	Dece Contract <u>Date</u> 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14	Daily Volume 1,613 1,677 1,677 1,677 1,742	Contract Date 06/23/14 07/24/14 08/20/14 09/22/14	uary Daily Volume 1,811 1,871 1,871 1,871 1,931	Date 06/18/14 07/18/14 08/15/14 09/16/14	Daily Volume 1,844 1,844 1,844 1,910	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14	arch Daily Volume 1,484 1,548 1,548 1,548 1,613	Total 7,834 8,023 8,023 8,150 8,406	Total 236,232 242,103 242,103 245,923 253,638
1 2 3 4 5 6 7 Total	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14	mber Daily Volume 1,082 1,082 1,082 1,210 1,210 5,667 170,000	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14	Daily Volume 1,613 1,677 1,677 1,677 1,742	Contract <u>Date</u> 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14	uary Daily Volume 1,811 1,871 1,871 1,871 1,931	Contract <u>Date</u> 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14	Daily Volume 1,844 1,844 1,844 1,910	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14 10/07/14	arch Daily Volume 1,484 1,548 1,548 1,548 1,613	Total 7,834 8,023 8,023 8,150 8,406	Total 236,232 242,103 242,103 245,923 253,638
1 2 3 4 5 6 7 Total	Nove Contract <u>Date</u> 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14	mber Daily Volume 1,082 1,082 1,082 1,210 1,210 5,667 170,000	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000	Contract <u>Date</u> 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14	uary Daily Volume 1,811 1,871 1,871 1,871 1,931	Contract <u>Date</u> 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14	Daily Volume 1,844 1,844 1,844 1,910 9,286 260,000	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14 10/07/14	arch Daily Volume 1,484 1,548 1,548 1,613 7,742 240,000	Total 7,834 8,023 8,023 8,150 8,406	Total 236,232 242,103 242,103 245,923 253,638
1 2 3 4 5 6 7 Total	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14	mber Daily Volume 1,082 1,082 1,082 1,210 1,210 5,667 170,000 stion (Month	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 ally Cost) Dece	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000	Contract	uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000	Contract <u>Date</u> 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14	Daily Volume 1,844 1,844 1,910 9,286 260,000	Contract <u>Date</u> 06/10/14 07/08/14 08/05/14 09/02/14 10/07/14	arch Daily Volume 1,484 1,548 1,548 1,613 7,742 240,000	Total 7,834 8,023 8,023 8,150 8,406	Total 236,232 242,103 242,103 245,923 253,638 1,220,000 1,220,000
1 2 3 4 5 6 7 Total Premi	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14 um - Call Op Nove Option Premium \$ 0.2380	## Daily Volume 1,082 1,082 1,082 1,210 1,210 5,667 170,000 ## Hiber Premium Cost \$ 7,728	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 Dece Option Premium 0.3100	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000 mber Premium	Date 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14 Option Premium \$ 0.3450	uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000 uary Premium	Contract Date 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14 Febr Option Premium \$ 0.3750	Daily Volume 1,844 1,844 1,910 9,286 260,000	Option Premium \$ 0.3960	arch Daily Volume 1,484 1,548 1,548 1,548 1,613 7,742 240,000 arch Premium Cost \$ 18,216	Total 7,834 8,023 8,023 8,150 8,406 40,436	Total
1 2 3 4 5 6 7 Total Premi 1 2	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14 um - Call Op Nove Option Premium \$ 0.2380 \$ 0.2220	### Toaily Volume 1,082 1,082 1,082 1,210 1,210 5,667 170,000 ################################	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 Dece Option Premium 0.3100 0.2230	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000 mber Premium Cost \$15,500 \$11,596	Date 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14 Description Premium 0.3450 0.2370	Uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000 Uary Premium Cost \$19,365 \$13,746	Contract Date 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14 Febr Option Premium \$ 0.3750 \$ 0.3050	Daily Volume 1,844 1,844 1,910 9,286 260,000 ruary Premium Cost \$19,362 \$15,748	Option Premium \$ 0.3960 \$ 0.4110	arch Daily Volume 1,484 1,548 1,548 1,613 7,742 240,000 arch Premium Cost \$ 18,216 \$ 19,728	Total 7,834 8,023 8,023 8,150 8,406 40,436 Option Premium \$ 0.3394 \$ 0.2810	Total 236,232 242,103 242,103 245,923 253,638 1,220,000 1,220,000 otal Premium Cost \$ 80,171 \$ 68,026
1 2 3 4 5 6 7 Total Premi 1 2 3	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14 Description Nove Option Premium 0.2380 0.2220 0.1350	### Toally Volume 1,082 1,082 1,082 1,210 1,210 1,210 ### Toally ### Toally	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 Dece Option Premium 0.3100 0.2230 0.2010	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000 mber Premium Cost \$15,500 \$11,596 \$10,452	Date 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14 Description Premium 0.3450 0.2370 0.2420	Uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000 Uary Premium Cost \$19,365 \$13,746 \$14,036	Contract Date 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14 Febr Option Premium \$ 0.3750 \$ 0.3050 \$ 0.2640	Daily Volume 1,844 1,844 1,844 1,910 9,286 260,000 Premium Cost \$19,362 \$15,748 \$13,631	Option Premium \$ 0.3960 \$ 0.3960 \$ 0.3930	arch Daily Volume 1,484 1,548 1,548 1,613 7,742 240,000 arch Premium Cost \$ 18,216 \$ 19,728 \$ 14,544	Total 7,834 8,023 8,023 8,150 8,406 40,436 Coption Premium \$ 0.3394 \$ 0.2810 \$ 0.2356	Total 236,232 242,103 242,103 245,923 253,638 1,220,000 1,220,000 otal Premium Cost \$ 80,171 \$ 68,026 \$ 57,046
1 2 3 4 5 6 7 Total Premi 1 2 3 4	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14 Description Fremium 0.2380 0.2220 0.1350 0.0880	### Top	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 Dece Option Premium 0.3100 0.2230 0.2010 0.1660	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000 mber Premium Cost \$15,500 \$11,596 \$10,452 \$8,632	Date 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14 Determinant Option Premium 0.3450 0.2370 0.2420 0.2160	Uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000 Uary Premium Cost \$19,365 \$13,746 \$14,036 \$12,528	Contract Date 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14 Febr Option Premium 0.3750 0.3050 0.2640 0.3350	Premium Cost \$13,631 \$17,296	Option Premium \$ 0.3960 \$ 0.3960 \$ 0.3960 \$ 0.3940 \$ 0.2940	arch Daily Volume 1,484 1,548 1,548 1,548 1,613 7,742 240,000 arch Premium Cost \$ 18,216 \$ 19,728 \$ 14,544 \$ 14,112	Total 7,834 8,023 8,023 8,150 8,406 40,436 Option Premium \$ 0.3394 \$ 0.2810 \$ 0.2356 \$ 0.2267	Total 236,232 242,103 242,103 245,923 253,638 1,220,000 1,220,000 otal Premium Cost \$ 80,171 \$ 68,026 \$ 57,046 \$ 55,762
1 2 3 4 5 6 7 Total Premi 1 2 3 4 5	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14 Description Nove Option Premium 0.2380 0.2220 0.1350	### Toally Volume 1,082 1,082 1,082 1,210 1,210 1,210 ### Toally ### Toally	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 Dece Option Premium 0.3100 0.2230 0.2010	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000 mber Premium Cost \$15,500 \$11,596 \$10,452	Date 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14 Description Premium 0.3450 0.2370 0.2420	Uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000 Uary Premium Cost \$19,365 \$13,746 \$14,036	Contract Date 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14 Febr Option Premium \$ 0.3750 \$ 0.3050 \$ 0.2640	Daily Volume 1,844 1,844 1,844 1,910 9,286 260,000 Premium Cost \$19,362 \$15,748 \$13,631	Option Premium \$ 0.3960 \$ 0.3960 \$ 0.3930	arch Daily Volume 1,484 1,548 1,548 1,548 1,613 7,742 240,000 arch Premium Cost \$ 18,216 \$ 19,728 \$ 14,544 \$ 14,112	Total 7,834 8,023 8,023 8,150 8,406 40,436 Coption Premium \$ 0.3394 \$ 0.2810 \$ 0.2356	Total 236,232 242,103 242,103 245,923 253,638 1,220,000 1,220,000 otal Premium Cost \$ 80,171 \$ 68,026 \$ 57,046 \$ 55,762
1 2 3 4 5 6 7 Total Premi 1 2 3	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14 Description Fremium 0.2380 0.2220 0.1350 0.0880	### Top	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 Dece Option Premium 0.3100 0.2230 0.2010 0.1660	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000 mber Premium Cost \$15,500 \$11,596 \$10,452 \$8,632	Date 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14 Determinant Option Premium 0.3450 0.2370 0.2420 0.2160	Uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000 Uary Premium Cost \$19,365 \$13,746 \$14,036 \$12,528	Contract Date 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14 Febr Option Premium 0.3750 0.3050 0.2640 0.3350	Premium Cost \$13,631 \$17,296	Option Premium \$ 0.3960 \$ 0.3960 \$ 0.3960 \$ 0.3940 \$ 0.2940	arch Daily Volume 1,484 1,548 1,548 1,548 1,613 7,742 240,000 arch Premium Cost \$ 18,216 \$ 19,728 \$ 14,544 \$ 14,112	Total 7,834 8,023 8,023 8,150 8,406 40,436 Option Premium \$ 0.3394 \$ 0.2810 \$ 0.2356 \$ 0.2267	Total 236,232 242,103 242,103 245,923 253,638 1,220,000 1,220,000 otal Premium Cost \$ 80,171 \$ 68,026 \$ 57,046 \$ 55,762
1 2 3 4 5 6 7 Total Premi 1 2 3 4 5 6	Nove Contract Date 06/13/14 07/14/14 08/11/14 09/09/14 10/06/14 Description Fremium 0.2380 0.2220 0.1350 0.0880	### Top	Dece Contract Date 06/27/14 07/28/14 08/26/14 09/26/14 10/22/14 Dece Option Premium 0.3100 0.2230 0.2010 0.1660	Daily Volume 1,613 1,677 1,677 1,677 1,742 8,387 260,000 mber Premium Cost \$15,500 \$11,596 \$10,452 \$8,632 \$8,856	Date 06/23/14 07/24/14 08/20/14 09/22/14 10/21/14 Determinant Option Premium 0.3450 0.2370 0.2420 0.2160	Uary Daily Volume 1,811 1,871 1,871 1,931 9,355 290,000 Uary Premium Cost \$19,365 \$13,746 \$14,036 \$12,528	Contract Date 06/18/14 07/18/14 08/15/14 09/16/14 10/10/14 Febr Option Premium 0.3750 0.3050 0.2640 0.3350	Premium Cost \$13,631 \$17,296	Option Premium \$ 0.3960 \$ 0.3960 \$ 0.3960 \$ 0.3940 \$ 0.2940	arch Daily Volume 1,484 1,548 1,548 1,548 1,613 7,742 240,000 arch Premium Cost \$ 18,216 \$ 19,728 \$ 14,544 \$ 14,112	Total 7,834 8,023 8,023 8,150 8,406 40,436 Option Premium \$ 0.3394 \$ 0.2810 \$ 0.2356 \$ 0.2267	Total 236,232 242,103 242,103 245,923 253,638 1,220,000 1,220,000 otal Premium Cost \$ 80,171 \$ 68,026 \$ 57,046 \$ 55,762

