

PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN EXCISED

Attachment 1

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

Design Day Requirement		60264.8
Total Peak Day Entitlement		63352
Firm Peak Day Actual Sendout -Non Coincidental	(Jan. 19)	46380
Firm Annual Throughput - Minnesota		6623739
No. of Firm Customers		40900
Department Load Factor Calculation		0.391273

MINNESOTA ENERGY RESOURCES - NMU
 MINNESOTA DESIGN DAY REQUIREMENTS
 NOVEMBER 1, 2012

HDD

Pipeline Group	2011/12 Customer Count	1/20 Design DDD	Regression Factors		% of total load	Regressor Total Footnote 1	Regressor Adjustment Footnote 2	1/20 Requi Regressor Footnote 3	2008/09 Customer Growth	Total
NNG										
Peak	17998	103	2082	244		27258	2255	25003	0	25003
Off Peak	17998	55	2082	244		15525	860	14665	0	14665
VGT										
VGT	5754	109	1546	67		8772	680	8092	0	8092
**VGT/GLGT	3202	107	347	49	0.68	3824.32	393.72	3430.6	0	3430.6
Peak	8956		1893	116				11522.6		11522.6
VGT	5754	57	1546	67		5342	89	5253	0	5253
VGT/GLGT	3202	57	347	49	0.68	2156.28	156.4	1999.88	0	1999.88
Off Peak	8956		1893	116				7252.88		7252.88
GLGT										
**VGT/GLGT	3202	107	347	49	0.32	1799.68	185.28	1614.4	0	1614.4
GLGT	8288	105.32	1512	129		15041	830	14210.8	0	14210.8
Peak	11490		1859	178				15825.2		15825.2
VGT/GLGT	3202	57	347	49	0.32	1014.72	73.6	941.12	0	941.12
GLGT	8288	57	1512	129		8845	-287	9132	0	9132
Off Peak	11490		1859	178				10073.12		10073.12
Centra										
Peak	5658	107	1498	85		10574	2660	7914	0	7914
Off Peak	5658	57	1498	85		6333	1343	4990	0	4990
Total NMU										
Peak	40900		6985	574		67269	7004	60264.8	0	60264.8
Off Peak	40900		6985	574		39216	2235	36981	0	36981

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.

**Dual Supplied

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

Heating Season	No. of Firm Customers	Design Day Requirements	MMBtus /Customer /Day
12/13	40900	60264.8	1.473467
11/12	40900	57989	1.417824
10/11	40400	57662	1.427277
09/10	41135	60918	1.480929
08/09	39112	63726	1.629321
07/08	38258	61008	1.594647
06/07	38483	61060	1.586675
05/06	38208	62107	1.625497

Attachment 2

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

Class	Summer Apr-Oct	Winter Nov-Mar	Total
GS	1056500	4415943	5472444
IS	222113.4	929182.5	1151296
Total	1278614	5345126	6623739

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

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

Type of Capacity or Entitlement		Current Amount Mcf or MMBtu	Proposed Change Mcf or MMBtu	Proposed Amount Mcf or MMBtu
NNG TF 12 Base & Variable		7622	718	8340
NNG TF 5		3267	307	3574
NNG TFX 12		3268	308	3576
NNG TFX 5		9126	860	9986
Bison *		5060	477	5537
NBPL *		5060	477	5537
NNG Zone GDD Call Option		1265	-1265	0
NNG Offpeak TFX*		0	0	0
NNG Subtotal		24548	928	25476
FT Western Zone	FT0016	6231	-24	6207
FT Western Zone (12)	FT0155	2214	-8	2206
FT Western Zone (5)	FT0155	2238	-9	2229
FT Western Zone	FT15782	5536	-22	5514
FT-A ZONE 1 - 1	AF0012	7711	51	7762
FT-A ZONE 1 - 1	AF0014	678	4	682
FT-A ZONE 1 - 1	AF0102	1234	9	1243
FT-A ZONE 1 - 1	AF0183	1852	-1852	0
Wadena Call Option		0	2175	2175
CENTRA FT-1		9858	0	9858
Total Entitlement		62100	1252	63352
Forecasted Design Day-Adjusted		57989	2275.8	60264.8
Capacity Surplus/Shortage		4111	-1023.8	3087.2
Reserve Margin		0.070893		0.051227

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

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

Attachment 4
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Attachment 4, Page 1

All costs in \$/MMBtu	Last Base Cost of Gas G007,G011- MR10-978 Feb. 11	Demand Change G011- M-11-XXX Nov. 11	Last Demand Change G011- M-12-XXX May 12^	Most Recent PGA** Oct. 2012	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: 90 Mcf									
Commodity Cost	5.6422	4.1061	2.399	3.1724	3.3688	-0.402928	-0.553664	0.061909	0.1964
Demand Cost	1.3841	1.2268	1.2787	1.2862	1.343142	-0.029592	-0.033386	0.044271	0.056942
Commodity Margin	2.1759	2.1759	2.1759	2.1759	2.1759	0	0	0	0
Total Cost of Gas	9.2022	7.5088	5.8536	6.6345	6.887842	-0.251501	-0.308219	0.038186	0.253342
Avg Annual Cost	828.198	675.792	526.824	597.105	619.9058	-0.251501	-0.308219	0.038186	22.80076
Effect of proposed commodity change on average annual bills:									17.676
Effect of proposed demand change on average annual bills:									5.12476
2) Large General Service: Avg. Annual Use: 4932 Mcf									
Commodity Cost	5.6422	4.1061	2.399	3.1724	3.3688	-0.402928	-0.179562	0.061909	0.1964
Demand Cost	1.3841	1.2268	1.2787	1.2862	1.343142	-0.029592	0.094834	0.044271	0.056942
Commodity Margin	1.966	1.966	1.966	1.966	1.966	0	0	0	0
Total Cost of Gas	8.9923	7.2989	5.6437	6.4246	6.677942	-0.257371	-0.085076	0.039433	0.253342
Avg Annual Cost	44350.02	35998.17	27834.73	31686.13	32935.61	-0.257371	-0.085076	0.039433	1249.482
Effect of proposed commodity change on average annual bills:									968.6448
Effect of proposed demand change on average annual bills:									280.8368
3) SV Interruptible Service: Avg. Annual Use: 6068 Mcf									
Commodity Cost	5.6422	4.1061	2.399	3.1724	3.3688	-0.402928	-0.179562	0.061909	0.1964
Commodity Margin	0.956	0.956	0.956	0.956	0.956	0	0	0	0
Total Cost of Gas	6.5982	5.0621	3.355	4.1284	4.3248	-0.344549	-0.145651	0.047573	0.1964
Avg Annual Cost	40037.88	30716.82	20358.14	25051.13	26242.89	-0.344549	-0.145651	0.047573	1191.755
Effect of proposed commodity change on average annual bills:									1191.755
4) LV Interruptible Service: Avg. Annual Use: 40821 Mcf									
Commodity Cost	5.6422	4.1061	2.399	3.1724	3.3688	-0.402928	-0.179562	0.061909	0.1964
Commodity Margin	0.2846	0.2846	0.2846	0.2846	0.2846	0	0	0	0
Total Cost of Gas	5.9268	4.3907	2.6836	3.457	3.6534	-0.38358	-0.167923	0.056812	0.1964
Avg Annual Cost	241937.9	179232.8	109547.2	141118.2	149135.4	-0.38358	-0.167923	0.056812	8017.244
Effect of proposed commodity change on average annual bills:									8017.244

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

MINNESOTA ENERGY RESOURCES - NMU

DEMAND

Cost/Ccf

Contract Type			Monthly Entitlement (Dth)		Rate (\$/Dth)	Contract Costs	Rate Case Sales (therms)		
	Season		Months						
Northern Natural Gas (NNG)									
TF12B (Max Rate)	112495	Annual	5125	12	7.5776	466022	52675364	0.008847	
TF12V (Max Rate)	112495	Annual	3215	12	9.0926	350793	52675364	0.00666	
TF5 (Max Rate)	112495	Winter	3574	5	15.153	270784	52675364	0.005141	
TF12B (Discount-Wint	112495	Annual	0	12	6.4818	0	52675364	0	
TFX5 (Discount)	112561	Winter	664	5	4.56	15139	52675364	0.000287	
TFX12 (Max Rate)	112486	Annual	1198	12	9.6288	138424	52675364	0.002628	
TFX Apr (Max Rate)	112486	Summer	221	1	5.683	1256	52675364	2.38E-05	
TFX Oct (Max Rate)	112486	Summer	221	1	5.683	1256	52675364	2.38E-05	
TFX5 (Max Rate)	112486	Winter	6353	5	15.153	481335	52675364	0.009138	
TFX5 (Discount)	112486	Winter	199	5	7.6	7562	52675364	0.000144	
TFX12 (Discount)	111866	Annual	142	12	4.864	8288	52675364	0.000157	
TFX12 (Discount)	111866	Annual	916	12	5.472	60148	52675364	0.001142	
TFX12 (Discount)	111866	Annual	1320	12	2.2192	35152	52675364	0.000667	
TFX5 (Discount)	111866	Winter	42	5	4.864	1021	52675364	1.94E-05	
TFX5 (Discount)	111866	Winter	271	5	5.472	7415	52675364	0.000141	
TFX5 (Discount)	111866	Winter	2457	5	15.1392	185985	52675364	0.003531	
Bison	FT0003	Annual	5537	12	17.48	1161441	52675364	0.022049	
NBPL	T8673F	Annual	5537	12	6.992	464576	52675364	0.00882	
Windom		Annual	0	12	0	0	52675364	0	
Northwestern Energy		Annual	0	12	8	0	52675364	0	
NNG Zone GDD Call Option		Winter	0	3	0	0	52675364	0	
SMS	112521	Annual	2512	12	2.18	65714	52675364	0.001248	
FDD - Reservation	118657	Annual	8354	12	1.714	171825	52675364	0.003262	
FDD - Storage Cycle	118657	Annual	96326	5	0.3567	171797	52675364	0.003261	
FDD - Reservation	118657	Annual	615	12	3.3157	24470	52675364	0.000465	
FDD - Storage Cycle	118657	Annual	7087	5	0.6901	24454	52675364	0.000464	
FDD - Reservation	123780	Annual	1441	12	1.714	29638	52675364	0.000563	
FDD - Storage Cycle	123780	Annual	16610	5	0.3567	29624	52675364	0.000562	
FDD - Reservation	123781	Annual	384	12	1.714	7898	52675364	0.00015	
FDD - Storage Cycle	123781	Annual	4429	5	0.3567	7899	52675364	0.00015	
NNG Demand						4189916	52675364	0.079542	
Viking (VGT)									
FT-A ZONE 1 - 1	AF0012	Annual	7762	12	3.4671	322940	52675364	0.006131	

FT-A ZONE 1 - 1	AF0014	Winter	682	3	3.4671	7094	52675364	0.000135
FT-A ZONE 1 - 1	AF0102	Annual	1243	12	3.4671	51715	52675364	0.000982
Wadena Delivered GDD Call Option		Winter	2175	3	1.199752	7828.38	#REF!	#REF!
Balancing Agreement	ML0021	Annual	4638	12	1	55656	52675364	0.001057

VGT Demand 445233.4 52675364 0.008452

Great Lakes (GLGT)

FT Western Zone	FT0016	Annual	6207	12	3.458	257566	52675364	0.00489
FT Western Zone (12)	FT0155	Annual	2206	12	3.458	91540	52675364	0.001738
FT Western Zone (5)	FT0155	Winter	2229	5	3.458	38539	52675364	0.000732
FT Western Zone	FT15782	Annual	5514	12	3.458	228809	52675364	0.004344

GLGT Demand 616454 52675364 0.011703

Centra

CENTRA TRANSMISSION (\$Cdn/103M3) 197.709

Conversion ((((\$Cdm103M3)*279.12))	Annual	9500	12	5.811726	662536.8	52675364	0.012578
Union Balancing	Annual	4500	12	1	54000	52675364	0.001025
CENTRA MINNESOTA PIPELINE	Annual	9500	12	1.778	202692	52675364	0.003848

Centra Demand 919228.8 52675364 0.017451

AECO

Niska Storage (AECO)	Annual	648265	1	0.954822	618978	52675364	0.011751
AECO/Emerson Swap	Annual	648267	1	0.440001	285238	52675364	0.005415

AECO Demand 904216 52675364 0.017166

NMU DEMAND - \$/Ccf 7075048 0.134314

For Joint Rate Demand 52675364 Annual Firm Sales in therms

	Units Dth's	Months	Annual Dth's
Northern Natural Gas (NNG)			
TF12B (Max Rate)	5125	12	61500
TF12V (Max Rate)	3215	12	38580
TF5 (Max Rate)	3574	5	17870
TF12B (Discount-Winter)	0	12	0
TFX5 (Discount)	664	5	3320
TFX12 (Max Rate)	1198	12	14376
TFX Apr (Max Rate)	221	1	221
TFX Oct (Max Rate)	221	1	221
TFX5 (Max Rate)	6353	5	31765
TFX5 (Discount)	199	5	995
TFX12 (Discount)	142	12	1704

TFX12 (Discount)	916	12	10992
TFX12 (Discount)	1320	12	15840
TFX5 (Discount)	42	5	210
TFX5 (Discount)	271	5	1355
TFX5 (Discount)	2457	5	12285
Bison	5537	12	66444
NBPL	5537	12	66444
Windom	0	12	0
Northwestern Energy	0	12	0
NNG Zone GDD Call Option	0	3	0
SMS	2512	12	30144

Viking (VGT)			
FT-A ZONE 1 - 1	7762	12	93144
FT-A ZONE 1 - 1	682	3	2046
FT-A ZONE 1 - 1	1243	12	14916
#REF!	#REF!	#REF!	#REF!
Wadena Delivered GDD Call Option	2175	3	6525
Balancing Agreement	4638	12	55656

Great Lakes (GLGT)			
FT Western Zone	6207	12	74484
FT Western Zone (12)	2206	12	26472
FT Western Zone (5)	2229	5	11145
FT Western Zone	5514	12	66168

Centra			
CENTRA TRANSMISSION			
Conversion ((((\$Cdm103M3)*279.256)/9858)	9500	12	114000
Union Balancing	4500	12	54000
CENTRA MINNESOTA PIPELINES	9500	12	114000

Total Demand Cost			7075048
Total Demand Weighted Vol in Mcf			#REF!
Total Joint Demand Rate \$/Mcf			

#REF!

