

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

November 1, 2011

### VIA ELECTRONIC FILING

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

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

Dear Dr. Haar:

In accordance with Minnesota Rule 7825.2910, subpart 2, please find the public and nonpublic versions of Minnesota Energy Resources Corporation's (MERC) request to change demand entitlement.

Please note that Attachments 5 and 9 contain financial information with independent economic value that is not generally known to, and not readily ascertainable by, competitors of MERC, who could obtain economic value from its disclosure. MERC maintains this information as secret. Accordingly this data qualifies as trade secret data as defined in Minn. Stat. § 13.37, subd. 1(b), and MERC requests that the data be treated as trade secret information.

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

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

Sincerely yours,

/s/ Michael J. Ahern

Michael J. Ahern

cc: Service List

November 1, 2011

To: Service List

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

### Notice of Availability

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

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

Gregory J. Walters Minnesota Energy Resources Corporation 3460 Technology Drive NW Rochester, MN 55901 507-529-5100.

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

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

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

### STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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

### **SUMMARY OF FILING**

Pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in

Demand), Minnesota Energy Resources Corporation-PNG (MERC or the Company), hereby petitions the Minnesota Public Utilities Commission (Commission) for approval of changes in demand entitlements for MERC-PNG's customers served off of the Viking Gas Transmission System (VGT or Viking) system. MERC requests that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2011.

### STATE OF MINNESOTA BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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

### FILING UPON CHANGE IN DEMAND

Pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand),

Minnesota Energy Resources Corporation-PNG (MERC or the Company), hereby petitions the

Minnesota Public Utilities Commission (Commission) for approval of changes in demand

entitlements for MERC-PNG's customers served off of the Viking Gas Transmission

(VGT or Viking) system. MERC requests that the Commission approve the requested changes

to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2011.

This filing includes the following attachments:

Attachment 1:	Notice of Availability.
Attachment 2:	One paragraph summary of the filing in accordance with Minn. R. 7829.1300, subp. 1.
Attachment 3:	Petition for Change in Demand with Attachments.
Attachment 4:	Affidavit of Service and Service List.

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

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

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

### 2. <u>Service</u>

Pursuant to Minn. R. 7829.1300, subp. 2, MERC has served a copy of this filing on the

Department of Commerce and the Office of the Attorney General - Residential Utilities

Division. The summary of the filing has been served on all parties on the attached service list.

Additionally, pursuant to Minn. R. 7825.2910, subp. 3, a Notice of Availability has been sent to

all intervenors in the Company's previous two rate cases.

### 3. <u>General Filing Information</u>

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

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

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

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

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

Date of filing: November 1, 2011 Proposed Effective Date: November 1, 2011

### 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

Gregory J. Walters 3460 Technology Drive NW Rochester, MN 55901 (507) 529-5100

If additional information is required, please contact Michael J. Ahern at: (612) 340-2881.

DATED: November 1, 2011

Respectfully Submitted,

### DORSEY & WHITNEY LLP

By: <u>/s/ Michael J. Ahern</u> Michael J. Ahern Suite 1500, 50 South Sixth Street Minneapolis, MN 55402-1498 Telephone: (612) 340-2600

Attorney for Minnesota Energy Resources Corporation

### BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Ellen Anderson J. Dennis O'Brien David C. Boyd Phyllis A. Reha Betsy Wergin Chair Commissioner Commissioner Commissioner

In the Matter of the Petition of Minnesota Energy Resources Corporation – PNG	)	
for Approval of a Change in Demand	)	Docket No
Entitlement for its Viking Gas	)	
Transmission System	)	

### PETITION FOR CHANGE IN DEMAND

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

Pursuant to Minnesota Rule 7825.2910, subpart 2 (Filing Upon Change in Demand),

Minnesota Energy Resources Corporation - PNG (MERC or the Company), a division of Integrys Energy Group, Inc. (TEG), hereby petitions the Minnesota Public Utilities Commission (Commission) for approval of changes in demand entitlements for MERC-PNG's customers served off of the Viking Gas Transmission (VGT or Viking) system. MERC requests that the Commission approve the requested changes to be recovered in the Purchased Gas Adjustment (PGA) effective on November 1, 2011.

### II. DISCUSSION

### A. <u>MERC's PNG-VGT Design Day Requirements</u>

MERC's 2011-2012 PNG-VGT design day requirements decreased 441 Mcf (or approximately 6.05 percent) from 7,292 Mcf to 6,851 Mcf.

14	ble 1: MERC's Propose For the 2011-2012 H VGT PN	eating Season	
	Reserve Margin	Reserve Margin	
	2011-2012 Heating Season	2010-2011 Heating Season	Change
VGT-PNG	Heating Season 3.87%	Heating Season 19.62%	<u>Chang</u> -15.759

As shown in Table 1 and Attachment 3, MERC's proposed system wide reserve margin for PNG-VGT for the 2011-2012 heating season is positive.

For the Demand Entitlement filing effective November 1, 2011, the total Design

Day requirement for PNG-VGT is 6,851 Dth as calculated in Attachment 1, page 2 and

Attachment 3.

For the Demand Entitlement filing effective November 1, 2011, the total Design

Day capacity for PNG-VGT is 7,116 Dth as calculated in Attachment 3.

The difference between the total Design Day requirement and total Design Day capacity results in a 3.87% positive reserve margin.

### B. Forecast Methodology for MERC Demand Entitlement Nov. 1, 2010

### <u>Peakday</u>

### Purpose

Gather data and perform analysis used in the "Petition for Change in Demand" for Minnesota Energy Resources Corporation – PNG and Minnesota Energy Resources Corporation – NMU for "Approval of a Change in Demand Entitlement" to be sent to the Minnesota Public Utilities Commission, otherwise known as the "MERC Demand Entitlement Filings".

### Background

MERC is composed of two service areas:

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

Which are served by four pipelines:

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

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

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

Weather data is obtained from the following weather stations:

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

### 8. Ortonville

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

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

\* Thief River Falls is included only in NMU-GLGT&VGT

### **Analytical Approach**

### **Summary**

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

### Detail

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

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

The Team 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:

- Identify the coldest Adjusted Heating Degree Day (AHDD65) in the last 20 years for each weather station.
- Determine the most recent three years of December through February daily total metered throughput for each of the demand areas by weather station.
- Subtract the daily pipeline meter readings for all non-firm customers with daily pipeline
  meter readings available for all three December through February years from the total
  throughput for each demand area and weather station. Use the resulting net daily
  metered volumes for regressions. Examples of non-firm customer meter readings
  subtracted from the demand area total daily throughputs are paper mills, direct-connects,
  taconites, and off-system end users. (See "Adjusting the Regression Results to a Firm
  Peak Day Estimate" below.)
- Determine how to map the monthly billing data to the demand areas.
   Each daily weather station data file was searched to find the coldest Adjusted Heating
   Degree Day (AHDD65) in the last 20 years. This 1-in-20 approach is consistent with
   prior years. The results are provided in the following table:

<u>Station</u>	Date	<u>Avg.</u> Temp	<u>Avg.</u> Wind	<u>HDD65</u>	AHDD65
Bemidji	2/1/1996	-34	8	99	107
Cloquet	2/2/1996	-31	7	96	103
Fargo	1/18/1996	-16	34	81	109
International					
Falls	2/2/1996	-34	8	99	107
Minneapolis	2/2/1996	-25	8	90	97
Rochester	2/2/1996	-27	10	92	101
Worthington	1/18/1996	-8	32	73	96
Ortonville	1/14/2009	-21	11	86	96

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

In an ideal world, the Team would have also had <u>daily</u> telemetered data from each interruptible, transportation, and joint interruptible customer mapped to each of the 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, resulting in billing cycle estimates and reversals), and other potential errors into their volumes.

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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 **<u>Regression Generation of Net Daily Metered Volumes</u>** consisted of:

- For each of the Demand Areas (Service Area / Pipeline):
  - Gather the net daily metered volumes and weather station data including AHDD65<sup>1</sup>.
  - 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 day-type and month. Day-type variables are used to isolate load that changes by day of the week, such as commercial or industrial customers who may change their consumption on weekends when they run fewer

 $<sup>^2</sup>$  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.

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. Summarize the Baseload and Use/AHDD65 from each regression.
- 6. 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).

### **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 records<sup>2</sup>. An unfortunate, but unavoidable consequence was that this data was based on monthly billing cycles that introduce billing lag, meter read lag (not all meters were read every month, resulting 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 class<sup>3</sup>, calendar month, (service) area, city, location, zip code and responsibility center. The billing database was provided by ADS/Vertex, an outside firm that has been providing billing services to MERC. Sales and Revenue Forecasting had previously adjusted the billing data to properly fit the appropriate calendar month of consumption by apportioning billed volumes, i.e., for a bill covering February 15 to March 15, volumes were split evenly between February and March.

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

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

<sup>&</sup>lt;sup>3</sup> Transportation, Interruptible, Joint Interruptible, Residential, Large Commercial & Industrial and Small Commercial & Industrial.

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-PNG and MERC-NMU tariff General Rules, Regulations, Terms, and Conditions Section 1.N "Maximum Daily Quantity (MDQ)" on 1<sup>st</sup> Revised Sheet No. 8.04:

N. <u>Maximum Daily Quantity (MDQ):</u>

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 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 the 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.

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

### A. Interruptible, Transportation and Joint Interruptible

<u>NMU-GLGT</u> = Paper Mills

<u>NMU-VGT</u> = Lamb Weston

<u>PNG-NNG</u> = Taconites / Direct Connects

<u>PNG-NNG</u> = OSEU (End Users)

### **B.** Daily Firm Capacity

PNG-VGT

PNG-GLGT

PNG-NNG

### 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 10. The daily estimate is compared to actual consumption. The actual volumes is total through-put which includes

interruptible and transportation volumes that are located behind MERC citygates. This does not include any transportation volumes that are directly connected with the NNG pipeline. The Design Day model only calculates firm volumes. MERC does not forecast on a daily/monthly basis utilizing the Design Day model. The Design Day model is utilized to calculate the theoretical peak day. The calculated base load natural gas usage at zero heating degree days is 768 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 768 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 11.

### C. MERC's Specific VGT Proposed Demand-Related Changes

There are two types of demand entitlement changes. The first type is design day deliverability, which, in this case, there is no change in the amount of firm transportation capacity actually available to MERC-PNG-VGT customers during winter peak periods. The second type does not affect design day deliverability levels, but alters the capacity portfolio and the PGA costs recovered from customers.

### 1. Design Day Deliverability Changes

As shown in Attachment 6, MERC purchased firm winter only capacity (November 2011 through March 2012) to replace the Wadena Call Option on VGT for PNG-VGT and NMU (VGT) customers. All VGT capacity is allocated between PNG and NMU on a prorated share based on design day numbers, which changed the allocated volumes on the other VGT contracts.

2. Other Demand Entitlement Changes

As shown in Attachment 6, MERC has contracted for AECO Storage. To deliver the supply from storage to MERC's NMU markets, MERC entered in an AECO/Emerson swap. MERC sells gas at the storage point (AECO) to a supplier and MERC buys an equivalent volume at Emerson/Spruce, which MERC then transports to its PNG-GLGT, PNG-VGT and NMU (GLGT, VGT and Centra) customers. The swap substituted the need to contract for firm transport on TransCanada Pipeline (TCPL) to transport the gas from AECO to Emerson/Spruce. The cost of TCPL would have been approximately \$927,919 compared to the \$417,042 to swap the gas.

- D. <u>Financial Option Units and Premiums</u>
  - MERC entered into New York Mercantile Exchange (NYMEX) financial Call Options for the upcoming 2011 winter (November through March).
     Please see Attachment 5.
  - ii. Total premium cost to enter into the financial Call Options on behalf of MERC's firm customers amounted to \$43,824 for the 2011-2012 winter. Please see Attachment 5.
  - iii. MERC entered into 17 contracts (10,000/contract) or 170,000. Totalpremium per contract is approximately \$.2578. Please see Attachment 5.

- iv. Please see Attachment 5 for the various contract dates.
- v. Please see Attachment 5 for the various contract prices.
- vi. MERC entered into 10 futures contracts (10,000/contract) or 100,000,
- 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 9, page 1 of 2.
- E. <u>Gas Supply.</u>

The PNG-VGT 2011-2012 Winter Portfolio Plan - Minnesota Energy Resources Corporation for VGT gas supply purchases for the Hedging Plan is in Attachment 9, page 2. This Attachment includes the projected sales number by month for the November 2011 through March 2012 period as well as the planned physical fixed price, financial call options and storage and/or exchange volumes by month.

F. <u>Price Volatility</u>

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 \$4.527. Please see Attachment 12, page 1 of 3. MERC is projecting the AECO Storage WACOG for PNG-VGT to be approximately \$3.786. This is an estimate based upon the purchases in October but since this is report is filed before the accounting is closed for October, this estimate may change. Please see Attachment 12, 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 \$4.6295, which means if NYMEX contract(s) settle above that price, the options are exercised and MERC's customers gas cost is capped at the average strike price. Please see Attachment 12, 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 \$4.32 for 70% of normal winter volumes assuming that the NYMEX prices are above the average \$4.6295 strike price plus the physical index basis spread. If the NYMEX prices are below the average \$4.6295 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. <u>PGA Cost Recovery</u>

MERC proposes to begin recovering the costs associated with the change in demand-related costs in its monthly PGA effective November 1, 2011. Rate impacts associated with this change can be found on Attachment 4, pages 1 and 2, and on page 1 of Attachment 7. MERC has also calculated the rate impact of moving the cost recovery of FDD Storage contracts from the demand cost recovery portion of the monthly PGA to the commodity cost recovery portion of the monthly PGA. Attachment 4, pages 3 and 4, and Attachment 7, page 2, illustrate the rate impact created by this shift in cost recovery.

### H. Impacts of Telemetry

Based on the requirement that all interruptible and transportation customers on MERC's system must have telemetry, this has led to some customers switching from interruptible to firm. On the PNG-VGT, there have been twelve (12) customers that switched from interruptible to firm service. The switching occurred between February 16, 2011 through August 12, 2011. Since MERC's peak day analysis is based on December through February volumes for the three previous winters, for the most part, these volumes aren't represented in MERC's design day analysis. MERC projected the impact on firm requirements by projecting peak day volumes for the customers that switched. The projected peak day was calculated by taking actual peak day and dividing the volume by twenty (20). MERC is projecting an increase in design day of 873 Mcf. Assuming the projected peak day is accurate, MERC would still have adequate firm entitlement to meet a peak day.

### 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, 2010. If any further information, clarification, or substantiation is required to support this filing please advise. DATED: November 1, 2011

Respectfully Submitted,

DORSEY & WHITNEY LLP

By <u>/s/ Michael J. Ahern</u> Michael J. Ahern Suite 1500, 50 South Sixth Street Minneapolis, MN 55402-1498 Telephone: (612) 340-2600

Attorney for Minnesota Energy Resources Corporation

### AFFIDAVIT OF SERVICE

STATE OF MINNESOTA ) ) ss COUNTY OF HENNEPIN )

Amber S. Lee hereby certifies that on the 1st day of November, 2011, on behalf of Minnesota Energy Resources Corporation (MERC) she electronically filed a true and correct copy of the Petition on <u>www.edockets.state.mn.us</u>. Said documents were also served via U.S. mail and electronic service as designated on the attached service list.

/s/ Amber S. Lee

Amber S. Lee

Subscribed and sworn to before me this 1st day of November, 2011.