Attachment 6

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

	M-11- Consolidated GS	M-12- Consolidated GS	M-13- Consolidated GS	M-14- Consolidated GS	Proposed Change
Viking Gas Transmission (VGT)					
FT-A ZONE 1 - 1	12,493	12,493	12,493	12,493	0
FT-A ZONE 1 - 1	1,098	1,098	1,098	1,098	0
FT-A ZONE 1 - 1	2,000	2,000	2,000	2,000	0
FA-A ZONE 1 - 1	0	0	1,500	0	-1,500
Wadena Delivered GDD Option	0	3500	0	0	0
Great Lakes Gas Transmission (GLGT)					
FT Western Zone	10,130	10,130	10,130	10,130	0
FT Western Zone (12)	3,600	3,600	3,600	0	-3,600
FT Western Zone (5)	3,638	3,638	3,638	0	-3,638
FT Western Zone	9,000	9,000	9,000	9,000	0
FT Western Zone (12)	0	0	0	3,600	3,600
FT Western Zone (5)	0	0	0	3,638	3,638
Centra Transmission Holding/Centra Minnesota Pipelin	•	,	0.500	0.500	•
Centra FT-1	9,858	9,500	9,500	9,500	0
Total VGT Transportation	15,591	19,091	17,091	15,591	-1,500
Total GLGT Transportation	26,368	26,368	26,368	26,368	0
Total CTHI/CPMI Transportation	9,858	9,500	9,500	9,500	0
Total Transportation	51,817	54,959	52,959	51,459	-1,500
Total Seasonal Transportation	6,736	6,736	6,736	6,736	0
Total Seasonal Transportation %	13.00%	12.26%	12.72%	13.09%	0.37%
Other Entitlements not included in Peak Day Deliverability					
AECO Storage	947,820	947,820	947,820	947,820	0
AECO/Emerson Swap	947,823	947,823	947,823	940,428	-7,395