MINNESOTA ENERGY RESOURCES - NMU

41214

PRESENT AVERAGE COST OF GAS		COMMODITY		EFFECTIV	41214	
		Rate	Annual Dth	Call Option Premium	Total Annu Cost	Cost/therm
WACOG						
NNG						
GAS COST		3.3203				
FUEL	0.014	0.04714				
COMMODITY TRANSPORTATION		0.036				
ACA		0.0018				
GRI FEE		0				
NNG Commodity		3.40524	2512662	150452.2	8706671	0.12989
VGT						
GAS COST		3.2247				
FUEL	0.0076	0.0247				
COMMODITY TRANSPORTATION		0.013				
GRI		0				
ACA		0.0018				
VGT Commodity		3.2642	1827195	74068.77	6038399	0.09009
GLGT						
GAS COST		3.2247				
FUEL	0.004914	0.01592				
COMMODITY TRANSPORTATION		0.00326				
GRI		0				
ACA		0.0018				
GLGT Commodity		3.24568	966199.7	90271.31	3226246	0.04813
CENTRA						
CENTRA TRANSMIS (\$Cdn/103M3)		1.062				
Conversion x0.9306		0.030088				
GAS COST		3.2247				
CUSTOMS FEE		0.000286				
CENTRA Commodity		3.255074	1396834	62495.52	4609293	0.06877
NMU Weighted Average gas cost - \$/Dth			6702891	377287.8	22580609	0.33688
Total Annu			67028910			

MINNESOTA ENERGY RESOURCES - NMU

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

NOVEMBER 1, 2012

All costs in \$/MMBtu	Last Base		Last	Most	Current	Result of Proposed Change			
	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	M-11-XXX	M-12-XXX	Oct. 2012	Nov.1,2012	Rate	Demand	PGA	PGA
	Feb. 11	Nov. 11	May 12^			Case	Change	%	\$

1) General Service Residential Avg. Annual Use:

90 Mcf

[illegible]

2) Large General Service: Avg. Annual Use:

4932 Mcf

[illegible]

3) SV Interruptible Service: Avg. Annual Use:

6068 Mcf

[illegible]

4) LV Interruptible Service: Avg. Annual Use:	40821 Mcf								
Commodity Cost	5.6422	4.1061	2.399	3.1724	3.530893	-0.374199	-0.140086	0.113004	0.358493
Commodity Margin	0.2846	0.2846	0.2846	0.2846	0.2846	0	0	0	0
Total Cost of Gas	5.9268	4.3907	2.6836	3.457	3.815493	-0.35623	-0.131006	0.103701	0.358493
Avg Annual Cost	241937.9	179232.8	109547.2	141118.2	155752.2	-0.35623	-0.131006	0.103701	14634.05
Effect of proposed commodity change on average annual bills:									14634.05

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

Attachment 4

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MINNESOTA ENERGY RESOURCES - NMU

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

DEMAND

Cost/Ccf

Contract Type		Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Rate Case Sales (therms)	
Northern Natural Gas (NNG)	Season						
TF12B (Max Rate)	112495 Annual	5125	12	7.5776	466022	52675364	0.008847058
TF12V (Max Rate)	112495 Annual	3215	12	9.0926	350793	52675364	0.006659527
TF5 (Max Rate)	112495 Winter	3574	5	15.153	270784	52675364	0.005140619
TF12B (Discount-Winter)	112495 Annual	0	12	6.4818	0	52675364	0
TFX5 (Discount)	112561 Winter	664	5	4.56	15139	52675364	0.000287402
TFX12 (Max Rate)	112486 Annual	1198	12	9.6288	138424	52675364	0.00262787
TFX Apr (Max Rate)	112486 Summer	221	1	5.683	1256	52675364	2.38E-05
TFX Oct (Max Rate)	112486 Summer	221	1	5.683	1256	52675364	2.38E-05
TFX5 (Max Rate)	112486 Winter	6353	5	15.153	481335	52675364	0.009137763
TFX5 (Discount)	112486 Winter	199	5	7.6	7562	52675364	0.000143559
TFX12 (Discount)	111866 Annual	142	12	4.864	8288	52675364	0.000157341
TFX12 (Discount)	111866 Annual	916	12	5.472	60148	52675364	0.001141862
TFX12 (Discount)	111866 Annual	1320	12	2.2192	35152	52675364	0.000667333
TFX5 (Discount)	111866 Winter	42	5	4.864	1021	52675364	1.94E-05
TFX5 (Discount)	111866 Winter	271	5	5.472	7415	52675364	0.000140768
TFX5 (Discount)	111866 Winter	2457	5	15.1392	185985	52675364	0.003530778
Bison	FT0003 Annual	5537	12	17.48	1161441	52675364	0.022049036
NBPL	T8673F Annual	5537	12	6.992	464576	52675364	0.008819607
Windom	0 Annual	0	12	0	0	52675364	0
Northwestern Energy	0 Annual	0	12	8	0	52675364	0
NNG Zone GDD Call Option	0 Winter	0	3	0	0	52675364	0
SMS	112521 Annual	2512	12	2.18	65714	52675364	0.001247528
FDD - Reservation	118657 Annual	8354	12	0	0	52675364	0
FDD - Storage Cycle	118657 Annual	96326	5	0	0	52675364	0
FDD - Reservation	118657 Annual	615	12	0	0	52675364	0
FDD - Storage Cycle	118657 Annual	7087	5	0	0	52675364	0
FDD - Reservation	123780 Annual	1441	12	0	0	52675364	0
FDD - Storage Cycle	123780 Annual	16610	5	0	0	52675364	0
FDD - Reservation	123781 Annual	384	12	1.714	7898	52675364	0.000149937
FDD - Storage Cycle	123781 Annual	4429	5	0.3567	7899	52675364	0.000149956

NNG Demand						3730209		52675364	0.070815059
Viking (VGT)									
FT-A ZONE 1 - 1	AF0012	Annual	7762	12	3.4671	322940		52675364	0.00613076
FT-A ZONE 1 - 1	AF0014	Winter	682	3	3.4671	7094		52675364	0.000134674
FT-A ZONE 1 - 1	AF0102	Annual	1243	12	3.4671	51715		52675364	0.000981768
FT-A ZONE 1 - 1	AF0183	Annual	0	5	3.7671	0		52675364	0.00
Wadena Delivered GDD Call Optic	0	Annual	2175	3	1.199752	7828		52675364	0.000148608
Balancing Agreement	ML0021	Winter	4638	12	1	55656		52675364	0.001056585
VGT Demand						445233		52675364	0.008452395
Great Lakes (GLGT)									
FT Western Zone	FT0016	Annual	6207	12	3.458	257566		52675364	0.004889686
FT Western Zone (12)	FT0155	Annual	2206	12	3.458	91540		52675364	0.001737814
FT Western Zone (5)	FT0155	Winter	2229	5	3.458	38539		52675364	0.000731632
FT Western Zone	FT15782	Annual	5514	12	3.458	228809		52675364	0.004343757
GLGT Demand						616454		52675364	0.01170289
Centra									
CENTRA TRANSMISSION	(\$Cdn/103M3)					197.709			
Conversion ((((\$Cdm103M3)*279.256)/9858)	Annual		9500	12	5.811726	662537		52675364	0.012577739
Union Balancing	Annual		4500	12	1	54000		52675364	0.001025147
CENTRA MINNESOTA PIPELINES	Annual		9500	12	1.778	202692		52675364	0.003847947
Centra Demand						919229		52675364	0.017450833
AECO									
Niska Storage (AECO)	Annual		648265	1	0	0		52675364	0
AECO/Emerson Swap	Annual		648267	1	0	0		52675364	0
AECO Demand						0		52675364	0
NMU DEMAND - \$/Ccf						5711125			0.108421178

For Joint Rate Demand 52675364 Annual Firm Sales in therms

	Units		Annual
	Dth's	Months	Dth's
Northern Natural Gas (NNG)			

TF12B (Max Rate)	5125	12	61500
TF12V (Max Rate)	3215	12	38580
TF5 (Max Rate)	3574	5	17870
TF12B (Discount-Winter)	0	12	0
TFX5 (Discount)	664	5	3320
TFX12 (Max Rate)	1198	12	14376
TFX Apr (Max Rate)	221	1	221
TFX Oct (Max Rate)	221	1	221
TFX5 (Max Rate)	6353	5	31765
TFX5 (Discount)	199	5	995
TFX12 (Discount)	142	12	1704
TFX12 (Discount)	916	12	10992
TFX12 (Discount)	1320	12	15840
TFX5 (Discount)	42	5	210
TFX5 (Discount)	271	5	1355
TFX5 (Discount)	2457	5	12285
Bison	5537	12	66444
NBPL	5537	12	66444
Windom	0	12	0
Northwestern Energy	0	12	0
NNG Zone GDD Call Option	0	3	0
SMS	2512	12	30144
Viking (VGT)			
FT-A ZONE 1 - 1	7762	12	93144
FT-A ZONE 1 - 1	682	3	2046
FT-A ZONE 1 - 1	1243	12	14916
FT-A ZONE 1 - 1	0	5	0
Wadena Delivered GDD Call Option	2175	3	6525
Balancing Agreement	4638	12	55656
Great Lakes (GLGT)			
FT Western Zone	6207	12	74484
FT Western Zone (12)	2206	12	26472
FT Western Zone (5)	2229	5	11145
FT Western Zone	5514	12	66168
Centra			
CENTRA TRANSMISSION			
Conversion ((((\$Cdm103M3)*279.256)/9858)	9500	12	114000

Union Balancing	4500	12	54000		
CENTRA MINNESOTA PIPELINES	9500	12	114000		
Total Demand Cost			5711125		
Total Demand Weighted Vol in Mcf			6201340		
Total Joint Demand Rate \$/Mcf				0.920950149	

MINNESOTA ENERGY RESOURCES - NMU
November 1, 2012
(Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)
PRESENT AVERAGE COST OF GAS EFFECTIV 41214

COMMODITY

NNG					NNG		
	Season	Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Annual Sales (therms)	Rate (\$/therm)
FDD - Reservation	Annual	8354	12	1.714	171825.1	67028910	0.002563
FDD - Storage Cycle	Annual	96326	5	0.3567	171797.4	67028910	0.002563
FDD - Reservation	Annual	615	12	3.3157	24469.87	67028910	0.000365
FDD - Storage Cycle	Annual	7087	5	0.6901	24453.69	67028910	0.000365
FDD - Reservation	Annual	1441	12	1.714	29638.49	67028911	0.000442
FDD - Storage Cycle	Annual	16610	5	0.3567	29623.94	67028912	0.000442
FDD - Reservation	Annual	384	12	1.714	7898.112	67028910	0.000118
FDD - Storage Cycle	Annual	4429	5	0.3567	7899.122	67028910	0.000118
					467605.7	67028910	0.006976

AECO					NNG		
	Season	Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Annual Sales (therms)	Rate (\$/therm)
Niska Storage (AECO)	Annual	648265	1	0.954822	618978	67028910	0.009234
					1086584	67028910	0.016211

WACOG		Annual	Call Option	Total Annu	Cost/therm
NNG	Rate	Dth	Premium	Cost	
GAS COST	3.3203				
FUEL 0.014	0.04714				
COMMODITY TRANSPORTATION	0.036				
ACA	0.0018				
GRI FEE	0				
NNG Commodity	3.40524	2512662	150452.2	8706671	0.129894
VGT					

Cut and past WACOG "block" from NMU4.3

GAS COST	3.2247								
FUEL 0.0076	0.0247								
COMMODITY TRANSPORTATION	0.013								
GRI	0								
ACA	0.0018								
VGT Commodity	3.2642	1827195	74068.77	6038399	0.090086				
GLGT									
FUEL 0.004914	0.01592								
COMMODITY TRANSPORTATION	0.00326								
GRI	0								
ACA	0.0018								
GLGT Commodity	0.02098	966199.7	90271.31	110542.2	0.001649				
CENTRA									
CENTRA TRANSMIS (\$Cdn/103M3)	1.062								
Conversion x0.9306	0.030088								
GAS COSTS	3.2247								
CUSTOMS FEE	0.000286								
CENTRA Commodity	3.255074	1396834	62495.52	4609293	0.068766				
NMU Weighted Average gas cost - \$/Dth		6702891	377287.8	19464905	0.290396	19464905	67028910	0.290396	
Total Annu	67028910								
		Total Commodity Cost		20551488	67028910	0.306606			

		6702891	
confirm with shawn	2008 forec	allocator	Sales w/o Losses & Unacc
nng	25985910	0.374862	2512662
glgt	18896820	0.272598	1827195
vgt	9992420	0.144147	966199.7
centra	14446030	0.208393	1396834
	69321180	1	6702891

MINNESOTA ENERGY RESOURCES - NMU
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
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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
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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	7666.667 230000	6451.613 200000	8387.097 260000	5714.286 160000	6774.194 210000	34993.86	1060000 1060000
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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	8333.333 250000	11935.48 370000	13548.39 420000	12142.86 340000	8064.516 250000	54024.58	1630000 1630000
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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	41465.22	0.191	70670	0.2373	99680	0.2807	95447.87	0.2827	70676.72	0.2319	377939.8
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Units - Collar Floor (put)

No Puts were purchased.