<u>/s/ Sara Garcia</u> 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	Suite 1500 50 South Sixth Street Minneapolis, MN 554021498	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Julia	Anderson	Julia.Anderson@ag.state.m n.us	Office of the Attorney General-DOC	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Michael	Bradley	bradleym@moss- barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Daryll	Fuentes	N/A	USG	550 W. Adams Street Chicago, IL 60661	Paper Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Richard	Haubensak	RICHARD.HAUBENSAK@ CONSTELLATION.COM	Constellation New Energy Gas	Suite 200 12120 Port Grace Boulevard La Vista, NE 68128	Paper Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Jack	Kegel		MMUA	Suite 400 3025 Harbor Lane Not Plymouth, MN 554475142	Paper Service th	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
Robert S	Lee	RSL@MCMLAW.COM	Mackall Crounse & Moore Law Offices	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 554022859	Paper Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	900 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	No	GEN_SL_Minnesota Energy Resources Corporation_General Service List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service		GEN_SL_Minnesota Energy Resources Corporation_General Service List
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service		GEN_SL_Minnesota Energy Resources Corporation_General Service List
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service		GEN_SL_Minnesota Energy Resources Corporation_General Service List
Gregory	Walters	gjwalters@minnesotaenerg yresources.com	Minnesota Energy Resources Corporation	3460 Technology Dr. NW Rochester, MN 55901	Paper Service		GEN_SL_Minnesota Energy Resources Corporation_General Service List

## PUBLIC DOCUMENT – TRADE SECRET DATA HAS BEEN EXCISED

MERC-PNG

Demand Entitlement Schedules - VGT

### Attachment 1 Page 1 of 3

## MINNESOTA ENERGY RESOURCES - PNG DESIGN-DAY DEMAND SUMMARY

# NOVEMBER 1, 2011

Design Day Requirement	6,851
Total Entitlement on Peak Day(excl. Peak Shaving)	7,116
Firm Peak Day Actual Sendout -Non Coincidental (Jan. 20)	5,287
Firm Annual Throughput - Minnesota	582,120
No. of Firm Customers	4,672
DPS Load Factor Calculation	30.17%

Page 2 of 3

#### **MINNESOTA ENERGY RESOURCES - PNG** MINNESOTA DESIGN DAY REQUIREMENTS NOVEMBER 1, 2011 VGT Nov10-Mar 11 Nov10-Mar 11 Pipeline 1/20 **Regression Factors** Regression Regression 1/20 Requirements Avg. Avg. Total **Regression Load** Customer Total Adjustment Group Customer Design Intercept Slope DDD Footnote 1 Footnote 2 Footnote 3 Growth Count PEAK 6,851 4,672 109 1,172 73 9,068 2,162 6,906 -0.8% 6,851 Total 4,672 OFE DEAK

					OFF PEAK				
	4,672	57	1,172	73	5,318	1,081	4,237	-0.8%	4,204
Total	4,672								4,204

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.

\*All requirement adjusted for customer growth

Page 3 of 3

## **MINNESOTA ENERGY RESOURCES - PNG**

## DESIGN-DAY DEMAND PER CUSTOMER

NOVEMBER 1, 2011 VGT

Heating <u>Season</u>	No. of Firm <u>Customers</u>	Design Day <u>Requirements</u>	MMBtus /Customer <u>/Day</u>
11/12	4,672	6,851	1.47
10/11	4,675	7,292	1.56
09/10	4,408	6,891	1.56
08/09	4,635	7,420	1.60
07/08	4,586	8,135	1.77
06/07	4,523	8,112	1.79
05/04	4,502	7,598	1.69
04/03	4,471	7,423	1.66

## MINNESOTA ENERGY RESOURCES - PNG

SUMMER/WINTER USAGE - Mcf PROJECTED 12 MONTHS ENDING JUNE 2012

<u>Class</u>	Summer <u>Apr-Oct</u>	Winter <u>Nov-Mar</u>	<u>Total</u>
GS	159,431	411,183	570,614
SVI	54,458	136,183	190,641
SVJ	3,954	7,553	11,506
LVI	<u>0</u>	<u>0</u>	<u>0</u>
Total	<u>217,842</u>	<u>554,918</u>	772,761

#### **MINNESOTA ENERGY RESOURCES - PNG ENTITLEMENT LEVELS PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2011** VGT Proposed Proposed Current Type of Change Amount Amount Capacity or Mcf or Mcf or Mcf or MMBtu Entitlement **MMBtu** MMBtu 4,782 AF0012 3,527 1.255 (678) 420 AF0014 (Dec-Feb) \* 1,098 AF0016 1,000 (1,000)0 (1, 234)766 AF0102 2,000 1,148 1,148 AF0183 0 1,098 (1,098)0 Wadena Delivered Option 8,723 Heating Season Total (1,607)7,116 5,548 6,527 Non-Heating Season Total (979)7.1.16 **Total Entitlement** 8,723 (1.607)Heating Season 7,292 (441)6,851 Forecasted Design Day Non-Heating Season (24)4,204 Forecasted Design Day 4,228 Heating Season 265 Capacity Surplus/Shortage 734 (469) Non-Heating Season Capacity Surplus/Shortage 1,344 2,299 (955)10.07% 3.87% Reserve Margin

\*Not included in total firm entitlement

(1) Increase entitlement to ensure adequate reserve margin against design day.

Page 1 of 4

\$852.18

\$0.00

		RATE		IE PROPOSED		IGE			
	,		NO/	/EMBER 1, 201	1				
				VGT					
All costs in	· Last Base		Last	Most	• Current	R	esult of Pr		
\$/MMBtu	Cost of	Demand	Demand	Recent	Proposal	Change	Change	Change	Change
	Gas	Change.	Change	PGA**		from	from	from	from
	G007,G011/	G011-	G011-	••••	Effective	Last	· Last	Last	Last
	MR10-978*	. W-09-XXXX.	M-10-XXXX	Oct. 2011	Nov.1,2011	Rate	Demand	PGA	PGA
		· . · . Oct :09. · ·	Oct. 10	(		Case.	Change .		<b>.</b>
			l Oddino .	1			<u> </u>		
1) General Service Re	sidential: Avg	Annual Use:			Mef				
Commodity Cost	\$5.5072	\$3.6684	\$3.7865	\$3.7690	\$4.0670	-26.15%	7.41%	7.91%	\$0.2980
Demand Cost	\$1.0565	\$1.0908	\$0.9994	\$0.8815	\$0.7951	-24.74%	-20.44%	-9,80%	(\$0.0864
Commodity Margin	\$1.7746	\$1.6263	\$1.7746	\$1.7746	\$1.7746	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$8.3383	\$6.3855	\$6.5605	\$6.4251	\$6.6367	-20.41%	1.16%	3.29%	\$0.2116
Avg Annual Cost	\$683.74	\$523.61	\$537.96	\$526.86	\$544.21	-20.41%	1.16%	3.29%	\$17.35
Effect of proposed con									\$24.43
Effect of proposed den									(\$7.08
· · · ·									
2) Small V.ol. Interrup	tible: Avg. Ann	ual Use:		3.859	Mcf				
Commodity Cost	\$5.5072	\$3.6684	\$3.7865	\$3.7690	\$4.0670	-26.15%	7.41%	7.91%	\$0.2980
Demand Cost									
Commodity Margin	\$1.1681	\$1.2434	\$1.1681	\$1.1681	\$1.1681	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$6.6753	\$4.9118	\$4.9546	\$4.9371	\$5.2351	-21.58%	5.66%	6.04%	\$0.2980
Avg Annual Cost	\$25,759.98	\$18,954.64	\$19,119.80	\$19,052.27	\$20,202.11	-21.58%	5.66%	6.04%	\$1,149.84
Effect of proposed con	nmodity change	eon average an	nual bills:						\$1,149.84
Effect of proposed den	nand change or	n average annu	al bills:						\$0.00
			-						
3) Large Vol. Internup				89,334	Mict				<u> </u>
Commodity Cost	\$5.5072	\$3.6684	\$3.7865	\$3.7690	\$4.0670	-26.15%	7.41%	7.91%	\$0.2980
Demand Cost									** ***
Commodity Margin	\$0.3248	\$0.3592	\$0.3248	\$0.3248	\$0.3248	0.00%		0.00%	\$0.0000
Total Cost of Gas	\$5.8320	\$4.0276	\$4.1113	\$4.0938	\$4.3918	-24.70%		7.28%	\$0.2980
Avg Annual Cost	\$520,995.89	\$359,801.62	\$367,278.87	\$365,715.53	\$392,333.87	-24.70%	6.82%	7.28%	\$26,618.34
Effect of proposed con									\$26,618.34
Effect of proposed der	nand change o	n average annu	al bills:						\$0.00
W				2,860	Mcf				
4) Smalt Vol. Firm: Av	g. Afinual Use Iual:CD Units:			15	INCL.				
Commodity Cost	\$5.5072	\$3.6684	\$3.7865	\$3.7690	\$4.0670	-26.15%	7.41%	7.91%	\$0.2980
Demand Cost	\$6.6801	\$3.4671	\$3.4671	\$3.4671	\$3.4671	-48.10%		0.00%	\$0.0000
Commodity Margin	\$1.1681	\$1.2434	\$1.1681	\$1,1681	\$1.1681	0.00%		0.00%	\$0.000
Demand Margin	\$1.8000	\$2.0724	\$1.8000	\$1.8000	\$1.8000	0.00%		0.00%	\$0.000
Total Cost of Gas	\$6.6753	\$4.9118	\$4.9546	\$4.9371	\$5.2351	-21.58%		6.04%	\$0.2980
Total Demand Cost	\$8.4801	\$5.5395	\$5.2671	\$5.2671	\$5.2671	-37.89%		0.00%	\$0.000
	\$0.4001 \$19,218.56	\$14,130.84	\$14,249.16	• • • • • • •	\$15,051.29	-21.68%		6.00%	\$852.18
Avg Annual Cost	\$19,210.00	φ14,130.04	\$14,243.10	ψ1-1,100.11	ψ10,001.20	~21.0070	0.0070	0.0070	¢052.1

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Docket No. E,G999/AA-11-793 \*As submitted in Docket No. G007,011MR-10-978; to coincide with implementation of interim rates in Docket No. G007,011/MR-10-977 \*\*\$/Mcf rates do not include refunds/charges issued via October 2011 PGA per Docket Nos. G-007,011/M-11-154 & FERC Docket RP11-178

Effect of proposed demand charge on average annual bills:

Effect of proposed commodity change on average annual bills:

### MINNESOTA ENERGY RESOURCES-PNG CALCULATION OF PURCHASED GAS ADJUSTMENT (PGA) Viking Current Cost of Gas

II.	VIKING	GAS TRANSMISSION	S RATES	- CURRENT	COST OF GA		01-Nov-11	CURRENT	
		Commodity From Scheo	dule D	•			\$0.40598	/therm	
III.	ANNU	AL SALES					· · ·		
		Total Annual Sales					8,444,190		
		Firm Annual Sales (GS-					6,019,240	·····	
IV.	PNG'S	CURRENT COST OF	GAS EFFE	CTIVE		· · · · ·	01-Nov-11	CURRENT	
				Monthly				Contract	<b>A</b>
				Entitlemen	Months	Rate \$/Dth		Cost	<u>\$/therm</u> \$0.03305
Α.	GS-4	FT-A ZONE 1 - 1	AF0012	4,782	12	\$3.4671	=	\$198,956	\$0.0330
		FT-A ZONE 1 - 1	AF0014	420	3	\$3.4671	=	\$4,369 \$31,870	\$0.0007
		FT-A ZONE 1 - 1 FT-A ZONE 1 - 1	AF0102 AF0183	766	12 5	\$3.4671 \$3.7671	=	\$21,623	\$0.0052
			ML0021	1,148 2,858	5 12	\$3.7671 \$1.0000	=	\$34,296	\$0.0057
		Balancing Agreement	MLUU2 I	2,000	12	φ1.0000	-	\$291,113	\$0.0483
		Nieko Ctorego		134,401	1	\$0.95482	-	\$ 128,329	\$0.0213
		Niska Storage AECO/Emerson Swap		134,401	1	\$0.44000	=	\$ 59,137	\$0.0098
		Total Storage Demand		134,401	ł	φ0.44000		\$187,466	\$0.0311
		Rate Case 2008 Firm A	nnual Sales	in therms				6,019,240	
		Current Demand Cost of Gas \$/therm						· ·	\$0.0795
		Current T-17 Commodit	v Cost of G	as					\$0.4059
		Call Option Premium				\$6,049.62	8,444,190		\$0.0007
		GS-5 Total Current Co	mmodity C	ost of Gas \$/	therm				<u>\$0.4067</u>
		Current Total Cost of G	as \$/therm						\$0.4862
В.	SVI-4	Current Commodity Cos	st of Gas/C0	Cf					\$0.406
C.	SJ-4	Current Demand Cost o	of Gas/CCf						\$0.346
		Current Commodity Cos	st of Gas/C0	Cf ·	·				\$0.406
	i.								· · · ·
D.	LVI-4	Current Commodity Cos	st of Gas/CO	Cf					\$0.4067

### Attachment 4

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\$1,719.16

\$0.00

Page 3 of 4 Rate Impacts (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs) MINNESOTA ENERGY RESOURCES - PNG RATE IMPACT OF THE PROPOSED DEMAND CHANGE **NOVEMBER 1, 2011** VGT Result of Proposed Change All costs in Last Base Last Most. Current. Change. \$/MMBtu. Recent. Change Cost.of Demand Demand. Proposal Change' Change' from Change Change PGA fróm · from from Gas Effective Last Last Last Lást G007,G011/ G011-G011-M-10-XXXX M-09-XXXX Oct. 2011 Nov.1,2011 Rate Demand PGA PGA MR10-978\* Feb. 11 Oct .09 Oct. 10 Case\* Change % \$. 82 Mcf. 1) General Service: Avg. Annual Use: \$0.6011 -20.65% 15.41% 15.95% \$5.5072 \$3.6684 \$3.7865 \$3.7690 \$4.3701 Commodity Cost (\$0.4499) -51.04% \$0.8815 -59.15% -56.82% Demand Cost \$1.0565 \$1.0908 \$0.9994 \$0.4316 0.00% \$0.0000 \$1.7746 \$1.7746 0.00% 0.00% \$1.7746 \$1.6263 \$1.7746 Commodity Margin \$0.1512 Total Cost of Gas \$8.3383 \$6.3855 \$6.5605 \$6.4251 \$6.5763 -21.13% 0.24% 2.35% 2.35% \$12.40 0.24% Avg Annual Cost \$683.74 \$523.61 \$537.96 \$526.86 \$539.26 -21.13% \$49.29 Effect of proposed commodity change on average annual bills: (\$36.89) Effect of proposed demand change on average annual bills: Mcf 2) Small Vol. Interruptible: Avg. Annual Use: 3;859 \$3.6684 \$0.6011 \$3.7865 \$3.7690 \$4.3701 -20.65% 15.41% 15.95% Commodity Cost \$5.5072 Demand Cost 0.00% 0.00% 0.00% \$0.0000 Commodity Margin \$1.1681 \$1.2434 \$1.1681 \$1.1681 \$1.1681 \$0.6011 \$5.5382 -17.03% 11.78% 12.18% Total Cost of Gas \$6.6753 \$4.9118 \$4.9546 \$4,9371 \$21,371.93 -17.03% 11.78% 12.18% \$2,319.66 \$25,759.98 \$18,954,64 \$19.119.80 \$19:052.27 Avg Annual Cost \$2,319.66 Effect of proposed commodity change on average annual bills: \$0.00 Effect of proposed demand change on average annual bills: 3) Large Vol. Internuptible: Avg. Annual Use: 89.234 Mct \$0.6011 15.95% \$3.7865 \$3.7690 \$4.3701 -20.65% 15.41% Commodity Cost \$5.5072 \$3,6684 Demand Cost 0.00% 0.00% \$0.0000 Commodity Margin \$0.3248 0.00% \$0.3248 \$0.3592 \$0.3248 \$0.3248 \$4.0938 \$4.6949 -19.50% 14.20% 14.68% \$0.6011 Total Cost of Gas \$5.8320 \$4.0276 \$4.1113 14.68% \$53,699.02 Avg Annual Cost \$520,995.89 \$359,801.62 \$367,278.87 \$365,715.53 \$419,414.54 -19.50% 14.20% \$53,699.02 Effect of proposed commodity change on average annual bills: \$0.00 Effect of proposed demand change on average annual bills 2,860: Mcf. 4) Small Vol. Firm: Avg. Annuel Use: Agg: Annual CD Units: 15 15.41% \$3.7690 \$4.3701 -20.65% 15.95% \$0.6011 Commodity Cost \$5.5072 \$3.6684 \$3.7865 \$0.0000 -48.10% 0.00% 0.00% \$6.6801 \$3.4671 \$3.4671 \$3.4671 Demand Cost \$3.4671 \$0.0000 0.00% 0.00% \$1.1681 \$1.2434 \$1.1681 \$1.1681 \$1.1681 0.00% Commodity Margin \$0.0000 \$1.8000 0.00% 0.00% 0.00% Demand Margin \$1.8000 \$2.0724 \$1.8000 \$1.8000 -17.03% 11.78% 12.18% \$0.6011 Total Cost of Gas \$6.6753 \$4.9118 \$4.9546 \$4.9371 \$5.5382 \$0.0000 \$5.2671 \$5.2671 \$5.2671 -37.89% 0.00% 0.00% Total Demand Cost \$8.4801 \$5.5395 \$1,719.16 -17.17% 11.71% 12.11% \$15,918.27 \$14,249.16 \$14,199.11 Avg Annual Cost \$19,218.56 \$14,130.84

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Docket No. E, G999/AA-11-793 \*As submitted in Docket No. G007,011/MR-10-978; to coincide with implementation of interim rates in Docket No. G007,011/MR-10-977 \*\*\$/Mcf rates do not include refunds/charges issued via October 2011 PGA per Docket Nos. G-007,011/M-11-154 & FERC Docket RP11-1781

Effect of proposed commodity change on average annual bills:

Effect of proposed demand change on average annual bills:

#### MINNESOTA ENERGY RESOURCES-PNG CALCULATION OF PURCHASED GAS ADJUSTMENT (PGA) Viking Current Cost of Gas Rate Impacts (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)

IV. PN	NG'S	Commodity From Sched AL SALES Total Annual Sales Firm Annual Sales (GS- CURRENT COST OF O FT-A ZONE 1 - 1 FT-A ZONE 1 - 1 FT-A ZONE 1 - 1	5)	CTIVE Monthly Entitlemen			\$0.40598 8,444,190 6,019,240	therms	
IV. PN	NG'S	Total Annual Sales Firm Annual Sales (GS- CURRENT COST OF ( FT-A ZONE 1 - 1 FT-A ZONE 1 - 1	GAS EFFE	Monthly			6,019,240		
		Firm Annual Sales (GS- CURRENT COST OF ( FT-A ZONE 1 - 1 FT-A ZONE 1 - 1	GAS EFFE	Monthly			6,019,240		
		FT-A ZONE 1 - 1 FT-A ZONE 1 - 1	GAS EFFE	Monthly	<u></u>	r		therms	
		FT-A ZONE 1 - 1 FT-A ZONE 1 - 1		Monthly		1			
A. G	iS-4	FT-A ZONE 1 - 1	AF0012	-		Ļ	01-Nov-11	CURRENT	
A. G	S-4	FT-A ZONE 1 - 1	AF0012	Entitlemen		- · • • · · ·		Contract	A 161
A. G	iS-4	FT-A ZONE 1 - 1	AF0012		Months	Rate \$/Dth		Cost	\$/therm
				4,782	12	\$3.4671		\$198,956	\$0.03305 \$0.00073
		$H_A / () N H_1 - 1$	AF0014	420	. 3	\$3.4671	. =	\$4,369	\$0.00073
			AF0102	766	12	\$3.4671	=	\$31,870	\$0.00529
		FT-A ZONE 1 - 1	AF0183	1,148	5	\$3.7671	=	\$21,623	
		Balancing Agreement	ML0021	2,858	12	\$1.0000	=	\$2,965	<u>\$0.00049</u>
								\$259,782	\$0.04316
		Niska Storage		134.401	0	\$0.95482	=	\$0	\$0.00000
		AECO/Emerson Swap		134,401	0	\$0.44000	·	\$0	\$0.00000
		Total Storage Demand				•		\$0	\$0.00000
		Rate Case 2008 Firm Ar Current Demand Cost				но на селото на селот На селото на		6,019,240	\$0.04316
		Current T-17 Commodity		ne -					\$0.40598
		Call Option Premium	y CUSE 01 Ga	15		\$6,049.62	8,444,190	a.	\$0.00072
		Niska Storage		134,401	1	\$1.42643	=	\$192,139	\$0.02275
		AECO/Emerson Swap		134,401	1	\$0.47498	=	\$63,838	\$0.00756
		GS-5 Total Current Co	mmodity C		•				\$0.43701
		Current Total Cost of Ga							\$0.48017
B. S	VI-4	Current Commodity Cos	t of Gas/CC	۰. ۲					\$0.43701
	•								
C. S.	J-4	Current Demand Cost o	f Gas/CCf						\$0.34671
		Current Commodity Cos	t of Gas/CC	f					\$0.43701
<b>.</b>		Current Commodity Cos		N£					\$0.43701

Attachment 4

Page 4 of 4 VGT

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

**Attachment 5** 

# MINNESOTA ENERGY RESOURCES - PNG-VGT

Financial Options Heating Season 2011-2012

#### [TRADE SECRET DATA BEGINS

Units - Gas Daily Packages

1

Contrac Date	-	Contract <u>Date</u>	Daily <u>Volume</u>	Contract <u>Date</u>	Daily <u>Volume</u>	Contract <u>Date</u>	Daily <u>Volume</u>	Contract <u>Date</u>	Daily <u>Volume</u>	Daily <u>Total</u>	Term <u>Total</u>
1 2 3 4 5 6 7	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Total</u>	<u>Total</u>
3 4 5 6 7											
3 4 5 6 7											
4 5 6 7											
5 6 7											
6 7											
7											
7 8											
8											
0											
Total	667		645		645		<u>345</u>		968	<u>3,270</u>	100,000
	20,000		20,000		20,000		10,000		<u>30,000</u>		100,000

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

	<u>Novem</u> Option F	<u>ber</u> Premium	<u>Dece</u> Option	ember Premium	<u>Jaı</u> Option	nuary Premium	<u>F</u> Option	<u>ebruary</u> Premium	<u>Ma</u> Option	<u>irch</u> Premium	<u>To</u> Option	otal Premium	
Premiun	n - Call Optio	on (Monthi	y Cost)		. •						_		
		30,000		30,000		40,000		40,000		<u>30,000</u>		170,000	
Total		<u>1,000</u>		968		<u>1,290</u>	,	<u>1,379</u>		* <u>968</u>	5,605	170,000	
6													
5													
4													
3													
2													
I													

	<u>Premium</u>	Cost	<u>Premium</u>	Cost	<u>Premium</u>	Cost	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	Cost	Premium	Cost
1												
2												
3												
4												
5												
6						•						
÷												
Total	\$ 0.2017	\$ 6,050	\$ 0.2220	\$ 6,661	\$ 0.2638	\$ 10,551	\$ 0.2950	<u>\$ 11,392</u>	<u>\$ 0.3057</u>	<u>\$                                    </u>	<u>\$ 0.2578</u>	<u>\$ 43,824</u>
		· · · · · · · · · · · · · · · · · · ·										

Units - Collar Floor (put)

TRADE SECRET DATA ENDS]

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

																Change in	Outauge III	(979)	(678)	1,148		(1,098)	0	0	0	0	-	(1,098)	(1,607)	(1,607)	(2,077)	(628)
Quantity (Mcf)	6.527	1.098	0 1/	1,098 1/	432	105	389	172	0 0	Ð	7 625	7.625	7.348	1,375	18.0%		Ouantity (Mcf)	Eddining (MICI)	420	1,148		0 1/	0	0	0	0	0	0	7,116	7,116	5,548	1,568
XXXX Quantity (Mcf) [2009-10 XXXX Quantity (Mcf) [G011/M-09-XXXX	FT-A 12 months	FT-A 3 months	FT-A (5 month backhaul)	NNG TF 12 mos. (backhaul)	TF12 (NNG)	TF5 (NNG)	TFX12 (NNG)	TFX5 (NNG)	FT-D 12 months	#777	Total Design Day Canacity	Total Viking Transportation	Total Annual Transportation	Total Seasonal Transport	Percent Seasonal on Viking	12011 12	11. VVV		FT-A 3 months	FT-A 5 months	FT-A (5 month backhaul)	NNG TF 12 mos. (backhaul)	TF12 (NNG)	TF5 (NNG)	TFX12 (NNG)	TFX5 (NNG)	FT-D 12 months	Wadena Delivered Option	 Total Design Day Capacity	Total Viking Transportation	Total Annual Transportation	Total Seasonal Transport
	2/	i	1/	1												$\mid$		+			1/	11							 -			
Quantity (Mcf)	6.527	1.098	0	1.098	172	389	432	105	0		7 625	7,625	7,131	1,592	20.9%		Cumbibu (McP	AUAITIN (INICI)	1.098	0	0	1,098	0	0	0	0	0	1,098	8,723	8,723	7,625	2,196
2008-09 6011/M-08-XXXX C		FT-A 3 months	FT-A (5 month backhaul)	NNG TF 12 mos. (backhaul)	TE12 (NNG)	TF5 (NNG)	TEX12 (NNG)	TFX5 (NNG)	FT-D 12 months		Total Decide Day Capacity	Total Viking Transportation	Total Annual Transportation	Total Seasonal Transport	Percent Seasonal on Viking	0010 44	11 ~~~		FT-A 3 months	FT-A 5 months	FT-A (5 month backhaul)	NNG TF 12 mos. (backhaul)	TF12 (NNG)	TF5 (NNG)	TFX12 (NNG)	TFX5 (NNG)	FT-D 12 months	Wadena Delivered Option	Total Design Day Capacity	Total Viking Transportation	Total Annual Transportation	Total Seasonal Transport

1/ The amount is excluded from the design day capacity since it is a backhaul to transport gas to Viking.

