

MINNESOTA ENERGY RESOURCES - Consolidated

DESIGN-DAY DEMAND SUMMARY NOVEMBER 1, 2013

Design Day Requirement	50,048
Total Peak Day Entitlement	52,959
Firm Peak Day Actual Sendout -Non Coincidental (Jan. 31)	40,871
Firm Annual Throughput - Minnesota	4,509,638
No. of Firm Customers	34,007
Department Load Factor Calculation	30.23%

MINNESOTA ENERGY RESOURCES - Consolidated

MINNESOTA DESIGN DAY REQUIREMENTS
NOVEMBER 1, 2013
HDD

Pipeline Group	2011/12 Customer Count	1/20 Design DDD	Regression Factors		% of total load	Regression Total Footnote 1	Regression Adjustment Footnote 2	1/20 Requirements Regression Load Footnote 3	2008/09 Customer Growth	Total
			Intercept	Slope						

VGT										
VGT	10,610	109	3,025	143		19,375	5,201	14,174	0.3%	14,217
**VGT/GLGT	3,237	107	726	44	68.0%	3,980	804	3,176	0.3%	3,186
Peak	13,847		3,751	187				17,350		17,402
VGT	10,610	57	3,025	143		12,679	3,353	9,326	0.3%	9,354
VGT/GLGT	3,237	57	726	44	68.0%	2,480	519	1,961	0.3%	1,967
Off Peak	13,847		3,751	187				11,287		11,321

GLGT										
**VGT/GLGT	3,237	107	726	44	32.0%	1,873	378	1,495	0.3%	1,499
GLGT	14,490	105	3,105	217		28,707	5,370	23,337	0.3%	23,407
Peak	17,727		3,831	261				24,832		24,906
VGT/GLGT	3,237	57	726	44	32.0%	1,167	244	923	0.3%	926
GLGT	14,490	57	3,105	217		18,292	3,388	14,904	0.3%	14,949
Off Peak	17,727		3,831	261				15,827		15,874

Centra										
Peak	5,670	107	1,874	78		10,961	3,244	7,717	0.3%	7,740
Off Peak	5,670	57	1,874	78		7,056	2,093	4,963	0.3%	4,978

Total Consolidated										
Peak	34,007		8,730	482		64,896	14,997	49,899	0.3%	50,048
Off Peak	34,007		8,730	482		41,674	9,597	32,077	0.3%	32,173

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 - Consolidated**DESIGN-DAY DEMAND PER CUSTOMER****NOVEMBER 1, 2013**

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

MINNESOTA ENERGY RESOURCES - Consolidated

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

<u>Class</u>	<u>Summer Apr-Oct</u>	<u>Winter Nov-Mar</u>	<u>Total</u>
GS	1,188,777	3,296,575	4,485,352
SVI	0	0	0
SVJ	5,717	18,569	24,286
LVI	0	0	0
LVJ	0	0	0
SLV	0	0	0
IS	<u>312,387</u>	<u>518,588</u>	<u>830,975</u>
Total	<u>1,506,881</u>	<u>3,833,732</u>	<u>5,340,613</u>

MINNESOTA ENERGY RESOURCES - Consolidated

ENTITLEMENT LEVELS

PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2013

<u>Type of Capacity or Entitlement</u>		<u>Current Amount Mcf or MMBtu</u>	<u>Proposed Change Mcf or MMBtu</u>	<u>Proposed Amount Mcf or MMBtu</u>
FT Western Zone	FT0016	10,130	0	10,130
FT Western Zone (12)	FT0155 (12)	3,600	0	3,600
FT Western Zone (5)	FT0155 (5)	3,638	0	3,638
FT Western Zone	FT15782	9,000	0	9,000
FT-A ZONE 1 - 1	AF0012	12,493	0	12,493
FT-A ZONE 1 - 1	AF0014 (3)	1,098	0	1,098
FT-A ZONE 1 - 1	AF0102	2,000	0	2,000
FA-A ZONE 1 - 1		0	1,500	1,500
Wadena Delivered GDD Call Option		3,500	(3,500)	0
CENTRA FT-1		9,500	0	9,500
Total Entitlement		<u>54,959</u>	<u>(2,000)</u>	<u>52,959</u>
Forecasted Design Day-Adjusted		52,289	(2,241)	50,048
Capacity Surplus/Shortage		2,670	241	2,911
Reserve Margin		5.11%		5.82%