MINNESOTA ENERGY RESOURCES - Consolidated

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

	Base Cost of Gas	Demand	Last Demand	Most Recent PGA	Nov. 1, 2014	% Change From Last	% Change From Last	% Change From Last	\$ Change
General Service-Residential	Change MR13-732	Change Jul'13	Change Nov'13	Oct'14	w/ Proposed Demand Changes**			PGA	From Last PGA
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	30.33%	15.17%	\$0.6481
Demand Cost	\$0.8258	\$0.9176	\$0.8968	\$0.8586	\$0.8147	-1.34%	-9.15%	-5.11%	(\$0.0439)
Margin	\$2.2290	\$1.9754	\$1.9754	\$2.2290	\$2.2290	0.00%	12.84%	0.00%	\$0.0000
Total Cost of Gas	\$7.5373	\$6,7415	\$6.6466	\$7.3586	\$7.9628	5.65%	19.80%	8.21%	\$0.6042
Average Annual Use	90	90	90	90	90				
Average Annual Cost of Gas*	\$678.36	\$606.74	\$598.19	\$662.27	\$716.65	5.65%	19.80%	8.21%	\$54.38
	Base Cost of Gas	Demand	Last Demand	Most Recent	Nov. 1, 2014	% Change	% Change	% Change	\$ Change
	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Large General Service	MR13-732	Jul'13	Nov'13	Oct'14	Demand Changes**		Demand Filing	PGA	PGA
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	30.33%	15.17%	\$0.6481
Demand Cost	\$0.8258	\$0.9176	\$0.8968	\$0.8586	\$0.8147	-1.34%	-9.15%	-5.11%	(\$0.0439)
Margin	\$2.2290	\$1.6868	\$1.6868	\$2.2290	\$2.2290	0.00%	32.14%	0.00%	\$0.0000
Total Cost of Gas	\$7.5373	\$6.4529	\$6.3580	\$7.3586	\$7.9628	5.65%	25.24%	8.21%	\$0.6042
Average Annual Use	4,932	4,932	4,932	4,932	4,932				
Average Annual Cost of Gas*	\$37,173.96	\$31,825.70	\$31,357.66	\$36,292.62	\$39,272.56	5.65%	25.24%	8.21%	\$2,979.95
	Base Cost of Gas	Demand	Last Demand	Most Recent	Nov. 1. 2014	% Change	% Change	% Change	\$ Change
	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
SV Interruptible Service	MR13-732	Jul'13	Nov'13	Oct'14	Demand Changes**		Demand Filing	PGA	PGA
Commodity Cost	\$4.4825	\$3.8485	\$3.7744	\$4.2710	\$4.9191	9.74%	30.33%	15.17%	\$0.6481
Commodity Margin	\$1.2014	\$1.0647	\$1.0647	\$1.2014	\$1.2014	0.00%	12.84%	0.00%	\$0.0000
Total Cost of Gas	\$5.6839	\$4.9132	\$4.8391	\$5.4724	\$6.1205	7.68%	26.48%	11.84%	\$0.6481
Average Annual Use	6,068	6,068	6,068	6,068	6,068				*******
Average Annual Cost of Gas*	\$34,489.91	\$29,813.30	\$29,363.66	\$33,206.52	\$37,139.19	7.68%	26.48%	11.84%	\$3,932.67
v									
	5 0 . (0					a. a.	a. a.	a. a .	
	Base Cost of Gas	Demand	Last Demand	Most Recent	Nov. 1, 2014	% Change	% Change	% Change	\$ Change
IV/Intermedials Coming	Change	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
LV Interruptible Service	Change MR13-732	Change Jul'13	Change Nov'13	PGA Oct'14	w/ Proposed Demand Changes**	From Last Rate Case^^	From Last Demand Filing	From Last PGA	From Last PGA
Commodity Cost	Change MR13-732 \$4.4825	Change Jul'13 \$3.8485	Change Nov'13 \$3.7744	PGA Oct'14 \$4.2710	w/ Proposed Demand Changes** \$4.9191	From Last Rate Case^ 9.74%	From Last Demand Filing 30.33%	From Last PGA 15.17%	From Last PGA \$0.6481
Commodity Cost Commodity Margin	Change MR13-732 \$4.4825 \$0.4026	Change Jul'13 \$3.8485 \$0.3568	Change Nov'13 \$3.7744 \$0.3568	PGA Oct'14 \$4.2710 \$0.4026	w/ Proposed Demand Changes** \$4.9191 \$0.4026	From Last Rate Case^^ 9.74% 0.00%	From Last Demand Filing 30.33% 12.84%	From Last PGA 15.17% 0.00%	From Last PGA \$0.6481 \$0.0000
Commodity Cost Commodity Margin Total Cost of Gas	Change MR13-732 \$4.4825 \$0.4026 \$4.8851	Change Jul'13 \$3.8485 \$0.3568 \$4.2053	Change Nov'13 \$3.7744 \$0.3568 \$4.1312	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217	From Last Rate Case^ 9.74%	From Last Demand Filing 30.33%	From Last PGA 15.17%	From Last PGA \$0.6481
Commodity Cost Commodity Margin Total Cost of Gas Average Annual Use	Change MR13-732 \$4.4825 \$0.4026 \$4.8851 40,821	Change Jul'13 \$3.8485 \$0.3568 \$4.2053 40,821	Change Nov'13 \$3.7744 \$0.3568 \$4.1312 40,821	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736 40,821	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217 40,821	From Last Rate Case^^ 9.74% 0.00% 8.94%	From Last Demand Filling 30.33% 12.84% 28.82%	From Last PGA 15.17% 0.00% 13.87%	From Last PGA \$0.6481 \$0.0000 \$0.6481
Commodity Cost Commodity Margin Total Cost of Gas	Change MR13-732 \$4.4825 \$0.4026 \$4.8851	Change Jul'13 \$3.8485 \$0.3568 \$4.2053	Change Nov'13 \$3.7744 \$0.3568 \$4.1312	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217	From Last Rate Case^^ 9.74% 0.00%	From Last Demand Filing 30.33% 12.84%	From Last PGA 15.17% 0.00%	From Last PGA \$0.6481 \$0.0000
Commodity Cost Commodity Margin Total Cost of Gas Average Annual Use	Change MR13-732 \$4.4825 \$0.4026 \$4.8851 40,821	Change Jul'13 \$3.8485 \$0.3568 \$4.2053 40,821	Change Nov'13 \$3.7744 \$0.3568 \$4.1312 40,821	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736 40,821	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217 40,821	From Last Rate Case^^ 9.74% 0.00% 8.94%	From Last Demand Filling 30.33% 12.84% 28.82%	From Last PGA 15.17% 0.00% 13.87%	From Last PGA \$0.6481 \$0.0000 \$0.6481
Commodity Cost Commodity Margin Total Cost of Gas Average Annual Use Average Annual Cost of Gas*	Change MR13-732 \$4.4825 \$0.4026 \$4.8851 40,821 \$199,414.67 Commodity Change	Change Jul'13 \$3.8485 \$0.3568 \$4.2053 40,821 \$171,664.55 Commodity Change	Change Nov'13 \$3.7744 \$0.3568 \$4.1312 40,821 \$168,639.72 Demand Change	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736 40,821 \$190,781.03 Demand Change	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217 40,821	From Last Rate Case^^ 9.74% 0.00% 8.94% 8.94% Total Change	From Last Demand Filing 30.33% 12.84% 28.82% 28.82% Total Change	From Last	From Last PGA \$0.6481 \$0.0000 \$0.6481
Commodity Cost Commodity Margin Total Cost of Gas Average Annual Use Average Annual Cost of Gas* November Change Summary	Change MR13-732 \$4.4825 \$0.4026 \$4.8851 40,821 \$199,414.67 Commodity Change \$/Mcf	Change Jul'13 \$3.8485 \$0.3568 \$4.2053 40,821 \$171,664.55 Commodity Change %	Change Nov'13 \$3.7744 \$0.3568 \$4.1312 40,821 \$168,639.72 Demand Change \$/Mcf	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736 40,821 \$190,781.03 Demand Change %	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217 40,821	From Last Rate Case^^ 9.74% 0.00% 8.94% 8.94% Total Change \$/Mcf	From Last Demand Filing 30.33% 12.84% 28.82% 28.82% Total Change %	From Last PGA 15.17% 0.00% 13.87% 13.87% Average Annual Change	From Last PGA \$0.6481 \$0.0000 \$0.6481
Commodity Cost Commodity Margin Total Cost of Gas Average Annual Use Average Annual Cost of Gas* November Change Summary General Service	Change MR13-732 \$4.4825 \$0.4026 \$4.8851 40,821 \$199,414.67 Commodity Change \$/Mcf \$0.6481	Change Jul'13 \$3.8485 \$0.3568 \$4.2053 40,821 \$171,664.55 Commodity Change % 15.17%	Change Nov'13 \$3.7744 \$0.3568 \$4.1312 40,821 \$168,639.72 Demand Change \$/Mcf (\$0.0439)	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736 40,821 \$190,781.03 Demand Change %	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217 40,821	From Last Rate Case^ 9.74% 0.00% 8.94% Total Change \$/Mcf \$0.6042	From Last Demand Filing 30.33% 12.84% 28.82% 28.82% Total Change % 8.21%	From Last PGA 15.17% 0.00% 13.87% 13.87% Average Annual Change \$54.38	From Last PGA \$0.6481 \$0.0000 \$0.6481
Commodity Cost Commodity Margin Total Cost of Gas Average Annual Use Average Annual Cost of Gas* November Change Summary General Service Large General Service	Change MR13-732 \$4.4825 \$0.4026 \$4.8851 40,821 \$199,414.67 Commodity Change \$/Mcf \$0.6481 \$0.6481	Change Jul'13 \$3.8485 \$0.3568 \$4.2053 40,821 \$171,664.55 Commodity Change % 15.17% 15.17%	Change Nov'13 \$3.7744 \$0.3568 \$4.1312 40,821 \$168,639.72 Demand Change \$/Mcf	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736 40,821 \$190,781.03 Demand Change %	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217 40,821	From Last Rate Case^^ 9.74% 0.00% 8.94% 8.94% Total Change \$//Mcf \$0.6042 \$0.6042	From Last Demand Filing 30.33% 12.84% 28.82% 28.82% Total Change % 8.21% 8.21%	From Last PGA 15.17% 0.00% 13.87% 13.87% Average Annual Change \$54.38 \$2,979.95	From Last PGA \$0.6481 \$0.0000 \$0.6481
Commodity Cost Commodity Margin Total Cost of Gas Average Annual Use Average Annual Cost of Gas* November Change Summary General Service	Change MR13-732 \$4.4825 \$0.4026 \$4.8851 40,821 \$199,414.67 Commodity Change \$/Mcf \$0.6481	Change Jul'13 \$3.8485 \$0.3568 \$4.2053 40,821 \$171,664.55 Commodity Change % 15.17%	Change Nov'13 \$3.7744 \$0.3568 \$4.1312 40,821 \$168,639.72 Demand Change \$/Mcf (\$0.0439)	PGA Oct'14 \$4.2710 \$0.4026 \$4.6736 40,821 \$190,781.03 Demand Change %	w/ Proposed Demand Changes** \$4.9191 \$0.4026 \$5.3217 40,821	From Last Rate Case^ 9.74% 0.00% 8.94% Total Change \$/Mcf \$0.6042	From Last Demand Filing 30.33% 12.84% 28.82% 28.82% Total Change % 8.21%	From Last PGA 15.17% 0.00% 13.87% 13.87% Average Annual Change \$54.38	From Last PGA \$0.6481 \$0.0000 \$0.6481

Average Annual Bill amount does not include customer charges.
 Commodity includes Upstream costs.

