

PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN EXCISED

Attachment 1
Page 1 of 3

MINNESOTA ENERGY RESOURCES
DESIGN-DAY DEMAND SUMMARY
NOVEMBER 1, 2012

GLGT

Design Day Requirement		10003
Total Entitlement on Peak Day(excl. Peak Shaving)		10212
Firm Peak Day Actual Sendout -Non Coincidental	(Jan. 19)	7644
Firm Annual Throughput - Minnesota		890142.5
No. of Firm Customers		6053
DPS Load Factor Calculation		0.319041

MINNESOTA ENERGY RESOURCES - PNG
MINNESOTA DESIGN DAY REQUIREMENTS
NOVEMBER 1, 2012
GLGT

Pipeline Group	Nov11-Mar 1/20 Customer Count	Nov11-Mar 1/20 Design DDD	Regression Factors		Regression Total Footnote 1	Regression Adjustment Footnote 2	Regression 1/20 Requi Footnote 3	Nov11-Mar 12 Customer Growth	Avg. Total
PEAK	6053	107	410	97	10756	753	10003	0	10003
Total	6053								10003
OFF PEAK	6053	57	410	97	5922	193	5729	0	5729
Total	6053								5729

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

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

Footnote 3 Total equals Regression Total minus Regression Adjustment.

*All the requirements are adjusted by customer growth

MINNESOTA ENERGY RESOURCES
DESIGN-DAY DEMAND PER CUSTOMER
NOVEMBER 1, 2012

Heating Season	No. of Firm Customers	GLGT	
		Design Day Requirements	MMBtus /Customer /Day
12/13	6053	10003	1.652569
11/12	6041	9304	1.540142
10/11	6053	9440	1.559557
09/10	6068	10802	1.780158
08/09	5874	10299	1.75332
07/08	5816	9550	1.642022
06/07	5747	9543	1.660519
05/06	5679	9510	1.674591
04/05	5514	9449	1.713638

MINNESOTA ENERGY RESOURCES
SUMMER/WINTER USAGE - Mcf
PROJECTED 12 MONTHS ENDING JUNE 2013
GLGT

Class	Summer	Winter	Total
	Apr-Oct	Nov-Mar	
GS	246220.8	616095	862315.8
SVI	3741.2	15389.4	19130.6
SVJ	5441.8	22384.9	27826.7
Total	255403.8	653869.3	909273.1

Source: Calendar data from SUMG MERCFcst201204(4-26-12).xlsx

MINNESOTA ENERGY RESOURCES
ENTITLEMENT LEVELS
PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2012
GLGT

Type of Capacity or Entitlement	Current Amount Mcf or MMBtu	Proposed Change Mcf or MMBtu	Proposed Amount Mcf or MMBtu
FT0016	3899	24	3923
FT0155(12)	1386	8	1394
FT0155(5)	1400	9	1409
FT15782	3464	22	3486
Heating Season Total	10149	63	10212
Non-Heating Season Total	8749	54	8803
Total Entitlement	10149	63	10212
Heating Season Forecasted Design Day	9304		10003
Non-Heating Season Forecasted Design Day	5547		5729
Heating Season Capacity Surplus/Shortage	845		209
Non-Heating Season Capacity Surplus/Shortage	3202		3074
Reserve Margin	0.090821		0.020894

MINNESOTA ENERGY RESOURCES - PNG
RATE IMPACT OF THE PROPOSED DEMAND CHANGE
NOVEMBER 1, 2012

All costs in \$/MMBtu	Last Base		Last Demand		GLGT Most Recent PGA	Current Proposal Effective Nov. 1, 2012 Rate Case	Result of Proposed Change			
	Cost of Gas G007,G011- MR10-978* Feb. 11	Demand Change G011- M-11-XXX* Oct. 11**	Demand Change G011- M-12-XXX* Mar. 12^	Oct. 12	Change from Last Demand Change		Change from Last Demand Change	Change from Last PGA %	Change from Last PGA \$	
1) General Service - Residential: Avg. Annual Use:						84 Mcf				
Commodity Cost	5.5117	3.7221	3.4742	3.2221	3.288713	-0.40332	-0.05339	0.020674	0.066613	
Demand Cost	0.7701	0.8421	0.6791	0.7288	0.781124	0.014315	0.150234	0.071795	0.052324	
Commodity Margin	1.7746	1.7746	1.7746	1.7746	1.7746	0	0	0	0	
Total Cost of Gas	8.0564	6.3388	5.9279	5.7255	5.844437	-0.27456	-0.01408	0.020773	0.118937	
Avg Annual Cost	676.7376	532.4592	497.9436	480.942	490.9327	-0.27456	-0.01408	0.020773	9.990739	
Effect of proposed commodity change on average annual bills:									5.595521	
Effect of proposed demand change on average annual bills:									4.395219	
2) Small Vol. Interruptible: Avg. Annual Use:						2896 Mcf				
Commodity Cost	5.5117	3.7221	3.4742	3.2221	3.288713	-0.40332	-0.05339	0.020674	0.066613	
Demand Cost										
Commodity Margin	1.1681	1.1681	1.1681	1.1681	1.1681	0	0	0	0	
Total Cost of Gas	6.6798	4.8902	4.6423	4.3902	4.456813	-0.33279	-0.03996	0.015173	0.066613	
Avg Annual Cost	19344.7	14162.02	13444.1	12714.02	12906.93	-0.33279	-0.03996	0.015173	192.9122	
Effect of proposed commodity change on average annual bills:									192.9122	
Effect of proposed demand change on average annual bills:									0	
3) Small Vol. Firm: Avg. Annual Use:						4964 Mcf				
Avg. Annual CD units:						50				
Commodity Cost	5.5117	3.7221	3.4742	3.2221	3.288713	-0.40332	-0.05339	0.020674	0.066613	
Demand Cost	5.2429	3.458	3.458	3.458	3.458	-0.34044	0	0	0	
Commodity Margin	1.1681	1.1681	1.1681	1.1681	1.1681	0	0	0	0	
Demand Margin	1.8	1.8	1.8	1.8	1.8	0	0	0	0	
Total Cost of Gas	6.6798	4.8902	4.6423	4.3902	4.456813	-0.33279	-0.03996	0.015173	0.066613	
Total Demand Cost	7.0429	5.258	5.258	5.258	5.258	-0.25343	0	0	0	
Avg Annual Cost	33510.67	24537.85	23307.28	22055.85	22386.52	-0.33196	-0.03951	0.014992	330.6686	
Effect of proposed commodity change on average annual bills:									330.6686	
Effect of proposed demand change on average annual bills:									0	

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

^\$/Mcf Demand Cost rate reflects adjustment to Annual Demand Volumes made on March 1, 2012

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

GLGT

41214 CURRENT

II. GREAT LAKES GAS TRANSMISSION'S RATES -- CURRENT COST OF GAS EFFECTIVE

Commodity From Schedule D 0.32457 /therm

III. ANNUAL SALES --

Total Annual Sales 10762470 therms

Firm Annual Sales (GS-5) 8130783 therms

IV. PNG'S -- CURRENT COST OF GAS EFFECTIVE

41214 CURRENT

	Monthly Entitlement Months	Rate \$/Dth	Contract Cost	\$/therm
A. GS-5 FT Westerr FT0016	3923	12 3.458 =	162789	0.020021
FT Westerr FT0155	1394	12 3.458 =	57845	0.007114
FT Westerr FT0155	1409	5 3.458 =	24362	0.002996
FT Westerr FT15782	3486	12 3.458 =	144655	0.017791
Niska Storage (AECO)	175982.2	1 0.954824 =	168032	0.020666
AECO/Emerson Swap	175982.8	1 0.439998 =	77432	0.009523
Total Demand Cost			635115	0.078112

GS-5 Firm Annual Sales in therms 8130783
 Current Demand Cost of Gas \$/therm 0.078112

Current T-17 Commodity Cost of Gas 0.32457
 Call Option Premium 46292.98 10762470 0.004301

GS-5 Total Current Commodity Cost of Gas \$/therm 0.328871
 Current Total Cost of Gas \$/therm 0.406984