MINNESOTA ENERGY RESOURCES - Consolidated

**RATE IMPACT OF THE PROPOSED DEMAND CHANGE
NOVEMBER 1, 2013**

All costs in \$/Dth	Last Base Cost of Gas G007,G011/ MR10-978*	Demand Change G011- 12-119x Nov. '12	Last Demand Change G011- 10-977 Jan. '13	Most Recent PGA** Oct. 2013	Current Proposal Effective Nov.1,2013	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	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	-26.15%	-2.39%	(\$0.0926)	
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.8968	-15.71%	-12.44%	-2.27%	(\$0.0208)	
Commodity Margin	\$1.9754	\$2.4189	\$1.9754	\$1.9754	\$1.9754	0.00%	0.00%	0.00%	\$0.0000	
Total Cost of Gas	\$7.6948	\$7.1308	\$6.7687	\$6.7600	\$6.6466	-13.62%	-14.70%	-1.68%	(\$0.1134)	
Avg Annual Cost	\$692.53	\$641.77	\$609.18	\$608.40	\$598.19	-13.62%	-14.70%	-1.68%	(\$10.21)	
Effect of proposed commodity change on average annual bills:										(\$8.33)
Effect of proposed demand change on average annual bills:										(\$1.88)

2) Large General Service: Avg. Annual Use:						4,932	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	12.04%	-2.39%	(\$0.0926)	
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.8968	-15.71%	-33.23%	-2.27%	(\$0.0208)	
Commodity Margin	\$1.6868	\$2.1856	\$1.6868	\$1.6868	\$1.6868	0.00%	-22.82%	0.00%	\$0.0000	
Total Cost of Gas	\$7.4062	\$6.8975	\$6.4801	\$6.4714	\$6.3580	-14.15%	-7.82%	-1.75%	(\$0.1134)	
Avg Annual Cost	\$36,527.38	\$34,018.47	\$31,959.85	\$31,916.94	\$31,357.47	-14.15%	-7.82%	-1.75%	(\$559.47)	
Effect of proposed commodity change on average annual bills:										(\$456.70)
Effect of proposed demand change on average annual bills:										(\$102.77)

3) SV Interruptible Service: Avg. Annual Use:						6,068	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	12.04%	-2.39%	(\$0.0926)	
Commodity Margin	\$1.0647	\$1.0628	\$1.0647	\$1.0647	\$1.0647	0.00%	0.18%	0.00%	\$0.0000	
Total Cost of Gas	\$5.7202	\$4.4316	\$4.4568	\$4.9317	\$4.8391	-15.40%	9.20%	-1.88%	(\$0.0926)	
Avg Annual Cost	\$34,710.17	\$26,890.95	\$27,043.86	\$29,925.56	\$29,363.66	-15.40%	9.20%	-1.88%	(\$561.90)	
Effect of proposed commodity change on average annual bills:										(\$561.90)

4) LV Interruptible Service: Avg. Annual Use:						40,821	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	12.04%	-2.39%	(\$0.0926)	
Commodity Margin	\$0.3568	\$0.3164	\$0.3568	\$0.3568	\$0.3568	0.00%	12.77%	0.00%	\$0.0000	
Total Cost of Gas	\$5.0123	\$3.6852	\$3.7489	\$4.2238	\$4.1312	-17.58%	12.10%	-2.19%	(\$0.0926)	
Avg Annual Cost	\$204,607.10	\$150,433.55	\$153,033.85	\$172,419.74	\$168,639.72	-17.58%	12.10%	-2.19%	(\$3,780.02)	
Effect of proposed commodity change on average annual bills:										(\$3,780.02)