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

Change in	Cosis due to	November, i 2	0 14 Change II	n Enuuemen	t Leveis ar	ia Related Demana	Costs	Attachment 8
			Consolic	dated				
	Oct. 2014	Nov. 2014	Entitlement	Nov. 2014		Oct. 2014	Nov. 2014	Total Annual Cost
	Entitlements	Entitlements	Change	Rate	Months	Total Annual Cost	Total Annual Cost	Change
Costs Assigned in Demand Charge								
Viking Pipeline								
FT-A ZONE 1 - 1	12,493	12,493	0	\$ 4.2085	12	\$510,212	\$630,921	\$120,709
FT-A ZONE 1 - 1	1,098	1,098	0	\$ 4.2085	3	\$11,211	\$13,863	\$2,652
FT-A ZONE 1 - 1	2,000	2,000	0	\$ 4.2085	12	\$81,680	\$101,003	\$19,323
FA-A ZONE 1 - 1	1,500	0	-1,500	\$ 4.3977	3	\$16,669	\$0	-\$16,669
GLGTPipeline								
FT Western Zone	10,130	10,130	0	\$ 3.8490	12	\$467,886	\$467,886	\$0
FT Western Zone (12)	3,600	0	-3,600	\$ 3.8490	12	\$166,277	\$0	-\$166,277
FT Western Zone (5)	3,638	0	-3,638	\$ 3.8490	5	\$70,013	\$0	-\$70,013
FT Western Zone	9,000	9,000	0	\$ 3.8490	12	\$415,693	\$415,693	\$0
FT Western Zone (12)	0	3,600	3,600	\$ 3.8490	12	\$0	\$166,277	\$166,277
FT Western Zone (5)	0	3,638	3,638	\$ 3.8490	5	\$0	\$70,013	\$70,013
CENTRA Pipeline								
CENTRA TRANSMISSION	9,500	9,500	0	\$ 12.6275	12	\$826,161	\$1,439,535	\$613,374
CENTRA MINNESOTA PIPELINES	9,500	9,500	0	\$ 3.2510	12	\$202,692	\$370,614	\$167,922
Total Costs Assigned to Demand Charge	Э					\$2,768,494	\$3,675,805	\$907,311
Costs Assigned in Commodity Charge								
Niska Storage (AECO)								
Niska Storage (AECO)	947.820	947.820	0	\$ 0.6225	1	\$688.362	\$590,018	-\$98,344
AECO/Emerson Swap	947,823	940,428	-7,395		1	\$417,042		\$431,694
Balancing								
VGT Balancing Agreement	7,465	7,465	0	\$ 1.0000	12	\$89,580	\$89,580	\$0
Union Balancing	4,500	4,453	-47		12	\$54,000	\$54,000	\$0
Call Options Premium						\$295,511	\$320,916	\$25,405
Total Costs Assigned to Commodity Cha	arge					\$1,544,495	\$1,903,250	
- · · · · · · · · · · · · · · · · · · ·								

		GLGT				
		update formul	а			
	1/20	•	HDD	1/20	Customer	
	Design Day HDD	Regression Intercept	Slope	Regression Load	Growth	Total
Peak	106	5,087	233	25,567	0.60%	25,720
Off Peak	57	5,087	233	16,780	0.60%	16,881
		VGT				
	1/20		HDD	1/20	Customer	
	Design Day HDD	Regression Intercept	Slope	Regression Load	Growth	Total
Peak	109	1,573	140	15,763	0.60%	15,858
Off Peak	57	1,573	140	9,490	0.60%	9,547
		Centra				
	1/20	••••••	HDD	1/20	Customer	
		Regression Intercept	Slope	Regression Load	Growth	Total
Peak	107	1,724	79	7.086	0.60%	7,129
Off Peak	57	1,724	79	4,435	0.60%	4,462
		Consolidated				
	1/20		HDD	1/20	Customer	
	Design Day HDD	Regression Intercept	Slope	Regression Load	Growth	Total
Peak		8,384	452	48,416	0.60%	48,706
Off Peak		8,384	452	30,705	0.60%	30,889

14/15 Winter Portfolio Plan - GLGT/VGT/Centra Hedging Plan

10,000 Contract Size REVISED:

10,000	Contract Si											REVISED:		
			v-14		ec-14		n-15		b-15		ar-15		Total	Percent
	Purchase	Number	Contract	Number	Contract	of								
System	Month	Contracts	Volume	Contracts	Volume	Requirements								
MN Requirements			569,086		848,644		950,643		849,068		784,176		4,001,617	4,001,617
GLGT -MN			18,970		27,376		30,666		784,176		25,296		26,501	
70%			398,360		594,051		665,450		594,348		548,923		2,801,132	
40%														
40%			227,634		339,458		380,257		339,627		313,670		1,600,647	
			85,304		231,769		231,769		209,339		<u>96,374</u>		<u>854,555</u>	
			142,330		107,689		148,488		130,288		217,296		746,092	
30%			398,360		594,051		665,450		594,348		548,923		2,801,132	
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	3	30,000	3	30,000	3	30,000	3	30,000	5	50,000	17	170,000	
	Jul-14	3	30,000	2	20,000	3	30,000	3	30,000	5	50,000	16	160,000	
		3	30,000	2	20,000	3	30,000	3	30,000	4	40,000	15	150,000	
	Aug-14													
	Sep-14	3	30,000	2	20,000	3	30,000	2	20,000	4	40,000	14	140,000	
	Oct-14	3	30,000	2	20,000	3	30,000	2	20,000	4	40,000	14	140,000	
	Total	15	150,000	11	110,000	15	150,000	13	130,000	22	220,000	76	760,000	18.99%
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	3	30,000	5	50,000	5	50,000	5	50,000	4	40,000	22	220,000	
	Jul-14	3	30,000	5	50,000	6	60,000	5	50,000	5	50,000	24	240,000	
	Aug-14	3	30,000	5	50,000	6	60,000	5	50,000	5	50,000	24	240,000	
		4		5	,	6		5		5		25		
	Sep-14		40,000		50,000		60,000		50,000		50,000		250,000	
	Oct-14	4	40,000	6	60,000	6	60,000	6	60,000	5	50,000	27	270,000	22.422
	Total	17	170,000	26	260,000	29	290,000	26	260,000	24	240,000	122	1,220,000	30.49%
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	
		0	0	0		_	0	0	0	0	0	0	_	
	Oct-14	-	_	-	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	2,666	79,980	2,984	92,504	3,549	110,019	3,483	97,524	3,709	114,979	16,391	495,006	
	Aug-14	2,667	80,010	2,984	92,504	3,549	110,019	3,482	97,496	3,710	115,010	16,392	495,039	
	Sep-14	2,667	80,010	2,984	92,504	3,548	109,988	3,482	97,496	3,710	115,010	16,391	495,008	
	Oct-14	2,667	80,010	2,984	92,504	3,548	109,988	3,482	97,496	3,710	115,010	16,391	495,008	
	Total	,	320,010	· ·	370,016	,	440,014	,	390,012	,	460,009	,	1,980,061	49.48%
Physical Hedges			0		0		0		0		0		0	1
Storage			85,304	1	231,769		231,769		209,339		96,374		854,555	21.36%
					,				,		,	1	,	
Prepaid Obl			0	1	0		0		0		0		0	0.00%
]	71.22%	1	70.91%		70.67%]	70.59%		70.95%	I	70.84%	
Term Index	Aug-14	0	0	0	0	0	0	0	0	0	0		0	0.00%
	Sep-14	0	0	0	0	0	0	0	0	0	0	I	0	0.00%
	Oct-14	0	0	0	0	0	0	0	0	0	0		0	0.00%
Total NNG MN														
Contracts												1	760,000	18.99%
]		1]				I	1,220,000	30.49%
Call Options]		1]				I	, ,	
Costing Collar]		1]				I	0	0.00%
Storage												1	854,555	21.36%
Prepaid Obl]		1]				I	0	0.00%
Term Index				1									0	0.00%
Month/Daily												1	1,167,062	29.16%
Total			1	·	1				1	1	1	1	4,001,617	100.00%
													4,001,017	100.00%