B. SVI-5 Current Commodity Cost of Gas \$/therm 0.328871

C. SJ-5 Current Demand Cost of Gas \$/therm 0.3458

Current Commodity Cost of Gas \$/therm 0.328871

D. LVI-5 Current Commodity Cost of Gas \$/therm 0.328871

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, 2012

All costs in \$/MMBtu	Last Base Cost of Gas G007,G011/MR10-978* Feb. 11	Demand Change M-11-XXXX Oct .11**	Last Demand Change G011- M-12-XXXX Mar. 12^	GLGT Most Recent PGA** Oct. 12	Current Proposal Effective Nov.1,2012	Result of Proposed Change Change from Last Rate Case	Change from Last Demand Change	Change from Last PGA %	Change from Last PGA \$
1) General Service-Residential Avg. Annual Use:									
					84 Mcf				
Commodity Cost	5.5117	3.7221	3.4742	3.2221	3.516787381	-0.361941437	0.012258183	0.091458173	0.294687381
Demand Cost	0.7701	0.8421	0.6791	0.7288	0.479229368	-0.377705015	-0.294316937	-0.342440494	-0.249570632
Commodity Margin	1.7746	1.7746	1.7746	1.7746	1.7746	0	0	0	0
Total Cost of Gas	8.0564	6.3388	5.9279	5.7255	5.770616749	-0.283722662	-0.02653271	0.007879967	0.045116749
Avg Annual Cost	676.7376	532.4592	497.9436	480.942	484.7318069	-0.283722662	-0.02653271	0.007879967	3.7898069
Effect of proposed commodity change on average annual bills:									24.75373997
Effect of proposed demand change on average annual bills:									-20.96393307
2) Small Vol. Interruptible: Avg. Annual Use:									
					2896 Mcf				
Commodity Cost	5.5117	3.7221	3.4742	3.2221	3.516787381	-0.361941437	0.012258183	0.091458173	0.294687381
Demand Cost									
Commodity Margin	1.1681	1.1681	1.1681	1.1681	1.1681	0	0	0	0
Total Cost of Gas	6.6798	4.8902	4.6423	4.3902	4.684887381	-0.298648555	0.009173767	0.067123908	0.294687381
Avg Annual Cost	19344.7008	14162.0192	13444.1008	12714.0192	13567.43385	-0.298648555	0.009173767	0.067123908	853.4146543
Effect of proposed commodity change on average annual bills:									853.4146543
Effect of proposed demand change on average annual bills:									0
3) Small Vol. Firm: Avg. Annual Use:									
					4964 Mcf				
	Avg. Annual CD units:				50				
Commodity Cost	5.5117	3.7221	3.4742	3.2221	3.516787381	-0.361941437	0.012258183	0.091458173	0.294687381
Demand Cost	5.2429	3.458	3.458	3.458	3.458	-0.340441359	0	0	0
Commodity Margin	1.1681	1.1681	1.1681	1.1681	1.1681	0	0	0	0
Demand Margin	1.8	1.8	1.8	1.8	1.8	0	0	0	0
Total Cost of Gas	6.6798	4.8902	4.6423	4.3902	4.684887381	-0.298648555	0.009173767	0.067123908	0.294687381
Total Demand Cost	7.0429	5.258	5.258	5.258	5.258	-0.253432535	0	0	0
Avg Annual Cost	33510.6722	24537.8528	23307.2772	22055.8528	23518.68096	-0.298173405	0.00907029	0.066323808	1462.828157
Effect of proposed commodity change on average annual bills:									1462.828157
Effect of proposed demand change on average annual bills:									0

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

^\$/Mcf Demand Cost rate reflects adjustment to Annual Demand Volumes made on March 1, 2012

Rate Impacts (Illustrates FDD storage contract costs shifted from Demand costs to Commoc Page 4 of 4

MINNESOTA ENERGY RESOURCES - PNG

CALCULATION OF PURCHASED GAS ADJUSTMENT (PGA)

GLGT

Great Lakes Current Cost of Gas

41214 CURRENT

II. GREAT LAKES GAS TRANSMISSION'S RATES -- CURRENT COST OF GAS EFFECTIVE

Commodity From Schedule D

0.32457 /therm

III. ANNUAL SALES --

Total Annual Sales

10762470 therms

Firm Annual Sales (GS-5)

8130783 therms

IV. PNG'S -- CURRENT COST OF GAS EFFECTIVE

41214 CURRENT

		Monthly		Contract			
		Entitlement	Months	Rate	\$/Dth	Cost	\$/therm
A.	GS-5 FT Westerr FT0016	3923	12	3.458	=	162789	0.020021
	FT Westerr FT0155	1394	12	3.458	=	57845	0.007114
	FT Westerr FT0155	1409	5	3.458	=	24362	0.002996
	FT Westerr FT15782	3486	12	3.458	=	144655	0.017791
					=	0	0
	Total Demand Cost					389651	0.047923
	Niska Storage (AECO)	175982.2	0	0	=	0	0
	AECO/Emerson Swap	175982.8	0	0	=	0	0
						0	0
	GS-5 Firm Annual Sales in therms					8130783	
	Current Demand Cost of Gas \$/therm						0.047923
	Current T-17 Commodity Cost of Gas						0.32457
	Call Option Premium					10762470	46292.98
	Niska Storage (AECO)	175982.2	1	0.954824		10762470	168032
	AECO/Emerson Swap	175982.8	1	0.439998		10762470	77432
	GS-5 Total Current Commodity Cost of Gas \$/therm						0.351679
	Current Total Cost of Gas \$/therm						0.399602
B.	SVI-5 Current Commodity Cost of Gas \$/therm						0.351679
C.	SJ-5 Current Demand Cost of Gas \$/therm						0.3458
	Current Commodity Cost of Gas \$/therm						0.351679
D.	LVI-5 Current Commodity Cost of Gas \$/therm						0.351679

MINNESOTA ENERGY RESOURCES - PNG-GLGT
 Financial Options
 Heating Season 2012-2013

[TRADE SECRET DATA BEGINS

Units - Gas Daily Peaker Packages (Physical)

November Contract Date	Daily Volume	December Contract Date	Daily Volume	January Contract Date	Daily Volume	February Contract Date	Daily Volume	March Contract Date	Daily Volume	Daily Total	Term Total
										0	0

Premium - Gas Daily Peaker (Monthly Cost)

November Option Premium	Premium Cost	December Option Premium	Premium Cost	January Option Premium	Premium Cost	February Option Premium	Premium Cost	March Option Premium	Premium Cost	Total Option Premium	Premium Cost
										0	0

Units - Futures (Daily Volume)

November Contract Date	Daily Volume	December Contract Date	Daily Volume	January Contract Date	Daily Volume	February Contract Date	Daily Volume	March Contract Date	Daily Volume	Daily Total	Term Total
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

Total	999.9999 30000	967.742 30000	1290.323 40000	1071.429 30000	967.7419 30000	5297.235	160000
-------	-------------------	------------------	-------------------	-------------------	-------------------	----------	--------

Units - Call Options (Daily Volume)

November Contract Date	Daily Volume	December Contract Date	Daily Volume	January Contract Date	Daily Volume	February Contract Date	Daily Volume	March Contract Date	Daily Volume	Daily Total	Term Total
1											
2											
3											
4											
5											
6											
7											

Total	1000 30000	1612.903 50000	1612.903 50000	1428.571 40000	967.742 30000	6622.12	200000
-------	---------------	-------------------	-------------------	-------------------	------------------	---------	--------

Premium - Call Option (Monthly Cost)

November Option Premium	Premium Cost	December Option Premium	Premium Cost	January Option Premium	Premium Cost	February Option Premium	Premium Cost	March Option Premium	Premium Cost	Total Option Premium	Premium Cost
1											
2											
3											
4											
5											
6											
7											

Total	0.1659	4975.826	0.191	9550	0.2373	11866.67	0.2807	11229.16	0.2827	8481.207	0.2305	46102.86
-------	--------	----------	-------	------	--------	----------	--------	----------	--------	----------	--------	----------

Units - Collar Floor (put)
 No Puts were purchased.

TRADE SECRET DATA ENDS]

MINNESOTA ENERGY RESOURCES - PNG

2009-10		2010-11			
G011/M-09	Quantity (Mcf)	G011/M-10-	Quantity (Mcf)		
FT0017	4105	FT0017	4105		
FT0075	1973	FT0075	1973		
FT0155	2422	FT0155	2422		
FT0155	1500	FT0155	1500		
FT0011	0	FT0011	0		
FT8466	500	FT8466	1500		
Total Design Day Capacity	10500	Total Design Day Capacity	11500		
Total GL Transportation	10500	Total GL Transportation	11500		
Total Transportation	10500	Total Transportation	11500		
Total Seasonal Transport	1500	Total Seasonal Transport	1500		
Percent Seasonal on GL	0.142857143	Percent Seasonal on GL	0.130434783		
2011-12		2012-13		Change in	
G011/M-11-	Quantity (Mcf)	G011/M-12-	Quantity (Mcf)	Quantity	
FT0016	3899	FT0016	3923	24	
FT0075	0	FT0075	0	0	
FT0155	1386	FT0155	1394	8	
FT0155	1400	FT0155	1409	9	
FT0011	0	FT0011	0	0	
FT8466	0	FT8466	0	0	
FT15782	3464	FT15782	3486	22	
Total Design Day Capacity	10149	Total Design Day Capacity	10212	63	
Total GL Transportation	10149	Total GL Transportation	10212	63	
Total Transportation	10149	Total Transportation	10212	63	
Total Seasonal Transport	1400	Total Seasonal Transport	1409	9	
Percent Seasonal on GL	0.137944625	Percent Seasonal on GL	0.137974931	3.03064E-05	