TRADE SECRET DATA ENDS]

MINNESOTA ENERGY RESOURCES - NMU

	M-08-1329 NMU GS	M-09- NMU GS	M-10- NMU GS	M-11- NMU GS	M-12- NMU GS	Proposed Change
NNG Design	21791	24680	23615	23778	25003	1225
Customer Requirements moving to Transportation						
Adjusted Design Day						
Adjusted D	1	1	1	1	1	0
Factors for	1	1	1	1	1	0

NNG Allocated Entitlements in PGA

TF12B	2653	7513	4232	4774	5125	351
TF12V	6643	5243	3919	2848	3215	367
TF(5)	5451	1991	3493	3267	3574	307
TFX(12)	0	0	3495	3268	3576	308
TFX(5)	6139	6139	9759	9126	9986	860
LS Power	2777	2725	3149	0	0	0
TFX(5)	0	0	0	0	0	0
Peak Capa	0	0	0	0	0	0
Total NNG	23663	23611	28047	23283	25476	2193

Other Pipelines Entitlements in PGA

Viking FT-/	7966	7966	7966	8945	9005	60
Viking FT-(	0	0	0	2530	682	-1848
Viking FT-/	5902	5902	0	0	0	0
Viking/NNC	926	1368.42	0	0	0	0
Viking/NNC	0	955.28	0	0	0	0
Viking/NNC	2089	563.22	0	0	0	0
Viking/NNC	2324	2089.31	0	0	0	0
Viking/NNC	563	925.77	0	0	0	0
Wadena D	0	0	0	0	2175	
Great Lake	15308	14308	14308	13981	13927	-54
Great Lake	2138	2138	2138	2238	2229	-9
Centra FT-	9858	9858	9858	9858	9500	-358
Total Capa	64835	63783	62317	60835	62994	2159
Total NNG	23663	23611	28047	23283	25476	2193
Total Trans	64835	63783	62317	60835	62994	2159
Total Seasi	22282	17658.99	15390	17161	18646	1485
Percent Se	0.941639	0.747914	0.548722	0.737061	0.731905	-0.00516

Other Entitlements not included in Peak Day Deliverability

TFX Offpea	0	0	216	202	221	19
TFX (Apr/C	0	0	216	202	221	19
TFX Apr.-C	0	0	0	0	0	0
TFX May-S	0	0	0	0	0	0
FDD Stora	7980	7830	9516	8898	10794	1896
FDD Stora	460070	451428	548602	513016	600117.3	87101.29
ANR Capa	0	0	0	0	0	0
Nexen PSC	684604	684604	0	0	0	0
Tenaska P	17763	0	0	0	0	0
AECO Stor	0	0	665043	666223	648265	-17958
NGPL per i	0	0	0	0	0	0
SMS per m	2143	2103	2454	2295	2512	217
SBA	0	0	0	0	0	0
Upstream I	0	0	0	0	0	0

MINNESOTA ENERGY RESOURCES - NMU
Rate Impacts
NMU

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
General Se	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.3688	-0.40293	0.404252	0.061909	0.1964
Demand C	1.3841	1.2268	1.2787	1.2862	1.343142	-0.02959	0.050396	0.044271	0.056942
Margin	2.1759	2.1759	2.1759	2.1759	2.1759	0	0	0	0
Total Cost	9.2022	7.5088	5.8536	6.6345	6.887842	-0.2515	0.176685	0.038186	0.253342
Average Ar	90	90	90	90	90				
Average Ar	828.198	675.792	526.824	597.105	619.9058	-0.2515	0.176685	0.038186	22.80076

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
Large Gen	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.3688	-0.40293	0.404252	0.061909	0.1964
Demand C	1.3841	1.2268	1.2787	1.2862	1.343142	-0.02959	0.050396	0.044271	0.056942
Margin	1.966	1.966	1.966	1.966	1.966	0	0	0	0
Total Cost	8.9923	7.2989	5.6437	6.4246	6.677942	-0.25737	0.183256	0.039433	0.253342
Average Ar	4932	4932	4932	4932	4932				
Average Ar	44350.02	35998.17	27834.73	31686.13	32935.61	-0.25737	0.183256	0.039433	1249.482

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
SV Interru	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.3688	-0.40293	0.404252	0.061909	0.1964
Commodity	0.956	0.956	0.956	0.956	0.956	0	0	0	0
Total Cost	6.5982	5.0621	3.355	4.1284	4.3248	-0.34455	0.289061	0.047573	0.1964
Average Ar	6068	6068	6068	6068	6068				
Average Ar	40037.88	30716.82	20358.14	25051.13	26242.89	-0.34455	0.289061	0.047573	1191.755

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
LV Interru	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.3688	-0.40293	0.404252	0.061909	0.1964
Commodity	0.2846	0.2846	0.2846	0.2846	0.2846	0	0	0	0
Total Cost	5.9268	4.3907	2.6836	3.457	3.6534	-0.38358	0.36138	0.056812	0.1964
Average Ar	40821	40821	40821	40821	40821				
Average Ar	241937.9	179232.8	109547.2	141118.2	149135.4	-0.38358	0.36138	0.056812	8017.244

	Commodity Change	Commodity Change	Demand Change	Demand Change	Demand Change	Total Change	Total Change	Average Annual Change
October C	\$/Mcf	%	\$/Mcf	\$/Mcf	%	\$/Mcf	%	
General Se	0.1964	0.1964	0.044271	0.056942	0.044271	0.253342	0.038186	22.80076
Large Gen	0.1964	0.1964	0.044271	0.056942	0.044271	0.253342	0.039433	1249.482
SV Interru	0.1964	0.1964	0	0	0	0.1964	0.047573	1191.755
LV Interru	0.1964	0.1964	0	0	0	0.1964	0.056812	8017.244

* Average Annual Bill amount does not include customer charges.

^\$/Mcf Demand Cost rate reflects adjustment to Annual Demand Volumes made on March 1, 2012 & revised demand costs per Dockets G011/M-12-558 and G011/M-12-559

MINNESOTA ENERGY RESOURCES - NMU

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

NMU

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
General Se	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.530893	-0.3742	0.471819	0.113004	0.358493
Demand C	1.3841	1.2268	1.2787	1.2862	1.084212	-0.21667	-0.1521	-0.15704	-0.20199
Margin	2.1759	2.1759	2.1759	2.1759	2.1759	0	0	0	0
Total Cost	9.2022	7.5088	5.8536	6.6345	6.791005	-0.26202	0.160142	0.02359	0.156505
Average Ar	90	90	90	90	90				
Average Ar	828.198	675.792	526.824	597.105	611.1905	-0.26202	0.160142	0.02359	14.08545

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
Large Gen	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.530893	-0.3742	0.471819	0.113004	0.358493
Demand C	1.3841	1.2268	1.2787	1.2862	1.084212	-0.21667	-0.1521	-0.15704	-0.20199
Margin	1.966	1.966	1.966	1.966	1.966	0	0	0	0
Total Cost	8.9923	7.2989	5.6437	6.4246	6.581105	-0.26814	0.166098	0.02436	0.156505
Average Ar	4932	4932	4932	4932	4932				
Average Ar	44350.02	35998.17	27834.73	31686.13	32458.01	-0.26814	0.166098	0.02436	771.8827

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
SV Interru	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.530893	-0.3742	0.471819	0.113004	0.358493
Commodity	0.956	0.956	0.956	0.956	0.956	0	0	0	0
Total Cost	6.5982	5.0621	3.355	4.1284	4.486893	-0.31998	0.337375	0.086836	0.358493
Average Ar	6068	6068	6068	6068	6068				
Average Ar	40037.88	30716.82	20358.14	25051.13	27226.47	-0.31998	0.337375	0.086836	2175.337

	Base Cost Change	Demand Change	Last Dema Change	Most Rece PGA	Nov. 12 PC w/ Propose	% Change From Last	% Change From Last	% Change From Last	\$ Change From Last
LV Interru	G011/MR1	Nov. 11	May 12^	Oct. 2012	Demand C	Rate Case	Demand Fi	PGA	PGA
Commodity	5.6422	4.1061	2.399	3.1724	3.530893	-0.3742	0.471819	0.113004	0.358493
Commodity	0.2846	0.2846	0.2846	0.2846	0.2846	0	0	0	0
Total Cost	5.9268	4.3907	2.6836	3.457	3.815493	-0.35623	0.421782	0.103701	0.358493
Average Ar	40821	40821	40821	40821	40821				
Average Ar	241937.9	179232.8	109547.2	141118.2	155752.2	-0.35623	0.421782	0.103701	14634.05

	Commodity Change	Commodity Change	Demand Change	Demand Change	Demand Change	Total Change	Total Change	Average Annual Change
October C	\$/Mcf	%	\$/Mcf	\$/Mcf	%	\$/Mcf	%	
General Se	0.358493	0.358493	-0.15704	-0.20199	-0.15704	0.156505	0.02359	14.08545
Large Gen	0.358493	0.358493	-0.15704	-0.20199	-0.15704	0.156505	0.02436	771.8827
SV Interru	0.358493	0.358493	0	0	0	0.358493	0.086836	2175.337
LV Interru	0.358493	0.358493	0	0	0	0.358493	0.103701	14634.05

* Average Annual Bill amount does not include customer charges.

^\$/Mcf Demand Cost rate reflects adjustment to Annual Demand Volumes made on March 1, 2012 & revised demand costs per Dockets G011/M-12-558 and G011/M-12-559

MINNESOTA ENERGY RESOURCES - NMU

Change in Costs due to November 1, 2012 Change in Entitlement Levels and Related Demand Costs

NMU

	Oct. 2012 Entitlement	Nov. 2012 Entitlement	Entitlement Change	Oct. 2012 Rate	Months	Oct. 2012 Total Annu	Nov. 2012 Total Annu	Total Annual Cost Change
NNG Pipeline								
TF12B (Ma	4774	5125	351	7.5776	12	434105.5	466022	31916.45
TF12V (Ma	2848	3215	367	9.0926	12	310748.7	350793	40044.3
TF5 (Max F	3267	3574	307	15.153	5	247524.3	270784	23259.75
TF12B (Dis	0	0	0	6.4818	12	0	0	0
TFX5 (Disc	607	664	57	4.56	5	13839.6	15139	1299.4
TFX12 (Ma	1095	1198	103	9.6288	12	126522.4	138424	11901.57
TFX Apr (N	202	221	19	5.683	1	1147.966	1256	108.034
TFX Oct (N	202	221	19	5.683	1	1147.966	1256	108.034
TFX5 (Max	5806	6353	547	15.153	5	439891.6	481335	41443.41
TFX5 (Disc	182	199	17	7.6	5	6916	7562	646
TFX12 (Dis	130	142	12	4.864	12	7587.84	8288	700.16
TFX12 (Dis	837	916	79	5.472	12	54960.77	60148	5187.232
TFX12 (Dis	1206	1320	114	2.2192	12	32116.26	35152	3035.738
TFX5 (Disc	38	42	4	4.864	5	924.16	1021	96.84
TFX5 (Disc	247	271	24	5.472	5	6757.92	7415	657.08
TFX5 (Disc	2246	2457	211	15.1392	5	170013.2	185985	15971.78
Bison	5060	5537	477	17.48	12	1061386	1161441	100055.4
NBPL	5060	5537	477	6.992	12	424554.2	464576	40021.76
Windom	0	0	0	0	12	0	0	0
NNG Zone	1265	0	-1265	0.91	3	3453.45	0	-3453.45
NNG 3-Party demand								
Producer C	0	0	0			0	0	0
Call Option	375288	0	-375288			375288	0	-375288
Upstream Demand Costs								
SMS	2295	2512	217	2.18	12	60037	65714	5677
FDD - Resi	7634	8354	720	1.714	12	157016	171825	14809
FDD - Stor.	88030	96326	8296	0.3567	5	157002	171797	14795
FDD - Resi	562	615	53	3.3157	12	22361	24470	2109
FDD - Stor.	6477	7087	610	0.6901	5	22349	24454	2105
FDD - Resi	1317	1441	124	1.714	12	27088	29638	2550
FDD - Stor.	15180	16610	1430	0.3567	5	27074	29624	2550
FDD - Resi	351	384	33	1.714	12	7219	7898	679
FDD - Stor.	4048	4429	381	0.3567	5	7220	7899	679
Viking Pipeline								
Viking FT-/	8945	9005	60	3.4671	12	372159	374655	2496
Viking FT-(	678	682	4	3.4671	3	7052	7094	42
Viking FT-(	1852	0	-1852	3.7671	5	34883	0	-34883
Wadena Di	0	2175	2175	1.199752	3	0	7828	7828
Balancing /	4607	4638	31	1	12	55284	55656	372
GLGTPipeline								
FT Western	6231	6207	-24	3.458	12	258562	257566	-996
FT Western	2214	2206	-8	3.458	12	91872	91540	-332
FT Western	2238	2229	-9	3.458	5	38695	38539	-156
FT Western	5536	5514	-22	3.458	12	229722	228809	-913
CENTRA Pipeline								
CENTRA Transmission (\$cdn/103M3)				197.709				
Centra Tra	9858	9500	-358	5.811726	12	662537	662537	0
Union Bala	4500	4500	0	1	12	54000	54000	0
Centra MN	9858	9500	-358	1.778	12	210330	202692	-7638
NISKA STORAGE (AECO)								
Niska Stor	666223	648265	-17958	0.954822	1	636125	618978	-17147
AECO/Em	666225	648267	-17958	0.440001	1	293140	285238	-7902
TOTAL DEMAND						7150613	7075048	-75564.5

MINNESOTA ENERGY RESOURCES - NMU

NNG-NMU

	1/20 Design Day	HDD Regressior Slope	Customer Growth	1/20 Regressior Total
Peak	103	2082	244	0 25003 25003
Off Peak	55	2082	244	0 14665 14665

GLGT-NMU

	1/20 Design Day	HDD Regressior Slope	Customer Growth	1/20 Regressior Total
Peak	105.32	1623.04	144.68	0 15825.2 15825.2
Off Peak	57	1623.04	144.68	0 10073.12 10073.12

VGT-NMU

	1/20 Design Day	HDD Regressior Slope	Customer Growth	1/20 Regressior Total
Peak	109	1781.96	100.32	0 11522.6 11522.6
Off Peak	57	1781.96	100.32	0 7252.88 7252.88

Centra-NMU

	1/20 Design Day	HDD Regressior Slope	Customer Growth	1/20 Regressior Total
Peak	107	1498	85	0 7914 7914
Off Peak	57	1498	85	0 4990 4990