NOTE:

WINTER PLAN - CONSOLIDATED NOVEMBER, 2013 THROUGH MARCH, 2014

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

<u>INDEX</u>	Contract								
	Number	<u>Date</u>	Receipt Point	<u>Nov</u>	Dec	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Total</u>
Index - Back Financial Options	16153	8/28/2014	VGT-Emerson #1	3,555	3,979	4,732	4,643	-	506,695
Index - Back Financial Options	16395	9/10/2014	GLGT-Emerson #2	3,556	3,979	4,731	4,643	7,419	736,683
Index - Back Financial Options	16616	9/18/2014	Centra-Spruce	3,280	3,978	4,618	4,235	3,670	597,226
Index - Back Financial Options	16775	9/23/2014	VGT-Emerson #1	276	-	113	408	3,750	139,457
	Total Actual	Seasonal Inc	lex	10.667	11.936	14.194	13.929	14.839	1.980.061

GAS DAILY PACKAGES

No GDD Options

STORAGE

	Contract #	
	AECO	Total
Injection	Volume	Volume
<u>Month</u>	Injected	<u>Injected</u>
May - balance forward	191,115	191,115
June	184,950	184,950
July	191,115	191,115
August	191,115	191,115
Sept	93,240	93,240
Oct (est)	96,285	96,285
Total	947,820	947,820

MINNESOTA ENERGY RESOURCES - CON

Daily Total Throughput Data - July 1, 2012 through June 30, 2013

Base	6,734
Variable	495

						Variable	495
Date	28.53% Bemidji Adjusted HDD	13.34% Cloquet Adjusted HDD	35.13% Fargo Adjusted HDD	23.00% Intl. Falls Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
7/1/13	0	4	0	0	1	6,011	7,006
7/1/13	0	2	0	0	0	4,381	6,869
7/3/13	0	0	0	0	0	5,300	6,734
7/4/13	0	0	0	0	0	4,381	6,734
7/5/13	0	0	0	0	0	3,946	6,734
7/6/13	0	5	0	0	1	4,158	7,091
7/7/13	0	1	0	0	0	5,357	6,802
7/8/13	0	1	0	0	0	5,141	6,803
7/9/13	0	0	0	1	0	6,275	6,856
7/10/13	0	0	0	1	0	7,115	6,852
7/11/13 7/12/13	0 0	0 0	0 0	0 0	0	6,217 5,545	6,734 6,734
7/12/13	0	0	0	0	0	3,886	6,734
7/13/13	0	0	0	0	0	4,739	6,734
7/15/13	0	0	0	0	0	6,144	6,734
7/16/13	0	0	0	0	0	5,589	6,734
7/17/13	0	0	0	0	0	5,325	6,734
7/18/13	0	0	0	3	1	5,628	7,110
7/19/13	4	4	0	10	4	5,241	8,786
7/20/13	0	6	0	7	3	4,173	8,007
7/21/13	3	0	1	4	2	5,837	7,911
7/22/13	7	4 5	2	6	5	6,425	9,122
7/23/13 7/24/13	4 0	0	0 0	7 6	4 1	5,362 6,584	8,499 7,444
7/24/13 7/25/13	12	11	6	14	10	7,186	7, 444 11,802
7/26/13	13	17	6	13	11	7,188	12,174
7/27/13	9	9	4	7	7	5,316	10,200
7/28/13	6	6	0	8	4	5,750	8,961
7/29/13	0	0	0	1	0	6,235	6,852
7/30/13	0	0	0	2	1	6,858	6,982
7/31/13	1	0	0	3	1	7,271	7,250
8/1/13	4	3	0	5	3	6,929	8,160
8/2/13	7	6	0	8	5	5,465	9,158
8/3/13	11 3	6 1	1 0	10 5	7 2	3,976	9,976
8/4/13 8/5/13	5 6	1	0	5 8	4	4,788 7,248	7,835 8,640
8/6/13	8	5	3	12	7	7,246	10,155
8/7/13	8	3	0	14	6	8,133	9,656
8/8/13	9	8	5	11	8	12,868	10,608
8/9/13	5	2	3	8	5	6,501	9,062
8/10/13	2	3	0	4	2	4,660	7,701
8/11/13	6	5	0	7	4	4,969	8,819
8/12/13	9	8	3	10	7	6,847	10,319
8/13/13	8	7	3	10	7	6,235	10,068
8/14/13 8/15/13	5 0	3 0	0 0	7 3	4 1	6,994 5,092	8,480 7,089
8/16/13	0	0	0	0	0	3,341	6,734
8/17/13	0	0	0	0	0	4,313	6,734
8/18/13	0	Ő	0	0	0	6,977	6,734
8/19/13	0	0	0	0	0	6,438	6,734
8/20/13	0	0	0	0	0	5,292	6,734
8/21/13	3	0	0	5	2	6,443	7,755
8/22/13	1	1	0	4	1	6,419	7,422
8/23/13	0	0	0	0	0	5,926	6,734
8/24/13	0	0	0	0	0	4,323	6,734
8/25/13	0	0	0	0	0	6,370	6,734
8/26/13 8/27/13	0 0	0 0	0 0	0 0	0 0	6,521 5,083	6,734 6,734
8/27/13	0	0	0	0	0	6,453	6,734 6,734
8/29/13	0	0	0	0	0	5,795	6,734
8/30/13	0	0	0	0	0	5,685	6,734
8/31/13	6	2	4	9	5	4,918	9,438
9/1/13	9	11	6	10	9	5,537	11,008
9/2/13	4	7	0	5	3	6,901	8,426
9/3/13	7	6	0	10	5	7,703	9,358
9/4/13	5	7	0	9	5	8,306	9,014