Attachment 7
GLGT
Page 1 of 2

MINNESOTA ENERGY RESOURCES - PNG

	Base Cost Change	Last Dema Change	Most Rece PGA	Nov 1/12 P w/ Propose	% Change From Last Demand C Rate Case	% Change From Last Demand Fi	% Change From Last PGA	\$ Change From Last PGA
General Service-Residential Commodity Cost of Gas (WACOG)	5.5117	3.4742	3.2221	3.288713	-0.403321	-0.05339	0.020674	0.066613
Demand Cost of Gas	0.7701	0.6791	0.7288	0.781124	0.014315	0.150234	0.071795	0.052324
Commodity Margin	1.7746	1.7746	1.7746	1.7746	0	0	0	0
Total Recovery	8.0564	5.9279	5.7255	5.844437	-0.27456	-0.01408	0.020773	0.118937
Average Annual Usage (Mcf)	84	84	84	84				
Average Annual Bill^	676.7376	497.9436	480.942	490.9327	-0.27456	-0.01408	0.020773	9.990739

	Base Cost Change	Last Dema Change	Most Rece PGA	Nov 1/12 P w/ Propose	% Change From Last Demand C Rate Case	% Change From Last Demand Fi	% Change From Last PGA	\$ Change From Last PGA
Small Volume Interruptible Commodity Cost of Gas (WACOG)	5.5117	3.4742	3.2221	3.288713	-0.403321	-0.05339	0.020674	0.066613
Demand Cost of Gas					0	0	0	0
Commodity Margin	1.1681	1.1681	1.1681	1.1681	0	0	0	0
Total Recovery	6.6798	4.6423	4.3902	4.456813	-0.332792	-0.039956	0.015173	0.066613
Average Annual Usage (Mcf)	2896	2896	2896	2896				
Average Annual Bill^	19344.7	13444.1	12714.02	12906.93	-0.332792	-0.039956	0.015173	192.9122

	Base Cost Change	Last Dema Change	Most Rece PGA	Nov 1/12 P w/ Propose	% Change From Last Demand C Rate Case	% Change From Last Demand Fi	% Change From Last PGA	\$ Change From Last PGA
Small Volume Firm Commodity Cost of Gas (WACOG)	5.5117	3.4742	3.2221	3.288713	-0.403321	-0.05339	0.020674	0.066613
Demand Cost of Gas	5.2429	3.458	3.458	3.458	-0.340441	0	0	0
Commodity Margin	1.1681	1.1681	1.1681	1.1681	0	0	0	0
Demand Margin	1.8	1.8	1.8	1.8	0	0	0	0
Total Commodity Cost	6.6798	4.6423	4.3902	4.456813	-0.332792	-0.039956	0.015173	0.066613
Total Demand Cost	7.0429	5.258	5.258	5.258	-0.253433	0	0	0
Total Recovery	27.4454	19.8006	19.2964	19.42963	-0.292063	-0.018735	0.006904	0.133227

Average Annual Usage (Mcf)	4964	4964	4964	4964				
Average Annual CD units (Mcf)	50	50	50	50				
Average Annual Commodity Bill^	33510.67	23307.28	22055.85	22386.52	-0.331958	-0.039505	0.014992	330.6686

	Commodity Change (\$/Mcf)	Commodity Change (%)	Demand Change (\$/Mcf)	Demand Change (%)	Total Change (\$/Mcf)	Total Change (%)
Summary						
General Service	0.066613	0.020674	0.052324	0.071795	0.118937	0.020773
Small Volume Interruptible	0.066613	0.020674	0	0	0.066613	0.015173
Small/Large Volume Firm	0.066613	0	0	0	0.133227	0.006904

* Average Annual Bill amount does not include customer charges.

^\$/Mcf Demand Cost rate reflects adjustment to Annual Demand Volumes made on March 1, 2012

Attachment 7
GLGT
Page 2 of 2

Rate Impacts (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)
MINNESOTA ENERGY RESOURCES - PNG

	Base Cost Change	Last Dema Change	Most Rece PGA	Nov 1/12 w/ Propose Demand C	P % Change Rate Case	% Change From Last Demand Fi	% Change From Last PGA	\$ Change From Last PGA
General Service	G011/MR1	Mar. 12^	Oct. 12					
Commodity Cost of Gas (WACOG)	5.5117	3.4742	3.2221	3.516787	-0.361941	0.012258	0.091458	0.294687
Demand Cost of Gas	0.7701	0.6791	0.7288	0.479229	-0.377705	-0.294317	-0.34244	-0.249571
Commodity Margin	1.7746	1.7746	1.7746	1.7746	0	0	0	0
Total Recovery	8.0564	5.9279	5.7255	5.770617	-0.283723	-0.026533	0.00788	0.045117
Average Annual Usage (Mcf)	84	84	84	84				
Average Annual Bill^	676.7376	497.9436	480.942	484.7318	-0.283723	-0.026533	0.00788	3.789807

	Base Cost Change	Last Dema Change	Most Rece PGA	Nov 1/12 w/ Propose Demand C	P % Change Rate Case	% Change From Last Demand Fi	% Change From Last PGA	\$ Change From Last PGA
Small Volume Interruptible	G011/MR1	Mar. 12^	Oct. 12					
Commodity Cost of Gas (WACOG)	5.5117	3.4742	3.2221	3.516787	-0.361941	0.012258	0.091458	0.294687
Demand Cost of Gas					0	0	0	0
Commodity Margin	1.1681	1.1681	1.1681	1.1681	0	0	0	0
Total Recovery	6.6798	4.6423	4.3902	4.684887	-0.298649	0.009174	0.067124	0.294687
Average Annual Usage (Mcf)	2896	2896	2896	2896				
Average Annual Bill^	19344.7	13444.1	12714.02	13567.43	-0.298649	0.009174	0.067124	853.4147

	Base Cost Change	Last Dema Change	Most Rece PGA	Nov 1/12 w/ Propose Demand C	P % Change Rate Case	% Change From Last Demand Fi	% Change From Last PGA	\$ Change From Last PGA
Small Volume Firm	G011/MR1	Mar. 12^	Oct. 12					
Commodity Cost of Gas (WACOG)	5.5117	3.4742	3.2221	3.516787	-0.361941	0.012258	0.091458	0.294687
Demand Cost of Gas	5.2429	3.458	3.458	3.458	-0.340441	0	0	0
Commodity Margin	1.1681	1.1681	1.1681	1.1681	0	0	0	0
Demand Margin	1.8	1.8	1.8	1.8	0	0	0	0
Total Commodity Cost	6.6798	4.6423	4.3902	4.684887	-0.298649	0.009174	0.067124	0.294687
Total Demand Cost	7.0429	5.258	5.258	5.258	-0.253433	0	0	0
Total Recovery	27.4454	19.8006	19.2964	19.88577	-0.275442	0.004302	0.030543	0.589375

Average Annual Usage (Mcf)	4964	4964	4964	4964				
Average Annual CD units (Mcf)	50	50	50	50				
Average Annual Commodity Bill [^]	33510.67	23307.28	22055.85	23518.68	-0.298173	0.00907	0.066324	1462.828

	Commodity Change (\$/Mcf)	Commodity Change (%)	Demand Change (\$/Mcf)	Demand Change (%)	Total Change (\$/Mcf)	Total Change (%)
Summary						
General Service	0.294687	0.091458	-0.249571	-0.34244	0.045117	0.00788
Small Volume Interruptible	0.294687	0.091458	0	0	0.294687	0.067124
Small/Large Volume Firm	0.294687	0	0	0	0.589375	0.030543

* Average Annual Bill amount does not include customer charges.

[^]\$/Mcf Demand Cost rate reflects adjustment to Annual Demand Volumes made on March 1, 2012

MINNESOTA ENERGY RESOURCES - PNG
 GLGT
 Peoples Great Lakes -- Current Cost of Gas Effective

	Oct. 2012 Entitlement	Nov. 2012 Entitlement	Entitlement Change	Months	Oct. 2012 Rate	Oct. 2012 Total Annu	Nov. 2012 Total Annu	Total Annual Cost Change
T-17 Dema	3899	3923	24	12	3.458	161792.9	162788.8	995.904
FT-075- Re	0	0	0	12	3.458	0	0	0
FT-155 (12	1386	1394	8	12	3.458	57513.46	57845.42	331.968
FT-155 (5)	1400	1409	9	5	3.458	24206	24361.61	155.61
FT-8466	0	0	0	12	3.458	0	0	0
FT-15782	3464	3486	22	12	3.458	143742.1	144655.1	912.912
Niska Stor:	147196	175982.2	28786.25	1	0.954824	140547.2	168032	27484.79
AECO/Eme	147197	175982.8	28785.8	1	0.439998	64767.32	77432	12664.68
						592569	635114.9	42545.86

PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN EXCISED

Attachment 9
Page 1 of 2

MINNESOTA ENERGY RESOURCES - PNG
12/13 Winter Portfolio Plan - MERC GLGT-PNG Hedging Plan
[TRADE SECRET DATA BEGINS

PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN EXCISED

Attachment 9
Page 2 of 2

MINNESOTA ENERGY RESOURCES
GLGT WINTER PLAN (PNG)
NOVEMBER, 2012 THROUGH MARCH, 2013
[TRADE SECRET DATA BEGINS

PHYSICAL FIXED PR	Trigger	Trigger	Receipt Point	Daily Volumes			Monthly Total
				Nov	Dec	Jan	
Deal #	Locked	Exercised					

Attachment 10
GLGT

MINNESOTA ENERGY RESOURCES - PNG
Daily Total Throughput Data - July 1, 2011 through June 30, 2012