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

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

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

DEMAND									
Contract Type		Monthly Entitlement			Rate	Contract		Rate Case	
	Contract	Season	(Dth)	Months	(\$/Dth)	Costs	Sales	(therms)	Cost/Ccf
Viking (VGT)									
FT-A ZONE 1 - 1	AF0012	Annual	12,493	12	\$3.4033	\$ 510,212	43,198,700		\$0.01181
FT-A ZONE 1 - 1	AF0014 (3)	Winter	1,098	3	\$3.4033	\$ 11,211	43,198,700		\$0.00026
FT-A ZONE 1 - 1	AF0102	Annual	2,000	12	\$3.4033	\$ 81,680	43,198,700		\$0.00189
FA-A ZONE 1 - 1		Dec-Feb	1,500	3	\$3.7043	\$ 16,669	43,198,700		\$0.00039
VGT Demand			17,091			\$ 619,772	43,198,700		\$0.01435
Great Lakes (GLGT)									
FT Western Zone	FT0016	Annual	10,130	12	\$3.8490	\$ 467,886	43,198,700		\$0.01083
FT Western Zone (12)	FT0155 (12)	Annual	3,600	12	\$3.8490	\$ 166,277	43,198,700		\$0.00385
FT Western Zone (5)	FT0155 (5)	Winter	3,638	5	\$3.8490	\$ 70,013	43,198,700		\$0.00162
FT Western Zone	FT15782	Annual	9,000	12	\$3.8490	\$ 415,693	43,198,700		\$0.00962
GLGT Demand			26,368			\$ 1,119,869	43,198,700		\$0.02592
Centra									
CENTRA TRANSMISSION	(\$Cdn/103M3)				\$255.8270				
Conversion (103M3 x Rate(C\$ 103M3)		Annual	9,500	12	\$7.2470	\$ 826,161	43,198,700		\$0.01912
CENTRA MINNESOTA PIPELINES		Annual	9,500	12	\$1.7780	\$ 202,692	43,198,700		\$0.00469
Centra Demand			9,500			\$ 1,028,853	43,198,700		\$0.02382
AECO									
Niska Storage (AECO)		Annual	947,820	1	\$0.7263	\$ 688,362	43,198,700		\$0.01593
AECO/Emerson Swap		Annual	947,823	1	\$0.5200	\$ 417,042	43,198,700		\$0.00965
AECO Demand						\$ 1,105,404	43,198,700		\$0.02559
Consolidated DEMAND - \$/Ccf			52,959			\$ 3,873,898			\$0.08968
For Joint Rate Demand					43,198,700	Annual Firm Sales in therms			
			Units	Months	Annual				
			Dth's		Dth's				
Viking (VGT)									
FT-A ZONE 1 - 1			12,493	12	149,916				
FT-A ZONE 1 - 1			1,098	3	3,294				
FT-A ZONE 1 - 1			2,000	12	24,000				
FA-A ZONE 1 - 1			1,500	3	4,500				
Great Lakes (GLGT)									
FT Western Zone			10,130	12	121,560				
FT Western Zone (12)			3,600	12	43,200				
FT Western Zone (5)			3,638	5	18,190				
FT Western Zone			9,000	12	108,000				
Centra									
CENTRA TRANSMISSION									
Conversion (103M3 x Rate(C\$ 103M3)			9,500	12	114,000				
CENTRA MINNESOTA PIPELINES			9,500	12	114,000				
Total Demand Cost						\$ 3,873,898			
Total Demand Weighted Vol in Mcf						5,866,600			
Total Joint Demand Rate \$/Mcf							\$0.66033		