Copy of MERC 11 12 Demand-Filing Schedules Non-Public Filed 103111.xlsx V6

#### Attachment 7

VGT Page 1 of 2

# **MINNESOTA ENERGY RESOURCES - PNG**

Change         Change         PGA         w/ Proposed         From Last         From Last         From Last           Commodity Cost of Cas (VMCCO)         \$5,5072         \$3,7690         \$4,0670         -26,15%         7,41%         7,91%           Demand Cost of Cas         \$1,7746         \$1,7746         \$1,7746         \$1,7746         \$1,7746         0,00%         0,0						~ ~	A/ 01	0/ <b>O</b> b and the	¢ Ob an est
General Service         G011/MR10-978         M-10-XXX         Oct /111         Demand Changes** Rate Case** Demand Filing         PGA           Commodity Cost of Gas         \$1.0665         \$0.9994         \$0.8815         \$0.7745         \$1.7746         \$1.7746         \$0.070         26.15%         7.41%         7.91%           Commodity Margin         \$1.7746         \$1.7746         \$0.078         20.41%         1.16%         3.29%           Average Annual Usage (Mcf)         \$2.38383         \$6.5605         \$5.4251         \$6.637         20.41%         1.16%         3.29%           Average Annual Total Cost of Gas         \$683.74         \$537.96         \$526.86         \$544.21         -20.41%         1.16%         3.29%           Average Annual Total Cost of Gas         Last Demand         Most Recent         Nov 1/11 PGA         % Change	. E			Most Recent	Nov 1/11 PGA	% Change	% Change From Last	% Change	\$ Change From Last
Commodity Cost of Gas (WACCG)         \$5.5072         \$3.7885         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas         \$1.7746         \$1.7746         \$1.7746         \$1.7746         0.00%	noral Sarvica		0						PGA
Demand Cost of Gas         S1 0565         \$0.9994         \$0.8815         \$0.784         24.74%         20.44%         -9.80%           Commodity Margin         \$1.7746         \$1.7746         \$0.7746         \$0.076         0.00% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>\$0.298</td>									\$0.298
Commodity Margin         \$17746         <									(\$0.086
Total Cost of Gas         \$8.3383         \$6.6605         \$6.4261         \$6.6307         -20.41%         1.16%         3.28%           Average Annual Usage (Mc)         82					•				\$0.000
Average Annual Usage (Mcf)         No. 82         82         82         82           Average Annual Total Cost of Gas         \$683.74         \$537.96         \$528.86         \$544.21         -20.41%         1.16%         3.29%           Average Annual Total Cost of Gas         Change         Change         Nov 1/11 Demand Changes** Rate Case** Demand Changes         % Change         % Change <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>\$0.211</td>									\$0.211
Average Annual Total Cost of Gas         \$683.74         \$537.96         \$526.86         \$544.21         -20.41%         1.16%         3.29%           Base Cost of Gas Commodity Cost of Gas (VACOG)         Base Cost of Gas S5.072         Last Demand Change         Most Recent PGA         Nov 1/11 PGA Demand Conges** Rate Case*^ Demand Filing         % Change From Last Demand Cost of Gas         % Change From Last Demand Cost of Gas         % Change         % Change From Last Demand Cost of Gas         % Change         % Change From Last Demand Cost of Gas         0.00%						-20.4170	1.1070	0.2070	ψ0.211
Base Cost of Gas Change Change Commodity Cost of Gas (WACOG)         Base Cost of Gas (M1/MR10-978         Last Demand M-10-XXXX         Nov 1/11 PGA PGA Oct 1/11         % Change Demand Changes** Rate Case*^ Demand Filing PGA Demand Changes**         % Change From Last Demand Change         % Change Demand Change         % Change Demand Change         % Change Stat         % Change Demand Change         % Change Stat         % Change Demand Change         % Change % Change         <						-20 41%	1 16%	3 29%	\$17.3
Change General Service         Change G011/MR10-978         Change M-10-XXXX         PGA Oct 1/11         W Proposed Demand Changes* Rate Case+* Demand Filing PGA         From Last From Last From Last Pomand Changes*           Commodity Cost of Gas Commodity Margin         \$1.1681         \$1.081         \$1.081         \$1.081         0.00%         0.00%           Commodity Margin         \$1.1681         \$1.1681         \$1.1681         \$1.081         0.00%         0.00%         0.00%           Commodity Margin         \$1.1681         \$1.1681         \$1.1681         \$1.081         \$0.00%         0.00%         0.00%           Average Annual Usage (Mcf)         3.859         3.859         3.859         3.859         3.859         0.00%         0.00%         0.00%           Large Volume Interruptible         G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes**         Change         From Last         From Last         From Last           Commodity Margin         \$0.3248         \$0.3248         \$0.3248         \$0.3248         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%<	erage Annual Total Cost of Cas	4000.74	φυστ.υσ	ψ020,00	ψ044.21	20.4170	111070	0.2070	ţe
General Service         G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes** Rate Case*^ Demand Filing         PGA           Commodity Cost of Gas (WACOG)         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas (WACOG)         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Commodity Margin         \$1.1681         \$1.1681         \$1.1681         0.00%         0.00%         0.00%           Total Cost of Gas         \$6.6753         \$4.9546         \$4.9371         \$5.2371         -21.58%         5.66%         6.04%           Average Annual Usage (Mcf)         3.859         3.859         3.859         3.859         3.859         3.859         3.859         6.04%           Commodity Cost of Gas         Coll 1/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes** Rate Case** Demand Filing         PGA         VChange         From Last         Fro		Base Cost of Gas	Last Demand	Most Recent	Nov 1/11 PGA	% Change	% Change	% Change	\$ Change
Commodity Cost of Gas (WACOG)         \$5.5072         \$3.7665         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas         St.6753         \$4.9546         \$4.9371         \$5.2351         -21.68%         5.66%         6.04%           Average Annual Usage (Mcf)         3.859 <t< td=""><td></td><td>Change</td><td>Change</td><td>PGA</td><td>w/ Proposed</td><td>From Last</td><td>From Last</td><td>From Last</td><td>From Last</td></t<>		Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Commodity Cost of Gas (WACOG)         \$5.5072         \$3.7665         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas         St.6753         \$4.9546         \$4.9371         \$5.2351         -21.68%         5.66%         6.04%           Average Annual Usage (Mcf)         3.859 <t< td=""><td>eneral Service</td><td>G011/MR10-978</td><td>M-10-XXXX</td><td>Oct 1/11</td><td>Demand Changes**</td><td>Rate Case^^</td><td>Demand Filing</td><td>PGA</td><td>PGA</td></t<>	eneral Service	G011/MR10-978	M-10-XXXX	Oct 1/11	Demand Changes**	Rate Case^^	Demand Filing	PGA	PGA
Demand Cost of Gas commodity Margin         \$1.1681				\$3.7690				7.91%	\$0.298
Total Cost of Gas Average Annual Usage (Mcf)         \$6.6753         \$4.9546         \$4.9371         \$6.2351         -21.68%         5.66%         6.04%           Average Annual Usage (Mcf)         3,859         3,859         3,859         3,859         3,859         3,859         3,859           Average Annual Total Cost of Gas         \$25,759.98         \$19,119.80         \$19,052.27         \$20,202.11         -21.58%         5.66%         6.04%           Base Cost of Gas Last Demand Change         Change         PGA         W/ Proposed         From Last         From La		·							\$0.000
Base Cost of Gas         3,859         3,859         3,859         3,859         3,859         3,859           Average Annual Total Cost of Gas         \$25,759.98         \$19,119.80         \$19,052.27         \$20,202.11         -21.58%         5.66%         6.04%           Base Cost of Gas         Last Demand Change         Change         PGA         Nov 1/11 PGA         % Change         % Cha	mmodity Margin	\$1.1681	\$1.1681	\$1.1681	\$1.1681	0.00%	0.00%	0.00%	\$0.000
Average Annual Total Cost of Gas         \$25,759.98         \$19,119.80         \$19,052.27         \$20,202.11         -21.58%         5.66%         6.04%           Base Cost of Gas         Last Demand Change G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes** Rate Case^A Demand Filing From Last         % Change From Last         % Ch	tal Cost of Gas	\$6.6753	\$4.9546	\$4.9371	\$5.2351	-21.58%	5.66%	6.04%	\$0.298
Average Annual Total Cost of Gas         \$25,759.98         \$19,119.80         \$19,052.27         \$20,202.11         -21.58%         5.66%         6.04%           Base Cost of Gas         Last Demand Change         Nov 1/11 PGA PGA         % Change Wroposed         % Change From Last         % Change PGA         % Change Wroposed         % Change From Last         % Chang	erage Annual Usage (Mcf)	3,859	3,859	3,859	3,859				
Change Large Volume Interruptible         Change G011/MR10-978         Change M-10-XXXX         PGA Cct 1/11         w/ Proposed Demand Changes** Rate Case** Demand Filing PGA         From Last Demand Changes** Rate Case** Demand Filing PGA         From Last PGA         PGA           Small Volume Firm/Interruptible Commodity Cost of Gas         G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes***         Rate Case*^A Demand Filing PGA         PGA         Commodity 0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.0		\$25,759.98	\$19,119.80	\$19,052.27	\$20,202.11	-21.58%	5.66%	6.04%	\$1,149.8
Change Large Volume Interruptible         Change G011/MR10-978         Change M-10-XXXX         PGA Cct 1/11         w/ Proposed Demand Changes** Rate Case** Demand Filing PGA         From Last Demand Changes** Rate Case** Demand Filing PGA         From Last PGA         PGA           Small Volume Firm/Interruptible Commodity Cost of Gas         G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes***         Rate Case*^A Demand Filing PGA         PGA         Commodity 0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.00%         0.0						A( 0)		0/ 01	¢ Ohanna
Large Volume Interruptible         G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Charges** Rate Case^A Demand Filing         PGA           Commodity Cost of Gas (WACOG)         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas (CMACOG)         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.00%         0.00% <td>E</td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td>•</td> <td>-</td> <td>\$ Change</td>	E					0	•	-	\$ Change
Base Cost of Gas         S5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.00%         0.00%         0.00%         \$0.00%         0					•				From Last
Demand Cost of Gas Commodity Margin         \$0.3248         \$0.334         \$0.334         \$0.334         \$0.334         \$0.334         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.3348         \$0.334         \$0.00%         \$0.00%         \$0.00%         \$0.0					X				PGA
Commodity Margin         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.3248         \$0.00%         0.00%         0.00%           Total Cost of Gas         \$5.8320         \$4.1113         \$4.0938         \$4.3918         -24.70%         6.82%         7.28%           Average Annual Usage (Mcf)         89,334		\$5.5072	\$3.7865	\$3.7690	\$4.0670	-26.15%	7.41%	7.91%	\$0.298
Total Cost of Gas         \$5.8320         \$4.1113         \$4.0938         \$4.3918         -24.70%         6.82%         7.28%           Average Annual Usage (Mcf)         89,334         89							0.000	0.000/	\$0.000
Average Annual Usage (Mcf) Average Annual Total Cost of Gas         89,334 \$520,995.89         89,334 \$367,278.87         89,334 \$365,715.53         89,334 \$392,333.87         -24.70%         6.82%         7.28%           Small Volume Firm/Interruptible Commodity Cost of Gas Commodity Margin         Base Cost of Gas B1.1681         Last Demand Change G011//MR10-978         Most Recent M-10-XXXX         Nov 1/11 PGA PGA         % Change W Proposed Demand Changes** Rate Case^A Demand Filing PGA         % Change From Last Demand Changes**         % Change From Last Demand Changes**         % Change From Last         % Change									\$0.000 \$0.298
Average Annual Total Cost of Gas         \$520,995.89         \$367,278.87         \$365,715.53         \$392,333.87         -24.70%         6.82%         7.28%           Small Volume Firm/Interruptible         G011/MR10-978         Last Demand Change         Most Recent PGA         Nov 1/11 PGA         % Change w/ Proposed         % Change From Last         % Change From Last         % Change					•	-24.70%	6.82%	7.28%	\$0.290
Base Cost of Gas         Last Demand         Most Recent         Nov 1/11 PGA         % Change         % Change         % Change           Small Volume Firm/Interruptible         G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes** Rate Case^^ Demand Filing         PGA           Commodity Cost of Gas (WACOG)         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas         \$6.6801         \$3.4671         \$3.4671         \$3.4671         -48.10%         0.00%         0.00%           Commodity Margin         \$1.1681         \$1.1681         \$1.1681         \$1.681         \$1.6800         \$1.8000         \$0.00%         0.00						0 4 7004	0.000/	7 000	#00 040 0
Small Volume Firm/Interruptible         Change G011/MR10-978         Change M-10-XXXX         PGA Oct 1/11         w/ Proposed Demand Changes**         From Last Rate Case^A Demand Filing         From Last PGA           Commodity Cost of Gas Commodity Cost of Gas         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas Commodity Margin         \$1.1681         \$3.4671         \$3.4671         \$3.4671         -48.10%         0.00%         0.00%           Demand Margin         \$1.1681         \$1.1681         \$1.1681         \$1.8000         \$1.8000         \$0.00%         0.00%	erage Annual Total Cost of Gas	\$520,995.89	\$367,278.87	\$365,715.53	\$392,333.87	-24.70%	0.82%	7.28%	\$26,618.3
Small Volume Firm/Interruptible         Change G011/MR10-978         Change M-10-XXXX         PGA Oct 1/11         w/ Proposed Demand Changes**         From Last Rate Case^A Demand Filing         From Last PGA           Commodity Cost of Gas Commodity Cost of Gas Commodity Margin         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas Commodity Margin         \$1.1681         \$3.4671         \$3.4671         \$3.4671         -48.10%         0.00%         0.00%           Demand Margin         \$1.1681         \$1.1681         \$1.1681         \$1.8000         \$1.8000         \$1.8000         \$0.00%         0.00%         0.00%         0.00%           Total Commodity Cost         \$6.6753         \$4.9546         \$4.9371         \$5.2671         \$5.2671         \$5.2671         \$5.2671         \$5.2671         \$2.15%         6.04%           Total Demand Cost         \$8.4801         \$5.2671         \$5.2671         \$5.2671         \$3.7860         2.860         2.860         2.860         2.860         2.92%         2.92%           Average Annual Usage (Mcf)*         \$19,218.56         \$14,249.16         \$14,199.11         \$15,051.29         -21.68%         5.63%         6.00%           Average Annual Commodity Bill^N         \$1	I	Base Cost of Gas	Last Demand	Most Recent	Nov 1/11 PGA	% Change	% Change	% Change	\$ Change
Small Volume Firm/Interruptible         G011/MR10-978         M-10-XXXX         Oct 1/11         Demand Changes** Rate Case^A Demand Filing         PGA           Commodity Cost of Gas (WACOG)         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas         \$6.6801         \$3.4671         \$3.4671         \$3.4671         +48.10%         0.00%         0.00%           Commodity Margin         \$1.1681         \$1.1681         \$1.1681         \$0.00%         0.00% <t< td=""><td>•</td><td></td><td></td><td></td><td></td><td>•</td><td>U U</td><td>•</td><td>From Last</td></t<>	•					•	U U	•	From Last
Commodity Cost of Gas (WACOG)         \$5.5072         \$3.7865         \$3.7690         \$4.0670         -26.15%         7.41%         7.91%           Demand Cost of Gas         \$6.6801         \$3.4671         \$3.4671         \$3.4671         -48.10%         0.00%         0.00%           Commodity Margin         \$1.1681         \$1.1681         \$1.1681         \$1.681         \$0.00%         0.00%	aall Volume Firm/Interruptible	<b>v</b>	0			Rate Case^^	Demand Filing	PGA	PGA
Demand Cost of Gas         \$6.6801         \$3.4671         \$3.4671         \$3.4671         -48.10%         0.00%         0.00%           Commodity Margin         \$1.1681         \$1.1681         \$1.1681         \$1.1681         \$1.1681         0.00%									\$0.298
Commodity Margin         \$1.1681         \$1.1681         \$1.1681         \$1.1681         \$1.1681         \$0.00%         0.00%					•	-48,10%	0.00%	0.00%	\$0.000
Demand Margin         \$1.8000         \$1.8000         \$1.8000         \$1.8000         \$1.8000         \$1.8000         \$0.00%         0			•		•		.0.00%	0.00%	\$0.000
Total Commodity Cost         \$6.6753         \$4.9546         \$4.9371         \$5.2351         -21.58%         5.66%         6.04%           Total Demand Cost         \$8.4801         \$5.2671         \$5.2671         -37.89%         0.00%         0.00%           Total Recovery         \$15.1554         \$10.2217         \$10.2042         \$10.5022         -30.70%         2.74%         2.92%           Average Annual Usage (Mcf)*         2,860         6.00%         6.00%         0.00%         0.00%			•		•		0.00%	0.00%	\$0.000
Total Demand Cost         \$8.4801         \$5.2671         \$5.2671         -37.89%         0.00%         0.00%           Total Recovery         \$15.1554         \$10.2217         \$10.2042         \$10.5022         -30.70%         2.74%         2.92%           Average Annual Usage (Mcf)*         2,860         2,960         2,960         3,96         3,96	0		• • • • • •	•			5.66%	6.04%	\$0.298
Total Recovery         \$15.1554         \$10.2217         \$10.2042         \$10.5022         -30.70%         2.74%         2.92%           Average Annual Usage (Mcf)*         2,860         5,63%         6,00%         6,00%         5,63%         6,00%         6,00%         6,00%         6,00%         6,00%         6,00						-37.89%	0.00%	0.00%	\$0.000
Average Annual Usage (Mcf)*         2,860         2,860         2,860         2,860           Average Annual CD units (Mcf)         15         15         15         15           Average Annual CD units (Mcf)         15         15         15         15           Average Annual Commodity Bill^         \$19,218.56         \$14,249.16         \$14,199.11         \$15,051.29         -21.68%         5.63%         6.00%           Commodity         Commodity         Demand         Demand         Total         Total           Change							2.74%	2.92%	\$0.298
Average Annual CD units (Mcf)       15       15       15       15         Average Annual Commodity Bill^       \$19,218.56       \$14,249.16       \$14,199.11       \$15,051.29       -21.68%       5.63%       6.00%         Commodity       Commodity       Demand       Demand       Total       Total         Change       Change       Change       Change       Change       Change         Summary       (\$/Mcf)       (%)       (\$/Mcf)       (%)       _		,		+ · - · · ·					
Average Annual Commodity Bill^       \$19,218.56       \$14,249.16       \$14,199.11       \$15,051.29       -21.68%       5.63%       6.00%         Commodity       Commodity       Demand       Demand       Total       Total         Change       Change       Change       Change       Change       Change       Change         Summary       (\$/Mcf)       (%)       (\$/Mcf)       (%)		,	•		,				
Change Change Change Change Change Change Summary (\$/Mcf) (%) (\$/Mcf) (%) (\$/Mcf) (%)	<b>.</b>				\$15,051.29	-21.68%	5.63%	6.00%	\$852.1
ChangeChangeChangeChangeSummary(\$/Mcf)(%)(\$/Mcf)(%)		<b>.</b>	<b></b>		<b>.</b> .	- -	<b>T</b> . • •		
Summary (\$/Mcf) (%) (\$/Mcf) (%) (\$/Mcf) (%)		•							Effect on
		4				0			Annual
General Service \$0.2980 29.80% (\$0.0864) -9.80% \$0.2116 3.29%	Immary								Bill
	eneral Service	\$0.2980	29.80%	(\$0.0864)	-9.80%				\$17.3
Small Volume Interruptible         \$0.2980         29.80%         \$0.0000         0.00%         \$0.2980         6.04%	nall Volume Interruptible								\$1,149.8
Large Volume Interruptible \$0.2980 29.80% \$0.0000 0.00% (\$0.2980) 7.28%	rge Volume Interruptible								\$26,618.3
Small Volume Firm         \$0.2980         29.80%         \$0.0000         0.00%         \$0.0000         0.00%		\$0.2980	29.80%	\$0.0000	0.00%	\$0.0000	0.00%		\$852.1

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

#### Attachment 7

VGT Page 1 of 2

# **MINNESOTA ENERGY RESOURCES - PNG**

	Base Cost of Gas		Most Recent	Nov 1/11 PGA	% Change	% Change	% Change	\$ Change
Concert Consider	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last PGA	From Last PGA
General Service	G011/MR10-978 \$5.5072	M-10-XXXX \$3.7865	Oct 1/11 \$3.7690	Demand Changes** \$4.3701	-20.65%	15.41%	<u> </u>	\$0.6011
Commodity Cost of Gas (WACOG) Demand Cost of Gas	\$5.5072 \$1.0565	\$0.9994	\$0.8815	\$0.4316	-59.15%	-56.82%		(\$0.4499)
Commodity Margin	\$1.0005	\$0.9994 \$1.7746	\$1.7746	\$1,7746	0.00%	0.00%		\$0.0000
Total Cost of Gas	\$8.3383	\$6.5605	\$6.4251	\$6.5763	-21.13%	0.24%		\$0.1512
Average Annual Usage (Mcf)	<del>رە</del> د.ى 82	\$0.5005 82	<del>40.4201</del> 82	82	~21.1070	0.2470	2.0070	\$0.101 <b>2</b>
Average Annual Total Cost of Gas	\$683.74	\$537.96	\$526.86	\$539.26	-21.13%	0.24%	2.35%	\$12.40
Average Annual Total Cost of Gas	φ003.7 <del>4</del>	<i>4001.00</i>	φ <b>020.00</b>	φ000.20	-21.1070	0.2470	2.0070	φ12.10
	Base Cost of Gas	Last Demand	Most Recent	Nov 1/11 PGA	% Change	% Change	% Change	\$ Change
	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
General Service	G011/MR10-978	M-10-XXXX	Oct 1/11		Rate Case^^	<b>Demand Filing</b>	PGA	PGA
Commodity Cost of Gas (WACOG)	\$5.5072	\$3.7865	\$3.7690	\$4.3701	-20.65%	15.41%	15.95%	\$0.6011
Demand Cost of Gas								\$0.0000
Commodity Margin	\$1.1681	\$1.1681	\$1.1681	\$1.1681	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$6.6753	\$4.9546	\$4.9371	\$5.5382	-17.03%	11.78%	12.18%	\$0.6011
Average Annual Usage (Mcf)	3,859	3,859	3,859	3,859				
Average Annual Total Cost of Gas	\$25,759.98	\$19,119.80	\$19,052.27	\$21,371.93	-17.03%	11.78%	12.18%	\$2,319.66
						-		
				Nov 1/11 PGA	% Change	% Change	% Change	\$ Change
	Base Cost of Gas		Most Recent			-	From Last	From Last
	Change	Change	PGA	w/ Proposed	From Last	From Last Demand Filing		PGA
Large Volume Interruptible	G011/MR10-978	M-10-XXXX	Oct 1/11	Demand Changes**		15.41%		\$0.6011
Commodity Cost of Gas (WACOG)	\$5.5072	\$3.7865	\$3.7690	\$4.3701	-20.65%	15.41%	15.95%	\$0.0000
Demand Cost of Gas	<b>*•</b> • • • •		<b>**</b>	<b>AD 0040</b>	0.00%	0.00%	0.00%	\$0.0000
Commodity Margin	\$0.3248	\$0.3248	\$0.3248	\$0.3248	0.00%	0.00%		\$0.6011
Total Cost of Gas	\$5.8320	\$4.1113	\$4.0938	\$4.6949	-19.50%	14.20%	14.00%	φ0.0011
Average Annual Usage (Mcf)	89,334	89,334	89,334	89,334	40 50%	14.20%	14.68%	\$53,699.02
Average Annual Total Cost of Gas	\$520,995.89	\$367,278.87	\$365,715.53	\$419,414.54	-19.50%	14.2070	14.00 %	ψ00,000.0z
	Base Cost of Gas	Last Demand	Most Recent	Nov 1/11 PGA	% Change	% Change	% Change	\$ Change
	Change	Change	PGA	w/ Proposed	From Last	From Last	From Last	From Last
Small Volume Firm/Interruptible	G011/MR10-978	M-10-XXXX	Oct 1/11	Demand Changes**				PGA
Commodity Cost of Gas (WACOG)	\$5.5072	\$3.7865	\$3.7690	\$4.3701	-20.65%	15.41%		\$0.6011
Demand Cost of Gas	\$6.6801	\$3.4671	\$3.4671	\$3.4671	-48.10%	0.00%		\$0.0000
Commodity Margin	\$1.1681	\$1.1681	\$1.1681	\$1.1681	0.00%	0.00%		\$0.0000
Demand Margin	\$1.8000	\$1.8000	\$1.8000	\$1.8000	0.00%	0.00%		\$0.0000
Total Commodity Cost	\$6.6753	\$4.9546	\$4.9371	\$5.5382	-17.03%	11.78%		\$0.6011
Total Demand Cost	\$8.4801	\$5.2671	\$5.2671	\$5.2671	-37.89%	0.00%		\$0.0000
Total Recovery	\$15.1554	\$10.2217	\$10.2042	\$10.8053	-28.70%	5.71%	5.89%	\$0.6011
Average Annual Usage (Mcf)*	2,860	2,860	2,860	2,860				
Average Annual CD units (Mcf)	15	15	15	15				
Average Annual Commodity Bill^	\$19,218.56	\$14,249.16	\$14,199.11	\$15,918.27	-17.17%	11.71%	12.11%	\$1,719.16
	Commodity	Commodity	Demand	Demand	Total	Total		Effect on
	Change	Change	Change	Change	Change	Change		Annual
Summary	(\$/Mcf)	(%)	(\$/Mcf)	(%)	(\$/Mcf)	(%)		Bill
General Service	\$0.6011	60.11%	(\$0.4499)	-51.04%	\$0.1512	2.35%		\$12.40
Small Volume Interruptible	\$0.6011	60.11%	\$0.0000	0.00%	\$0.6011	12.18%		\$2,319.66
Large Volume Interruptible	\$0.6011	60.11%	\$0.0000	0.00%	(\$0.6011)	14.68%		\$53,699.02
Small Volume Firm	\$0.6011	60.11%	\$0.0000	0.00%	\$0.0000	0.00%		\$1,719.16