		Base	410	
		Variable	97	
	1	1	Actual	
	Bemidji	Weighted	Total	Estimated
Date	Adjusted	Adjusted	Through-	Through-
	HDD	HDD	Put *	Put
40725	0	0	594	410
40726	4.28	4.28	565	825.16
40727	0	0	542	410
40728	0	0	544	410
40729	1.07	1.07	616	513.79
40730	0	0	589	410
40731	0	0	601	410
40732	0	0	558	410
40733	0	0	524	410
40734	0	0	546	410
40735	3.27	3.27	652	727.19
40736	8.4	8.4	655	1224.8
40737	1.09	1.09	652	515.73
40738	3.33	3.33	657	733.01
40739	0	0	565	410
40740	0	0	512	410
40741	0	0	514	410
40742	0	0	537	410
40743	0	0	591	410
40744	0	0	571	410
40745	0	0	610	410
40746	0	0	611	410
40747	3.21	3.21	582	721.37
40748	0	0	573	410
40749	1.07	1.07	625	513.79
40750	0	0	617	410
40751	0	0	620	410
40752	0	0	624	410
40753	0	0	583	410
40754	0	0	546	410
40755	0	0	552	410
40756	0	0	585	410
40757	0	0	632	410
40758	0	0	595	410
40759	0	0	585	410
40760	0	0	565	410
40761	0	0	565	410
40762	0	0	578	410

40763	0	0	648	410
40764	7.7	7.7	686	1156.9
40765	0	0	644	410
40766	0	0	613	410
40767	2.06	2.06	610	609.82
40768	1.02	1.02	569	508.94
40769	0	0	564	410
40770	0	0	609	410
40771	0	0	590	410
40772	0	0	565	410
40773	0	0	613	410
40774	6.48	6.48	665	1038.56
40775	7.35	7.35	612	1122.95
40776	4.16	4.16	567	813.52
40777	0	0	650	410
40778	0	0	587	410
40779	2.24	2.24	564	627.28
40780	0	0	646	410
40781	4.36	4.36	657	832.92
40782	6.12	6.12	612	1003.64
40783	1.04	1.04	629	510.88
40784	0	0	658	410
40785	0	0	684	410
40786	0	0	683	410
40787	0	0	694	410
40788	5.2	5.2	679	914.4
40789	12.54	12.54	706	1626.38
40790	16.8	16.8	751	2039.6
40791	11.55	11.55	768	1530.35
40792	6.42	6.42	729	1032.74
40793	4.08	4.08	683	805.76
40794	0	0	697	410
40795	0	0	660	410
40796	0	0	641	410
40797	0	0	642	410
40798	10.17	10.17	789	1396.49
40799	19.04	19.04	1081	2256.88
40800	28.34	28.34	1683	3158.98
40801	23.69	23.69	1482	2707.93
40802	19.8	19.8	1280	2330.6
40803	18.24	18.24	1104	2179.28
40804	18.02	18.02	1097	2157.94
40805	8.64	8.64	876	1248.08
40806	15.26	15.26	1148	1890.22
40807	28.6	28.6	1627	3184.2
40808	24.72	24.72	1526	2807.84
40809	18.9	18.9	1196	2243.3
40810	18.72	18.72	1075	2225.84
40811	19.08	19.08	1064	2260.76
40812	14.28	14.28	1001	1795.16
40813	9.09	9.09	909	1291.73

40814	2.2	2.2	772	623.4
40815	18.08	18.08	1223	2163.76
40816	21.4	21.4	1347	2485.8
40817	14.56	14.56	1085	1822.32
40818	4.2	4.2	830	817.4
40819	0	0	781	410
40820	0	0	761	410
40821	0	0	754	410
40822	0	0	737	410
40823	0	0	715	410
40824	11.66	11.66	784	1541.02
40825	13.08	13.08	957	1678.76
40826	11	11	974	1477
40827	7.49	7.49	834	1136.53
40828	14.04	14.04	1006	1771.88
40829	23.73	23.73	1540	2711.81
40830	29	29	1778	3223
40831	25.3	25.3	1669	2864.1
40832	30	30	2079	3320
40833	27.84	27.84	2305	3110.48
40834	33.17	33.17	2913	3627.49
40835	36.4	36.4	2885	3940.8
40836	29.87	29.87	2670	3307.39
40837	26.5	26.5	2148	2980.5
40838	22.26	22.26	1728	2569.22
40839	28.62	28.62	2262	3186.14
40840	27.81	27.81	2284	3107.57
40841	27.54	27.54	2591	3081.38
40842	27.81	27.81	2510	3107.57
40843	29.58	29.58	2750	3279.26
40844	35.31	35.31	2780	3835.07
40845	32.1	32.1	2331	3523.7
40846	29.4	29.4	2398	3261.8
40847	28.34	28.34	2293	3158.98
40848	30.24	30.24	2631	3343.28
40849	34.98	34.98	3093	3803.06
40850	28.34	28.34	2725	3158.98
40851	24.36	24.36	2422	2772.92
40852	23	23	1952	2641
40853	30.42	30.42	3088	3360.74
40854	40.28	40.28	3759	4317.16
40855	34.32	34.32	3166	3739.04
40856	39.1	39.1	3627	4202.7
40857	39.96	39.96	3764	4286.12
40858	31.5	31.5	2976	3465.5
40859	27.56	27.56	2489	3083.32
40860	36.72	36.72	3450	3971.84
40861	36.38	36.38	3348	3938.86
40862	42.9	42.9	4169	4571.3
40863	56.5	56.5	5235	5890.5
40864	52.43	52.43	4756	5495.71

40865	44.94	44.94	4567	4769.18
40866	56.16	56.16	5449	5857.52
40867	53.04	53.04	5360	5554.88
40868	49.22	49.22	4373	5184.34
40869	36.38	36.38	3738	3938.86
40870	27.82	27.82	2835	3108.54
40871	27.04	27.04	2853	3032.88
40872	31.03	31.03	2981	3419.91
40873	39.9	39.9	3866	4280.3
40874	43.87	43.87	4330	4665.39
40875	41.04	41.04	4141	4390.88
40876	43.86	43.86	4060	4664.42
40877	46.01	46.01	4395	4872.97
40878	52.92	52.92	5485	5543.24
40879	41.44	41.44	4520	4429.68
40880	47.52	47.52	4825	5019.44
40881	57.24	57.24	5617	5962.28
40882	65.92	65.92	7026	6804.24
40883	56.61	56.61	5411	5901.17
40884	50.4	50.4	5293	5298.8
40885	66.6	66.6	6896	6870.2
40886	62.06	62.06	6584	6429.82
40887	45.15	45.15	4421	4789.55
40888	36.72	36.72	4066	3971.84
40889	45.32	45.32	4753	4806.04
40890	38.52	38.52	3923	4146.44
40891	41.8	41.8	4118	4464.6
40892	56.61	56.61	5982	5901.17
40893	51.5	51.5	5561	5405.5
40894	48.15	48.15	4855	5080.55
40895	35.84	35.84	3927	3886.48
40896	49.68	49.68	5207	5228.96
40897	41.04	41.04	4233	4390.88
40898	47.3	47.3	4888	4998.1
40899	47.7	47.7	4982	5036.9
40900	49.68	49.68	4862	5228.96
40901	47.46	47.46	3932	5013.62
40902	36.3	36.3	3802	3931.1
40903	39.78	39.78	4028	4268.66
40904	55.12	55.12	5494	5756.64
40905	46.2	46.2	4427	4891.4
40906	46.35	46.35	4719	4905.95
40907	45.76	45.76	4622	4848.72
40908	41.81	41.81	4326	4465.57
40909	64.13	64.13	6025	6630.61
40910	60.99	60.99	6346	6326.03
40911	49.05	49.05	5150	5167.85
40912	40.8	40.8	4327	4367.6
40913	31.32	31.32	3346	3448.04
40914	41.44	41.44	4219	4429.68
40915	43.68	43.68	4316	4646.96

40916	39.24	39.24	3802	4216.28
40917	37.1	37.1	3687	4008.7
40918	37.45	37.45	3600	4042.65
40919	65.55	65.55	6773	6768.35
40920	67.58	67.58	7160	6965.26
40921	63.24	63.24	6935	6544.28
40922	52.5	52.5	5519	5502.5
40923	51.06	51.06	4946	5362.82
40924	73.03	73.03	7028	7493.91
40925	77.04	77.04	8060	7882.88
40926	82.84	82.84	9008	8445.48
40927	81.62	81.62	8752	8327.14
40928	72.8	72.8	7941	7471.6
40929	61.05	61.05	6511	6331.85
40930	46.2	46.2	5227	4891.4
40931	55.5	55.5	5975	5793.5
40932	47.84	47.84	5284	5050.48
40933	43.29	43.29	4672	4609.13
40934	47.96	47.96	4923	5062.12
40935	49.72	49.72	5169	5232.84
40936	64.38	64.38	6124	6654.86
40937	64.2	64.2	6097	6637.4
40938	45.58	45.58	4775	4831.26
40939	40.33	40.33	4564	4322.01
40940	41.6	41.6	4213	4445.2
40941	40.4	40.4	4490	4328.8
40942	45.45	45.45	4770	4818.65
40943	48.15	48.15	4410	5080.55
40944	39.59	39.59	3905	4250.23
40945	57.2	57.2	5432	5958.4
40946	59.36	59.36	6243	6167.92
40947	50.6	50.6	5291	5318.2
40948	62.7	62.7	6625	6491.9
40949	76.16	76.16	7983	7797.52
40950	72.6	72.6	7264	7452.2
40951	53.55	53.55	5947	5604.35
40952	53.04	53.04	5569	5554.88
40953	43.26	43.26	4281	4606.22
40954	41.04	41.04	4381	4390.88
40955	42.4	42.4	4524	4522.8
40956	53	53	5111	5551
40957	48.41	48.41	4710	5105.77
40958	42.9	42.9	3800	4571.3
40959	38.5	38.5	4107	4144.5
40960	44.85	44.85	4691	4760.45
40961	52	52	4881	5454
40962	50.29	50.29	4704	5288.13
40963	68.32	68.32	6193	7037.04
40964	58.86	58.86	5182	6119.42
40965	55.5	55.5	5257	5793.5
40966	52.5	52.5	5141	5502.5