MERC-Consolidated

PRESENT AVERAGE COST OF GAS
COMMODITY

EFFECTIVE:

01-Nov-13

12:00 AM

WACOG	Rate	Annual Dth	Call Option Premium	Balancing Service	Total Annual Cost	Cost/therm	REFERENCE	Effective
VGT								
GAS COST	\$3.67010							
FUEL 0.00%	\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
COMMODITY TRANSPORTATION	\$0.01300						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
GRI	\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
ACA	\$0.00180						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
VGT Commodity	\$3.68490	1,967,663	\$106,283	\$89,580	\$7,446,506	\$0.13611	VGT Commodity	
GLGT								
GAS COST	\$3.67010							
FUEL 0.657%	\$0.02427						5 Revised Sheet 4 Contract	Jun 1, 1997
COMMODITY TRANSPORTATION	\$0.00326						18th Revised Sheet No. 7	Oct. 1, 2005
GRI	\$0.00000							
ACA	\$0.00180							
GLGT Commodity	\$3.69943	2,480,420	\$133,980	\$0	\$9,310,121	\$0.17018	GLGT Commodity	
CENTRA								
CENTRA TRANSMISSION (\$Cdn/103M3)	1.062						Sheet 1 (N.E.B.)	
Conversion	\$0.02868							
GAS COSTS	\$3.67010							
CUSTOMS FEE	\$0.00039							
CENTRA Commodity	\$3.69917	1,022,819	\$55,248	\$54,000	\$3,892,827	\$0.07116	Centra Commodity	
Consolidated Weighted Average gas cost		5,470,903	\$295,511	\$143,580	\$20,649,455	\$0.37744	Consolidated WACOG-\$/therm	
Total Annual Sales in therms		54,709,030						

Balancing Service			Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs
Pipeline	Description	Season				
VGT	Balancing Agreement	Annual	7,465	12	\$1.0000	\$89,580
GLGT	---		0	0	\$0.0000	\$0
Centra	Union Balancing	Annual	4,500	12	\$1.0000	\$54,000

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

RATE IMPACT OF THE PROPOSED DEMAND CHANGE (Illustrates FDD storage contract costs shifted from Demand costs to Commodity costs)
NOVEMBER 1, 2013