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

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	Oct-11 Entitlement	Nov-11 Entitlement	Entitlement Change	Months	Oct. 2011 Tariff Rate	Oct. 2011 Total Cost	Nov. 2011 Total Cost	Entitlement Change
FT-A (AF0012)	3,527	4,782	1,255	12	\$3.4671	\$146,742	\$198,956	\$52,215
FT-A (AF0014)	1,098	420	-678	3	\$3.4671	\$11,421	\$4,369	-\$7,052
FT-A (AF0016)	1,000	. 0	-1,000	12	\$3.4671	\$41,605	\$0	-\$41,605
FT-A (AF0102)	2,000	766	-1,234	12	\$3.4671	\$83,210	\$31,870	-\$51,341
FT-A (AF0183)	0	1,148	1,148	5	\$3.7671	\$0	\$21,623	\$21,623
Balancing Agreement	. 0	2,858	2,858	12	\$1.0000	\$0	\$34,296	\$34,296
Wadena Delivered Option	1,098	. 0	-1,098	0	\$0.0000	\$2,965	\$0	-\$2,965
Niska Storage	128,469	134,401	5,932	1	\$0.9548	\$183,659	\$128,329	-\$55,330
AECO/Emerson Swap	128,464	134,401	5,937	1	\$0.4400	<u>\$61,020</u>	<u>\$59,137</u>	<u>-\$1,883</u>
Total Demand Cost						\$530,622	\$478,579	-\$52,042

file name: Copy of MERC 11 12 Demand-Filing Schedules Non-Public Filed 103111.xlsx worksheet name: V8

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

Attachment 9

Page 1 of 3

# MINNESOTA ENERGY RESOURCES - PNG 10/11 Winter Portfolio Plan - MERC VGT-PNG Hedging Plan

[TRADE SECRET DATA BEGINS]

10,000	Contract Siz	ze										REVISED:		
		No	v-11	Dec			12	Feb	0-12	Ma	-12	Number	Total Contract	Percent of
System	Purchase Month	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Contracts	Volume	Requiremen
N Requirements	Monar	Contracts	Volume		Volume	1 Oomadoto 1	Volumo	1 oonador 1		1				-
GT -MN														
70%														
40%														
30%														
ontracts														
I Options														
*														
lars														
	L													
ex (back financial)	Ţ													
ysical Hedges														
vsical neuges	,													
epaid Obl														
rm Index														
tal NNG MN														
ntracts														
II Options														
sting Collar														
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epaid Obl														
rm Index														
onth/Daily	1													
ontri/Daily	+												554,918	100.
la	1												1 <u> </u>	

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

Attachment 9 Page 2 of 3

				R PLAN (PNG) IROUGH MAR						
TRADE SECRET DATA	BEGINS		JER, 2010 11		011, 2011					
	DEGINO	,				Da	ily Volumes			Month
PHYSICAL FIXED PRICE HED		Trigger	Trigger		Nov	Dec	Jan	<u>Feb</u>	Mar	Tota
	<u>Deal #</u>	Locked	Exercised	Receipt Point						
	Total Actual Fi	xed/Option Ph	ysical	-	-	+	-	-	-	
INDEX - VGT	Contract									
<u>Link and a subscription of the subscription o</u>	Number	Date	<u>Receipt Point</u>	Nov	Dec	<u>Jan</u>	<u>Feb</u>	Mar	<u>Total</u>	
		•							1	
	Total Actual S	easonal Index		1,667	1,613	1,936	1,725	1,936	270,044	
GAS DAILY PACKAGES										
STORAGE										
	Contract #	<b>T</b> -4-1								
Injection	Volume	Total Volume								
Month	Injected	Injected								
			· ·							
	2									

# MINNESOTA ENERGY RESOURCES - PNG Daily Total Throughput Data - July 1, 2010 through June 30, 2011

			Base Variable	768 80
Date	100.00% Bemidji Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put
7/1/10 7/2/10 7/2/10 7/2/10 7/5/10 7/5/10 7/5/10 7/5/10 7/10/10 7/11/10 7/11/10 7/13/10 7/13/10 7/13/10 7/14/10 7/15/10 7/14/10 7/15/10 7/20/10 7/21/10 7/22/10 7/22/10 7/22/10 7/26/10 7/26/10 7/26/10 7/26/10 7/26/10 7/26/10 8/2/10 8/3/10 8/3/10 8/5/10 8/5/10 8/5/10 8/5/10 8/5/10 8/5/10 8/11/10 8/2/10 8/11/10 8/12/10 8/11/10 8/21/10 9/21/10	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 0 0 0 0 0 0 0 0 0 0 0 0 0	837 677 558 599 844 936 661 875 880 897 880 897 822 879 752 620 601 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 805 849 877 800 839 876 839 876 839 876 839 876 839 876 841 691 813 831 831 831 837 936 841 691 813 831 831 831 833 732 665 900 1,133 887 732 665 900 1,133 887 732 665 900 1,133 887 732 665 900 1,133 887 732 665 900 1,133 887 711 726 803 803 879 752 600 819 839 876 841 803 803 803 803 803 803 803 803 803 803	768 768 768 768 768 768 768 768 768 768

						*		
		9/24/10	14	14	1,404	1,881		
		9/25/10	14	14	1,141	1,922		
		9/26/10	4	4	1,630	1,120		
		9/27/10	6	6	1,098	1,286		
		9/28/10	3	3	1,124	1,025		
			8	8	1,092	1,390		
		9/29/10						
·		9/30/10	9	9	1,180	1,453		
		10/1/10	22	22	1,435	2,496		
		10/2/10	19	19	1,429	2,318		
		10/3/10	12	12	1,402	1,736		
		10/4/10	8	8	1,306	1,384		
		10/5/10	1	1	1,114	858		
		10/6/10	10	10	1,305	1,546		
		10/7/10	2	2	1,144	934		
		10/8/10	0	0	833	768		
		10/9/10	0	0	711	768		
		10/10/10	2	2	708	931		
1		10/11/10	ō	ō	1,071	768		
		10/12/10	16	16	1,435	2,011		
		10/13/10	12	12	1,521	1,736		
		10/14/10	18	18	1,740	2,237		
		10/15/10	12	12	1,469	1,736		
		10/16/10	22	22	1,572	2,560		
		10/17/10	23	23	1,777	2,634		
		10/18/10	21	21	2,119	2,425		
		10/19/10	13	13	1,769	1,824		
		10/20/10	23	23	2,067	2,592		
		10/21/10	.24	24	2,158	2,718		
		10/22/10	12	12	1,611	1,701		
		10/23/10	21	21	1,751	2,425		
		10/24/10	19	19	1,661	2,309		
		10/25/10	15	15	1,808	1,933		
					3,050			
·		10/26/10	21	21		2,467		
		10/27/10	37	37	3,560	3,720		
		10/28/10	37	37	3,610	3,733		
		10/29/10	28	28	2,781	3,014		
		10/30/10	30	30	2,637	3,204		
		10/31/10	28	28	2,459	3,014		
		11/1/10	19	19	2,439	2,294		
	,				2,403	2,352		
		11/2/10	20	20				
		11/3/10	25	25	2,588	2,792		
		11/4/10	36	36	3,168	3,646		
		11/5/10	31	31	2,683	3,227		
		11/6/10	23	23	2,175	2,598		
		11/7/10	20	20	1,806	2,394		
		11/8/10	18	18	1,919	2,237		
		11/9/10	14	14	1,680	1,922		
		11/10/10	19	19	2,502	2,264		
		11/11/10	32	32	3,046	3,320		
		11/12/10	31	31	3,007	3,216		
		11/13/10	34	34	2,943	3,482		
		11/14/10	37	37	3,182	3,763		
			38	38		3,808		
		11/15/10			3,463			
		11/16/10	35	35	3,532	3,597		
		11/17/10	47	47	4,270	4,552		
		11/18/10	46	46	4,110	4,474		
		. 11/19/10	54	54	4,724	5,092		
		11/20/10	51	51	4,498	4,816		
		11/21/10	49	49	4,496	4,706		
		11/22/10	61	61	5,665	5,608		
		11/23/10	56	56	5,197	5,261		
		11/24/10	59	59	5,074	5,517		
		11/25/10	68	68	5,482	6,192		
		11/26/10	61	61	5,296	5,651		
		11/27/10	54	54	4,146	5,093	•	
		11/28/10	33	33	3,378	3,446		
						4,083		
		11/29/10	41	41	4,422			
		11/30/10	61	61	5,633	5,623		
		12/1/10	61	61	5,758	5,647		
		12/2/10	64	64	6,127	5,926		
		12/3/10	58	58	5,305	5,388		
		12/4/10	56	56	5,025	5,261		
		12/5/10	52	52	4,934	4,923		
		12/6/10	62	62	5,608	5,760		
		12/7/10	60	60	5,677	5,547		
		12/8/10	56	56	5,617	5,219		
		12/9/10	50	50	4,839	4,800		
		12/10/10	62	62	5,350	5,733		
		12/11/10	78	78	6,420	7,046		
		12/12/10	78	78	6,940	6,984		
		12/13/10	77	77	6,467	6,900		
		12/14/10	59	59	5,833	5,520		
		12/15/10	57	57	5,125	5,304		
		12/16/10	59	59	5,388	5,520		
		12/17/10	57	57	5,445	5,338		
		12/18/10	57	57	5,258	5,347		
		12/19/10	61	61	5,300	5,630		
		12/20/10	52	52	4,907	4,904		
		12/21/10	42	42	4,619	4,106		
		12/22/10	44	44	4,628	4,311		
			48	48	4,163	4,632		
		12/23/10						
		12/23/10 12/24/10				5 052		
		12/24/10	54	54	4,348	5,052		
		12/24/10 12/25/10	54 58	54 58	4,348 4,844	5,382		
		12/24/10 12/25/10 12/26/10	54 58 56	54 58 56	4,348 4,844 5,132	5,382 5,256		
		12/24/10 12/25/10 12/26/10 12/27/10	54 58	54 58 56 47	4,348 4,844 5,132 4,863	5,382 5,256 4,552		
		12/24/10 12/25/10 12/26/10	54 58 56	54 58 56	4,348 4,844 5,132	5,382 5,256		