40967	45.2	45.2	4462	4794.4
40968	37.8	37.8	4220	4076.6
40969	40.28	40.28	3828	4317.16
40970	46.2	46.2	4413	4891.4
40971	65.72	65.72	5708	6784.84
40972	57.68	57.68	5361	6004.96
40973	47.3	47.3	4485	4998.1
40974	31.32	31.32	3312	3448.04
40975	51.06	51.06	5069	5362.82
40976	58.76	58.76	5812	6109.72
40977	39.6	39.6	4890	4251.2
40978	23.92	23.92	2525	2730.24
40979	20.9	20.9	2201	2437.3
40980	29.16	29.16	2967	3238.52
40981	18.87	18.87	2072	2240.39
40982	25.2	25.2	2417	2854.4
40983	21	21	2471	2447
40984	2.2	2.2	1266	623.4
40985	9.72	9.72	1056	1352.84
40986	2.28	2.28	1034	631.16
40987	7.7	7.7	1104	1156.9
40988	19.95	19.95	1838	2345.15
40989	18.72	18.72	1702	2225.84
40990	11.66	11.66	1515	1541.02
40991	11.44	11.44	1364	1519.68
40992	24.64	24.64	2415	2800.08
40993	35.52	35.52	3112	3855.44
40994	21.6	21.6	3479	2505.2
40995	24.15	24.15	2792	2752.55
40996	34.98	34.98	3260	3803.06
40997	33.17	33.17	3589	3627.49
40998	26.4	26.4	2715	2970.8
40999	16.05	16.05	1858	1966.85
41000	14.43	14.43	1586	1809.71
41001	22.68	22.68	2389	2609.96
41002	26.78	26.78	2258	3007.66
41003	23.1	23.1	2003	2650.7
41004	22.2	22.2	2131	2563.4
41005	27.84	27.84	1700	3110.48
41006	27.6	27.6	2507	3087.2
41007	42.94	42.94	2606	4575.18
41008	42.51	42.51	4284	4533.47
41009	36.05	36.05	3950	3906.85
41010	28.08	28.08	2779	3133.76
41011	23.52	23.52	1918	2691.44
41012	13.32	13.32	2401	1702.04
41013	25.76	25.76	1370	2908.72
41014	34.41	34.41	2939	3747.77
41015	30.24	30.24	3406	3343.28
41016	26.75	26.75	2060	3004.75
41017	27.04	27.04	2602	3032.88

41018	26	26	2187	2932
41019	30.8	30.8	1910	3397.6
41020	24.96	24.96	2841	2831.12
41021	19.95	19.95	2283	2345.15
41022	14.84	14.84	1709	1849.48
41023	14.43	14.43	1242	1809.71
41024	27	27	1639	3029
41025	25.76	25.76	2125	2908.72
41026	22.6	22.6	2201	2602.2
41027	17.76	17.76	1795	2132.72
41028	12.96	12.96	1487	1667.12
41029	17.28	17.28	1329	2086.16
41030	6.36	6.36	1370	1026.92
41031	10.6	10.6	1051	1438.2
41032	19.8	19.8	1159	2330.6
41033	15.12	15.12	1418	1876.64
41034	15.75	15.75	1020	1937.75
41035	17.76	17.76	1242	2132.72
41036	23.76	23.76	1265	2714.72
41037	17.51	17.51	1499	2108.47
41038	7.7	7.7	1071	1156.9
41039	19.21	19.21	833	2273.37
41040	16.2	16.2	1239	1981.4
41041	2.22	2.22	825	625.34
41042	3.12	3.12	731	712.64
41043	19.21	19.21	690	2273.37
41044	17.85	17.85	1039	2141.45
41045	0	0	836	410
41046	0	0	731	410
41047	6.78	6.78	631	1067.66
41048	15.26	15.26	764	1890.22
41049	13.52	13.52	972	1721.44
41050	0	0	745	410
41051	6.54	6.54	685	1044.38
41052	12.48	12.48	799	1620.56
41053	17.44	17.44	962	2101.68
41054	18.53	18.53	1089	2207.41
41055	9.81	9.81	942	1361.57
41056	10.9	10.9	797	1467.3
41057	23.31	23.31	928	2671.07
41058	19.57	19.57	1421	2308.29
41059	16.16	16.16	1192	1977.52
41060	13.26	13.26	954	1696.22
41061	10.4	10.4	778	1418.8
41062	8.24	8.24	638	1209.28
41063	2.12	2.12	904	615.64
41064	2.06	2.06	663	609.82
41065	0	0	657	410
41066	0	0	641	410
41067	0	0	629	410
41068	0	0	595	410

41069	0	0	534	410
41070	16.1	16.1	611	1971.7
41071	15.26	15.26	934	1890.22
41072	2.24	2.24	720	627.28
41073	2.2	2.2	621	623.4
41074	0	0	776	410
41075	2.16	2.16	682	619.52
41076	3.27	3.27	631	727.19
41077	0	0	617	410
41078	6.36	6.36	643	1026.92
41079	6.42	6.42	751	1032.74
41080	5.5	5.5	750	943.5
41081	6.24	6.24	733	1015.28
41082	4.2	4.2	665	817.4
41083	3.18	3.18	629	718.46
41084	5.3	5.3	626	924.1
41085	0	0	633	410
41086	0	0	644	410
41087	0	0	662	410
41088	0	0	652	410
41089	0	0	621	410
41090	0	0	582	410

Totals 9028.98 9028.98 918040 1025871

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

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

MINNESOTA ENERGY RESOURCES - PNG
Customer Counts by PGAC Class - July 1, 2011 through June 30, 2012

Rate Class	Tariff Designation	40725 Average Customers	40757 Average Customers	40789 Average Customers	40821 Average Customers	40853 Average Customers	40885 Average Customers	40917 Average Customers	40949 Average Customers	40982 Average Customers	41014 Average Customers	41046 Average Customers	41078 Average Customers
Residential	MN006	4890	4829	4772	4825	4938	5030	5046	5069	5091	5077	5099	5034
Residential	MN005	35	34	33	33	35	35	35	35	35	35	34	34
Commercial	MN052/074	449	443	440	443	445	464	461	456	466	471	507	505
Commercial	MN062/074	514	509	509	508	517	519	520	526	523	522	481	477
SV-Joint	MN2D706	5	5	5	5	5	5	3	3	3	3	3	3
SV-Interrupt	MN127	5	5	5	5	5	5	5	5	5	5	5	5
Transport	MN709/831	4	3	4	4	4	4	4	4	4	4	4	4
Total		5902	5828	5768	5823	5949	6062	6074	6098	6127	6117	6133	6062

Attachment

MINNESOTA ENERGY RESOURCES - PNG
Projected Fixed Cost - November 2012 through March 2013

Futures Contracts WACOG

GLGT

30							31							31						
41223							41249							40549						
Purchase Date	Financial Volume	Purchase Price	Total Cost	Indexes	Index Cost	Over/(Under) Market	Purchase Date	Financial Volume	Purchase Price	Total Cost	Indexes	Index Cost	Over/(Under) Market	Purchase Date	Financial Volume	Purchase Price	Total Cost	Indexes	Index Cost	Over/(Under) Market
41054	4239.129	2.996	12700.43	3.776	16006.95	-3306.521	41058	5915.494	3.176	18787.61	4.088	24182.54	-5394.93089	41059	824.7426	3.264	2691.96	4.1895	3455.259	-763.2993
41054	1630.434	2.997	4886.411	3.776	6156.519	-1270.108	41089	4225.353	3.329	14066.2	4.088	17273.24	-3207.0427	05/30/12/	1649.485	3.265	5385.569	4.1895	6910.518	-1524.949
41088	5869.566	3.017	17708.48	3.776	22163.48	-4455.001	41089	1690.142	3.331	5629.862	4.088	6909.299	-1279.43727	05/30/12	5360.824	3.266	17508.45	4.1895	22459.17	-4950.721
41121	4891.305	3.313	16204.89	3.776	18469.57	-2264.674	41120	5915.494	3.6	21295.78	4.088	24182.54	-2886.76127	41088	824.7426	3.425	2824.743	4.1895	3455.259	-630.5157
41121	652.173	3.314	2161.301	3.776	2462.605	-301.3039	41143	4647.886	3.288	15282.25	4.088	19000.56	-3718.30864	41088	3298.97	3.427	11305.57	4.1895	13821.04	-2515.465
41136	4565.217	2.988	13640.87	3.776	17238.26	-3597.391	41172	4225.353	3.248	13723.95	4.088	17273.24	-3549.29627	41088	3298.97	3.428	11308.87	4.1895	13821.04	-2512.166
41173	4239.129	3.065	12992.93	3.776	16006.95	-3014.021	41205	3380.28	3.863	13058.02	4.088	13818.59	-760.563068	41117	7010.309	3.573	25047.83	4.1895	29369.69	-4321.855
41190	3913.044	3.408	13335.65	3.776	14775.65	-1440								41144	6597.938	3.426	22604.53	4.1895	27642.06	-5037.525
														41171	5773.195	3.39	19571.13	4.1895	24186.8	-4615.669
														41207	5360.824	3.904	20928.66	4.1895	22459.17	-1530.515