All costs in \$/Dth	Last Base Cost of Gas G007,G011/MR10-978*	Demand Change G011-12-119x Nov. '12	Last Demand Change G011-10-977 Jan. '13	Most Recent PGA Oct. 2013	Current Proposal Effective Nov.1,2013	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	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	-20.16%	2.83%	\$0.1095	
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.6409	-39.76%	-31.50%	-30.16%	(\$0.2767)	
Commodity Margin	\$1.9754	\$2.4189	\$1.9754	\$1.9754	\$1.9754	0.00%	0.00%	0.00%	\$0.0000	
Total Cost of Gas	\$7.6948	\$7.1308	\$6.7687	\$6.7600	\$6.5928	-14.32%	-15.45%	-2.47%	(\$0.1672)	
Avg Annual Cost	\$692.53	\$641.77	\$609.18	\$608.40	\$593.35	-14.32%	-15.45%	-2.47%	(\$15.05)	
Effect of proposed commodity change on average annual bills:									\$9.86	
Effect of proposed demand change on average annual bills:									(\$24.91)	
2) Large General Service: Avg. Annual Use:						4,932	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	18.04%	2.83%	\$0.1095	
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.6409	-39.76%	-52.28%	-30.16%	(\$0.2767)	
Commodity Margin	\$1.6868	\$2.1856	\$1.6868	\$1.6868	\$1.6868	0.00%	-22.82%	0.00%	\$0.0000	
Total Cost of Gas	\$7.4062	\$6.8975	\$6.4801	\$6.4714	\$6.3042	-14.88%	-8.60%	-2.58%	(\$0.1672)	
Avg Annual Cost	\$36,527.38	\$34,018.47	\$31,959.85	\$31,916.94	\$31,092.19	-14.88%	-8.60%	-2.58%	(\$824.76)	
Effect of proposed commodity change on average annual bills:									\$540.05	
Effect of proposed demand change on average annual bills:									(\$1,364.81)	
3) SV Interruptible Service: Avg. Annual Use:						6,068	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	18.04%	2.83%	\$0.1095	
Commodity Margin	\$1.0647	\$1.0628	\$1.0647	\$1.0647	\$1.0647	0.00%	0.18%	0.00%	\$0.0000	
Total Cost of Gas	\$5.7202	\$4.4316	\$4.4568	\$4.9317	\$5.0412	-11.87%	13.76%	2.22%	\$0.1095	
Avg Annual Cost	\$34,710.17	\$26,890.95	\$27,043.86	\$29,925.56	\$30,590.00	-11.87%	13.76%	2.22%	\$664.45	
Effect of proposed commodity change on average annual bills:									\$664.45	
4) LV Interruptible Service: Avg. Annual Use:						40,821	Dth			
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	18.04%	2.83%	\$0.1095	
Commodity Margin	\$0.3568	\$0.3164	\$0.3568	\$0.3568	\$0.3568	0.00%	12.77%	0.00%	\$0.0000	
Total Cost of Gas	\$5.0123	\$3.6852	\$3.7489	\$4.2238	\$4.3333	-13.55%	17.59%	2.59%	\$0.1095	
Avg Annual Cost	\$204,607.10	\$150,433.55	\$153,033.85	\$172,419.74	\$176,889.64	-13.55%	17.59%	2.59%	\$4,469.90	
Effect of proposed commodity change on average annual bills:									\$4,469.90	

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

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

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

DEMAND								Cost/Ccf
Contract Type	Season	Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Rate Case Sales (therms)		
Viking (VGT)								
FT-A ZONE 1 - 1	AF0012	Annual	12,493	12	\$3.4033	\$ 510,212	43,198,700	\$0.01181
FT-A ZONE 1 - 1	AF0014 (3)	Winter	1,098	3	\$3.4033	\$ 11,211	43,198,700	\$0.00026
FT-A ZONE 1 - 1	AF0102	Annual	2,000	12	\$3.4033	\$ 81,680	43,198,700	\$0.00189
FA-A ZONE 1 - 1		Dec-Feb	1,500	3	\$3.7043	\$ 16,669	43,198,700	\$0.00039
VGT Demand						\$ 619,772	43,198,700	\$0.01435
Great Lakes (GLGT)								
FT Western Zone	FT0016	Annual	10,130	12	\$3.8490	\$ 467,886	43,198,700	\$0.01083
FT Western Zone (12)	FT0155 (12)	Annual	3,600	12	\$3.8490	\$ 166,277	43,198,700	\$0.00385
FT Western Zone (5)	FT0155 (5)	Winter	3,638	5	\$3.8490	\$ 70,013	43,198,700	\$0.00162
FT Western Zone	FT15782	Annual	9,000	12	\$3.8490	\$ 415,693	43,198,700	\$0.00962
GLGT Demand						\$ 1,119,869	43,198,700	\$0.02592
Centra								
CENTRA TRANSMISSION (\$Cdn/103M3)					\$255.8270			
Conversion (103M3 x Rate(C\$ 103M3))		Annual	9,500	12	\$7.2470	\$ 826,161	43,198,700	\$0.01912
CENTRA MINNESOTA PIPELINES		Annual	9,500	12	\$1.7780	\$ 202,692	43,198,700	\$0.00469
Centra Demand						\$ 1,028,853	43,198,700	\$0.02382
AECO								
Niska Storage (AECO)		Annual	947,820	1	\$0.7263	\$ -	43,198,700	\$0.00000
AECO/Emerson Swap		Annual	947,823	1	\$0.5200	\$ -	43,198,700	\$0.00000
AECO Demand						\$ -	43,198,700	\$0.00000
NMU DEMAND - \$/Ccf						\$ 2,768,494		\$0.06409
For Joint Rate Demand					43,198,700	Annual Firm Sales in therms		
			Units Dth's	Months	Annual Dth's			
Viking (VGT)								
FT-A ZONE 1 - 1			12,493	12	149,916			
FT-A ZONE 1 - 1			1,098	3	3,294			
FT-A ZONE 1 - 1			2,000	12	24,000			
Wadena Delivered GDD Option			3,500	3	10,500			
Balancing Agreement			7,465	12	89,580			
Great Lakes (GLGT)								
FT Western Zone			10,130	12	121,560			
FT Western Zone (12)			3,600	12	43,200			
FT Western Zone (5)			3,638	5	18,190			
FT Western Zone			9,000	12	108,000			
Centra								
CENTRA TRANSMISSION								
Conversion (103M3 x Rate(C\$ 103M3))			9,500	12	114,000			
Union Balancing			4,500	12	54,000			
CENTRA MINNESOTA PIPELINES			9,500	12	114,000			
Total Demand Cost						\$ 2,768,494		
Total Demand Weighted Vol in Mcf							5,926,600	
Total Joint Demand Rate \$/Mcf								\$0.46713