1     100     0.0     0.0     0.00     0.00       100111     10     0.00     0.000     0.000       100111     10     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.000     0.000     0.000     0.000       100111     0.0000		10/00/10		0.040		
unit         70         5.022         7003           unit         60         50         5.023           unit         60         50         5.023           unit         60         50         5.023           unit         72         5.381         5.223           unit         72         5.381         5.233           unit         72         5.381         5.233           unit         72         5.381         5.351           unit         72         5.381         5.351           unit         72         73         5.381           unit         72         73         5.381           unit         73         5.628         5.351           unit         73         5.628         5.351           unit         73         5.628         5.351           unit         73         73         5.628         5.351           unit         73         5.628         5.351           unit         73         5.628         5.351           unit         73         5.628         5.451           unit         73         5.628         5.451 <tr< th=""><th></th><th>12/30/10 59</th><th>9 59</th><th>4,958 5,469</th><th></th><th></th></tr<>		12/30/10 59	9 59	4,958 5,469		
1971     7.2     7.2     6.868     5.868       1971     6.8     9.8     6.611     2.789       1971     6.8     9.8     6.611     2.789       1971     6.8     9.8     6.677     5.774       1971     6.8     9.8     6.677     5.781       1971     6.8     9.8     6.677     5.781       1971     6.8     9.8     6.677     5.781       1971     7.7     6.038     5.382       1971     7.7     7.7     6.038       1971     7.7     7.7     6.038       1971     7.7     7.7     6.038       1971     7.7     7.7     6.038       1971     7.7     7.802     5.382       1971     7.7     7.802     5.452       1971     7.7     7.803     5.454       1971     8.7     7.803     5.454       1971     8.7     7.803     5.454       1971     8.7     7.803     5.454       1971     8.7     7.803     5.454       1971     8.7     7.732     5.863       1971     8.7     7.733     5.734       1971     8.7     7.737     5.863 <td></td> <td>1/1/11 79</td> <td>9 79</td> <td>5,902 7,096</td> <td></td> <td></td>		1/1/11 79	9 79	5,902 7,096		
1011     04     04     040     0400       1011     12     12     0420     0420       1011     12     12     0420     0420       1011     03     03     0411       1011     03     03     0411       1011     03     03     0411       1011     03     03     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0411       1011     04     04     0401       1011     04     04     0401       1011     04     040     0401       1011     04     040     0401       1011     04     040     0401       1011     04     040     0401       1011     04     040     0401       10111     04     0401     0401		1/3/11 72	2 72	6,558 6,509		
10711       72       2       6.49       6.52         10711       10       00       00       00       00         110111       10       00       00       00       00         110111       10       00       00       00       00         110111       10       00       500       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         110111       00       00       5000       5000         100011       00       00       5000       5000         100011       00       00       5000       5000         20111       00       00       5000       5000		1/5/11 64	4 64	5,688 5,926		
1.1011     60     60     5.07       1.1011     67     57     5.03       1.1011     60     60     5.04       1.1011     60     60     5.03       1.1011     60     60     5.03       1.1011     60     60     5.03       1.1011     71     5.03     5.03       1.1011     71     71     5.03       1.1011     71     71     5.03       1.1011     71     71     5.03       1.1011     71     71     5.03       1.1011     71     5.03     7.08       1.1011     71     5.03     7.08       1.1011     60     60     5.03       1.1011     60     60     5.04       1.1011     60     60     5.04       1.1011     60     60     5.04       1.1011     61     61     5.04       1.1011     71     72     73     620       1.1011     71     73     73     620       1.1011     71     73     73     630       1.1011     71     73     74     630       2.1111     73     74     740     640		1/7/11 72	2 72	6,249 6,502		
11111       96       98       9.49       9.42         11111       91       92       9.503       5.744         11111       92       92       9.504       9.574         11111       92       92       9.778       9.642         11111       92       92       9.778       9.642         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.982         11111       92       92       7.788       7.983         11111       92       92       7.788       7.984         11111       92       92       7.788       7.984         111111		1/9/11 69	9 69	5,617 6,317		
11/12/11     65     65     5.02       11/12/11     67     67     5.034       11/17/11     67     65     5.17     5.02       11/17/11     67     65     6.17     5.02       11/07/11     67     67     5.02     5.17       11/07/11     67     6.02     7.07     6.02       11/07/11     62     0.02     7.07     6.02       11/07/11     62     0.02     5.02       11/07/11     64     64     6.420       11/07/11     64     64     6.420       11/07/11     64     64     6.420       11/07/11     64     64     6.420       11/07/11     64     64     6.420       11/07/11     64     64     6.420       11/07/11     64     64     6.420       11/07/11     73     73     7.43     6.440       11/07/11     73     73     7.43     6.440       11/07/11     73     73     7.43     6.440       11/07/11     74     7.75     7.767     6.787       11/07/11     73     73     7.43     6.440       11/07/11     74     7.76     7.787       <		1/11/11 58	B 58	5,634 5,432		
1110011         06         0.017         0.028         0.428           1110011         06         0.017         0.028         0.441           1110011         07         07         0.028         0.441           110011         07         07         0.028         0.028           110011         07         07         0702         0701         0701           110011         08         0701         0.02         0.02         0.02           110011         08         0.03         0.02         0.03         0.01           110011         08         0.0         0.03         0.01         0.01           110011         08         0.0         0.00         0.01         0.00           110011         08         0.0         0.00         0.00         0.00           110011         07         07         0.00         0.00         0.00           110011         07         07         0.00         0.00         0.00           110011         07         07         0.00         0.00         0.00           20111         07         07         0.00         0.00         0.00         0.00		1/13/11 58	8 58	5,602 5,388		
117111       65       65       6,17       6,582         118011       62       62       7,787       6,152         162111       63       63       7,360       7,362         162111       64       64,044       5,752       6,753         162111       66       64       6,044       5,752         162111       66       64       6,044       5,763         162111       66       64       4,764       5,763         162111       68       64       4,776       5,563         162111       64       64,64       5,765       5,563         162111       64       64,64       5,765       5,563         162111       67       7,77       6,460       5,765         162111       67       7,77       6,460       5,763         162111       67       7,74       5,753       5,460       5,300         20111       77       7,74       7,74       5,300       5,300         20111       77       7,160       7,274       5,300       5,300         20111       76       7,714       5,300       5,300       5,300         201111 </td <td></td> <td>1/15/11 7</td> <td>1 71</td> <td>6,064 6,426</td> <td></td> <td></td>		1/15/11 7	1 71	6,064 6,426		
119611       07       6,847       6,128         12211       03       708       7,081         12211       04       6,44       6,045       5,075         12211       04       6,44       6,045       5,075         12211       04       6,04       6,045       5,075         12211       04       44       4,022       4,675         12211       04       44       4,222       4,675         12211       04       44       4,222       4,675         12211       07       4,045       6,305         122111       07       6,04       6,325         122111       07       6,04       6,325         221111       07       7,04       6,04       6,326         221111       07       7,04       6,045       5,305         221111       07       7,04       6,045       6,307         211111       44       4,04       4,104       6,104         21111       10       7,047       6,045       6,307         21111       40       4,045       4,014       6,045         21111       40       4,045       4,014		1/17/11 6	5 65	6,171 5,952		
12111     72     73     7380     7382       122411     74     70     702     7015       124411     60     60     5783     5215       122411     61     644     4461       122411     62     63     544       122411     62     64     4461       122411     62     62     5450       122411     62     62     5450       122411     64     4461     6314       122411     64     6461     6323       22411     64     6461     6323       22411     64     6461     6340       22411     74     73     7480       23411     64     6461     6341       24411     73     7480     5749       24411     73     7480     5749       24411     73     7480     5749       24411     73     5416     5749       24411     738     7480     5414       241411     73     748     5414       241411     73     543     5424       241411     748     5414     5414       241411     748     5421     5424       24		1/19/11 6	7 67	6,657 6,125		
112311       64       64       6.004       5.376         124211       65       5.16       5.16         120211       61       5.16       5.26         120211       64       4.24       4.301         120211       64       4.24       4.301         120211       64       6.26       5.265         120211       75       7.5       5.365         12111       76       75       5.408         22111       76       7.5       7.507         22411       76       7.7       5.408         22411       76       7.7       5.708         22411       76       7.7       7.777         24111       76       7.5       7.407         24111       76       7.5       7.407         24111       76       7.5       7.407         24111       78       7.6       7.707         24111       78       7.6       7.707         21111       80       8.6       5.706         21111       80       8.6       5.706         21111       80       8.6       5.706         211111       80 </td <td></td> <td>1/21/11 83</td> <td>3 83</td> <td>7,389 7,382</td> <td></td> <td></td>		1/21/11 83	3 83	7,389 7,382		
125/11       51       61       4.53         12011       60       4.54       4.647       4.621         12011       62       6.75       5.663         12011       62       6.75       5.643         12011       62       6.75       5.643         12011       64       62       6.75       5.643         22011       69       68       6.63       5.33         22011       67       7.75       7.27       7.27         20011       78       7.860       6.30       5.30         20111       76       78       7.166       6.30         20111       78       7.267       6.77       7.167         20111       78       7.267       6.77       7.77         20111       78       7.36       5.30       5.30         20111       78       7.767       6.77       7.77         20111       78       7.767       6.77       7.77         217111       80       3.625       5.30       5.41         217111       80       3.426       3.10       7.77         217111       80       5.780       5.416 <td></td> <td>1/23/11 64</td> <td>4 64</td> <td>6,004 5,875</td> <td></td> <td></td>		1/23/11 64	4 64	6,004 5,875		
127/11       49       49       4.222       4.78         12011       64       64       5.785       5.856         120111       73       7.37       6.461         20111       73       7.377       6.451         20111       73       7.377       6.451         20111       67       5.016       5.308         20111       67       5.016       5.308         20111       67       7.165       5.308         20111       68       5.775       6.461         20111       67       7.165       5.308         20111       68       5.775       6.461         20111       68       5.776       6.461         20111       68       5.767       6.461         20111       68       5.767       6.461         21111       68       5.463       3.181         21111       68       5.263       3.181         21111       68       5.263       3.181         21111       69       4.262       4.501         21111       69       4.262       4.501         21111       69       4.262       5.191 <td></td> <td>1/25/11 51</td> <td>1 51</td> <td>5,145 4,829</td> <td></td> <td></td>		1/25/11 51	1 51	5,145 4,829		
12011     62     6,780     6,863       13011     64     6,780     6,863       12011     73     77     6,270     6,663       22011     47     47     6,164     6,331       22011     47     47     6,164     6,363       22011     47     47     6,164     6,989       22011     58     6,399     3,301       22011     58     6,399     3,301       22011     78     7,160     6,989       220111     78     7,167     7,577       20111     60     4,571     6,640       21111     60     4,571     6,640       21111     80     46     4,571     6,640       21111     80     4,571     6,640       21111     80     64     5,770     6,141       21111     80     64     6,71     5,440       21111     80     64     6,71     5,440       21111     80     64     6,71     5,440       21111     80     64     6,82     5,88       21111     80     64     6,86     6,78       21111     80     64     6,88       21111		1/27/11 49	9 49	4,222 4,678		
1031111       75       73       733       733       734         20111       69       69       6,64       6,333         20111       69       69       6,64       6,330         20111       68       6,66       5,360         20111       68       6,66       5,360         20111       78       71       7,168       6,461         20111       78       71       7,168       6,461         20111       78       71       7,168       6,461         20111       78       71       7,168       6,461         20111       78       71       7,168       6,461         20111       78       7,37       3,573       3,581         21/0111       88       8,471       6,460       3,373         21/111       80       30       3,402       3,187         21/111       80       48       4,413       3,411         21/111       40       48       4,514       4,540         21/2111       40       4,842       4,549       4,549         21/2111       40       4,842       4,540       4,540         21/2111		1/29/11 63	2 62	5,750 5,693		
2/2/11     60     6,064     6,363       2/4/11     40     4,074     3,563       2/4/11     40     4,074     3,563       2/7/11     76     7,768     7,168     6,989       2/7/11     77     77     7,759     7,277       2/7/11     78     7,769     7,277       2/11     75     75     7,168     4,640       2/12/11     35     35     3,625     3,889       2/12/11     35     35     3,625     3,889       2/12/11     35     35     3,625     3,889       2/14/11     30     3,312     3,119       2/14/11     30     3,312     3,119       2/14/11     30     3,115     2,410       2/17/11     46     48     4,681       2/17/11     46     48     4,681       2/17/11     47     47     6,323       2/17/11     48     4,862     4,686       2/21/11     48     4,862       2/21/11     48     4,862       2/21/11     49     4,861       2/21/11     49     4,862       2/21/11     49     4,862       2/21/11     49     4,862		1/31/11 7	5 75	6,466 6,760		
2/4/11     40     4.057     378     3.980       2/6/11     58     5.398     5.398       2/6/11     58     5.398     5.398       2/6/11     57     75     7.705     6.787       2/6/11     68     84     4.717     4.640       2/10/11     68     68     4.647       2/11/11     48     48     4.717       2/11/11     48     48     4.714       2/11/11     48     48     4.714       2/11/11     48     48     4.714       2/11/11     48     48     4.714       2/11/11     49     4.718     4.640       2/11/11     48     48     4.71       2/11/11     68     68     5.780       2/11/11     68     68     5.780       2/11/11     68     69     5.780       2/11/11     68     69     5.738       2/21/11     49     4.861     4.691       2/21/11     49     4.861     4.691       2/21/11     49     5.138     5.248       2/22/11     70     6.522     7.008       2/23/11     70     6.522     7.008       2/24/11     70     70		2/2/11 6	9 69	6,664 6,323		
20/11       63       5.300       5.300         20/11       75       78       7.160       6.089         20/11       75       77       7.160       6.089         20/11       80       61       7.180       6.089         21/111       80       80       4.71       4.400         21/111       80       30       3.223       3.161         21/111       80       30       3.242       3.161         21/111       80       90       3.161       3.167         21/111       81       49       4.467       4.467         21/111       81       88       5.300       6.185         21/111       48       49       4.861       4.669         22/111       48       49       4.861       4.669         22/111       48       49       4.861       4.661         22/111       49       4.962       4.661       4.669         22/2111       40       49       4.962       4.661         22/2111       60       61       5.30       5.738         22/2111       60       61       6.880       6.262         32/211 <td></td> <td>2/4/11 4</td> <td>0 40</td> <td>4,057 3,990</td> <td></td> <td></td>		2/4/11 4	0 40	4,057 3,990		
28/11       75       7,67       7,76         28/11       61       61       7,198       7,274         21/11/11       63       63       6,78       6,517         21/31/11       50       3,423       3,181         21/31/11       50       3,423       3,181         21/31/11       50       3,423       3,181         21/31/11       50       3,423       3,181         21/31/11       50       3,423       3,181         21/31/11       50       3,023       3,322         21/31/11       50       3,023       3,421         21/31/11       63       68       5,730       5,434         21/31/11       68       68       5,288       5,261         22/21/11       48       4,862       4,660         22/21/11       70       70       6,326       6,419         22/21/11       70       70       6,328       6,324         22/21/11       70       70       6,328       6,324         22/21/11       70       70       6,328       6,324         22/21/11       70       70       6,328       6,326         22/21/11		2/6/11 5	8 58	5,399 5,390		·
2/11/11       84       48       4,440         2/11/11       35       3,625       3,583         2/13/11       30       30,122       3,181         2/14/11       31       31       3,151         2/14/11       30       30,122       3,233         2/16/11       48       48,71       4,071         2/16/11       49       4,718       2,410         2/16/11       48       68       5,700       6,185         2/16/11       58       5,226       5,419         2/20/11       48       4,861       4,669         2/20/11       49       4,861       4,669         2/22/11       49       4,861       4,669         2/22/11       70       70       6,326       5,739         2/22/11       70       70       6,328       6,332         2/26/11       70       70       6,328       6,319         2/26/11       70       70       6,328       6,319         2/26/11       70       70       6,328       6,319         2/26/11       70       70       6,328       6,319         3/111       60       5,56 <t< td=""><td>·</td><td>2/8/11 7</td><td>5 75</td><td>7,057 6,787</td><td></td><td></td></t<>	·	2/8/11 7	5 75	7,057 6,787		
2112111       35       362       3,625       3,583         2113111       31       3,512       3,242         211411       31       3,512       3,242         211511       30       3,442       3,161         211511       30       3,442       3,161         211611       68       68       5,780       6,185         212011       68       58       5,370       5,434         212011       49       4,661       4,669         2122111       49       4,661       4,669         2122111       70       70       6,326       6,332         2122111       70       70       6,326       6,332         2122111       70       70       6,282       6,035         2122111       70       70       6,282       6,035         2122111       70       70       6,282       6,035         2122111       70       70       6,282       6,100         212711       70       77       6,282       6,100         212711       70       77       6,282       6,101         30411       60       5,165       5,164      3		2/10/11 6	9 69	6,758 6,317		
2/14/11       30       30       3,5/12       3,2/12         2/16/11       21       21       3,115       2,4/10         2/16/11       49       4,7/18       4,6/71         2/16/11       68       5,780       6,185         2/16/11       68       5,780       5,454         2/20/11       69       5,286       5,454         2/20/11       64       4,862       4,566         2/22/11       74       64       4,862       4,566         2/22/11       74       64       4,862       4,566         2/22/11       74       74       6,31       6,332         2/22/11       70       70       6,262       7,008         2/22/11       70       70       6,262       6,101         3/1/11       69       6,962       6,102         3/1/11       69       6,962       6,102         3/1/11       67       6,12       6,101         3/1/11       69       6,188       6,292         3/1/11       60       60       5,105         3/1/11       60       60       5,105         3/1/11       60       50       4,68		2/12/11 3	5 35	3,625 3,593		· .
2/16/11       21       21       3,115       2,410         2/17/11       49       4,718       4,671         2/19/11       68       63       5,700       6,165         2/19/11       68       58       5,370       6,434         2/20/11       88       68       4,699         2/21/11       40       46       4,261         2/22/11       40       46       4,262         2/22/11       40       46       4,263         2/26/11       76       76       6,362         2/26/11       76       76       6,362         2/26/11       70       70       6,362       6,332         2/26/11       70       76       6,282       6,110         3/111       47       47       4,813       4,614         3/2/11       60       69       6,886       6,070         3/2/11       61       60       6,865       6,070         3/2/11       61       60       4,280       3,335         3/2/11       60       6       6,860       4,070         3/2/11       60       6       5,964       5,964         3/2/11 </td <td></td> <td>2/14/11 3</td> <td>1 31</td> <td>3,512 3,232</td> <td></td> <td></td>		2/14/11 3	1 31	3,512 3,232		
2/19/11       68       68       5,730       6,145         2/20111       68       58       5,266       5,414         2/20111       49       4,861       4,699         2/22/11       48       48       4,862       4,586         2/23/11       66       5,231       5,281         2/24/11       71       71       6,322       6,321         2/26/11       70       70       6,326       6,332         2/26/11       70       70       6,326       6,332         2/26/11       70       70       6,326       6,322         2/26/11       60       6,862       6,222         3/1/11       69       6,665       6,609         3/1/11       69       6,665       6,609         3/1/11       60       60       5,166       4,800         3/6/11       50       5       4,760       5,178         3/6/11       50       5,265       5,690         3/6/11       50       5,265       5,690         3/6/11       50       5,265       5,690         3/6/11       50       5,265       5,690         3/6/11       50 </td <td></td> <td>2/16/11 2</td> <td>1 21</td> <td>3,115 2,410</td> <td></td> <td></td>		2/16/11 2	1 21	3,115 2,410		
2/20/11       68       5,266       5,419         2/22/11       48       4,861       4,869         2/22/11       66       5,238       5,261         2/22/11       71       71       6,321       6,418         2/23/11       70       70       6,325       6,332         2/26/11       70       70       6,326       6,332         2/27/11       62       5,469       5,738         2/28/11       70       67       6,212       6,116         3/111       67       67       6,212       6,116         3/211       67       67       6,212       6,173         3/211       67       67       6,212       6,116         3/211       67       67       6,212       6,169         3/211       67       67       6,212       6,169         3/211       67       666       4,800       3/271         3/211       60       60       5,195       5,944         3/2/11       40       4,237       4,762       3/365         3/2/11       41       42       3,693       3/414         3/16/11       30       30		2/18/11 6	8 68	5,780 6,185		
2/22/11       48       4,86       4,566         2/24/11       71       71       6,321       6,261         2/24/11       71       71       6,322       7,006         2/26/11       70       6,326       6,332         2/26/11       70       6,326       6,332         2/22/11       49       5,115       4,692         3//11       67       6,252       6,100         3/2/11       67       6,252       6,100         3/3/11       47       47       4,813       4,548         3/4/11       60       60       5,665       5,604         3/6/11       55       55       4,760       5,178         3/6/11       50       60       4,237       4,075         3/8/11       50       60       4,237       4,075         3/10/11       44       44       4,356       4,290         3/11/11       41       4,356       4,564         3/11/11       47       47       4,384       3,649         3/13/11       37       3,142       3,142         3/16/11       30       3,173       3,142         3/16/11       32<		2/20/11 5	8 58	5,266 5,419		
224/11       71       71       6,312       6,418         225/11       78       78       6,952       7,008         226/11       70       6,326       6,332         227/11       62       62       5,469       5,738         228/11       49       5,115       4,692         31/11       67       6,76       6,252       6,110         33/2/11       67       6,75       5,606         3/6/11       50       5       5,740       5,178         3/6/11       50       6,015       5,504         3/6/11       50       6,015       5,504         3/6/11       50       6,195       5,504         3/6/11       50       4,666       4,800         3/6/11       50       6,195       5,504         3/6/11       40       4,237       4,075         3/6/11       40       4,356       4,290         3/1/111       41       41       4,356         3/1/2/11       61       6,753       5,660         3/1/2/11       31       3,143       3,610         3/1/2/11       31       3,143       3,610         3/	• •	2/22/11 4	8 48	4,862 4,586		· .
2/26/11       70       70       6.32         2/28/11       49       6.115       4.692         3/1/11       69       69       6.888       6.22         3/2/11       67       77       7.22       6.10         3/3/11       67       6.75       6.22       6.10         3/3/11       60       565       5.606         3/6/11       50       50       4.666       4.800         3/6/11       50       50       4.666       4.800         3/6/11       50       50       4.217       4.752         3/8/11       50       50       4.230       3.955         3/8/11       41       4.230       3.955       4.666         3/8/11       44       4.356       4.290       3.955         3/8/11       41       4230       3.955       4.666         3/11/11       41       4.230       3.955       4.290         3/13/11       47       4.638       4.548       4.548         3/13/11       47       4.638       4.548       4.290         3/15/11       30       30       3.173       3.142         3/15/11       30		2/24/11 7	1 71	6,321 6,418		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		2/26/11 7	0 70	6,326 6,332		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		2/28/11 4	9, 49	5,115 4,692		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/2/11 6	7 67	6,252 6,110		
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		3/4/11 6	0 60	5,665 5,606		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/6/11 5	0 50	4,666 4,800		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/8/11 5	0 50	4,217 4,762		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	· · · ·	3/10/11 4	0 40	4,230 3,935	. ,	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/12/11 6	1 61	5,735 5,650		· ·
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/14/11 3	4 34	3,649 3,471		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/16/11 2	7 27	2,823 2,928		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/18/11 4	2 42	3,699 4,160		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3/20/11 3	1 31	3,189 3,254		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		. 3/22/11 4	6 46	4,429 4,446		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	•	3/24/11 4	3 43	4,396 4,229		
3/28/11       40       4,192       3,950         3/29/11       35       35       3,789       3,542         3/30/11       32       32       3,685       3,312         3/31/11       30       30       3,520       3,142         4/1/11       31       3,15       3,232         4/2/11       25       25       2,483       2,774		3/26/11 4	5 45	3,991 4,346		
3/30/11 32 32 3,685 3,312 3/31/11 30 30 3,520 3,142 4/1/11 31 31 3,056 3,232 4/2/11 25 25 2,483 2,774		3/28/11 4	0 40	4,192 3,950		
4/1/11 31 31 3,056 3,232 4/2/11 25 25 2,483 2,774		3/30/11 3	2 32	3,685 3,312		
4/3/11 34 34 3,031 3,521		4/1/11 3	1 31	3,056 3,232		
				3,031 3,521		<i>,</i>