Total	30000		93630.97		113280	-19649.02		30000		101843.7		122640	-20796.3401		40000		139177.3		167580	-28402.68
WACOG			3.121033		3.776	-0.654967				3.394789		4.088	-0.69321129				3.479433		4.1895	-0.710067

41316							41339							Total					
Purchase Date	Physical Volume	Purchase Price	Total Cost	Indexes	Index Cost	Over/(Under) Market	Purchase Date	Physical Volume	Purchase Price	Total Cost	Indexes	Index Cost	Over/(Under) Market	Financial Volume	Purchase Price	Total Cost	Indexes	Index Cost	Over/(Under) Market
41058	6600	3.34	22044	4.1825	27604.5	-5560.5	41059	2608.697	3.258	8499.133	4.0675	10610.87	-2111.73982						
41089	600.0008	3.484	2090.403	4.1825	2509.503	-419.1006	41059	3260.868	3.26	10630.43	4.0675	13263.58	-2633.15115	20188.06	3.20601	64723.14	4.054878	81860.13	-17136.99
41089	6000	3.485	20910	4.1825	25095	-4185	41087	5869.565	3.461	20314.56	4.0675	23874.45	-3559.89105	11366.14	3.260474	37059.01	4.057082	46113.36	-9054.352
41109	600.0008	3.526	2115.603	4.1825	2509.503	-393.9005	41116	5543.479	3.612	20023.05	4.0675	22548.1	-2525.05464	24790.1	3.310651	82071.36	4.054095	100501.4	-18430.05
41109	6000	3.528	21168	4.1825	25095	-3927	41145	4891.304	3.362	16444.56	4.0675	19895.38	-3450.81497	17775.02	3.514148	62464.07	4.00365	71164.97	-8700.906
41138	600.0008	3.405	2043.003	4.1825	2509.503	-466.5006	41170	4239.129	3.416	14480.87	4.0675	17242.66	-2761.79261	19490.33	3.404851	66361.68	4.118687	80274.58	-13912.89
41138	4200	3.406	14305.2	4.1825	17566.5	-3261.3	41207	3586.957	3.882	13924.57	4.0675	14589.95	-665.380579	16928.67	3.260596	55197.55	4.021858	68084.7	-12887.15
41169	3000.001	3.46	10380	4.1825	12547.51	-2167.501								22416.68	3.538819	79328.56	4.075166	91351.68	-12023.12
41204	2400	3.926	9422.402	4.1825	10038	-615.6001								13510.98	3.428336	46320.19	4.068188	54965.22	-8645.026
														8173.196	3.547393	28993.53	4.187445	34224.8	-5231.27
														5360.824	3.904	20928.66	4.1895	22459.17	-1530.515

Total	30000	104478.6	125475	-20996.4	30000	104317.2	122025	-17707.8248	160000	543447.7	651000	-107552.3
WACOG		3.48262	4.1825	-0.69988		3.477239	4.0675	-0.59026085		3.396548	4.06875	-0.672202

MINNESOTA ENERGY RESOURCES - PNG
Projected Storage Cost - November 2012 through March 2013

Month/ Year	K#118657 NNG Storage	Storage K#123780 LS Power	Storage K#123781 LS Power	Total NNG Storage	WACOG			K#118657 NNG Storage Cost	K#123780 NNG Storage Cost	K#123781 NNG Storage Cost	Total NNG Storage Cost	GLGT/VGT		GLGT/VGT Centra AECO Stor WACOG	GLGT/VGT Centra AECO Storage Cost
					Projected K#118657 NNG WACOG	Projected K#123780 NNG WACOG	Projected K#123781 NNG WACOG					GLGT/VGT Centra	GLGT/VGT Centra		
41219	455259	73125	19500	547884	2.8422	2.8422	2.8422	1293937	207835.9	55422.9	1557196	85290	2.1432	182793.5	
41250	1143984	183750	49000	1376734	2.8422	2.8422	2.8422	3251431	522254.3	139267.8	3912953	231756	2.1432	496699.5	
41282	1143984	183750	49000	1376734	2.8422	2.8422	2.8422	3251431	522254.3	139267.8	3912953	231756	2.1432	496699.5	
41314	1143984	183750	49000	1376734	2.8422	2.8422	2.8422	3251431	522254.3	139267.8	3912953	209328	2.1432	448631.8	
41343	455259	73125	19500	547884	2.8422	2.8422	2.8422	1293937	207835.9	55422.9	1557196	96379	2.1432	206559.5	
Total	4342470	697500	186000	5225970	2.8422	2.8422	79.85619	12342168	1982435	528649.2	14853252	854509	2.1432	1831384	

Month/ Year	NNG Storage Volume	NNG Indexes Price	NNG Indexes Cost	AECO Storage Volume	Emerson Indexes Price	Emerson Indexes Cost	Total AECO Stor Volumes	Total AECO Stor WACOG	Total AECO Stor Cost	Total Emerson WACOG	Total Emerson Cost
41219	547884	3.6435	1996215	85290	3.776	322055	85290	2.1432	182793.5	3.776	322055
41250	1376734	3.983	5483532	231756	4.088	947418.5	231756	2.1432	496699.5	4.088	947418.5
41282	1376734	4.0745	5609503	231756	4.1895	970941.8	231756	2.1432	496699.5	4.1895	970941.8
41314	1376734	4.07	5603307	209328	4.1825	875514.4	209328	2.1432	448631.8	4.1825	875514.4
41343	547884	3.99	2186057	96379	4.0675	392021.6	96379	2.1432	206559.5	4.0675	392021.6
Total	5225970	3.995165	20878614	854509	4.105224	3507951	854509	2.1432	1831384	4.105224	3507951

Max NNG Storage (Storage plan withdrawals through April 2013) 5225970 5619321 10/31/11 Storage Balance - NNG 5619321 1 5225970
 Max AECO Storage 854509 10/31/11 Storage Balance - AECC 947820

Month/ Year	K#118657 NNG Storage	Storage K#123780 LS Power	Storage K#123781 LS Power	Total NNG Storage	Projected NNG Volumes	Projected NNG Volumes	Projected NNG Volumes	Projected K#118657 NNG WACOG	Projected K#123780 NNG WACOG	Projected K#123781 NNG WACOG	WACOG NNG Cost	WACOG NNG Cost	WACOG NNG Cost	NNG Index PNG Cost	NNG Index NNG Cost	NNG Index NNG Cost
41219	455259	73125	19500	547884	487213.2	60670.82	547884	2.8422	2.8422	2.8422	1384757	172438.6	1557195.905	3.6435	1775161	221054.1
41250	1143984	183750	49000	1376734	1224279	152454.9	1376734	2.8422	2.8422	2.8422	3479646	433307.2	3912953.375	3.983	4876304	607227.7
41282	1143984	183750	49000	1376734	1224279	152454.9	1376734	2.8422	2.8422	2.8422	3479646	433307.2	3912953.375	4.0745	4988325	621177.4
41314	1143984	183750	49000	1376734	1224279	152454.9	1376734	2.8422	2.8422	2.8422	3479646	433307.2	3912953.375	4.07	4982816	620491.3

41343	455259	73125	19500	547884	487213.2	60670.82	547884	2.8422	2.8422	2.8422	1384757	172438.6	1557195.905	3.99	1943981	242076.6	2186057
Total	4342470	697500	186000	5225970	4647264	578706.3	5225970	2.8422	2.8422	2.8422	13208453	1644799	14853251.93	3.995165	18566587	2312027	20878614
											2.8422	2.8422		3.995165	3.995165	3.995165	