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

November 1, 2013

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

PRESENT AVERAGE COST OF GAS COMMODITY

EFFECTIVE: 01-Aug-13

	Season	Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Annual Sales (therms)	Rate (\$/therm)
Niska Storage (AECO)	Annual	947,820	1	\$ 0.72626	\$688,361.79	54,709,030	\$0.01258
AECO/Emerson Swap	Annual	947,823	1	\$ 0.52000	\$417,042.00	54,709,030	\$0.00762
					\$1,105,403.79	54,709,030	\$0.02021

WACOG	Rate	Annual Dth	Call Option Premium	Balancing Service	Total Annual Cost	Cost/therm	REFERENCE	Effective
VGT								
GAS COST	\$3.67010							
FUEL 0.00%	\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
COMMODITY TRANSPORTATION	\$0.01300						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
GRI	\$0.00000						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
ACA	\$0.00180						Sub 16th Revised Sheet No. 5B	Apr. 1, 2006
VGT Commodity	\$3.68490	1,967,663	\$106,283	\$89,580	\$7,446,506	\$0.13611	VGT Commodity	
GLGT								
GAS COST	\$3.67010							
FUEL 0.657%	\$0.02427							
COMMODITY TRANSPORTATION	\$0.00326						5 Revised Sheet 4 Contract	Jun 1, 1997
GRI	\$0.00000						18th Revised Sheet No. 7	Jun. 1, 2004
ACA	\$0.00180							Oct. 1, 2005
GLGT Commodity	\$3.69943	2,480,420	\$133,980	\$0	\$9,310,121	\$0.17018	GLGT Commodity	
CENTRA								
CENTRA TRANSMISSION (\$Cdn/103M3)	1.062						Sheet 1 (N.E.B.)	
Conversion	\$0.02868							
GAS COSTS	\$3.67010							
CUSTOMS FEE	\$0.00039							
CENTRA Commodity	\$3.69917	1,022,819	\$55,248	\$54,000	\$3,892,827	\$0.07116	Centra Commodity	
Consolidated Weighted Average gas cost		5,470,903	\$295,511	\$143,580	\$20,649,455	\$0.37744	Consolidated WACOG \$/therm	
Total Annual Sales in therms		54,709,030						

Balancing Service		Season	Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs
Pipeline	Description					
VGT	Balancing Agreement	Annual	7,465	12	\$1.0000	\$89,580
GLGT	---		0	0	\$0.0000	\$0
Centra	Union Balancing	Annual	4,500	12	\$1.0000	\$54,000