A 1 A 1 A A		96	0 450	9 640
4/4/11 4/5/11	36 27	36 27	3,456 2,938	3,610 2,931
4/6/11	26	26	2,664	2,848
4/7/11	19	19	2,388	2,280
4/8/11 4/9/11	11 14	11 14	1,703 1,696	1,616 1,860
4/10/11	27	27	2,596	2,938
4/11/11	17	17	2,130	2,163
4/12/11	16	16	1,836	2,011
4/13/11 4/14/11	37 31	37 31	2,915 3,092	3,725 3,274
4/14/11	32	32	3,423	3,343
4/16/11	40	40	3,296	3,932
4/17/11	35	35	2,750	3,566
4/18/11 4/19/11	36 28	36 28	3,180 2,830	3,677 2,973
4/20/11	31	31	3,141	3,264
4/21/11	24	24	2,969	2,722
4/22/11 4/23/11	27 21	27 21	2,910 2,339	2,948 2,480
4/24/11	14	14	1,728	1,912
4/25/11	10	10	1,530	1,600
4/26/11	20	20	2,074	2,366
4/27/11 4/28/11	21 19	21 19	2,418 1,922	2,470 2,266
4/29/11	8	8	1,529	1,423
4/30/11	30	30	2,597	3,160
5/1/11 5/2/11	41 28	41 28	3,540 2,866	4,044 2,973
5/3/11	15	15	2,004	1,955
5/4/11	12	12	1,937	1,736
5/5/11	17	17	1,780	2,138
5/6/11 5/7/11	9 9	9 9	1,260 1,152	1,524 1,459
5/8/11	9	9	1,448	1,485
5/9/11	11	· 11	1,439	1,648
5/10/11 5/11/11	3 11	3 11	1,222 1,368	1,032 1,664
5/12/11	20	20	2,000	2,352
5/13/11	. 23	23	2,097	2,616
5/14/11	13 17	13	1,776 1,182	1,834 2,125
5/15/11 5/16/11	12	17 12	1,162	1,766
5/17/11	11	11	1,168	1,624
5/18/11	2	2	1,043	938
5/19/11 5/20/11	0 0	0 0	996 922	768 768
5/21/11	8	8	859	1,378
5/22/11	2	2	854	941
5/23/11 5/24/11	10 19	10 19	1,122 1,248	1,553 2,280
5/24/11	19	18	1,305	2,200
5/26/11	12	12	1,198	1,718
5/27/11	15	15	1,258	2,000
5/28/11 5/29/11	12 8	12 8	929 770	1,710 1,440
5/30/11	3	3	691	1,039
5/31/11	12	12	1,237	1,728
6/1/11 6/2/11	9 1	9 1	1,021 894	1,478 862
6/3/11	o	ò	769	768
6/4/11	10	10	670	1,538
6/5/11 6/6/11	0 0	0 0	628 817	768 768
6/7/11	0 0	ő	861	768
6/8/11	15	15	1,073	1,989
6/9/11	9	9	1,054	1,453 1,860
6/10/11 6/11/11	14 8	14 8	995 751	1,427
6/12/11	4	4	842	1,123
6/13/11	-0	0	982	768
6/14/11 6/15/11	0	0 6	954 998	768 1,272
6/16/11	2	2	986	934
6/17/11	0	0	789	768
6/18/11	0 1	0 1	665 665	768 854
6/19/11 6/20/11	2	2	908	944
6/21/11	7	7	993	1,306
6/22/11	10	10	1,033	1,560
6/23/11 6/24/11	6 <sup>,</sup> 0	6 0	955 783	1,277 768
6/25/11	õ	0	617	768
6/26/11	1	1	666	854
6/27/11 6/28/11	6 4	6	920 862	1,286 1,098
6/29/11	4	0	768	768
6/30/11	0	0	723	768
Totala	10.055	10.055	1 010 010	1 084 603
Totals	10,055	10,055	1,019,019	1,084,693

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

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

File Name: Copy of MERC 11 12 Demand-Filing Schedules Non-Public Filed 103111.xlsx Worksheet Name: V11

	Tariff	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10		Mar-11	Apr-11	May-11	11-nut
Rate	Rate	Average	Average	Average	Average	Average	Average	Average	Average		Average	Average
Class	Designation	Customers	Customers	Customers   Customers   Customers   Customers   Customers	Customers	Customers	Customers	Customers Customers	Customers	-	Customers   Customers   Customers	Customers
Residential w/ Heat	MN004	3,774	3.782	3,790	3,822	3,869	3,915					
Residential w/o Heat	WN003	89	72	73	73	73	73					
Commercial-SV	MN051/072	326	323	323	323	320	334					
Commercial-LV	MN073	ź	~	œ	80	00	00					
ndustrial-SV	MN058	D	0	o	0	0	****					
ndustrial-LV	MN061	361	356	364	361	363	371					
SV-Interruptible	MN105/126	. 26	23	24	24	24	16					
-V-Interruptible	MN223	0	0	-	*	*	4					
Transport	MN/586/MN70A/76A	¥10	-	4	2	ŝ	S					

# MINNESOTA ENERGY RESOURCES - PNG Customer Counts by PGAC Class - July 1, 2010 through June 30, 2011

MERC

	Over/(Under) Market		3,754 3,417	2,837	723	22		(114)						12,041 0.6021			Over/(Under) Market	22,558 14,448	10,807	10,108	4,039 2,843	(277)	<u>, .</u>	 ,	64,526 0 6453
	0		9/ 20 22/ 20		·····									80 \$			о —	518 566 5							175 \$
	Index Cost		16,29/ 16 297											80,320 4.0160			index Cost			59,597		35,811			388,175
	Indexes		4 0160 5	4 0160	10160	10160		4.0160						<u>м</u> м			Indexes		3.8540	3.8755	3.8/10	3.9786			<del>69</del> 6
Jan-12	Total Cost		20,050 5	_		5,700 S		9,199 \$						92,361 4.6181	•••	Total	Lotal Cost	107,876 \$			50,219 5			 	452,701
	Purchase Price	1	4.9410 \$			4.4320 8	_							<i>ა</i> თ			Purchase Price	4.9118 \$		4.5328 \$		3.9478 \$			69.6
	Financial Pu Volume		ю <del>и</del>	• <del>(</del>	<del>,</del>	<del>,</del>	<del>)</del> 6	2,319 \$						20,000			Financial Pu Volume I	21,963 \$			11,930 \$		• •	 	100,000
	Purchase Fin Date Vr	_	05/26/11	111111	111210	100/00/		10/20/11								i	Ξ×								
H	Over/(Under) Pu		5,551 05 3 163 06									-		13,179 0.6590	31		Over/(Under) Market	4,795	2.777	4,225	1,505	(120)		 	15,447
	Over M		u ev											აფ			N.er.	69 69							\$
	Index	ή						8,781	ø					79,030 3.9515			Index Cost	23,487 7 829							118,740
	Indexes			3 0515	0.000	0.000	0.00.0	3.9515					-	69 69			Indexes	\$ 3.9580 \$ 3.9580 \$ 3.9580	3.9580	3.9580	3.9580	3.9580		 	<del>69</del> -
Dec-11	Total		24,870 \$		-	_	_	8,684						92,209 4.6105		Mar-12	Total Cost			27,712		_	·····	 	134,187
		-	6 6 0		_	_								សស				69 69 0 0						 	6 <del>9</del>
	Purchase	1	\$ 5.0870 \$ 4 9440		071011 0			\$ 3.9080									Purchase Price	\$ 4.7660 \$ 4.6590			\$ 4.2840				
	Financial		4,889	3,000	000'1	5,000 000,0	777'7	2,222	•					20,000			Physical Volume	5,934 1 978	3.956	5,934	4,615	3,626			30,000
	Purchase		05/31/11			11//0//0	11/4/10	10/05/11						-			Purchase Date	05/19/11		07/27/11	08/29/11	10/21/11		 	
8	Over/(Under)	TOVIDU	6,060					223						17,792 0.8896	29		Over/(Under) Market	2,399		695		22			6,067
	Index 0	1000	15,003 5	4, 171, 41 42, 266			\$'\$73			· · ·				69,720 \$ 3.4860 \$			Index Cost	11,212 \$ 8 970 \$	3364 5			3,364			40,365 \$
	·	2	s .														ğ	65 65 65							. 69
Nov-11		Non I	3 5 3.4860	A 6	A (		A (		-							Feb-12	Indexes			0 \$ 4.0365				 	~
ſ	Total	1000		10,039		•	020'6							87,512 4.3756			Total Cost	13,611			4,816				\$ 46,432
	Purchase	2021		4,6010	4.4/00	4.2550	3.826U	3.6760						ເມ ເບ			Purchase Price	4.9000	4.6580		4.3340	4.1000			
	Financial F		4,304 \$			3,038 5					<u> </u>			20,000			Physical F Volume	2,778			_				10,000
	Purchase		05/31/11	11/91/90	11/62//0	08/02/11	11/12/60	11/20/01					·	Total			Purchase Date	05/26/11	11/102/00	07/07/11	08/25/11	10/06/11		 	Total

MINNESOTA ENERGY RESOURCES PNG Projected Fixed Cost - November 2011 through March 2012

Dage 1 of 3

MINNESOTA ENERGY RESOURCES PNG Projected Storage Cost - November 2011 through March 2012

ige 2 of 3

			4,714,470
		tal rison COG 20515 205555 205555 205555 40160 5 205555 40160 5 205555 40160 5 305,550 40160 5 305,550 40165 5 305,550 40165 5 305,550 40165 5 305,550 40165 5 305,550 40165 5 301,550 5 301,5500 5 301,5500 5 301,5500 5 301,5500 5 301,5500 5 301,5500 5 301,5	100.00%
GLGT/VGT Centra AECO Storage Cost	8 329,277 8 884,885 8 884,885 8 884,885 8 884,885 3 71,895 8 3,71,896 8 3,298,737 8 3,298,737	To	5,069,321 947,820
GLGT/VGT Centra AECO Storage WACOG			(estimate) ) (estimate)
GLGT/VGT Centra AECO Storage	85,304 229,242 229,242 214,452 96,345 854,585	AECC Storage WACCG 83.8600 53.3.8000 53.3.8000 53.3.8000 53.3.8000 53.3.8000 53.3.8000 53.3.80000 53.3.80000 53.3.80000000000000000000000000000000000	Balance - NNG Balance - AECC
Total NNG Storage Cost	\$ 2,046,116 \$ 5,141,523 \$ 5,141,523 \$ 5,141,523 \$ 5,141,523 \$ 2,046,116 \$ 19,516,800 \$ 19,516,800	Total AECO Storage 85,304 229,242 229,242 214,452 96,345 854,585	10/31/11 Storage Balance - NNG (estimate) 10/31/11 Storage Balance - AECO (estimate)
K#122800 NNG Storage Cost			
K#118657 NNG Storage Cost	\$ 1,884,666         \$ 161,451           \$ 4,735,825         \$ 405,697           \$ 4,735,825         \$ 405,697           \$ 4,735,825         \$ 405,697           \$ 4,735,825         \$ 405,697           \$ 1,84,666         \$ 161,451           \$ 1,84,666         \$ 161,451           \$ 1,984,666         \$ 161,451           \$ 1,7976,807         \$ 1,539,993	Emerson Indexes Coat \$ 297,370 \$ 920,656 \$ 950,656 \$ 331,334 \$ 3.370,824	5,069,321
Projected K#122800 NNG WACOG	<ul> <li>\$ 4,1398</li> </ul>	Emerson Indexes Price \$ 3.4880 \$ 3.9515 \$ 4.0160 \$ 3.9515 \$ 3.9580 \$ 3.9580 \$ 3.9580 \$ 3.9580	4,714,470 854,585
WACOG Projected K#118657 NNG WACOG	484,259 \$ 4.1398 \$ 1.241,984 \$ 4.1398 \$ 1.241,984 \$ 4.1398 \$ 1.241,984 \$ 4.1398 \$ 1.241,984 \$ 4.1398 \$ 4.1398 \$ 4.4394,259 \$ 4.1398 \$ 4.714,470 \$ 4.1398 \$	AECO AECO Storage 85,304 229,242 229,242 229,242 229,242 214,452 96,345 854,585	h Apr 12)
Total NNG Storage	494,259 1,241,984 1,241,984 1,241,984 494,259 4,714,470	NNG NNG dexes Indexes Price Cost 3.6310 \$ 1,794,654 4.0405 \$ 5,239,930 4.1105 \$ 5,239,930 4.1105 \$ 2,031,652 4.0925 \$ 19,293,975	Irawals throug
Storage K#122800 LS Power	39,000 98,000 98,000 98,000 39,000 33,000 372,000	<u> </u>	age plan withc
K#118657 NNG Storage	455,259 1,143,984 1,143,984 1,143,984 455,259 4,342,470	NNG Storage Volume 494,259 1,241,984 1,241,984 494,259	Max NNG Storage (Storage plan withdrawals through Apr 12) Max AECO Storage
Month/ Year	Nov-11 Dec-11 Jan-12 Feb-12 Mar-12 Total	Month/ Year Nov-11 Dec-11 Jec-12 Feb-12 Mar-12 Total	X NNG