Total-NMU

	1/20 Design Day	HDD Regressior Slope	Customer Growth	1/20 Regressior Total
Peak	0	6985	574	0 60264.8 60264.8
Off Peak	0	6985	574	0 36981 36981

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Attachment 10
Page 1 of 6

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

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TRADE SECRET DATA ENDS]

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Attachment 10
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MINNESOTA ENERGY RESOURCES - NMU
12/13 Winter Portfolio Plan - MERC GLGT-NMU Hedging Plan
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Attachment 10
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MINNESOTA ENERGY RESOURCES - NMU
12/13 Winter Portfolio Plan - MERC VGT-NMU Hedging Plan
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Attachment 10
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MINNESOTA ENERGY RESOURCES - NMU
12/13 Winter Portfolio Plan - MERC Centra-NMU Hedging Plan
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Attachment 10
Page 5 of 6

MINNESOTA ENERGY RESOURCES
NNG WINTER PLAN (NMU)
NOVEMBER, 2012 THROUGH MARCH, 2013
[TRADE SECRET DATA BEGINS]

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

Total

[TRADE SECRET DATA ENDS]

PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN EXCISED

PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN EXCISED

Attachment 10
Page 6 of 6

MINNESOTA ENERGY RESOURCES
GLGT/VGT/Centra WINTER PLAN (NMU)
NOVEMBER, 2012 THROUGH MARCH, 2013
[TRADE SECRET DATA BEGINS

				Daily Volumes						Monthly
PHYSICAL FIXED PR Trigger				Nov	Dec	Jan	Feb	Mar	Total	
Deal #	Locked	Trigger	Exercised	Receipt Point						
									0	

TRADE DATA SECRET ENDS]

PUBLIC DOCUMENT - TRADE SECRET DATA HAS BEEN EXCISED

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

Date							Base	7012							
							Variable	574							
	0.212 Bemidji Adjusted HDD	0.4722 Cloquet Adjusted HDD	0.1437 Fargo Adjusted HDD	0.1721 Intl. Falls Adjusted HDD	Weighted Adjusted HDD	1 Actual Total Through- Put *	Estimated Through- Put **		Intl Falls Centra	GLGT	NNG	VGT	GLGT TRF	VGT TRF	Total
40725	0	0	0	0	0	0	4379.06	7012	1028	1010.85	1463	513.21	0	364	4379.06
40726	4.28	0	0	5.3	1.81949	3628.15	8056.387	495	1008.8	1457	440.35	0	227	3628.15	
40727	0	0	0	0	0	0	3058.07	7012	449	924.24	1334	128.83	0	222	3058.07
40728	0	0	0	0	0	0	3700.29	7012	468	1290.46	1301	356.83	0	284	3700.29
40729	1.07	0	0	1.06	0.409266	5455.4	7246.919	1622	1277.65	1494	631.75	0	430	5455.4	
40730	0	0	0	0	0	0	5678.26	7012	1749	1183.5	1666	618.76	0	461	5678.26
40731	0	0	0	0	0	0	5771.43	7012	1714	1100.61	1929	581.82	0	446	5771.43
40732	0	0	0	0	0	0	4216.25	7012	1380	642.4	1588	240.85	0	365	4216.25
40733	0	0	0	0	0	0	3512.25	7012	502	1009.48	1382	390.77	0	228	3512.25
40734	0	0	0	0	0	0	4137.63	7012	633	953.49	1489	730.14	0	332	4137.63
40735	3.27	0	0	2.2	1.07186	6513.57	7627.248	1737	1194.38	1763	1317.19	0	502	6513.57	
40736	8.4	6.36	0	9.36	6.394848	6499.65	10682.64	1735	1213.15	1912	1166.5	0	473	6499.65	
40737	1.09	6.36	0	3.15	3.776387	6289.83	9179.646	1709	1106.02	1881	1121.81	0	472	6289.83	
40738	3.33	7.42	0	0	4.209684	6686.05	9428.359	1672	1242.7	1917	1369.35	0	485	6686.05	
40739	0	0	0	0	0	0	4439.65	7012	1341	667.12	1422	652.53	0	357	4439.65
40740	0	0	0	0	0	0	3442.75	7012	467	1040.45	1167	544.3	0	224	3442.75
40741	0	0	0	0	0	0	4058.74	7012	514	1209.21	1288	720.53	0	327	4058.74
40742	0	0	0	0	0	0	4791.33	7012	622	1372.06	1381	982.27	0	434	4791.33
40743	0	0	0	0	0	0	4852.4	7012	605	1468.01	1425	944.39	0	410	4852.4
40744	0	0	0	0	0	0	4730.4	7012	630	1158.24	1448	1083.16	0	411	4730.4
40745	0	0	0	0	0	0	5233.67	7012	671	1591.28	1577	972.39	0	422	5233.67
40746	0	0	0	0	0	0	3780.09	7012	695	788.38	1542	424.71	0	330	3780.09
40747	3.21	11.99	0	8.48	7.801606	3966.61	11490.12	706	1122.31	1546	323.3	0	269	3966.61	
40748	0	0	0	0	0	0	4956.54	7012	726	1803.38	1529	564.16	0	334	4956.54
40749	1.07	0	0	5.3	1.13897	6023.59	7665.769	1706	1532.32	1450	868.27	0	467	6023.59	
40750	0	0	0	0	0	0	5527.92	7012	1627	1249.83	1388	835.09	0	428	5527.92
40751	0	0	0	0	0	0	4793.03	7012	1620	516.05	1424	800.98	0	432	4793.03
40752	0	0	0	0	0	0	5259.14	7012	1627	841.88	1370	977.26	0	443	5259.14
40753	0	0	0	0	0	0	4193.41	7012	1418	533.42	1303	592.99	0	346	4193.41
40754	0	0	0	0	0	0	6416.44	7012	576	4133.46	1285	196.98	0	225	6416.44
40755	0	0	0	0	0	0	4502.23	7012	557	1769.25	1463	391.98	0	321	4502.23
40756	0	0	0	0	0	0	6798.76	7012	1542	2477.78	1693	656.98	0	429	6798.76
40757	0	0	0	0	0	0	5529.89	7012	1586	1235.89	1535	750	0	423	5529.89
40758	0	0	0	0	0	0	5364.01	7012	1526	1311.07	1368	727.94	0	431	5364.01
40759	0	0	0	0	0	0	5049.1	7012	1548	674.73	1454	941.37	0	431	5049.1
40760	0	0	0	0	0	0	3942.2	7012	1252	509.97	1384	441.23	0	355	3942.2
40761	0	0	0	0	0	0	3102.67	7012	549	495.23	1349	459.44	0	250	3102.67
40762	0	1.02	0	0	0.481644	4616.22	7288.464	604	1550.83	1423	709.39	0	329	4616.22	
40763	0	0	0	0	0	0	5628.03	7012	1686	1006.85	1481	971.18	0	483	5628.03
40764	7.7	6.54	0	9.63	6.377911	5895.26	10672.92	1573	1153.63	1620	1094.63	0	454	5895.26	
40765	0	0	0	1.03	0.177263	5349.32	7113.749	1370	845.37	1534	1159.95	0	440	5349.32	
40766	0	0	0	0	0	0	4424.91	7012	1305	333.86	1440	887.05	0	459	4424.91
40767	2.06	0	0	0	0.43672	4230.05	7262.677	1133	586.63	1397	746.42	0	367	4230.05	
40768	1.02	0	0	2.06	0.570766	3493.9	7339.62	466	950.28	1377	467.62	0	233	3493.9	
40769	0	0	0	0	0	0	4367.04	7012	641	1162.44	1425	805.6	0	333	4367.04
40770	0	0	0	0	0	0	5330.31	7012	1631	637.95	1597	1005.36	0	459	5330.31
40771	0	0	0	1.08	0.185868	5238.25	7118.688	1167	511.55	1881	1224.7	0	454	5238.25	
40772	0	0	0	3.24	0.557604	4169.32	7332.065	727	224.17	1751	990.15	0	477	4169.32	
40773	0	0	0	0	0	0	4367.66	7012	1539	78.94	1357	928.72	0	464	4367.66
40774	6.48	4.32	0	9.72	5.086476	4526.33	9931.637	1657	160.27	1442	848.06	0	419	4526.33	
40775	7.35	2.14	0	10.5	4.375758	4417.51	9523.685	1516	603.7	1456	560.81	0	281	4417.51	
40776	4.16	4.12	0	3.06	3.35401	5994.79	8937.202	1513	1934.14	1545	643.65	0	359	5994.79	
40777	0	0	0	0	0	0	5229.46	7012	1571	817.88	1473	827.58	0	540	5229.46
40778	0	0	0	0	0	0	4927.29	7012	1441	504.15	1583	831.14	0	568	4927.29
40779	2.24	2.2	0	5.45	2.451665	5891.22	8419.256	1607	1206.11	1511	1042.11	0	525	5891.22	
40780	0	0	0	0	0	0	5451.09	7012	1503	765.56	1381	1279.53	0	522	5451.09
40781	4.36	0	0	5.3	1.83645	4469.85	8066.122	1204	547.13	1349	1006.72	0	363	4469.85	
40782	6.12	2.08	0	7.21	3.520457	6151.26	9032.742	479	3179.46	1359	834.8	0	299	6151.26	
40783	1.04	5.05	0	2.06	2.959616	5710.37	8710.82	659	2214.52	1584	881.85	0	371	5710.37	
40784	0	0	0	0	0	0	11319.42	7012	1580	6554.18	1574	1117.24	0	494	11319.42
40785	0	0	0	0	0	0	12620.84	7012	1629	7739.5	1519	1213.34	0	520	12620.84
40786	0	3.18	0	1.07	1.685743	12973.17	7979.616	1611	8107.01	1595	1190.16	0	470	12973.17	
40787	0	0	0	0	0	0	11962.91	7012	1619	7579.8	1566	733.11	0	465	11962.91
40788	5.2	3.12	0	8.32	4.007536	7635.02	9312.326	1362	3901.62	1523	446.4	0	402	7635.02	
40789	12.54	1.09	5.75	6.6	5.135313	3879.46	9959.67	599	1021.11	1549	420.35	0	290	3879.46	
40790	16.8	16.96	7.42	18.9	15.88906	5249.13	16132.32	761	1742.67	1906	528.46	0	311	5249.13	
40791	11.55	13.13	0	12.36	10.77574	7276.01	13197.28	1604	2188.12	2009	1030.89	0	444	7276.01	
40792	6.42	7.21	0	6.24	5.839506	11816.34	10363.88	1738	-1958.26	10171	1312.6	0	553	11816.34	
40793	4.08	0	0	2.02	1.212602	11382.24	7708.034	1448	-1967.75	10027	1328.99	0	546	11382.24	
40794	0	0	0	0	0	0	7043.32	7012	1439	-6761.85	10559	1342.17	0	465	7043.32
40795	0	0	0	0	0	0	5352.82	7012	1291	-9177.74	11654	1185.56	0	400	5352.82
40796	0	0	0	0	0	0	4288.44	7012	469	-6456.88	8919	1086.32	0	271	4288.44