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

Total Commodity Cost: \$0.39765

MINNESOTA ENERGY RESOURCES - PNG-NNG

Financial Options Heating Season 2012-2013

Units - Gas Daily Peaker Packages (Physical)

	November		December		January		February		March		Daily Total	Term Total
	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume		
No GDD Peakers											-	-

Premium - Gas Daily Peaker (Monthly Cost)

	November		December		January		February		March		Total	
	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost
No GDD Peakers											\$ -	\$ -

Units - Futures (Daily Volume)

	November		December		January		February		March		Daily Total	Term Total
	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume		
1	05/17/13	778	05/03/13	323	05/23/13	860	05/07/13	153	05/29/13	924	3,037	92,922
2	06/19/13	778	05/03/13	323	06/24/13	108	05/07/13	459	06/27/13	924	2,591	78,160
3	07/19/13	778	06/04/13	645	06/24/13	753	06/11/13	306	07/30/13	990	3,471	105,920
4	08/20/13	194	07/02/13	645	07/24/13	860	06/11/13	306	08/29/13	990	2,996	91,753
5	08/20/13	292	08/06/13	645	08/26/13	753	07/09/13	765	09/27/13	990	3,445	104,194
6	08/20/13	292	09/17/13	323	09/25/13	753	08/13/13	765	10/25/13	990	3,122	94,194
7	09/23/13	778	10/08/13	323	10/21/13	753	09/19/13	765			2,618	78,095
8	10/16/13	778					10/11/13	459			1,237	36,190
9							10/11/13	306			306	8,571
10											-	-
Total		<u>4,667</u>		<u>3,226</u>		<u>4,839</u>		<u>4,286</u>		<u>5,806</u>	<u>22,823</u>	<u>690,000</u>
		<u>140,000</u>		<u>100,000</u>		<u>150,000</u>		<u>120,000</u>		<u>180,000</u>		<u>690,000</u>

Units - Call Options (Daily Volume)

	November		December		January		February		March		Daily Total	Term Total
	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume	Contract Date	Daily Volume		
1	05/09/13	888	05/30/13	1,301	05/14/13	1,519	05/21/13	1,467	05/02/13	1,079	6,253	188,550
2	06/13/13	956	06/26/13	1,301	06/18/13	1,579	06/20/13	1,467	06/06/13	1,079	6,382	192,481
3	07/11/13	956	07/26/13	1,301	07/16/13	1,579	07/22/13	1,467	07/03/13	1,079	6,382	192,481
4	08/08/13	956	08/28/13	1,366	08/15/13	1,579	08/22/13	702	08/02/13	1,139	5,742	174,927
5	09/18/13	956	09/26/13	1,366	09/20/13	1,579	08/22/13	765	09/16/13	1,199	5,865	178,571
6	10/10/13	956	10/23/13	1,431	10/14/13	1,519	09/24/13	1,467	10/03/13	1,199	6,571	198,347
7							10/18/13	1,594				44,643
Total		<u>5,667</u>		<u>8,065</u>		<u>9,355</u>		<u>8,929</u>		<u>6,774</u>	<u>37,194</u>	<u>1,170,000</u>
		<u>170,000</u>		<u>250,000</u>		<u>290,000</u>		<u>250,000</u>		<u>210,000</u>		<u>1,170,000</u>

Premium - Call Option (Monthly Cost)