Monthy Vent         K#118657         K#118657         K#118657         K#118657         K#118657         K#118657         K#118657         K#118657         N/IG												
K#11857         K#12857         K#12850         Total         NNG	\$ 4.1904	\$19,7	\$ 2,083,645	\$ 5,411,451	\$ 5,384,181	\$ 5,052,852	\$ 1,823,321	Cost	Total	NNG	Index	NNG
K#118557         K#122800 LS         WACOG         WACOG         WACOG         WACOG         WACOG         WACOG         MAG         NNG		~, -	210,865	547,640	544,880	511,350	184,521	Cost	NMU	DNNG	Index	DNN
K#118557         K#12857         K#12850         NMG	4.1904 \$	17,756,194 \$	1,872,779 \$	4,863,811 \$	4,839,301 \$	4,541,502 \$	1,638,801 \$	Cost	PNG	NNG	Index	NNG
K#11857         K#122600         Total         NNG         NNG         WACOG         WACOG         WACOG         WACOG         WACOG         WACOG         MOG         MOG </td <td>s</td> <td></td> <td></td> <td>\$</td> <td>¢</td> <td>ŝ</td> <td></td> <td>Price</td> <td>Indexes</td> <td>UNG NNG</td> <td></td> <td></td>	s			\$	¢	ŝ		Price	Indexes	UNG NNG		
K#118557         K#12850         Total         NNG         NNG         WACOG         MAC	4.1398	9,516,800 \$	2,046,116 \$	5,141,523 \$	5,141,523 \$	5,141,523 \$	2,046,116 \$	Cost	Total	UNU	VACOG	
K#118557         K#12857         K#118557         K#118557         K#118557         K#118557         K#118557         K#118557         K#118557         K#12857         KM105         N/NG	4.1398 \$		207,067 \$	520,323 \$	520,323 \$	520,323 \$	207,067 \$	_			>	
K#118557         K#12857         K#118557         K#118557         K#118557         K#118557         K#118557         K#118557         K#118557         K#12857         KM105         N/NG	1398 \$	1,696 \$ 1,5	w	69	s	s	ŝ	╉				
K#118557         K#12857         K#118557         K#118557         K#118557         K#118557         K#118557         K#118557         K#118557         K#12857         KM105         N/NG	\$	398 \$17,54	ŝ	\$	69	69	69					
K#11857         Storage LS         Total         NNG         Print           NNG         Total         NNG         NNG         K4           NNG         LS         NNG         NNG         K4           Storage         Rower         Pind         Total         K4           Storage         Rower         Storage         Vinu         Total         K4           Storage         Power         Storage         Vinues         Volumes         V           455.259         39,000         1,241,984         1,116,295         1,25,689         1,241,984         5           1,143,984         98,000         1,241,984         1,116,295         125,689         1,241,984         5           1,143,984         98,000         1,241,984         1,116,295         125,689         1,241,984         5           1,143,984         98,000         1,241,984         1,241,984         5         4,94,295         5         5,019         4,94,295         5         4,34,240         5,019         4,34,243         5         5         5         5         4,34,240         5         5         1,241,984         5         4,34,240         5         5         5         5         4,34			\$ 4	\$ <del>,</del> 4	\$ .4	\$	\$	WACOG	NNG	K#12280	Projecte	
Storage NNIG         Total         NNG         NNG           NNG         NNG         NNG         NNG           NNG         NNG         NNG         NNG           Storage         Power         Storage         NNG           Storage         Power         Storage         NNG           455.259         39,000         494,259         444,240         50,019           1,143,984         98,000         1,241,984         1,116,295         125,689           1,143,984         98,000         1,241,984         1,116,295         125,689           1,143,984         98,000         1,241,984         1,116,295         125,689           1,143,984         98,000         1,241,984         1,116,295         125,689           1,143,984         98,000         1,241,984         1,116,295         125,689           1,143,984         98,000         1,241,984         1,116,295         125,689           4,55,293         39,000         1,241,984         1,116,295         125,689           4,55,294         39,000         1,241,984         1,116,295         125,689           4,55,294         39,000         1,241,984         1,116,295         125,689           <			\$ 4.1398	\$ 4.1398	\$ 4.1398	\$ 4.1398	\$ 4.1398	WACOG	DNN	K#118657	Projected	
Storage NNIS         Storage Storage         Total         NNG           NNG         LS         NNG         PNG           Storage         Power         Storage         NNG           Storage         Power         Storage         VinG           455.259         39,000         494,259         444,240           1,143,984         98,000         1,241,994         1,116,295           1,143,984         98,000         1,241,994         1,116,295           1,143,984         98,000         1,241,994         1,116,295           455,259         39,000         1,241,994         1,116,295           456,294         98,000         1,241,994         1,116,295           455,293         39,000         1,241,994         1,116,295           455,294         98,000         1,241,994         1,116,295           455,294         98,000         1,241,994         1,116,295           455,294         98,000         1,241,994         1,116,295           455,294         98,000         1,94,20         4,237,305           452,410         372,000         4,714,70         4,237,305		4,714,470	494,259	1,241,984	1,241,984	1,241,984	494,259	Volumes	Total	NNG		
K#118557         K#12857         K#12805         K#122800         Total           NN3         LS         NN4         NN3         NN4           Storage         LS         NN4         NN4         LS           Storage         Power         Storage         L43         LS           Storage         Power         Storage         L43         LS           455,259         38,000         1,241,984         1,143,984         98,000         1,241,984           1,143,984         98,000         1,241,984         1,143,984         98,000         1,241,984           1,143,984         98,000         1,241,984         1,143,984         39,000         1,241,984           4,55,259         39,000         1,241,984         344,259         454,259           4,55,259         39,000         1,241,984         244,259         454,259           4,55,259         39,000         4,714,470         454,259         454,259		477,105	50,019	125,689	125,689	125,689	50,019	Volumes	NMU	NNG		
K#118657 K#12860 NNG LS Storage Storage Power 455,259 39,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000 1,143,984 98,000		4,237,365		÷	~			Volumes	DNG	NNG		
K#118657 K MNG Storage 455,259 1,143,984 1,143,984 1,143,984 1,143,984 4,55,259 4,5,259			494,259	1,241,984	1,241,984	1,241,984	494,259	Storage	DNN	Total -		
Monthy K#118657 Monthy K#118657 Nov-11 K#118657 Nov-11 143,984 Jan-12 1,143,984 Jan-12 1,143,984 Feb-12 1,143,984 Feb-12 1,143,984 Feb-12 1,143,984 Feb-12 1,143,984 Feb-12 1,143,984			39,000	98,000	98,000	98,000	39,000	Power	LS LS	K#122800	Storage	
Month/ Year Nov-11 Jan-12 Feb-12 Feb-12 Mar-12 Total		4,342,470	455,259	1,143,984	1,143,984	1,143,984	455,259	Storage	NNG	K#118657		
		Total	Mar-12	Feb-12	Jan-12	Dec-11	Nov-11	Year	Month/			

Total	AECO	Storage	Cost	329,277	884,885	884,885	827,795	371,896	627,629 \$ 3,298,737	3.8600
	ntra	NMN	ost	62,649 \$	68,361 \$	68,361 \$	157,499 \$	70,758	27,629 \$	3.8600 \$
	မီ	Ż	0	- v	- ∽	≂ s	ŝ	v>	9 10	<del>6</del> 9
	VGT	NMU	Cost	81,798	219,821	219,821	205,639	92,386	819,464 \$	
				63	*?	\$	\$	\$	69	ŝ
	VGT	DNG	Cost	46,708	125,521	125,521	117,422	52,753	467,925 \$	3.8600
ļ				Ś	G	÷	÷	ŝ	69	Ś
	GLGT	NMN	Cost	86,999	233,797	233,797	218,713	98,259	871,566 \$	3.8600
			_	69 00	4	4	5	су OD	8 0	67 0
	GLGT	DNG	Cost	51,12;	137,38	137,38	128,521	57,73	512,152 \$ 8	3.860
			_	\$ 0	<del>رہ</del> 0	\$	0	ŝ	<del>ر</del> ه 0	\$
GLGT/VGT	Centra	AECO Storage	WACOG	3.860	3.860	3.860	3.860	3.8600	3.8600 \$	
				· 4	5	2 \$	2	\$ 9	وب در	%
	Total	Nexen	Volumes	85,30	229,24	229,24	214,45	96,345	854,585	100.00
	Centra	NMN	Volumes	16,230	43,616	43,616	40,802	18,331	162,596	19.03%
	VGT	NMN	Volumes	21,191	56,948	56,948	53,274	23,934	212,294	24.84%
	VGT	PNG	Volumes	12,100	32.518	32,518	30,420	13,667	121,223	14.18%
	GLGT	NMN	Volumes	22,538	60.569	60,569	56,661	25,456	225.792	26.42%
	GLGT	PNG	Volumes	13.244	35,591	35,591	33,295	14,958	132,680	15.53%
		AECO	Storage	85.304	229.242	229.242	214,452	96,345	854,585	
		Month/	Year	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Total	

Centra Total NMU AECO cost Cost	73,872         5,6,579         5         297,370           2225,028         5         172,350         5         905,850           2225,029         5         172,350         5         905,850           215,039         5         175,163         5         905,930           215,039         5         146,699         5         361,334           837,372         641,345         3,3370,824	
VGT VGT PNG NMU Cost Cost	478.151 \$ 73, 122,495 \$ 225, 130,592 \$ 228, 54,092 \$ 94, 478,151 837,	
GLGT NMU Cost	\$ 78,569       \$         \$ 239,337       \$         \$ 239,337       \$         \$ 243,243       \$         \$ 243,243       \$         \$ 243,243       \$         \$ 243,243       \$         \$ 243,243       \$         \$ 243,243       \$         \$ 243,243       \$         \$ 228,711       \$         \$ 100,753       \$         \$ 990,613       \$	
GLGT PNG Cost	0     \$     46,169       5     \$     140,635       5     \$     142,935       5     \$     134,396       5     \$     59,205       5     \$     59,205       5     \$     53,334	
Projected Emerson Index Price	\$3.4860 \$3.4860 \$3.9515 \$4.0160 \$3.9580 \$3.9444	
Total AECO Storage Volumes	85,304 \$ 229,242 \$ 229,242 \$ 214,452 \$ 96,345 \$ 85,4585 \$	
Centra NMU Volumes	16,230 43,616 43,616 43,616 43,616 43,616 18,331 18,331 18,331	_
VGT NMU Volumes	21,191 56,948 56,948 55,948 53,274 7 23,934 7 23,934	
VGT PNG Volumes	12,100 32,518 32,518 32,518 32,518 32,518 32,518 32,420 31 33,420 35 13,667 30,420 36 31,233 30,420 31,233 32,518 30,420 31,100 32,518 32,517,517 32,518 32,	
GLGT NMU Volumes	22,538 60,569 60,569 60,569 666 666 756,661 25,456	
GLGT PNG Volumes	13,244 35,591 35,591 35,591 14,958 14,958	_
AECO Storage	85,304 229,242 229,242 214,452 96,345 96,345	122
Month/ Year	Nov-11 Dec-11 Jan-12 Feb-12 Mar-12	10101

	< < © © z z					<<99222			
	NNG-PNG NNG-1:20U GLGT-PNG GLGT-PNG VGT-PNG VGT-AMU Centra	Total		Deal P	Total	NIKG-PING NIKG-EMU GLGT-PING GLGT-NIKU VGT-PING VGT-PING Casilia	Total	- ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Deal Pu Number
139 100.0%	99 13 935% 4 228% 7 554% 5.24% 5.24% 5.24% 5.24%			Purchase Date	ļ,	76 76 73.08% 9 8.95% 3.22% 4.31% 3.22% 4.31% 3.85%		05/31/11 06/23/11 07/21/11 08/31/11 08/31/11 09/15/11 10/04/11	Purchate Date
				Number % Contracts	102.0% 10		104	19 20 36 55 <b>1</b> 4	Number S Contracts
39 1.393 000	99 13 13 130,0 7 7 70,0 5 7 70,0 5 50,0 5 50,0	1,390,000		er Physical ds Volume	104 1.040.000	760,000 9 90,000 5 30,000 5 30,000 3 30,000 4 40,000 4 40,000	1.042,000	142.0 160.0 200.0 190.0	er Physical cts Volume
<u>88</u> <u>4</u> 7050	000 \$ 47050 000 \$ 47050		~~~~~	at Strke e Price	00 S 4.3798	00 \$ 43798 00 \$ 43798	00	0000 S 5,0000 0000 S 4,5000 0000 S 4,5000 0000 S 4,5000 0000 S 4,5000 0000 S 4,6000 0000 S 4,6000	al Strie Proc
	~~~~~	5.9 S	~~~~~~	Strike Cost	s			****	Strive
	~~~~~	6.540.030 4.7050	**************************************		4,555 000 \$ 3	131,394 218,990 131,394 218,990 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 131,394 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 135,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,192 155,19	5,000	700.000 \$ 675.000 \$ 900.009 \$ 900.009 \$ 900.009 \$ 760.000 \$ 760.000 \$ 5 760.000 \$ 5 760.000 \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
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<u>5 5644 710</u>	\$ 3,949,110 \$ 518,570 \$ 279,2550 \$ 279,2550 \$ 159,550 \$ 279,2560 \$ 279,2560 \$ 279,2560 \$ 279,2560	S 5544,710 S 3.9930	S 797.800 S 837.690 S 917.470 S 957.360 S 957.360 S 1.077.030 S 1.077.030	Pert Sett e Cost	\$ 3.672.240	\$ 2 £33,560 \$ 317,790 \$ 105,930 \$ 176,550 \$ 105,930 \$ 141,240 \$ 141,240	\$ 3,672,240 \$ 3,5310	\$ 494 340 \$ 529,550 \$ 706,200 \$ 706,200 \$ 670,890 \$ 670,990 \$ .	Pert Sette Cost
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<u>385 970</u>	281.951 37.024 11.392 19.936 11.392 19.936 14.240	60		Premium Cost	209,720	153,257 18,149 6,050 10,023 6,050 8,055 8,055		52.500 50.250 20.600 34.000 4.370 -	Premum Cost
<u>s 500380</u> <u>s 42738</u>	\$ 4.231.061 \$ 555.594 \$ 170.952 \$ 299.166 \$ 170.952 \$ 229.166 \$ 229.166 \$ 229.166 \$ 213.690	\$ 5,940,530 \$ 4,2738	s 862,650 s 923,370 s 986,470 s 1,023,120 s 1,148,590 s 1,148,590s 1,148,590 s 1,148,590 s 1,148,590s 1,148,590s 1,148,590 s 1,148,590s 1,148,500s 1,148,500s 1,148,500s 1,140,500s 1,148,500	Total Cost	\$ 3 251,960 \$ 3,7327	\$ 2.835.847 \$ 335.939 \$ 111.960 \$ 186.633 \$ 111.960 \$ 149.306 \$ 149.306 \$ 149.306	\$ 3,881.90 \$ 3,733	\$ 5.45 8.40 \$ 579.900 \$ 742.800 \$ 742.800 \$ 740.200 \$ 675.260 \$ 675.260 \$ 5	Tolal Cast
B Tela	N 26-PNG RAG RAG CLGT-NMU COT-NMU Contra			Deal Norther	50 Total 27	17 NRAS-PING 89 12/IG-NIMU 80 GLGT-PING 83 GLGT-NIMU 83 GLGT-NIMU 84 VGT-PING 96 VGT-PING 96 VGT-PING 96 VGT-PING		623625 	Deal
	<u>20200088</u>			Purchase or Data	+	°€6₹6€6 00074136		05/31/11 06/20/11 07/25/11 07/25/11 07/23/11 09/23/11 10/07/11	Purchase Dale
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12	ມຫພຫພ <b>ວີ</b> ຂຶ	112	222874	Number Contracts	143	ຫຄພາ⊾ພີຍີີ	143	28 22 22 22 22 22	Number Contracts
1.120.000	820,850 100,900 30,000 50,900 30,900 30,900 40,000	1,120,000	142,000 170,000 180,000 210,000 210,000 210,000	Financial Volume	1.430.000	1.050.000 130.000 42.000 70.000 30.000 60.000 50.000	1.430.000	225,900 225,000 250,000 255,000 255,000 255,000	Plasts! Volume
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s s	<b>ຎ ຎ ຎ ຎ ຎ ຎ</b> ຏ	5	*****	Strike Cast		~~~~~~~		~~~~~~	Si: 4e
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s 9530 S		s so	~~~~~~~	Option Price	19140 S	3.9140 S 3.9140 S 3.9140 S 3.9140 S 3.9140 S 3.9140 S 3.9140 S 3.9140 S		3 9140 3 9140 3 9140 3 9140 3 9140 3 9140 3 9140 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Orton Dec-11 Prop 0
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s 3.9530	\$ 3.9530 \$ 3.9530 \$ 3.9530 \$ 3.9530 \$ 3.9530 \$ 3.9530 \$ 3.9530		<ul> <li>S 3 9530</li> </ul>	Pent Sette	\$ 3,8140	\$ 3.5140 \$ 3.8140 \$ 3.8140 \$ 3.8140 \$ 3.8140 \$ 3.8140 \$ 3.8140 \$ 3.8140 \$ 3.8140		\$ 3.9140 \$ 3.9140 \$ 3.9140 \$ 3.9142 \$ 3.9142 \$ 3.9142 \$ 3.9142 \$ 3.9142 \$ 3.9140 \$ 3.9140\$ \$ 3.9140\$ \$ 3.9140\$	Pent Sette
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<u>s</u> 47537 <u>4</u> 25	S 3432.1 S 425.8 S 127.7 S 127.7 S 127.7 S 127.7 S 127.7 S 127.7 S 127.7 S 127.7 S 127.7	s 4,769,7 s 4,25	5 601.720 5 732.310 5 767.340 5 874.230 5 874.230 5 899.220 5 899.220	Total Cost	\$ 5.771,510 \$ 4.0360	\$ 4,237,822 \$ 524,583 \$ 161,441 \$ 282,521 \$ 282,521 \$ 282,521 \$ 282,521 \$ 282,521 \$ 282,521 \$ 282,521 \$ 282,521 \$ 282,521 \$ 201,801	5.771	S 1.098.7 S 1.098.7 S 1.098.7 S 1.098.7 S 1.098.7	Total Cosl
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				r Purchase Xer Date	+	a MUG 236 117	n Tolat	05/27/11 06/17/11 08/25/11 08/25/11 09/25/11 10/13/11	er Date
100.0%	72.58% 9.09% 2.73% 4.85% 4.55% 3.54%			2° 2	100.0%	72 22% 9 25% 2.47% 4 94% 2.47% 4.94% 4.94% 3.70%			8
560	24 24 24	660	91 100 126 126	Number Contracts	162	5 7 7 7 7	162	21 27 30 31	Numt er Contracts
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