Month/ Year	AECO Storage	GLGT/VGT												Total AECO Storage Cost
		GLGT PNG Volumes	GLGT NMU Volumes	VGT PNG Volumes	VGT NMU Volumes	Centra NMU Volumes	Total AECO Stor Volumes	Centra AECO Stor WACOG	GLGT PNG Cost	GLGT NMU Cost	VGT PNG Cost	VGT NMU Cost	Centra NMU Cost	
41219	85290	12351.49	24049.04	12434.87	19722.89	16745.71	85304	2.1432	26471.72	51541.9	26650.42	42270.09	35889.40548	182823.5
41250	231756	33192.83	64628.27	33416.9	53002.37	45001.64	229242	2.1432	71138.87	138511.3	71619.09	113594.7	96447.51818	491311.5
41282	231756	33192.83	64628.27	33416.9	53002.37	45001.64	229242	2.1432	71138.87	138511.3	71619.09	113594.7	96447.51818	491311.5
41314	209328	31051.33	60458.65	31260.94	49582.81	42098.27	214452	2.1432	66549.2	129575	66998.45	106265.9	90225.01623	459613.5
41343	96379	13950.16	27161.74	14044.33	22275.64	18913.13	96345	2.1432	29897.99	58213.03	30099.81	47741.16	40534.61468	206486.6
Total	854509	123738.6	240926	124573.9	197586.1	167760.4	854585	2.143391	265196.6	516352.5	266986.9	423466.5	359544.0728	1831547
		0.144807	0.281947	0.145784	0.231228	0.196324	1.000089		2.1432	2.1432	2.1432	2.1432	2.1432	2.1432

Month/ Year	AECO Storage	Total / Projected												Total AECO Cost
		GLGT PNG Volumes	GLGT NMU Volumes	VGT PNG Volumes	VGT NMU Volumes	Centra NMU Volumes	Total AECO Storage Volumes	Projected Emerson Index Price	GLGT PNG Cost	GLGT NMU Cost	VGT PNG Cost	VGT NMU Cost	Centra NMU Cost	
41219	85290	12351.49	24049.04	12434.87	19722.89	16745.71	85304	3.776	46639.24	90809.17	46954.08	74473.62	63231.80062	322107.9
41250	231756	33192.83	64628.27	33416.9	53002.37	45001.64	229242	4.088	135692.3	264200.4	136608.3	216673.7	183966.7107	937141.3
41282	231756	33192.83	64628.27	33416.9	53002.37	45001.64	229242	4.1895	139061.3	270760.1	140000.1	222053.4	188534.3773	960409.4
41314	209328	31051.33	60458.65	31260.94	49582.81	42098.27	214452	4.1825	129872.2	252868.3	130748.9	207380.1	176076.022	896945.5
41343	96379	13950.16	27161.74	14044.33	22275.64	18913.13	96345	4.0675	56742.28	110480.4	57125.32	90606.18	76929.14578	391883.3
Total	854509	123738.6	240926	124573.9	197586.1	167760.4	854585	4.105852	508007.3	989118.3	511436.7	811187	688738.0564	3508487
		0.144807	0.281947	0.145784	0.231228	0.196324	1.000089		4.105487	4.105487	4.105487	4.105487	4.105486682	4.105487

Attachment

MINNESOTA ENERGY RESOURCES - PNG
 Projected Call Option Costs - November 2012 through March 2013

Call/Put Options WACOG

Contract = 10000

Call/Put Options

Deal Number	Purchase Date	%	41219											41249			Number Contracts	Physical Volume	Strike Price	Strike Cost	
			Number Contracts	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Cost	Settle Over/Market	Undr Premium Per Unit	Premium Cost	Total Cost	Deal Number	Purchase Date					%
1	41060		16	160000	3	480000	3	480000	3.4	544000	-64000	0.267	42720	522720	1	41053		26	260000	3.5	910000
2	41085		17	170000	3.25	552500	3.25	552500	3.4	578000	-25500	0.248	42160	594660	2	41086		28	280000	3.5	980000
3	41114		19	190000	3.5	665000	3.4	646000	3.4	646000	0	0.209	39710	685710	3	41115		29	290000	3.75	1087500
4	41148		21	210000	3	630000	3	630000	3.4	714000	-84000	0.177	37170	667170	4	41149		31	310000	3.25	1007500
5	41180		21	210000	3.5	735000	3.4	714000	3.4	714000	0	0.068	14280	728280	5	41179		31	310000	3.75	1162500
6	41187		21	210000	3.5	735000	3.4	714000	3.4	714000	0	0.07	14700	728700	6	41204		32	320000	4	1280000
7				0		0	0	0	3.4	0	0		0	0	7				0		0
8				0		0	0	0	3.4	0	0		0	0	8				0		0
9				0		0	0	0	3.4	0	0		0	0	9				0		0
10				0		0	0	0	3.4	0	0		0	0	10				0		0
Total			115	1150000		3797500		3736500		3910000	-173500		190740	3927240	Total			177	1770000		6427500
						3.302174		3.24913		3.4	-0.15087		0.16586087	3.414991							3.631356
NNG-PNG	84	0.730435	84	840000	3.302174	2773826	3.24913	2729270	3.4	2856000	-126730.4	0.165861	139323.1304	2868593	NNG-PNG	130	0.734463	130	1300000	3.631356	4720763
NNG-NMU	10	0.086957	10	100000	3.302174	330217.4	3.24913	324913	3.4	340000	-15086.96	0.165861	16586.08696	341499.1	NNG-NMU	15	0.084746	15	150000	3.631356	544703.4
GLGT-PNC	3	0.026087	3	30000	3.302174	99065.22	3.24913	97473.91	3.4	102000	-4526.087	0.165861	4975.826087	102449.7	GLGT-PNC	5	0.028249	5	50000	3.631356	181567.8
GLGT-NMI	6	0.052174	6	60000	3.302174	198130.4	3.24913	194947.8	3.4	204000	-9052.174	0.165861	9951.652174	204899.5	GLGT-NMI	9	0.050847	9	90000	3.631356	326822
VGT-PNG	3	0.026087	3	30000	3.302174	99065.22	3.24913	97473.91	3.4	102000	-4526.087	0.165861	4975.826087	102449.7	VGT-PNG	5	0.028249	5	50000	3.631356	181567.8
VGT-NMU	5	0.043478	5	50000	3.302174	165108.7	3.24913	162456.5	3.4	170000	-7543.478	0.165861	8293.043478	170749.6	VGT-NMU	7	0.039548	7	70000	3.631356	254194.9
Centra	4	0.034783	4	40000	3.302174	132087	3.24913	129965.2	3.4	136000	-6034.783	0.165861	6634.434783	136599.7	Centra	6	0.033898	6	60000	3.631356	217881.4
Total			115	1150000	3.302174	3797500	3.24913	3736500	3.4	3910000	-173500	0.165861	190740	3927240	Total			177	1770000	3.631356	6427500

Deal Number	Purchase Date	%	41311											41339			Number Contracts	Financial Volume	Strike Price	Strike Cost	
			Number Contracts	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Cost	Settle Over/Market	Undr Premium Per Unit	Premium Cost	Total Cost	Deal Number	Purchase Date					%
1	41052		23	230000	3.75	862500	3.75	862500	3.935	905050	-42550	0.325	74750	937250	1	41052		17	170000	3.75	637500
2	41081		24	240000	3.5	840000	3.5	840000	3.935	944400	-104400	0.339	81360	921360	2	41071		17	170000	3.5	595000
3	41103		26	260000	3.75	975000	3.75	975000	3.935	1023100	-48100	0.31	80600	1055600	3	41101		19	190000	3.75	712500
4	41151		26	260000	3.5	910000	3.5	910000	3.935	1023100	-113100	0.251	65260	975260	4	41151		21	210000	3.5	735000
5	41177		27	270000	3.75	1012500	3.75	1012500	3.935	1062450	-49950	0.215	58050	1070550	5	41176		21	210000	3.75	787500
6	41206		29	290000	4	1160000	3.935	1141150	3.935	1141150	0	0.259	75110	1216260	6	41205		21	210000	4	840000
7				0		0	0	0	3.935	0	0		0	0	7				0		0
8				0		0	0	0	3.935	0	0		0	0	8				0		0
9				0		0	0	0	3.935	0	0		0	0	9				0		0

10			0		0		0		0		0		0		10			0		0	
Total		155	1550000		5760000		5741150		6099250		-358100		435130		6176280	Total		116	1160000		4307500
					3.716129		3.703968		3.935		-0.231032		0.280729032		3.984697						3.713362
NNG-PNG	113	0.729032	113	1130000	3.716129	4199226	3.703968	4185484	3.935	4446550	-261066.5	0.280729	317223.8065	4502707	NNG-PNG	85	0.732759	85	850000	3.713362	3156358
NNG-NMU	13	0.083871	13	130000	3.716129	483096.8	3.703968	481515.8	3.935	511550	-30034.19	0.280729	36494.77419	518010.6	NNG-NMU	10	0.086207	10	100000	3.713362	371336.2
GLGT-PNC	4	0.025806	4	40000	3.716129	148645.2	3.703968	148158.7	3.935	157400	-9241.29	0.280729	11229.16129	159387.9	GLGT-PNC	3	0.025862	3	30000	3.713362	111400.9
GLGT-NMI	8	0.051613	8	80000	3.716129	297290.3	3.703968	296317.4	3.935	314800	-18482.58	0.280729	22458.32258	318775.7	GLGT-NMI	6	0.051724	6	60000	3.713362	222801.7
VGT-PNG	4	0.025806	4	40000	3.716129	148645.2	3.703968	148158.7	3.935	157400	-9241.29	0.280729	11229.16129	159387.9	VGT-PNG	3	0.025862	3	30000	3.713362	111400.9
VGT-NMU	7	0.045161	7	70000	3.716129	260129	3.703968	259277.7	3.935	275450	-16172.26	0.280729	19651.03226	278928.8	VGT-NMU	5	0.043103	5	50000	3.713362	185668.1
Centra	6	0.03871	6	60000	3.716129	222967.7	3.703968	222238.1	3.935	236100	-13861.94	0.280729	16843.74194	239081.8	Centra	4	0.034483	4	40000	3.713362	148534.5
Total	155	1	155	1550000	3.716129	5760000	3.703968	5741150	3.935	6099250	-358100	0.280729	435130	6176280	Total	116	1	116	1160000	3.713362	4307500