File Name: 201410-104362-02-1 Worksheet Name: C11

9/5/13	0	0	0	0	0	7,405	6,734
9/6/13	0	0	0	2	0	6,100	6,975
9/7/13	4	5	0	6	3	5,095	8,417
9/8/13	0	3	0	3	1	6,468	7,288
9/9/13	0	0	0	4	1	7,888	7,208
9/10/13	2	1	0	3	1	7,663	7,472
9/11/13	12	12	4	12	9	7,875	11,217
9/12/13	12	15	3	11	9	8,237	11,262
9/13/13	6	10	7	3	6	6,859	9,765
9/14/13	18	20	10	20	16	6,638	14,582
9/15/13	17	18	8	19	14	8,321	13,747
9/16/13	15	13	6	12	11	8,979	11,966
9/17/13	3	5	0	3	2	8,918	7,905
9/18/13	2	1	0	0	1	8,276	7,105
9/19/13	16	11	12	15	14	8,798	13,532
9/20/13	18	15	13	22	17	9,540	14,912
9/21/13	11	16	0	19	10	7,645	11,533
9/22/13	0	9	0	5	2	6,490	7,914
9/23/13	4	6	0	4	3	7,369	8,207
9/24/13	8	8	0	5	4	7,629	8,948
9/25/13	0	7	0	3	2	6,835	7,608
9/26/13	0	1	9	0	3	5,478	8,321
9/27/13	17	8	10	10	12	6,622	12,555
9/28/13	9	9	4	11	8	7,585	10,503
9/29/13	0	0	2	0	1	8,746	7,103
9/30/13	8	6	7	8	7	11,161	10,288
10/1/13	17	8	12	19	14	17,019	13,798
10/2/13	19	13	17	19	17	14,945	15,281
10/3/13	16	16	22	15	18	14,299	15,561
10/4/13	21	21	18	21	20	9,646	16,588
10/5/13	17	18	15	20	17	15,050	15,257
10/6/13	19	17	14	20	17	16,508	15,183
10/7/13	9	8	4	11	7	17,333	10,430
10/8/13	10	2	7	10	8	15,472	10,741
10/9/13	7	5	2	6	5	14,115	9,118
10/10/13	3	3	5	2	4	5,788	8,531
10/10/13	24	11	21	14	19	7,424	16,023
10/11/13	22	21	19	24	21	11,391	17,327
10/12/13	22	23	19	27	22	13,302	17,327
10/13/13	28	23	30	27	28	17,369	20,384
10/15/13	24	21	21	26	23	18,956	18,217
10/16/13	30	26	28	29	29	14,762	20,883
10/10/13	31	24	27	31	29	20,624	20,898
10/17/13	32	29	29	29	30	16,620	21,536
10/19/13	34	34	32	32	33	18,165	22,986
10/13/13	41	38	31	35	36	22,017	24,411
10/21/13	34	36	32	33	33	26,146	23,289
10/21/13	38	36	32	36	35	22,745	24,051
10/23/13	35	33	30	34	33	24,223	22,991
10/24/13	30	29	24	29	28	23,626	20,376
10/25/13	33	28	30	31	31	19,449	21,929
10/26/13	32	28	27	31	29	19,794	21,323
10/20/13	41	34	38	38	38	22,243	25,698
10/28/13	39	37	37	39	38	25,716	25,604
10/29/13	31	30	28	37	31	23,822	22,149
10/30/13	28	24	27	26	27	20,345	19,970
10/31/13	35	26	29	27	30	20,588	21,561
11/1/13	36	31	28	30	31	25,224	22,158
11/2/13	29	30	20	31	27	24,891	19,866
11/2/13	23	22	21	24	22	16,533	17,767
11/4/13	33	30	34	30	32	20,437	
11/5/13	46	34	38	38	40	29,474	22,695 26,426
11/6/13	44	39	36	39	39	26,128	26,101
11/7/13	42	41	34	41	39	25,732	25,941
11/8/13	36	36	29	37	34	19,144	23,443
11/9/13 11/10/13	41 47	36 41	39 44	35 46	38 45	19,823 21,927	25,667 29,007
	63	56	57	56	45 58	26,751	
11/11/13	63 49	36 47	57 42	56 47	58 46		35,488 29,392
11/12/13		47 32				25,266	29,392
11/13/13	29 30		23	32	28	22,436	20,466
11/14/13	30	28 25	33	34	32 38	18,749	22,508
11/15/13	29	25	28	29 25	28	22,140	20,580
11/16/13	28	23	26 41	25 40	26 41	15,077	19,663
11/17/13	44	36 46	41	40	41	24,293	26,904
11/18/13	49 36	46 27	40	46	44	26,137	28,760
11/19/13	36	37	32	37 36	35	26,381	23,968
11/20/13	38	30	51	36	41	23,799	27,032

11/21/13	60	50	61	56	58	32,842	35,474
11/22/13	67	54	64	60	62	38,212	37,657
11/23/13	65	63	64	65	65	35,311	38,676
	45	49	41	47	45		
11/24/13						25,006	28,833
11/25/13	51	47	45	52	49	26,521	30,928
11/26/13	60	60	57	60	59	35,812	35,833
11/27/13	56	53	52	54	54	32,112	33,336
11/28/13	62	59	53	59	58	33,109	35,433
11/29/13	49	48	41	50	46	28,178	29,688
11/30/13	45	36	44	41	43	26,866	27,833
12/1/13	51	43	44	50	47	28,649	30,088
12/2/13	45	39	43	45	43	31,197	28,266
12/3/13	48	41	46	50	47	34,717	29,865
12/4/13	63	52	67	58	62	39,551	37,373
12/5/13	79	73	80	73	77	46,144	45,004
12/6/13	87	82	82	82	83	49,692	48,025
12/7/13	87	81	83	85	84	49,879	48,492
12/8/13	76	73	74	78	75	48,555	44,089
12/9/13	83	77	76	85	80	54,545	46,489
12/10/13	83	80	77	83	80	55,031	46,523
12/11/13	81	80	78	85	81	55,503	46,682
12/12/13	68	67	64	80	69	48,378	40,955
12/13/13	74	69	70	78	73	50,474	42,911
12/14/13	82	75	76	83	79	46,969	46,002
12/15/13	80	79 	70	80	76	44,862	44,593
12/16/13	57	58	52	59	56	41,647	34,320
12/17/13	68	59	56	72	64	44,087	38,193
12/18/13	60	58	61	64	61	39,525	37,034
12/19/13	76	61	78	72	74	45,264	43,352
12/20/13	69	57	72	64	67	44,262	40,043
12/21/13	66	54	80	65	69	43,252	40,905
12/22/13	82	70	87	79	81	47,388	47,063
12/23/13	85	79	82	86	83	49,625	47,976
12/24/13	69	71	61	73	67	38,272	40,053
12/25/13	60	58	52	75	61	35,433	36,717
12/26/13	51	57	45	63	53	33,336	32,790
12/27/13	37	39	33	39	37	27,660	24,847
12/28/13	68	63	74	75	71	39,449	41,818
12/29/13	85	86	79	93	85	46,465	48,770
12/30/13	82	79	79	88	82	45,019	47,293
12/31/13	89	86	86	92	88	45,162	50,235
1/1/14	87	83	82	92	86	53,405	49,283
1/2/14	87	79	82	87	84	57,376	48,519
1/3/14	62	62	61	64	62	47,061	37,477
1/4/14	87	79	82	87	84	54,615	48,464
1/5/14	99	91	97	97	97	56,481	54,525
1/6/14	95	95	87	96	92	56,328	52,424
1/7/14	89	82	79	86	84	56,998	48,254
1/8/14	77	78	76	80	78	55,825	45,112
1/9/14	55	61	54	54	55	43,540	33,882
1/10/14	49	44	47	43	46	32,547	29,537
1/11/14	44	45	43	46	44	30,889	28,702
1/12/14	39	39	43	38	40	28,725	26,458
1/13/14	54	49	51	65	55	40,421	33,889
1/14/14	74	67	68	65	69	42,138	40,782
1/15/14	60	56	55	55	57	38,119	34,726
1/16/14	81	67	81	77	78	46,836	45,411
1/17/14	71	62	64	72	68	41,581	40,303
1/18/14	55	51	51	63	55	32,566	33,827
1/19/14	58	55	53	67	58	34,676	35,336
1/20/14	87	82	82	86	84	51,663	48,492
1/21/14	82	79	76	81	79	48,955	45,983
1/22/14	90	88	90	94	91	55,438	51,600
1/23/14	74	78	70	75	73	48,597	42,881
1/24/14	66	61	57	65	62	40,694	37,291
1/25/14	73	70	65	76	71	42,558	41,700
1/26/14	91	84	84	88	87	46,733	49,830
	94	89		92			
1/27/14			85		90	51,779	51,158
1/28/14	87	83	79	87	84	50,800	48,124
1/29/14	63	65	60	65	63	41,792	37,745
1/30/14	83	76	80	84	81	50,030	46,964
1/31/14	73	73	70	74	72	46,743	42,480
2/1/14	73	71	70	81	73	46,885	43,106
2/2/14	70	67	63	73	68	44,672	40,340
2/3/14	75	64	68	67	69		
						46,251	40,987
2/4/14	77	72	75 	81	76	48,696	44,561
2/5/14	83	76	77	84	80	50,627	46,332