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

	Base Variable						7012 574										
	0.212 Bemidji Adjusted HDD	0.4722 Cloquet Adjusted HDD	0.1437 Fargo Adjusted HDD	0.1721 Intl. Falls Adjusted HDD	1 Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **										
Date								Intl Falls Centra	GLGT	NNG	VGT	GLGT TRF	VGT TRF	Total			
40797	0	0	0	0	0	4788.66	7012	661	-3349.09	5900	1251.75	0	325	4788.66			
40798	10.17	2.24	2.26	8.88	5.066778	7041.96	9920.331	1755	-8842.66	11659	1922.62	0	548	7041.96			
40799	19.04	16.5	13.68	20.16	17.26313	8981.28	16921.04	2250	-12294.5	16043	2274.78	0	708	8981.28			
40800	28.34	28.34	22.89	30.74	27.96988	14031.65	23066.71	3070	-7671.05	14671	2941.7	0	1020	14031.65			
40801	23.69	22.44	17.12	25.25	22.42412	13271.19	19883.44	2754	-7410.49	14335	2648.68	0	944	13271.19			
40802	19.8	17.68	12.54	17.85	17.42008	10827.7	17011.13	2203	-6489.51	12202	2168.21	0	744	10827.7			
40803	18.24	16.96	6.9	14.04	15.28321	8118.11	15784.56	1010	-4161.98	9225	1580.09	0	465	8118.11			
40804	18.02	14.7	6.42	19.95	15.11753	8958	15689.46	1374	-10168.2	15336	1893.19	0	523	8958			
40805	8.64	6.3	0	5.35	5.727275	8497.6	10299.46	2141	-11075.9	15184	1711.53	0	537	8497.6			
40806	15.26	8.48	12.98	11.88	11.14915	9991.32	13411.61	2226	469.32	4434	2147	0	715	9991.32			
40807	28.6	20.9	23.94	22.4	23.2274	13260.13	20344.53	3110	2424.79	4058	2631.34	0	1036	13260.13			
40808	24.72	21.63	16.8	25.75	22.30006	13700.17	19812.24	3080	2560.55	4445	2671.62	0	943	13700.17			
40809	18.9	16.32	8.88	18.72	16.21087	10753.06	16317.04	2104	2360.43	3583	1989.63	0	716	10753.06			
40810	18.72	19.19	5.5	19.57	17.18851	9226.22	16878.2	1266	2103.73	3753	1645.49	0	458	9226.22			
40811	19.08	13.65	9.72	17.34	14.87147	8951.72	15548.22	1248	2232.7	3214	1743.02	0	514	8951.72			
40812	14.28	5.4	6.12	13.39	8.761103	8647.69	12040.87	2174	1910.71	2263	1661.98	0	638	8647.69			
40813	9.09	6.18	0	8.08	6.235844	7914.88	10591.37	2022	1521.06	2138	1678.82	0	555	7914.88			
40814	2.2	0	0	0	0.4664	7551.05	7279.714	2040	1409.03	2060	1472.02	0	570	7551.05			
40815	18.08	14.82	15.08	13.8	15.37294	10295.63	15836.07	2532	1898.77	3079	1998.86	0	787	10295.63			
40816	21.4	24.96	15.26	27.3	23.2141	11711.25	20336.9	2589	2502.03	4097	1737.22	0	786	11711.25			
40817	14.56	18.9	5.85	15.75	15.56252	9891.57	15944.89	1277	3319.24	3712	1114.33	0	469	9891.57			
40818	4.2	7.21	0	5.25	5.198487	7586.42	9995.932	956	2761.64	2561	875.78	0	432	7586.42			
40819	0	10.3	0	0	4.86366	7870.61	9803.741	1615	1960.7	2665	1119.91	0	510	7870.61			
40820	0	3.12	0	0	1.473264	6707.6	7857.654	1720	1001.65	2203	1319.95	0	463	6707.6			
40821	0	10.7	0	1.08	5.238408	6979.5	10018.85	1466	1441.68	2204	1395.82	0	472	6979.5			
40822	0	4.24	0	0	2.002128	6227.91	8161.221	1807	897.19	1850	1201.72	0	472	6227.91			
40823	0	0	0	0	0	5469.3	7012	1717	899.01	1526	962.29	0	365	5469.3			
40824	11.66	0	8.64	11.77	5.739105	5922.94	10306.25	1964	1002.12	1754	829.82	0	373	5922.94			
40825	13.08	9.63	7.7	12.84	10.6365	7330.94	13117.35	1945	1321.88	2335	1158.06	0	571	7330.94			
40826	11	7.28	9.81	1.08	7.365181	7528.87	11239.61	1945	1381.74	2134	1370.13	0	698	7528.87			
40827	7.49	2.1	2.22	5.3	3.810644	6783.71	9199.31	1737	1180.72	2178	1120.99	0	567	6783.71			
40828	14.04	6.18	6.66	9.27	8.447085	8767.36	11860.63	2229	2146.98	2423	1319.38	0	649	8767.36			
40829	23.73	18.53	15.54	18.7	19.23199	12846.67	18051.16	2759	3264.98	3930	1918.69	0	974	12846.67			
40830	29	22.23	21.66	27.12	24.4249	15064.39	21031.89	2906	4048.83	5331	1679.56	178	921	15064.39			
40831	25.3	20.34	18.08	25.3	21.92037	13528.71	19594.29	2078	4245.32	4961	1390.39	223	631	13528.71			
40832	30	22.42	23.6	26.18	24.84362	15342.72	21272.24	2350	4195.08	5598	2039.64	245	915	15342.72			
40833	27.84	21.66	23.2	29.38	24.52007	18526.51	21086.52	3705	4475.05	6207	2666.46	295	1178	18526.51			
40834	33.17	27.25	29.64	30.52	29.41125	21009.79	23894.06	4052	4629.97	7748	2979.82	338	1262	21009.79			
40835	36.4	28.89	32.1	27.56	30.7145	20454.12	24642.13	3819	4575.45	7107	3094.67	436	1422	20454.12			
40836	29.87	29.96	27.3	31.93	29.89772	20093.56	24173.29	3656	4597.68	7248	3080.88	647	864	20093.56			
40837	26.5	24.38	20.14	26.25	24.54198	15967.67	21099.1	2828	3862.8	5650	2269.87	490	867	15967.67			
40838	22.26	19.76	15.4	24.15	20.41899	13243.41	18732.5	1722	3770.31	5051	1684.1	318	698	13243.41			
40839	28.62	26.5	17.12	23.54	25.09212	16626.35	21414.88	2180	4609.95	6388	2338.4	340	770	16626.35			
40840	27.81	23.1	18.9	30.9	24.83736	18690.47	21268.64	3680	4906.73	6072	2568.74	387	1076	18690.47			
40841	27.54	29.68	20.8	28.56	27.75751	19826.82	22944.81	3575	4567.78	7243	2994.04	581	866	19826.82			
40842	27.81	25.5	28.62	26.52	26.61361	19624.29	22288.21	3684	4396.63	6898	3128.66	591	926	19624.29			
40843	29.58	27.81	28.08	32.24	28.98644	21390.04	23650.22	3900	4560.29	8120	3229.75	612	968	21390.04			
40844	35.31	28.62	28.08	36.4	31.29962	20127.37	24977.98	3978	3792.57	7744	2890.8	636	1086	20127.37			
40845	32.1	26.78	27.75	32.55	29.04025	17544.63	23681.1	3570	3573.22	6760	2291.41	561	789	17544.63			
40846	29.4	22.88	30.52	28.35	26.3015	18627.58	22109.06	3513	3761.28	7055	2929.3	573	796	18627.58			
40847	28.34	23.32	20.34	26.5	24.50329	18211.94	21076.89	3415	3690.5	6719	2907.44	573	907	18211.94			
40848	30.24	23.32	25.53	29.4	26.15099	18857.33	22022.67	3735	3506.53	7195	2822.8	615	983	18857.33			
40849	34.98	32.86	30.24	36.04	33.48022	22590.77	26229.65	4319	4590.1	8329	3477.67	654	1221	22590.77			
40850	28.34	26.25	27.6	28.35	27.24849	20886.19	22652.63	4134	4091.8	8064	2834.39	641	1121	20886.19			
40851	24.36	24.61	21.25	21.8	23.59057	18199.17	20552.99	3304	4043.43	7239	2220.74	581	811	18199.17			
40852	23	21.8	18.3	19.8	21.20725	13495.33	19184.96	1856	3222.65	5822	1654.68	543	397	13495.33			
40853	30.42	25.3	31.2	26.68	27.47077	19185.41	22780.22	2853	4114.81	7840	2705.6	621	1051	19185.41			
40854	40.28	34.24	33.79	42	36.79131	24223.37	28130.21	3713	5339.8	9446	3514.57	724	1486	24223.37			
40855	34.32	31.31	31.61	31.93	32.09793	22290.57	25436.21	3435	4362.92	8891	3511.65	686	1404	22290.57			
40856	39.1	32.19	36.58	35.2	34.80378	23951.49	26989.37	3795	4930.69	9398	3557.8	752	1518	23951.49			
40857	39.96	37.45	35.84	41.34	38.42023	26350.93	29065.21	4003	5129.98								

MINNESOTA ENERGY RESOURCES - NMU
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	Base Variable							7012 574								
	0.212	0.4722	0.1437	0.1721		1 Actual										
	Bemidji	Cloquet	Fargo	Intl. Falls	Weighted	Total	Estimated									
	Adjusted	Adjusted	Adjusted	Adjusted	Adjusted	Through- Put *	Through- Put **									
Date	HDD	HDD	HDD	HDD	HDD			Intl Falls Centra	GLGT	NNG	VGt	GLGT TRF	VGt TRF	Total		
40869	36.38	35.36	33.6	36.38	35.49887	26439.18	27388.35	4087	5599.65	10472	3850.53	816	1614	26439.18		
40870	27.82	27.5	28	24.61	27.14232	20908.58	22591.69	3100	4586.89	8599	2832.69	697	1093	20908.58		
40871	27.04	28.62	24.61	29.4	27.84304	19287.18	22993.91	2930	4286.98	7993	2542.2	639	896	19287.18		
40872	31.03	28.34	30.51	33.48	30.1067	21115.69	24293.25	3349	5089.34	8470	2537.35	678	992	21115.69		
40873	39.9	36.16	42.48	39.96	38.51504	25178.05	29119.64	3681	5660.83	10569	3292.22	713	1262	25178.05		
40874	43.87	39.96	42.9	41.73	41.51602	28418.07	30842.19	4188	6100.73	12022	3923.34	782	1402	28418.07		
40875	41.04	40.33	36.3	48.15	41.24723	29029.81	30687.91	5174	6125.67	11431	4078.14	773	1448	29029.81		
40876	43.86	38.48	42.12	47.38	41.67532	30080.83	30933.63	5363	6495.13	11805	4070.7	802	1545	30080.83		
40877	46.01	40.28	45.6	49.22	43.79782	29971.96	32151.95	5681	5893.23	11886	4031.73	848	1632	29971.96		
40878	52.92	54.06	51.98	57.78	54.15964	37349.44	38099.63	6239	7989.13	15003	5143.31	937	2038	37349.44		
40879	41.44	48.16	38.61	42.9	44.45778	31802.78	32530.77	5284	6770.88	13266	4127.9	834	1520	31802.78		
40880	47.52	41.04	42.51	47.52	43.74021	29438.41	32118.88	4684	6290.07	11979	3984.34	856	1645	29438.41		
40881	57.24	50.76	57.72	51.94	53.33699	36489.88	37627.43	5489	8604.75	14371	5019.13	991	2015	36489.88		
40882	65.92	61.8	61.04	67.98	63.62781	45967.59	43534.36	7876	10693.9	17247	6332.69	1175	2643	45967.59		
40883	56.61	57.2	52.2	57.72	56.44591	40462.79	39411.95	6833	9375.76	15645	5445.03	1025	2139	40462.79		
40884	50.4	47.3	46.33	50.6	48.38574	36768.46	34785.42	6457	8938.98	13630	4779.48	974	1989	36768.46		
40885	66.6	60.5	62.15	65.4	62.8736	44302.72	43101.44	7764	9320.11	17570	6007.61	1150	2491	44302.72		
40886	62.06	60.99	59.4	63.6	61.43754	43904.36	42277.15	7275	9780.4	17772	5693.96	1081	2302	43904.36		
40887	45.15	48.6	38.85	49.35	46.5966	31437.53	33758.45	4633	6785.49	13994	3767.04	819	1439	31437.53		
40888	36.72	32.4	37.4	38.85	35.14439	26456.16	27184.88	4310	6125.9	10368	3343.26	834	1475	26456.16		
40889	45.32	33.99	44.69	46.8	40.13415	30397.14	30049	6111	6555.54	10910	4097.6	922	1801	30397.14		
40890	38.52	33.6	37.08	40.28	36.29274	28376.89	27844.04	5358	6266.51	10662	3802.38	829	1459	28376.89		
40891	41.8	36.75	36.63	38.16	38.04602	28527.32	28850.41	5127	6598.27	10585	3898.05	828	1491	28527.32		
40892	56.61	51.52	46.87	54.39	52.4248	38577.32	37103.84	6685	8382.57	14984	5238.75	1056	2231	38577.32		
40893	51.5	55.08	50.29	56.65	53.90291	38946.8	37952.27	6282	9208.98	15756	4767.82	984	1948	38946.8		
40894	48.15	45.58	39.6	44.94	45.15537	33114.74	32931.18	4604	7994.36	13947	4209.38	850	1510	33114.74		
40895	35.84	39.2	29.38	38.5	36.95608	27383	28224.79	4046	6482.74	10972	3721.26	792	1369	27383		
40896	49.68	46.44	44.69	49.05	47.32459	38092.73	34176.31	6138	10109.74	13851	5276.99	930	1787	38092.73		
40897	41.04	43.6	37.74	40.7	41.71611	31308.28	30957.05	4848	7495.72	12285	4363.56	846	1470	31308.28		
40898	47.3	46.87	42.18	49.5	46.73983	33550.56	33840.66	5663	8048.54	12742	4645.02	886	1566	33550.56		
40899	47.7	49.82	43.29	48.88	48.27043	34807.87	34719.22	5647	8375.76	13698	4512.11	905	1670	34807.87		
40900	49.68	45.15	45.1	43.68	45.85019	31731.27	33330.01	5232	6618.27	12783	4531	922	1645	31731.27		
40901	47.46	43.6	39.9	42.9	43.76616	26459.32	32133.78	3910	5930.75	11039	3542.57	785	1252	26459.32		
40902	36.3	37.06	32.77	38.15	36.47	25847.76	27945.78	3737	5860.07	11191	3236.69	733	1090	25847.76		
40903	39.78	37.12	40.8	45.6	39.67214	25459.8	29783.81	4151	5270.82	10451	3351.98	851	1384	25459.8		
40904	55.12	54.06	55.59	64.66	56.32884	38043.53	39344.75	5897	9584.14	15039	4591.39	1019	1913	38043.53		
40905	46.2	46.8	39.24	51.94	46.47102	32808.64	33686.37	4842	8224.89	13457	3957.75	865	1462	32808.64		
40906	46.35	44.72	42	47.84	45.21165	32693.45	32963.49	4873	8073.8	13179	4116.65	876	1575	32693.45		
40907	45.76	43.86	38.88	53.56	45.21654	31793.99	32966.3	4767	7762.39	13035	3992.6	840	1397	31793.99		
40908	41.81	39.96	39.9	42.9	40.84955	28752.63	30459.64	4165	6834.08	11871	3691.55	789	1402	28752.63		
40909	64.13	54.28	59	60.18	58.06185	39119.67	40339.5	5808	9315.67	15784	5214	987	2011	39119.67		
40910	60.99	64.2	62.16	66.78	63.67035	45942.5	43558.78	7418	11471	18053	5783.5	1063	2154	45942.5		
40911	49.05	58.3	42.56	53.41	53.23559	39872.26	37569.23	6204	9861.29	15900	5148.97	940	1818	39872.26		
40912	40.8	38.48	34.24	38.76	38.41074	31598.59	29059.76	5193	7099.95	12740	4256.64	845	1464	31598.59		
40913	31.32	31.36	24.64	31.9	30.47879	23819.62	24506.83	4398	4999.55	9614	2943.07	748	1117	23819.62		
40914	41.44	38.76	35.03	43.68	39.63889	27407.78	29764.72	5028	5975.29	10942	3336.49	810	1316	27407.78		
40915	43.68	43.05	39.22	44.29	42.84659	29080.98	31605.94	4482	6863.84	12216	3450.14	793	1276	29080.98		
40916	39.24	39.24	38.42	39.6	39.18412	27245.35	29503.69	3977	6625.29	11076	3514.06	797	1256	27245.35		
40917	37.1	32.1	26.16	36.75	33.10669	27173.25	26015.24	4649	6879.84	10088	3618.41	770	1168	27173.25		
40918	37.45	29.12	32.19	31.5	31.73672	25468.75	25228.88	4359	6638.55	9182	3286.2	813	1190	25468.75		
40919	65.55	50.6	62.4	61.02	57.25834	43282.16	39878.29	7493	10328.17	15738	6067.99	1182	2473	43282.16		
40920	67.58	69	72.32	65.4	68.55648	48072.49	46363.42	7505	11270.74	18633	6578.75	1314	2771	48072.49		
40921	63.24	60.18	62.64	61.8	61.46102	44336.04	42290.63	6978	10824.18	17278	5782.86	1126	2347	44336.04		
40922	52.5	53.04	42.12	54.6	51.62479	38327.98	36644.63	5686	9675.88	15651	4773.1	922	1620	38327.98		
40923	51.06	41.73	47.56	48.84	45.76936	33130.57	33283.61	5195	8232.7	12771	4362.87	910	1659	33130.57		
40924	73.03	59.89	71.92	64.9	65.26661	45499.81	44475.04	7930	11396.45	15964	6347.36	1263	2599	45499.81		
40925	77.04	68.48	70.62	74.55	71.64689	53440.6	48137.31	9094	13589.72	19506	7004.88	1364	2882	53440.6		
40926	82.84	71.68	77.97	86.4	77.48311	57292.88	51487.3	9881	13614.54	21428	7622.34	1557	3190	57292.88		
40927	81.62	79.18	75.6	81.9	79.65095	57621.77	52731.64	9657	13093.68	22462	7837.09	1515	3057	57621.77		