41280																						
Option Price	Option Cost	Pent Settle	Pent Cost	Settle Market	Over/(Under) Per Unit	Premium Cost	Total Cost	Deal Number	Purchase Date	%	Number Contracts	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Cost	Settle Market	Over/(Under) Per Unit	Premium Cost	Total Cost
3.5	910000	3.803	988780	-78780	0.285	74100	984100	1	41053		29	290000	3.75	1087500	3.75	1087500	3.932	1140280	-52780	0.26	75400	1162900
3.5	980000	3.803	1064840	-84840	0.27	75600	1055600	2	41082		15	150000	3.75	562500	3.75	562500	3.932	589800	-27300	0.238	35700	598200
3.75	1087500	3.803	1102870	-15370	0.19	55100	1142600	3	41082		16	160000	3.75	600000	3.75	600000	3.932	629120	-29120	0.24	38400	638400
3.25	1007500	3.803	1178930	-171430	0.196	60760	1068260	4	41106		32	320000	3.5	1120000	3.5	1120000	3.932	1258240	-138240	0.33	105600	1225600
3.75	1162500	3.803	1178930	-16430	0.141	43710	1206210	5	41150		32	320000	3.5	1120000	3.5	1120000	3.932	1258240	-138240	0.205	65600	1185600
3.803	1216960	3.803	1216960	0	0.09	28800	1245760	6	41178		34	340000	3.75	1275000	3.75	1275000	3.932	1336880	-61880	0.2	68000	1343000
0	0	3.803	0	0		0	0	7	41206		34	340000	4	1360000	3.932	1336880	3.932	1336880	0	0.197	66980	1403860
0	0	3.803	0	0		0	0	8				0	0	0	0	0	3.932	0	0		0	0
0	0	3.803	0	0		0	0	9				0	0	0	0	0	3.932	0	0		0	0
0	0	3.803	0	0		0	0	10				0	0	0	0	0	3.932	0	0		0	0
	6364460		6731310	-366850		338070	6702530	Total	Total		192	1920000		7125000		7101880		7549440	-447560		455680	7557560
	3.59574		3.803	-0.20726		0.191	3.78674							3.710938		3.698896		3.932	-0.233104		0.237333	3.936229
3.59574	4674462	3.803	4943900	-269437.9	0.191	248300	4922762	NNG-PNG	140	0.729167	140	1400000	3.710938	5195313	3.698896	5178454	3.932	5504800	-326345.8	0.237333	332266.7	5510721
3.59574	539361	3.803	570450	-31088.98	0.191	28650	568011	NNG-NMU	17	0.088542	17	170000	3.710938	630859.4	3.698896	628812.3	3.932	668440	-39627.71	0.237333	40346.67	669159
3.59574	179787	3.803	190150	-10362.99	0.191	9550	189337	GLGT-PNC	5	0.026042	5	50000	3.710938	185546.9	3.698896	184944.8	3.932	196600	-11655.21	0.237333	11866.67	196811.5
3.59574	323616.6	3.803	342270	-18653.39	0.191	17190	340806.6	GLGT-NMI	10	0.052083	10	100000	3.710938	371093.8	3.698896	369889.6	3.932	393200	-23310.42	0.237333	23733.33	393622.9
3.59574	179787	3.803	190150	-10362.99	0.191	9550	189337	VGT-PNG	5	0.026042	5	50000	3.710938	185546.9	3.698896	184944.8	3.932	196600	-11655.21	0.237333	11866.67	196811.5
3.59574	251701.8	3.803	266210	-14508.19	0.191	13370	265071.8	VGT-NMU	8	0.041667	8	80000	3.710938	296875	3.698896	295911.7	3.932	314560	-18648.33	0.237333	18986.67	314898.3
3.59574	215744.4	3.803	228180	-12435.59	0.191	11460	227204.4	Centra	7	0.036458	7	70000	3.710938	259765.6	3.698896	258922.7	3.932	275240	-16317.29	0.237333	16613.33	275536
3.59574	6364460	3.803	6731310	-366850	0.191	338070	6702530	Total	192	1	192	1920000	3.710938	7125000	3.698896	7101880	3.932	7549440	-447560	0.237333	455680	7557560
Option Price	Option Cost	Pent Settle	Pent Cost	Settle Market	Over/(Under) Per Unit	Premium Cost	Total Cost	Total Deal Number	Purchase Date	%	Number Contracts	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Cost	Settle Market	Over/(Under) Per Unit	Premium Cost	Total Cost
3.75	637500	3.905	663850	-26350	0.33	56100	693600	1			111	1110000	3.583333	3977500	3.583333	3977500	3.821586	4241960	-264460	0.291054	323070	4300570
3.5	595000	3.905	663850	-68850	0.283	48110	643110	2			101	1010000	3.49505	3530000	3.49505	3530000	3.802861	3840890	-310890	0.280129	282930	3812930
3.75	712500	3.905	741950	-29450	0.29	55100	767600	3			109	1090000	3.706422	4040000	3.688991	4021000	3.800954	4143040	-122040	0.246706	268910	4289910
3.5	735000	3.905	820050	-85050	0.275	57750	792750	4			131	1310000	3.360687	4402500	3.360687	4402500	3.812458	4994320	-591820	0.249267	326540	4729040
3.75	787500	3.905	820050	-32550	0.23	48300	835800	5			132	1320000	3.649621	4817500	3.633712	4796500	3.813386	5033670	-237170	0.174197	229940	5026440
3.905	820050	3.905	820050	0	0.298	62580	882630	6			137	1370000	3.861314	5290000	3.77165	5167160	3.816818	5229040	-61880	0.181891	249190	5416350
0	0	3.905	0	0		0	0	7			34	340000	4	1360000	3.932	1336880	3.932	1336880	0	0.197	66980	1403860
0	0	3.905	0	0		0	0	8			0	0	0	0	0	0	3.932	0	0		0	0
0	0	3.905	0	0		0	0	9			0	0	0	0	0	0	3.932	0	0		0	0

0	0	3.905	0	0	0	0	10			0	0	0	0	0	0	0	0	0	0	0	0	0
4287550			4529800	-242250		327940	4615490	Total		755	7550000		27417500		27231540		28819800	-1588260		1747560	28979100	
3.696164			3.905	-0.208836		0.282707	3.978871						3.631457		3.606826		3.817192	-0.210366		0.231465	3.838291	
3.696164	3141739	3.905	3319250	-177510.8	0.282707	240300.9	3382040	NNG-PNG	552	0.731126	552	5520000	3.631457	20045642	3.606826	19909682	3.817192	21070900	-1161218	0.231465	1277686	21187368
3.696164	369616.4	3.905	390500	-20883.62	0.282707	28270.69	397887.1	NNG-NMU	65	0.086093	65	650000	3.631457	2360447	3.606826	2344437	3.817192	2481175	-136737.6	0.231465	150452.2	2494889
3.696164	110884.9	3.905	117150	-6265.086	0.282707	8481.207	119366.1	GLGT-PNC	20	0.02649	20	200000	3.631457	726291.4	3.606826	721365.3	3.817192	763438.4	-42073.11	0.231465	46292.98	767658.3
3.696164	221769.8	3.905	234300	-12530.17	0.282707	16962.41	238732.2	GLGT-NMI	39	0.051656	39	390000	3.631457	1416268	3.606826	1406662	3.817192	1488705	-82042.57	0.231465	90271.31	1496934
3.696164	110884.9	3.905	117150	-6265.086	0.282707	8481.207	119366.1	VGT-PNG	20	0.02649	20	200000	3.631457	726291.4	3.606826	721365.3	3.817192	763438.4	-42073.11	0.231465	46292.98	767658.3
3.696164	184808.2	3.905	195250	-10441.81	0.282707	14135.34	198943.5	VGT-NMU	32	0.042384	32	320000	3.631457	1162066	3.606826	1154184	3.817192	1221501	-67316.98	0.231465	74068.77	1228253
3.696164	147846.6	3.905	156200	-8353.448	0.282707	11308.28	159154.8	Centra	27	0.035762	27	270000	3.631457	980493.4	3.606826	973843.2	3.817192	1030642	-56798.7	0.231465	62495.52	1036339
3.696164	4287550	3.905	4529800	-242250	0.282707	327940	4615490	Total	755	1	755	7550000	3.631457	27417500	3.606826	27231540	3.817192	28819800	-1588260	0.231465	1747560	28979100