2/6/14	80	75	72	78	76	48,781	44,318
2/7/14	80	76	74	77	77	47,440	44,644
2/8/14	78	67	77	75	75	47,578	43,966
2/9/14	81	77	78	84	80	54,632	46,514
2/10/14	79	78	78	80	79	57,640	45,695
2/11/14	69	69	66	70	68	50,581	40,530
2/12/14	65	55	61	68	63	47,498	37,818
2/13/14	70	64	76	75	72	50,355	42,562
2/14/14	71	67	68	68	69	45,790	40,803
2/15/14	67	63	65	73	67	42,358	40,036
2/16/14	66	63	65	68	65	40,685	39,121
2/17/14	48	46	42	48	46	38,768	29,371
2/18/14	41	37	42	40	41	34,318	26,877
2/19/14	43	33	38	42	40	32,502	26,382
2/20/14	57	52	62	50	56		34,615
						42,056	
2/21/14	75	68	69	70	71	48,067	41,799
2/22/14	72	66	66	68	68	44,642	40,442
2/23/14	78	66	71	71	72	44,498	42,393
2/24/14	79	73	76	77	77	52,294	44,722
2/25/14	82	78	76	80	79	56,306	45,948
2/26/14	89	82	78	91	84	56,924	48,529
2/27/14	81	77	83	84	82	51,194	47,229
2/28/14	82	73	78	81	79	50,248	46,004
3/1/14	92	86	87	92	90	53,440	51,132
3/2/14	85	81	75	86	81	52,114	46,912
		69					40,895
3/3/14	72		65	72	69	49,633	,
3/4/14	64	61	61	69	64	41,856	38,346
3/5/14	58	59	56	58	57	36,651	35,113
3/6/14	44	48	45	40	44	33,091	28,539
3/7/14	64	50	60	66	61	37,366	37,011
3/8/14	54	49	50	54	52	34,113	32,433
		36			32		
3/9/14	33		29	32		24,817	22,453
3/10/14	33	24	28	32	30	19,620	21,591
3/11/14	55	46	46	59	51	34,883	32,149
3/12/14	37	50	38	46	41	36,611	27,053
3/13/14	33	32	28	32	31	26,818	22,042
3/14/14	58	45	52	56	54	35,184	33,451
3/15/14	60	59	58	71	62	34,498	37,189
3/16/14	42	46	37	48	42	33,648	27,673
		42					
3/17/14	36		33	42	37	28,323	25,169
3/18/14	37	41	39	39	39	28,935	25,874
3/19/14	45	46	35	43	41	30,160	26,986
3/20/14	35	33	37	34	35	23,991	24,136
3/21/14	63	54	61	59	60	36,705	36,522
3/22/14	68	64	57	76	66	36,011	39,164
3/23/14	59	60				38,828	35,472
			47	73	58		
3/24/14	62	59	53	63	59	37,122	35,748
3/25/14	57	59	42	65	54	37,690	33,416
3/26/14	42	40	35	44	40	28,968	26,372
3/27/14	52	45	49	54	51	30,311	31,754
3/28/14	45	46	37	55	45	27,741	28,889
3/29/14	29	32	29	29	29	19,669	21,227
	23	24		28	27		19,941
3/30/14			30			21,922	
3/31/14	46	45	57	54	51	27,952	32,159
4/1/14	48	46	48	50	48	32,356	30,557
4/2/14	36	36	33	37	35	24,744	24,300
4/3/14	36	39	37	36	37	25,344	24,926
4/4/14	30	36	24	33	30	21,579	21,430
4/5/14	25	23	22	25	24	15,937	18,497
4/6/14	27	26	24	26	26	15,239	19,437
4/7/14	28	30	25	32	28	19,611	20,746
4/8/14	13	24	8	21	15	18,463	13,988
4/9/14	26	25	21	32	25	15,941	19,344
4/10/14	27	20	19	31	24	16,571	18,644
4/11/14	29	31	19	31	26	15,635	19,635
4/12/14	45	35	41	41	41	16,909	27,205
4/13/14	50	47	47	51	49	25,792	30,879
4/14/14	51	46	43	50	47	33,191	30,211
4/15/14	39	44	36	42	39	27,016	26,194
4/16/14	38	36	35	38	37	28,051	25,010
4/17/14	35	39	26	37	33	22,596	23,048
4/18/14	17	28	12	20	17	18,386	15,353
4/19/14	17	19	13	21	17	13,832	14,977
4/20/14	29	19	20	27	24	9,726	18,715
4/21/14	28	24	20	27	25	20,467	18,882
4/22/14	27	27	24	27	26	21,359	19,458
4/23/14	32	33	21	32	28	23,689	20,712

4/24/14	32	31	22	29	27	24,394	20,319
4/25/14	30	32	24	28	28	21,654	20,483
4/26/14	34	38	29	31	32	17,489	22,466
		34					
4/27/14	32		28	27	30	22,876	21,492
4/28/14	25	31	22	26	25	29,467	19,259
4/29/14	31	31	30	30	30	25,289	21,774
4/30/14	25	26	21	31	25	22,500	19,156
5/1/14	23	25	13	27	21	,	
						17,736	16,991
5/2/14	32	24	24	30	28	13,385	20,445
5/3/14	30	24	27	30	28	15,416	20,610
5/4/14	23	25	16	27	22	13,315	17,520
5/5/14	21	28	11	26	19	14,645	16,372
5/6/14	13	21	12	14	14	14,806	13,752
5/7/14	22	22	22	22	22	12,930	17,725
5/8/14	22	26	16	30	22	15,826	17,790
5/9/14	17	14	14	16	15	15,187	14,338
5/10/14	5	12	13	12	10	7,650	11,899
5/11/14	23	27	26	22	24	7,322	18,731
5/12/14	27	20	26	26	25	16,449	19,338
5/13/14	31	23	29	29	29	15,841	20,939
5/14/14	30	26	23	25	26	18,232	19,367
5/15/14	28	22	19	24	23	17,252	18,132
5/16/14	19	21	12	20	17	13,233	15,062
5/17/14	11	6	8	12	9	6,481	11,339
5/18/14	13	16	7	8	10	6,301	11,798
5/19/14	6	5	4	4	5	11,639	9,142
5/20/14	18	13	10	17	14	8,888	13,737
5/21/14	12	12	9	14	12	12,870	12,433
		9					
5/22/14	7		0	8	5	9,100	9,354
5/23/14	0	1	0	0	0	5,927	6,805
5/24/14	0	0	0	0	0	1,744	6,734
5/25/14	0	0	0	0	0	3,718	6,734
5/26/14	0	11	0	0	1	5,939	7,447
5/27/14	0	11	0	0	1	7,965	7,434
5/28/14	0	4	0	0	1	7,111	7,006
5/29/14	0	5	0	0	1	7,319	7,081
5/30/14	0	5	0	0	1	5,619	7,077
5/31/14	0	2	0	0	0	4,276	6,870
6/1/14	7	2	6	10	6	6,089	9,928
6/2/14	4	2	2	5	3	11,685	8,462
6/3/14	4	5	0	4	3	13,270	8,137
6/4/14	1	9	0	1	2	13,033	7,623
6/5/14	5	0	8	3	5	10,291	9,217
6/6/14	12	11	3	10	8	10,314	10,795
6/7/14	11	11	5	11	9	6,748	11,214
	4	7		4	3		8,283
6/8/14			0			6,736	
6/9/14	1	8	0	4	2	11,678	7,917
6/10/14	8	7	5	6	6	12,057	9,802
6/11/14	13	18	5	20	12	13,088	12,760
6/12/14	10	9	3	14	8	12,037	10,818
6/13/14	9	15	2	11	8	8,225	10,706
6/14/14	6	7	0	12	5	5,563	9,337
6/15/14	3	0	0	2	1	6,961	7,427
6/16/14	0	0	0	3	1	12,374	7,099
6/17/14	0	6		0	1	11,821	7,114
			0				
6/18/14	6	13	0	1	4	12,254	8,517
6/19/14	2	15	0	0	3	9,125	8,035
6/20/14	0	6	0	0	1	5,836	7,146
6/21/14	0	9	0	0	1	3,434	7,346
6/22/14	0	0	0	0	0	5,223	6,734
6/23/14	1	13	0	7	4	7,314	8,492
6/24/14	7	14	0	7	6	8,691	9,547
6/25/14	1	11	0	4	3	7,654	8,083
6/26/14	0	9	0	0	1	6,272	7,299
6/27/14	0	0	0	0	0	4,465	6,734
6/28/14	0	0	0	0	0	2,916	6,734
6/29/14	0	0	0	0	0	5,432	6,734
6/30/14	7	1	4	9	6	5,355	9,554
3/00/17	•	•	•	J	3	5,555	3,004
Totals	12,070	11,522	10,880	12,320	11 626	8,286,815	8,217,921
iotais	12,070	11,022	10,000	12,320	11,030	0,200,010	0,211,321