MINNESOTA ENERGY RESOURCES - NMU
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Date	Base Variable							7012 574								Total
	0.212 Bemidji Adjusted HDD	0.4722 Cloquet Adjusted HDD	0.1437 Fargo Adjusted HDD	0.1721 Intl. Falls Adjusted HDD	1 Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **		Intl Falls Centra	GLGT	NNG	VGT	GLGT TRF	VGT TRF		
40941	40.4	32.64	39.78	35.02	35.72074	28752.94	27515.7		4038	7166.4	10609	4535.54	859	1545	28752.94	
40942	45.45	40.56	40.17	44.72	42.25657	28294.86	31267.27		4414	5997.06	11330	4150.8	862	1541	28294.86	
40943	48.15	37.06	41.34	43.87	41.19812	26843.42	30659.72		4363	5717.37	10598	3862.05	833	1470	26843.42	
40944	39.59	38.88	38.15	39.24	38.98758	28110.15	29390.87		3971	6117.1	11630	4161.05	821	1410	28110.15	
40945	57.2	47.96	57.12	58.32	53.01813	33266.27	37444.41		5746	6977.78	13091	4458.49	1018	1975	33266.27	
40946	59.36	53.5	56.18	59.85	56.22027	38791.5	39282.44		6355	7889.99	15497	5854.51	1129	2066	38791.5	
40947	50.6	47.96	49.5	53.41	49.67892	34458.01	35527.7		5389	7060.29	13732	5302.72	992	1982	34458.01	
40948	62.7	55.37	61.88	66.6	59.79213	38833.24	41332.68		6873	7716.67	14936	5652.57	1216	2439	38833.24	
40949	76.16	70.68	73.26	73.7	72.73225	48585.93	48760.31		7686	9871.42	19605	7260.51	1324	2839	48585.93	
40950	72.6	66.67	62.64	70.4	67.98998	45729.34	46038.25		6954	9753.39	18800	6509.95	1189	2523	45729.34	
40951	53.55	50.29	52.8	60.9	53.16779	38667.28	37530.31		5877	8905.45	15197	5566.83	1033	2088	38667.28	
40952	53.04	44.72	42.12	46.92	46.48884	34970.41	33696.59		5200	7880.68	13631	5521.73	947	1790	34970.41	
40953	43.26	36.05	38.48	42.23	38.99129	29963.1	29393		4380	6635.73	11844	4764.37	859	1480	29963.1	
40954	41.04	36.04	39.59	34.24	37.30036	28211.27	28422.4		4209	6191.76	10771	4704.51	861	1474	28211.27	
40955	42.4	36.75	38.5	40.28	38.80679	29428.28	29287.1		4401	6440.48	11586	4617.8	875	1508	29428.28	
40956	53	47.7	45.36	55.12	49.76432	31668.42	35576.72		5191	6433.28	12638	4827.14	918	1661	31668.42	
40957	48.41	44.29	39.96	50.96	45.68913	30635.21	33237.56		4721	6565.19	12745	4315.02	857	1432	30635.21	
40958	42.9	36.75	31.32	39.9	37.81562	25591.02	28718.17		3705	5654.45	10691	3617.57	764	1159	25591.02	
40959	38.5	33.17	35.97	33.48	34.75567	27839.74	26961.76		4809	5831.24	10869	4225.5	783	1322	27839.74	
40960	44.85	39.55	48.84	44	42.77442	31189.46	31564.52		5655	6533.95	11891	4556.51	868	1685	31189.46	
40961	52	41.6	48.88	45.32	45.49115	32139.87	33123.92		5830	6816.41	12083	4787.46	884	1739	32139.87	
40962	50.29	46.8	45.36	40.56	46.25905	32515.61	33564.69		5884	6627.87	12502	4772.74	924	1805	32515.61	
40963	68.32	53.76	62.16	54.5	58.18115	37837.74	40407.98		6284	7658.9	14848	5727.84	1069	2250	37837.74	
40964	58.86	46.2	55.5	47.7	50.47848	32565.74	35986.65		5046	7331.54	12899	4570.2	912	1807	32565.74	
40965	55.5	50.4	58.5	54.39	53.33185	35379.75	37624.48		5539	8214.27	13949	4825.48	963	1889	35379.75	
40966	52.5	45.32	54.57	48.88	48.78406	34897.03	35014.05		6339	7617.72	12722	5034.31	1042	2142	34897.03	
40967	45.2	43.32	41.4	42.9	43.37037	32454.74	31906.59		5567	7277.9	12558	4758.84	840	1453	32454.74	
40968	37.8	40.25	41.07	39.22	39.67117	30870.19	29783.25		4961	7141.9	11941	4529.29	849	1448	30870.19	
40969	40.28	34.34	41.07	35.36	36.74192	28596.35	28101.86		4897	6270.94	10775	4482.41	780	1391	28596.35	
40970	46.2	37.1	53.82	41.73	42.22869	29059.12	31251.27		4868	6148.56	10860	4752.56	863	1567	29059.12	
40971	65.72	48.15	62.06	58.3	55.62052	34116.68	38938.18		5048	7016.09	13551	5550.59	985	1966	34116.68	
40972	57.68	56.1	55.12	61.61	57.24241	35716.53	39869.14		5342	7920.14	14214	5350.39	964	1926	35716.53	
40973	47.3	47.7	41.76	52.32	47.55672	32453.99	34309.56		4737	6848.65	13268	5141.34	880	1579	32453.99	
40974	31.32	34.32	38.28	27.82	33.1344	23706.54	26031.15		3436	5066.08	9517	3785.46	773	1129	23706.54	
40975	51.06	43.29	49.02	47.3	46.45076	32369.79	33674.74		5025	6641	12477	5413.79	952	1861	32369.79	
40976	58.76	53.11	50.4	64.38	55.85794	37770.34	39074.46		5937	8214.61	14660	5796.73	1041	2121	37770.34	
40977	39.6	37.8	43.29	42.8	39.83101	32160.39	29875		4882	6662.13	12635	5374.26	907	1700	32160.39	
40978	23.92	21.6	27	26	23.62506	19109.19	20572.78		2790	4491.04	7154	3192.15	669	813	19109.19	
40979	20.9	16.96	16.1	16.2	17.5409	16071.18	17080.48		2163	4100.91	6057	2525.27	665	560	16071.18	
40980	29.16	25.68	23.98	28.89	26.72591	21483.39	22352.67		3208	4849.71	8265	3509.68	619	1032	21483.39	
40981	18.87	16.96	12.98	19.44	17.2198	15672.42	16896.17		2273	3520.47	6207	2479.95	593	599	15672.42	
40982	25.2	14.98	22.47	25.2	19.98182	15218.01	18481.56		2557	3637.18	5339	2373.83	662	649	15218.01	
40983	21	24.96	14.98	21.84	22.1494	17098.18	19725.76		2420	4345.81	6657	2448.37	659	568	17098.18	
40984	2.2	13.65	2.3	4.32	7.985912	10548.34	11595.91		1323	2636.43	4677	1245.91	527	139	10548.34	
40985	9.72	3.18	0	1.06	3.744662	6945.89	9161.436		817	1966.7	2804	882.19	445	22	6936.89	
40986	2.28	5.3	0	0	2.98602	6735.53	8725.975		831	1767.93	2686	932.6	482	46	6745.53	
40987	7.7	1.07	6.78	0	3.11194	7149.77	8798.254		1035	1721.1	2546	1243.67	483	121	7149.77	
40988	19.95	10.3	16.96	17.85	14.6022	11340.35	15393.66		1851	2711.25	3629	2167.1	562	420	11340.35	
40989	18.72	17.34	11.44	16.8	16.6918	12665.41	16593.09		1830	3073.79	4788	2098.62	586	289	12665.41	
40990	11.66	19.44	4.28	5.35	13.18726	12925.31	14581.49		2227	3188.63	5017	1851.68	510	131	12925.31	
40991	11.44	20.8	8.4	14.56	15.9599	12677.68	16172.98		2667	2689.66	5169	1461.02	518	173	12677.68	
40992	24.64	16.8	26.68	25.76	21.42385	14975.71	19309.29		3199	3170.01	5201	1984.7	630	791	14975.71	
40993	35.52	29.97	27.84	36.72	32.00219	22626.94	25381.26		4246	5826.65	8102	2785.29	716	951	22626.94	
40994	21.6	22.6	18.9	23	21.92515	27211.46	19597.04		4144	7391.18	10019	4035.28	716	906	27211.46	
40995	24.15	16.38	26.91	21.28	20.38369	18915.46	18712.24		3644	3231.57	7117	3319.89	704	899	18915.46	
40996	34.98	28.89	27.5	31.03	30.34963	22438.12	24432.69		4208	5233.53	8356	3078.59	698	864	22438.12	
40997	33.17	31.61	28.62	33	31.75028	25675.92	25236.66		4631	5773.73	9727	3776.19	683	1085	25675.92	
40998	26.4	29.68	14.69	29.16	26.74109	21600.84	22361.38		3795	4912.37	8707	2878.47	590	718	21600.84	
40999	16.05	22.88	5.45	23.1	18.96521	15930.94	17898.03		2113	3773.63	7021	2245.31	572	206	15930.94	
41000	14.43	21.47	2.26	19.98	16.96061	14685.12	16747.39		2133	3793	6122	1876.12	581	180	14685.12	
41001	22.68	15.12	20.52	21.6	18.61391	17048.8	17696.38		3752	3548.71	6387	2102.09	665	594	17048.8	
41002	26.78	23.32	19.08	27.3	24.12919	15431.7	20862.16		3285	3220.65	5599	2245.05	663	419	15431.7	
41003	23.1	28.34	12.21	26.75	24.6376	15304.54	21153.98		3125	3325.23	5720	2132.31	498	504	15304.54	
41004	22.2	23.32	11.9	23.54	21.47937	17180.42	19341.16		3104	4137.07	6787	2233.35	638	281	17180.42	
41005	27.84	23.54	21.78	26.4	24.69089	13757.61	21184.57		2272	3670.02	5573	1518.59	607	117	13757.61	
41006	27.6	21.28	23.2	25.99	23.70634	16822.07	20619.44		2631	4189.76	6681	2053.31	673	594	16822.07	
41007	42.94	35.84	34.2	41.44	38.07329	18022.45	28866.07		2835	4910.16	6671	2301.29	683	622	18022.45	
41008	42.51	38.85	37.74	41.04	39.84331	29780.47	29882.06		5559	6991.64	11048	4007.83	847	1327	29780.47	
41009	36.05	26.25	34.32	31.2	30.33915	27158.73	24426.67		5095</							