^{*} 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 - Consolidated

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

File Name: 201410-104362-02-1

Worksheet Name: C12

Projected Fixed Cost - November 2014 through March 2015

Futures Contracts WACOG

NMU

30 31 31 **Futures** Nov-14 Dec-14 Jan-15 Purchase Financial Purchase Total Emerson Emerson Index Over/(Under) Purchase Financial Purchase Total Emerson Index Over/(Under) Purchase Financial Purchase Total Emerson Emerson Index Over/(Under) Date Volume Price Cost Index Cost Market Date Volume Price Cost Index Cost Market Date Volume Price Cost Index Cost Market 3,740 06/11/14 13,417 \$ 06/25/14 28,448 \$ 4.5750 \$ 130,151 3.7210 \$ 105,856 24,295 06/16/14 6,471 \$ 4.7950 \$ 31,026 \$ 4.2170 \$ 27,286 \$ 3,061 \$ 4.6790 \$ 14,323 \$ 4.3830 906 31,034 \$ 3.8470 \$ 119,390 54,573 \$ 7,571 06/11/14 21,429 \$ 4.6800 \$ 100,286 \$ 4.3830 93,921 \$ 07/25/14 3.7210 \$ 115,479 3,910 06/16/14 12,941 \$ 4.8020 \$ 62,144 \$ 4.2170 \$ 6,364 08/22/14 31,034 \$ 3.9560 \$ 122,772 3.7210 \$ 115,479 7,293 07/16/14 25,882 \$ 4.2330 109,560 \$ 4.2170 \$ 109,146 \$ 414 07/10/14 6,122 \$ 4.2950 26,296 \$ 4.3830 26,835 (539)25,882 \$ 4.0310 \$ 09/24/14 31,034 \$ 3.9650 \$ 123,052 \$ 3.7210 \$ 115,479 7,572 08/13/14 104,332 \$ 4.2170 \$ 109,146 \$ (4,814) 07/10/14 27,551 \$ 4.2960 \$ 118,359 \$ 4.3830 120,756 \$ (2,397) 76,851 \$ 4.2170 \$ 81,859 \$ 10/01/14 28,448 \$ 4.0230 \$ 114,447 \$ 3.7210 \$ 105,856 09/11/14 19,412 \$ 3.9590 \$ (5,008) 08/07/14 30,612 \$ 4.1210 \$ 126,153 \$ 4.3830 134,173 \$ (8,020) 8,591 134,173 \$ 134,173 \$ 10/09/14 19,412 \$ 3.9370 \$ 76,424 \$ 4.2170 \$ 81,859 \$ (5,435)09/04/14 30,612 \$ 4.0280 123,306 \$ 4.3830 (10,867) 10/08/14 30,612 \$ 4.0370 \$ 123,582 \$ 4.3830 (10,592)\$ 463,870 \$ 150,000 \$ 609,812 558,150 51,662 110,000 460,337 (3,533)150,000 632,305 657,450 \$ (25, 145)Total \$ WACOG 4.0654 3.7210 \$ 0.3444 4.1849 4.2170 \$ (0.0321)4.2154 4.3830 \$ (0.1676)

						28	1						31							
				Feb-15		Ta				Mar-15							Total			
Purchase	,	Purchase	Total	Emerson	Emerson Index		Purchase	Physical	Purchase	Total	Emerson	Emerson Index	Over/(Under)	Financ			Total	Emerson	Emerson Index	Over/(Under)
Date	Volume	Price	Cost	Index	Cost	Market	Date	Volume	Price	Cost	Index	Cost	Market	Volum	e Pric	е	Cost	Index	Cost	Market
06/30/14 07/30/14		\$ 4.5720 \$ 4.0100	\$ 111,442 \$ 114,034				06/20/14 06/20/14	11,458 11,458			\$ 4.4120 \$ 4.4120		\$ 1,753 \$ 1,868	73,8 105,3		961 S		\$ 4.1033 \$ 4.1588		
08/28/14		\$ 4.0100		\$ 4.3390			06/20/14	11,458			\$ 4.4120		\$ 1,891	86,6		848	\$ 362,760	\$ 4.0941		
08/28/14		\$ 4.2410	\$ 68,932	\$ 4.3390			06/20/14	11,458			\$ 4.4120		\$ 1,914	112,		644				
09/29/14		\$ 4.2720	\$ 104,130				07/21/14	45,833			\$ 4.4120		\$ (19,571)			639	\$ 604,227	\$ 4.2364		
10/23/14		\$ 3.7870	\$ 92,308	\$ 4.3390			08/18/14	2,292	\$ 3.9960		\$ 4.4120		\$ (953)	76,6		274		\$ 4.3279		
10/23/14	24,575	Ψ 3.7070	Ψ 32,300	Ψ.3330	Ψ 105,705	Ψ (13,433)	08/18/14	41,250	\$ 3.9990		\$ 4.4120		\$ (17,036)			152				
							09/18/14	43,542			\$ 4.4120					460				
							10/20/14	41,250	\$ 3.7910		\$ 4.4120					910	\$ 156,379	\$ 4.4120		
							10/20/14		\$ 3.7910		¥ 4.4120			71,	30 \$ 3.7		ų 130,573	4.4120	101,393	(23,010
Total	130,000		\$ 542,535		\$ 564,070	\$ (21,535)		220,000		\$ 898,952		\$ 970,640	\$ (71,688)	760,0	00	5	\$ 3,143,941		\$ 3,214,180	\$ (70,239
WACOG			\$ 4.1733		\$ 4.3390	\$ (0.1657)				\$ 4.0861	1	\$ 4.4120	\$ (0.3259)			9	\$ 4.1368		\$ 4.2292	\$ (0.0924

Projected Storage Cost - November 2014 through March 2015

											AECO	AECO
										AECO	Storage	Storage
		Storage	Storage		Projected	K#118657	K#125915	K#125916	Total	Storage	GLGT/VGT	GLGT/VGT
	K#118657	K#125915	K#125916	Total	Storage	NNG	NNG	NNG	NNG	GLGT/VGT	Centra	Centra
Month/	NNG	NNG	NNG	NNG	NNG	Storage	Storage	Storage	Storage	Centra	Emerson	Emerson
Year	Storage	Storage	Storage	Storage	WACOG	Cost	Cost	Cost	Cost	Emerson	WACOG	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	ı	NNG ndexes Price		NNG Indexes Cost	AECO Storage Volume	E	Emerson LDS + Basis		Emerson LDS + Cost
Nov-14 Dec-14 Jan-15 Feb-15 Mar-15	533,259 1,339,984 1,339,984 1,339,984 533,259	\$ \$ \$ \$	3.5925 3.9085 4.1645 4.1605 3.8485	\$ \$ \$ \$ \$	1,915,733 5,237,327 5,580,363 5,575,003 2,052,247	85,304 231,769 231,769 209,339 96,374	\$ \$ \$ \$ \$	3.7210 4.2170 4.3830 4.3390 4.4120	\$ \$ \$ \$	317,416 977,370 1,015,844 908,322 425,202
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) Max AECO Storage

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

	14//440055	Storage	Storage		Projected	Projected	Projected	WACOG	Projected	Projected	Additional
	K#118657	K#125344	K#125345	Total	K#118657	K#125915	K#125916	NNG	NNG	NNG	Storage
Month/	NNG	LS	LS	NNG	NNG	NNG	NNG	PNG	Indexes	Index	(Savings)/
Year	Storage	Power	Power	Storage	WACOG	WACOG	WACOG	Cost	Price	Cost	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
iotai	1,0 12,410	100,000	554,566	0,000,470	ψ +.0110	ηψ 4.0110	1 4.0110	\$ 4.3116	\$ (0.2690)	. , ,	1,570,100

			AECO			Р	rojected	Projected		-	Additional
		5	Storage		Total	Emerson		Emerson			Storage
Month/	AECO		Other	AECO		Index		Index		(Savings)/
Year	Storage	V	WACOG		Cost		Price	Cost			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	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	3,644,154	\$	(154,066)

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

Call/Put Options WACOG

Contract = 10,000

Call/Put Options