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

	Base Variable						7012 574							
	0.212 Bemidji Adjusted HDD	0.4722 Cloquet Adjusted HDD	0.1437 Fargo Adjusted HDD	0.1721 Intl. Falls Adjusted HDD	1 Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **							
Date								Intl Falls Centra	GLGT	NNG	VGT	GLGT TRF	VGT TRF	Total
41013	25.76	20.7	22.14	27.5	23.14993	10060.29	20300.06	1968	2710.89	3569	1165.4	426	221	10060.29
41014	34.41	38.85	33.04	40.7	37.39221	20025.98	28475.13	3135	4393.45	8004	3077.53	603	813	20025.98
41015	30.24	29.68	24.64	34.24	29.85925	26506.94	24151.21	3610	6212.79	11190	3766.15	670	1058	26506.94
41016	26.75	28.08	18.87	34.56	27.58977	17993.25	22848.53	2646	4416.81	7381	2486.44	525	538	17993.25
41017	27.04	29.96	20.33	29.58	27.89173	20145.37	23021.85	3177	4465.31	8251	3038.06	568	646	20145.37
41018	26	26.25	21.2	28.89	25.92566	18462.04	21893.33	2613	4400.82	7372	2947.22	602	527	18462.04
41019	30.8	31.61	19.89	30.52	29.56653	14889.28	23983.19	2393	3365.74	6004	2151.54	641	334	14889.28
41020	24.96	28.62	17.44	23.46	25.34948	20660.19	21562.6	3072	4924.29	8669	2570.9	661	763	20660.19
41021	19.95	18.54	9.81	18.54	17.58442	17745.14	17105.46	2093	4039.78	7845	2770.36	580	417	17745.14
41022	14.84	12.6	4.44	20.14	13.19992	13666.42	14588.76	2742	3219.72	4862	1926.7	573	343	13666.42
41023	14.43	21.2	6.96	22.68	17.97318	11509.39	17328.61	2531	2777.86	3854	1644.53	501	201	11509.39
41024	27	26.16	21.47	28.89	26.13396	15654.88	22012.89	3473	3557.06	6046	1615.82	636	327	15654.88
41025	25.76	28.6	19.04	29.96	26.8582	17227.88	22428.61	3560	3787.31	6161	2485.57	683	551	17227.88
41026	22.6	28	21.66	20.71	24.68953	16061.99	21183.79	3202	2826.19	6472	2383.8	701	477	16061.99
41027	17.76	19.26	16.38	16.05	17.9757	14294.87	17330.05	1694	3309.66	6278	2232.21	650	131	14294.87
41028	12.96	14.7	7.63	10.7	12.62676	12403.66	14259.76	1366	3378.07	5181	1601.59	643	234	12403.66
41029	17.28	16.8	1.1	9.54	13.39622	11759.5	14701.43	1829	2801.92	4399	1961.58	560	208	11759.5
41030	6.36	0	3.24	6.48	2.929116	10894	8693.313	1950	2331	4218	1741	529	125	10894
41031	10.6	10.9	5.55	11.77	10.21733	7634	12876.75	1652	1487	2489	1365	484	157	7634
41032	19.8	23.73	8.8	18.53	19.85648	9927	18409.62	2381	2457	2973	1384	524	208	9927
41033	15.12	23.31	4.32	15.12	17.43536	13090	17019.9	2316	3179	5116	1632	559	288	13090
41034	15.75	21.6	2.18	16.2	16.63981	11281	16563.25	1130	3576	4839	1330	387	19	11281
41035	17.76	14.04	10.53	13.91	14.30188	14106	15221.28	1600	5334	4837	1745	448	142	14106
41036	23.76	14.42	14.82	23.1	17.95139	13567	17316.1	2502	4481	3686	1977	557	364	13567
41037	17.51	14.84	12.84	17.51	15.57815	13722	15953.86	2860	3325	4503	1988	577	469	13722
41038	7.7	11.77	0	12.84	9.399958	10262	12407.58	1981	2594	3342	1620	501	224	10262
41039	19.21	11.88	10.53	19.8	14.603	7299	15394.12	1738	1320	2448	1162	459	172	7299
41040	16.2	12.84	9.81	16.2	13.69517	9924	14873.02	1874	2172	3617	1578	511	172	9924
41041	2.22	2.2	0	5.5	2.45603	7019	8421.761	908	2027	2761	928	375	20	7019
41042	3.12	0	0	6.18	1.725018	6194	8002.16	837	1736	2242	936	353	90	6194
41043	19.21	12.21	6.96	17.92	13.92227	7160	15003.38	1829	1463	1914	1396	421	137	7160
41044	17.85	15.45	7.7	19.57	15.55418	8057	15940.1	2124	956	2690	1620	471	196	8057
41045	0	8.64	0	4.36	4.830164	8231	9784.514	1820	1887	2465	1473	450	136	8231
41046	0	0	0	0	0	6657	7012	1413	1369	2049	1342	395	89	6657
41047	6.78	0	4.6	0	2.09838	5459	8216.47	1420	1204	1586	857	344	48	5459
41048	15.26	19.62	6.54	18.19	16.56998	5440	16523.17	876	1531	1713	878	416	26	5440
41049	13.52	10.3	1.12	15.45	10.54979	9150	13067.58	1088	3045	3192	1330	391	104	9150
41050	0	7.42	0	5.5	4.450274	7821	9566.457	1870	2214	2083	1111	422	121	7821
41051	6.54	5.3	3.27	0	4.359039	6993	9514.088	1729	1508	2349	932	378	97	6993
41052	12.48	9.54	6.6	7.35	9.363903	2630	12386.88	1805	-3071	2230	1148	410	108	2630
41053	17.44	11	13.32	17.6	13.83452	7824	14953.02	1931	1188	2930	1164	440	171	7824
41054	18.53	17.44	9.2	21.2	17.13409	10639	16846.97	1965	4782	2482	761	486	163	10639
41055	9.81	19.8	0	15.68	14.12781	7151	15121.36	972	2033	2953	723	409	61	7151
41056	10.9	7.42	7.84	6.42	8.046014	2843	11630.41	1124	-2243	3194	336	402	30	2843
41057	23.31	14.43	18.4	22.68	18.30287	7183	17517.85	2076	1100	2598	823	437	149	7183
41058	19.57	19.76	16.64	18.54	19.06141	9155	17953.25	2625	-191	3590	2138	493	500	9155
41059	16.16	15.3	8.4	15.15	14.46498	15206	15314.9	2432	4260	3580	4194	446	294	15206
41060	13.26	13.26	5.4	12.24	11.95498	17133	13874.16	1094	9000	2690	3760	407	182	17133
41061	10.4	8.64	0	6.36	7.379164	1058.25	11247.64	780	-3524.06	2180	1162.31	365	95	1058.25
41062	8.24	3.12	0	6.12	4.273396	-83.64	9464.929	578	-3566.76	1840	795.12	270	0	-83.64
41063	2.12	3.09	0	1.04	2.087522	-1033.04	8210.238	660	-4782.42	1737	973.38	326	53	-1033.04
41064	2.06	6.3	0	3.12	3.948532	140.47	9278.457	749	-4116.68	1821	1192.15	372	123	140.47
41065	0	4.16	0	1.06	2.146778	3480.01	8244.251	737	-627.32	1774	1120.33	360	116	3480.01
41066	0	0	0	0	0	5356.91	7012	864	1420.18	1766	823.73	375	108	5356.91
41067	0	0	0	0	0	6116.57	7012	1785	1138.3	1591	1110.27	376	116	6116.57
41068	0	0	0	0	0	5268.26	7012	1595	1106.82	1465	683.44	342	76	5268.26
41069	0	0	0	0	0	4768.33	7012	1567	1206.89	1427	348.44	212	7	4768.33
41070	16.1	4.56	10.71	9.9	8.809249	5131.03	12068.51	1421	1157.38	1495	668.65	326	63	5131.03
41071	15.26	10.7	8.64	15.12	12.13138	7795.67	13975.41	2102	1453.59	1966	1525.08	430	319	7795.67
41072	2.24	6.42	0	1.08	3.692272	7129.36	9131.364	1931	1459.39	2070	1078.97	370	220	7129.36
41073	2.2	6.42	0	5.35	4.418659	6017.15	9548.31	1665	1047.54	1808	976.61	365	155	6017.15
41074	0	0	0	0	0	6404.91	7012	1594	1393.18	1986	899.73	365	167	6404.91
41075	2.16	2.08	0	0	1.440096	5067.17	7838.615	1146	1443.38	1532	495.79	347	103	5067.17
41076	3.27	0	0	1.07	0.877387	4292.99	7515.62	523	1493.18	1631	327.81	300	18	4292.99
41077	0	0	0	0	0	5282.3	7012	569	1945.21	1584	813.09	316	55	5282.3
41078	6.36	2.16	1.11	7.35	3.792714	6606.94	9189.018	1745	1864.54	1569	886.4	378	164	6606.94
41079	6.42	0	0	5.25	2.264565	2588.13	8311.86	1728	-2663.63	1774	1208.76	359	182	2588.13
41080	5.5	2.18	0	4.36	2.945752	10089.4	8702.862	1889	4950.52	1601	1098.88	370	180	10089.4
41081	6.24	0	0	2.08	1.680848	13121.46	7976.807	1760	8077	1603	1128.46	368	185	13121.46
41082	4.2	4.12	0	3.09	3.367653	13561.68	8945.033	1781	8966	1423	943.68	331	117	13561.68
41083	3.18	2.1	0	7.35	2.930715	12399.53	8694.23	718	9240	1396	756.53	261	28	12399.53
41084	5.3	5.15	0	7.14	4.784224	11436.67	9758.145	1556	7075	1526	953.67	300	26	11436.67

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

						Base	7012								
						Variable	574								
Date	0.212	0.4722	0.1437	0.1721	1	Actual									
	Bemidji	Cloquet	Fargo	Intl. Falls	Weighted	Total	Estimated								
	Adjusted	Adjusted	Adjusted	Adjusted	Adjusted	Through-	Through-	Intl Falls	GLGT	NNG	VGt	GLGT	VGt		
	HDD	HDD	HDD	HDD	HDD	Put *	Put **	Centra				TRF	TRF	Total	
41085	0	2.1	0	0	0.99162	5883.52	7581.19	1394	1432.52	1487	1169	337	64	5883.52	
41086	0	0	0	0	0	5838.19	7012	1487	1321.5	1433	1231.69	315	50	5838.19	
41087	0	0	0	0	0	6054.11	7012	1467	1655.38	1335	1206.73	341	49	6054.11	
41088	0	0	0	0	0	6292.88	7012	1672	1696.72	1379	1150.16	338	57	6292.88	
41089	0	0	0	0	0	5165.21	7012	1287	1335.11	1299	930.1	286	28	5165.21	
41090	0	0	0	0	0	3892.66	7012	456	1454.06	1276	504.6	202	0	3892.66	
Totals	9028.98	8265.67	7668.75	8955.17	8460.377	6575475	7422649	1131738	1400008	2595112	944741.7	181112	322764	6575475	
								0.172115	0.212914	0.394665	0.143677	0.027544	0.049086		1

* 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 - NMU

Customer Counts by PGAC Class - July 1, 2011 through June 30, 2012

	Tariff	40725	40757	40789	40821	40853	40885	40917	40949	40982	41014	41046	41078
Rate	Rate	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
Class	Designation	Customers	Customers	Customers	Customers	Customers	Customers	Customers	Customers	Customers	Customers	Customers	Customers
Residential	NM001	34409	34177	34128	34343	34967	35388	35557	35621	35643	35684	35627	35442
Residential	NM002	23	23	22	22	23	24	22	23	24	22	23	22
Commercial	NM050/071	2316	2312	2302	2302	2317	2323	2342	2343	2345	2338	2633	2617
Commercial	NM052/071	3021	2997	3006	3007	3024	3026	3058	3052	3070	3062	2771	2759
Industrial-L	NM150	14	14	14	14	15	12	13	13	13	13	13	13
SV-Joint	NM100/101	0	0	0	0	0	0	0	0	0	0	0	0
SV-Interrupt	NM125	105	102	99	99	99	97	100	97	100	99	92	100
LV-Interrupt	NM200/201	10	10	11	11	10	10	10	10	10	10	10	10
Transport	NM700/711	18	18	18	18	18	18	18	18	18	18	18	18
Transport	NM703/711	11	11	11	10	10	10	10	10	10	10	10	10
Transport	NM716	1	1	1	1	1	1	1	1	1	1	1	1
Transport	NM707/711	3	3	3	3	3	3	3	3	3	3	3	3
Transport	NM72A/73	0	0	0	0	0	0	0	0	0	0	0	0
Transport	NM710	0	0	0	0	0	0	0	0	0	0	0	0
Transport	NM715	0	0	0	0	0	0	0	0	0	0	0	0
Total		39931	39668	39615	39830	40487	40912	41134	41191	41237	41260	41201	40995

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

Futures Contracts WACOG

NMU

30							31							31						
41223							41249							41280						
Purchase Date	Financial Volume	Purchase Price	Total Cost	NNG Indexes	NNG Index Cost	Over/(Under) Market	Purchase Date	Financial Volume	Purchase Price	Total Cost	NNG Indexes	NNG Index Cost	Over/(Under) Market	Purchase Date	Financial Volume	Purchase Price	Total Cost	NNG Indexes	NNG Index Cost	Over/(Under) Market
41054	32500	2.996	97370	3.6435	118413.7	-21043.75	41058	39436.62	3.176	125250.7	3.983	157076.1	-31825.35	41059	5360.824	3.264	17497.73	4.0745	21842.68	-4344.948
41054	12500	2.997	37462.5	3.6435	45543.75	-8081.251	41089	28169.01	3.329	93774.65	3.983	112197.2	-18422.54	05/3012/	10721.65	3.265	35006.19	4.0745	43685.37	-8679.176
41088	45000	3.017	135765	3.6435	163957.5	-28192.5	41089	11267.6	3.331	37532.39	3.983	44878.87	-7346.478	0530/12	34845.36	3.266	113804.9	4.0745	141977.4	-28172.47
41121	37500	3.313	124237.5	3.6435	136631.3	-12393.75	41120	39436.62	3.6	141971.8	3.983	157076.1	-15104.23	41088	5360.824	3.425	18360.82	4.0745	21842.68	-3481.855
41121	5000.001	3.314	16570	3.6435	18217.5	-1647.5	41143	30985.92	3.288	101881.7	3.983	123416.9	-21535.21	41088	21443.3	3.427	73486.18	4.0745	87370.72	-13884.54
41136	35000	2.988	104580	3.6435	127522.5	-22942.5	41172	28169.01	3.248	91492.96	3.983	112197.2	-20704.23	41088	21443.3	3.428	73507.63	4.0745	87370.72	-13863.09
41173	32500	3.065	99612.5	3.6435	118413.7	-18801.25	41205	22535.21	3.863	87053.52	3.983	89757.75	-2704.225	41117	45567.01	3.573	162810.9	4.0745	185662.8	-22851.86
41190	30000	3.408	102240	3.6435	109305	-7065								41144	42886.6	3.426	146929.5	4.0745	174741.4	-27811.96
														41171	37525.77	3.39	127212.4	4.0745	152898.8	-25686.39
														41207	34845.36	3.904	136036.3	4.0745	141977.4	-5941.134
																			0	0
																			0	0
																			0	0
																			0	0
																			0	0
																			0	0
																			0	0
																			0	0
Total	230000		717837.5		838005	-120167.5		200000		678957.7		796600	-117642.3		260000		904652.6		1059370	-154717.4
WACOG			3.121033		3.6435	-0.522467				3.394789		3.983	-0.588211				3.479433		4.0745	-0.595067

41316							41339							31						
Total							Total							Total						
Purchase Date	Financial Volume	Purchase Price	Total Cost	NNG Indexes	NNG Index Cost	Over/(Under) Market	Purchase Date	Financial Volume	Purchase Price	Total Cost	NNG Indexes	NNG Index Cost	Over/(Under) Market	Financial Volume	Purchase Price	Total Cost	NNG Indexes	NNG Index Cost	Over/(Under) Market	
41058	35200	3.34	117568	4.07	143264	-25696	41059	18260.87	3.258	59493.91	3.99	72860.87	-13366.96	130758.3	3.190469	417180.3	3.926766	513457.3	-96277.01	
41089	3200	3.484	11148.8	4.07	13024	-1875.2	41059	22826.09	3.26	74413.04	3.99	91076.09	-16663.04	77416.75	3.252593	251805.2	3.946515	305526.4	-53721.21	
41089	32000	3.485	111520	4.07	130240	-18720	41087	41086.96	3.461	142202	3.99	163937	-21735	164199.9	3.293694	540824.3	3.928082	644990.7	-104166.5	
41109	3200	3.526	11283.2	4.07	13024	-1740.8	41116	38804.35	3.612	140161.3	3.99	154829.4	-14668.04	124301.8	3.50771	436014.7	3.888949	483403.3	-47388.67	
41109	32000	3.528	112896	4.07	130240	-17344	41145	34239.13	3.362	115112	3.99	136614.1	-21502.17	123668.3	3.395742	419945.8	4.009589	495859.3	-75913.42	
41138	3200	3.405	10896	4.07	13024	-2128	41170	29673.91	3.416	101366.1	3.99	118398.9	-17032.83	117486.2	3.250106	381842.7	3.902698	458513.3	-76670.64	
41138	22400	3.406	76294.4	4.07	91168	-14873.6	41207	25108.69	3.882	97471.95	3.99	100183.7	-2711.739	148110.9	3.53278	523243.3	3.950998	585186	-61942.67	
41169	16000	3.46	55360	4.07	65120	-9760								88886.6	3.426045	304529.5	3.928224	349166.4	-44636.96	
41204	12800	3.926	50252.8	4.07	52096	-1843.2								50325.77	3.526328	177465.2	4.073355	204994.8	-27529.59	
														34845.36	3.904	136036.3	4.0745	141977.4	-5941.134	

Total	160000	557219.2	651200	-93980.8	210000	730220.2	837900	-107679.8	1060000	3588887	4183075	-594187.8
WACOG		3.48262	4.07	-0.58738		3.477239	3.99	-0.512761		3.385743	3.946297	-0.560554

MINNESOTA ENERGY RESOURCES - NMU
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		
					Projected	Projected	Projected					GLGT/VGT	GLGT/VGT	GLGT/VGT
					K#118657	K#123780	K#123781					Centra	Centra	Centra
					NNG	NNG	NNG					AECO Stor	AECO Stor	AECO Stor
					WACOG	WACOG	WACOG					WACOG	WACOG	WACOG
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
										2.8422			2.1432	

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			K#118657 NNG WACOG	K#123780 NNG WACOG	K#123781 NNG WACOG	WACOG NNG Cost	WACOG NNG Cost	WACOG NNG Cost	NNG Indexes Price	NNG Index Cost	NNG Index Cost	NNG Index Cost
					NNG	NNG	NNG										
					PNG	NMU	Total										
					Volumes	Volumes	Volumes										
41219	455259	73125	19500	547884	487213.2	60670.82	547884	2.8422	2.8422	2.8422	1384757	172438.6	1557196	3.6435	1775161	221054.1	1996215
41250	1143984	183750	49000	1376734	1224279	152454.9	1376734	2.8422	2.8422	2.8422	3479646	433307.2	3912953	3.983	4876304	607227.7	5483532
41282	1143984	183750	49000	1376734	1224279	152454.9	1376734	2.8422	2.8422	2.8422	3479646	433307.2	3912953	4.0745	4988325	621177.4	5609503
41314	1143984	183750	49000	1376734	1224279	152454.9	1376734	2.8422	2.8422	2.8422	3479646	433307.2	3912953	4.07	4982816	620491.3	5603307

41343	455259	73125	19500	547884	487213.2	60670.82	547884	2.8422	2.8422	2.8422	1384757	172438.6	1557196	3.99	1943981	242076.6	2186057
Total	4342470	697500	186000	5225970	4647264	578706.3	5225970	2.8422	2.8422	2.8422	13208453	1644799	14853252	3.995165	18566587	2312027	20878614
											2.8422	2.8422		3.995165	3.995165	3.995165	

Month/ Year	AECO Storage	GLGT/VGT												Total
		GLGT PNG	GLGT NMU	VGT PNG	VGT NMU	Centra NMU	Total AECO Stor	Centra AECO Stor	GLGT PNG	GLGT NMU	VGT PNG	VGT NMU	Centra NMU	AECO Storage
		Volumes	Volumes	Volumes	Volumes	Volumes	Volumes	WACOG	Cost	Cost	Cost	Cost	Cost	Cost
41219	85290	12351.49	24049.04	12434.87	19722.89	16745.71	85304	2.1432	26471.72	51541.9	26650.42	42270.09	35889.41	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	96447.52	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	96447.52	491311.5
41314	209328	31051.33	60458.65	31260.94	49582.81	42098.27	214452	2.1432	66549.2	129575	66998.45	106265.9	90225.02	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	40534.61	206486.6
Total	854509	123738.6	240926	124573.9	197586.1	167760.4	854585	2.143391	265196.6	516352.5	266986.9	423466.5	359544.1	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	GLGT	GLGT	VGT	VGT	Centra	Total	Projected	GLGT	GLGT	VGT	VGT	Centra	Total
		PNG Volumes	NMU Volumes	PNG Volumes	NMU Volumes	NMU Volumes	AECO Storage Volumes	Emerson Index Price	PNG Cost	NMU Cost	PNG Cost	NMU Cost	NMU Cost	AECO Cost
41219	85290	12351.49	24049.04	12434.87	19722.89	16745.71	85304	3.776	46639.24	90809.17	46954.08	74473.62	63231.8	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	183966.7	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	188534.4	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	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	76929.15	391883.3
Total	854509	123738.6	240926	124573.9	197586.1	167760.4	854585	4.105852	508007.3	989118.3	511436.7	811187	688738.1	3508487
		0.144807	0.281947	0.145784	0.231228	0.196324	1.000089		4.105487	4.105487	4.105487	4.105487	4.105487	4.105487

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

Call/Put Options WACOG

Contract = 10000

Call/Put Options

41219															41249									
Deal Number	Purchase Date	%	Number Contracts	Physical Volume	Strike Price	Strike Cost	Option Price	Option Cost	Pent Settle	Pent Cost	Settle Over/(Under) Market	Premium Per Unit	Premium Cost	Total Cost	Deal Number	Purchase Date	%	Number Contracts	Physical Volume	Strike Price	Strike Cost	Option Price		
1	41060		16	160000	3	480000	3	480000	3.4	544000	-64000	0.267	42720	522720	1	41053		26	260000	3.5	910000	3.5		
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	3.5		
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	3.75		
4	41148		21	210000	3	630000	3	630000	3.4	714000	-84000	0.177	37170	667170	4	41149		31	310000	3.25	1007500	3.25		
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	3.75		
6	41187		21	210000	3.5	735000	3.4	714000	3.4	714000	0	0.07	14700	728700	6	41204		32	320000	4	1280000	3.803		
7				0		0	0	0	3.4	0	0		0	0	7				0		0	0		
8				0		0	0	0	3.4	0	0		0	0	8				0		0	0		
9				0		0	0	0	3.4	0	0		0	0	9				0		0	0		
10				0		0	0	0	3.4	0	0		0	0	10				0		0	0		
Total			115	1150000		3797500		3736500		3910000	-173500		190740	3927240	Total			177	1770000		6427500			
						3.302174		3.24913		3.4	-0.15087		0.165861	3.414991							3.631356			

NNG-PNG	84	0.730435	84	840000	3.302174	2773826	3.24913	2729270	3.4	2856000	-126730.4	0.165861	139323.1	2868593	NNG-PNG	130	0.734463	130	1300000	3.631356	4720763	3.59574
NNG-NMU	10	0.086957	10	100000	3.302174	330217.4	3.24913	324913	3.4	340000	-15086.96	0.165861	16586.09	341499.1	NNG-NMU	15	0.084746	15	150000	3.631356	544703.4	3.59574
GLGT-PNC	3	0.026087	3	30000	3.302174	99065.22	3.24913	97473.91	3.4	102000	-4526.087	0.165861	4975.826	102449.7	GLGT-PNC	5	0.028249	5	50000	3.631356	181567.8	3.59574
GLGT-NMI	6	0.052174	6	60000	3.302174	198130.4	3.24913	194947.8	3.4	204000	-9052.174	0.165861	9951.652	204899.5	GLGT-NMI	9	0.050847	9	90000	3.631356	326822	3.59574
VGT-PNG	3	0.026087	3	30000	3.302174	99065.22	3.24913	97473.91	3.4	102000	-4526.087	0.165861	4975.826	102449.7	VGT-PNG	5	0.028249	5	50000	3.631356	181567.8	3.59574
VGT-NMU	5	0.043478	5	50000	3.302174	165108.7	3.24913	162456.5	3.4	170000	-7543.478	0.165861	8293.043	170749.6	VGT-NMU	7	0.039548	7	70000	3.631356	254194.9	3.59574
Centra	4	0.034783	4	40000	3.302174	132087	3.24913	129965.2	3.4	136000	-6034.783	0.165861	6634.435	136599.7	Centra	6	0.033898	6	60000	3.631356	217881.4	3.59574

Total	115		1	115	1150000	3.302174	3797500	3.24913	3736500	3.4	3910000	-173500	0.165861	190740	3927240	Total	177	1	177	1770000	3.631356	6427500	3.59574
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41311															41339									
Deal Number	Purchase Date	%	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	%	Number Contracts	Financial Volume	Strike Price	Strike Cost	Option Price		
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	3.75		
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	3.5		
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	3.75		
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	3.5		
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	3.75		
6	41206		29	290000	4	1160000	3.935	1141150	3.935	1141150	0	0.259	75110	1216260	6	41205		21	210000	4	840000	3.905		
7				0		0	0	0	3.935	0	0		0	0	7				0		0	0		
8				0		0	0	0	3.935	0	0		0	0	8				0		0	0		
9				0		0	0	0	3.935	0	0		0	0	9				0		0	0		

10			0			0			0			3.935			0			0			0			10			0			0			0		
Total			155	1550000	5760000			5741150			6099250			-358100			435130			6176280			Total			116	1160000	4307500			3.713362				
					3.716129			3.703968			3.935			-0.231032			0.280729			3.984697															
NNG-PNG	113	0.729032	113	1130000	3.716129	4199226	3.703968	4185484	3.935	4446550	-261066.5	0.280729	317223.8	4502707	NNG-PNG	85	0.732759	85	850000	3.713362	3156358	3.696164													
NNG-NMU	13	0.083871	13	130000	3.716129	483096.8	3.703968	481515.8	3.935	511550	-30034.19	0.280729	36494.77	518010.6	NNG-NMU	10	0.086207	10	100000	3.713362	371336.2	3.696164													
GLGT-PNC	4	0.025806	4	40000	3.716129	148645.2	3.703968	148158.7	3.935	157400	-9241.29	0.280729	11229.16	159387.9	GLGT-PNC	3	0.025862	3	30000	3.713362	111400.9	3.696164													
GLGT-NMI	8	0.051613	8	80000	3.716129	297290.3	3.703968	296317.4	3.935	314800	-18482.58	0.280729	22458.32	318775.7	GLGT-NMI	6	0.051724	6	60000	3.713362	222801.7	3.696164													
VGT-PNG	4	0.025806	4	40000	3.716129	148645.2	3.703968	148158.7	3.935	157400	-9241.29	0.280729	11229.16	159387.9	VGT-PNG	3	0.025862	3	30000	3.713362	111400.9	3.696164													
VGT-NMU	7	0.045161	7	70000	3.716129	260129	3.703968	259277.7	3.935	275450	-16172.26	0.280729	19651.03	278928.8	VGT-NMU	5	0.043103	5	50000	3.713362	185668.1	3.696164													
Centra	6	0.03871	6	60000	3.716129	222967.7	3.703968	222238.1	3.935	236100	-13861.94	0.280729	16843.74	239081.8	Centra	4	0.034483	4	40000	3.713362	148534.5	3.696164													
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	3.696164											

41280																						
Option Cost	Pent Settle	Pent Cost	Settle Over/(Under) Market	Premium 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 Over/(Under) Market	Premium Per Unit	Premium Cost	Total Cost	
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	
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	
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	
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	
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	
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	3.803	0	0		0	0	7	41206		34	340000	4	1360000	3.932	1336880	3.932	1336880	0	0.197	66980	1403860	
0	3.803	0	0		0	0	8				0		0	0	0	3.932	0	0		0	0	
0	3.803	0	0		0	0	9				0		0	0	0	3.932	0	0		0	0	
0	3.803	0	0		0	0	10				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	
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	
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	
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	
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	
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	
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	
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	
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 Cost	Pent Settle	Pent Cost	Settle Over/(Under) Market	Premium 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 Over/(Under) Market	Premium Per Unit	Premium Cost	Total Cost	
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	
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	
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	
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	
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	
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	3.905	0	0		0	0	7			34	340000	4	1360000	3.932	1336880	3.932	1336880	0	0.197	66980	1403860	
0	3.905	0	0		0	0	8			0	0		0		0		0	0		0	0	
0	3.905	0	0		0	0	9			0	0		0		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	
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	
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
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
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
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
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
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
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
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

AFFIDAVIT OF SERVICE

STATE OF MINNESOTA)
) ss
COUNTY OF HENNEPIN)

Amber S. Lee hereby certifies that on the 7th day of January, 2013, on behalf of Minnesota Energy Resources Corporation (MERC) she electronically filed a true and correct copy of the supporting spreadsheets on www.edockets.state.mn.us. Said documents were also served via U.S. mail and electronic service as designated on the attached service list.

/s/ Amber S. Lee
Amber S. Lee

Subscribed and sworn to before me
this 4th day of January, 2013.

/s/ Paula Bjorkman
Notary Public, State of Minnesota

[illegible]

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Electronic Service	No	OFF_SL_12-1195_12-1195
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_12-1195_12-1195
Gregory	Walters	gjwalters@minnesotaenergyresources.com	Minnesota Energy Resources Corporation	3460 Technology Dr. NW Rochester, MN 55901	Paper Service	No	OFF_SL_12-1195_12-1195