	November		December		January		February		March		Total	
	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost	Option Premium	Premium Cost
1	\$ 0.3100	\$ 8,254	\$ 0.2500	\$ 10,081	\$ 0.3520	\$ 16,571	\$ 0.3850	\$ 15,812	\$ 0.4000	\$ 13,381	\$ 0.3400	\$ 64,099
2	\$ 0.2450	\$ 7,025	\$ 0.2830	\$ 11,411	\$ 0.3230	\$ 15,814	\$ 0.3520	\$ 14,457	\$ 0.3230	\$ 10,805	\$ 0.3092	\$ 59,513
3	\$ 0.2150	\$ 6,165	\$ 0.1870	\$ 7,540	\$ 0.2960	\$ 14,492	\$ 0.3280	\$ 13,471	\$ 0.3500	\$ 11,708	\$ 0.2773	\$ 53,377
4	\$ 0.1660	\$ 4,760	\$ 0.1570	\$ 6,647	\$ 0.1970	\$ 9,645	\$ 0.2800	\$ 5,500	\$ 0.3090	\$ 10,911	\$ 0.2142	\$ 37,463
5	\$ 0.0670	\$ 1,921	\$ 0.1680	\$ 7,113	\$ 0.1500	\$ 7,344	\$ 0.2840	\$ 6,086	\$ 0.2900	\$ 10,779	\$ 0.1862	\$ 33,243
6	\$ 0.0960	\$ 2,753	\$ 0.1320	\$ 5,855	\$ 0.2590	\$ 12,193	\$ 0.2050	\$ 8,420	\$ 0.1880	\$ 6,988	\$ 0.1825	\$ 36,208
7							\$ 0.2600	\$ 11,607				\$ 11,607
Total	<u>\$ 0.1816</u>	<u>\$ 30,879</u>	<u>\$ 0.1946</u>	<u>\$ 48,647</u>	<u>\$ 0.2623</u>	<u>\$ 76,061</u>	<u>\$ 0.3014</u>	<u>\$ 75,354</u>	<u>\$ 0.3075</u>	<u>\$ 64,570</u>	<u>\$ 0.2526</u>	<u>\$ 295,511</u>
		<u>\$ 150,760</u>		<u>\$ 241,290</u>		<u>\$ 403,910</u>		<u>\$ 421,980</u>		<u>\$ 347,450</u>		<u>\$ 1,565,390</u>

Units - Collar Floor (put)

No Puts were purchased.

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

	M-10- Consolidated GS	M-11- Consolidated GS	M-12- Consolidated GS	M-13- Consolidated GS	Proposed Change
Viking Gas Transmission (VGT)					
AF0012	12,493	12,493	12,493	12,493	0
AF0014 (3)	1,098	1,098	1,098	1,098	0
AF0102	2,000	2,000	2,000	2,000	0
TBD	0	0	0	1,500	1,500
Wadena Delivered GDD Option	0	0	3500	0	-3,500
Great Lakes Gas Transmission (GLGT)					
FT0016	10,130	10,130	10,130	10,130	0
FT0155 (12)	3,600	3,600	3,600	3,600	0
FT0155 (5)	3,638	3,638	3,638	3,638	0
FT8466	4,500	0	0	0	0
FT15782	0	9,000	9,000	9,000	0
Centra Transmission Holding/Centra Minnesota Pipelines (CTHI/CPMI)					
Centra FT-1	9,858	9,858	9,500	9,500	0
Total VGT Transportation	15,591	15,591	19,091	17,091	-2,000
Total GLGT Transportation	21,868	26,368	26,368	26,368	0
Total CTHI/CPMI Transportation	9,858	9,858	9,500	9,500	0
Total Transportation	47,317	51,817	54,959	52,959	-2,000
Total Seasonal Transportation	11,236	6,736	6,736	6,736	0
Total Seasonal Transportation %	23.75%	13.00%	12.26%	12.72%	0.46%
<u>Other Entitlements not included in Peak Day Deliverability</u>					
AECO Storage	947,819	947,820	947,820	947,820	0
AECO/Emerson Swap	947,780	947,823	947,823	947,823	0

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

**Rate Impacts
Consolidated**

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Oct. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
General Service-Residential									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	11.27%	-2.39%	(\$0.0926)
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.8968	-15.71%	-36.00%	-2.27%	(\$0.0208)
Margin	\$1.9754	\$2.4189	\$1.9754	\$1.9754	\$1.9754	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$7.6948	\$7.1308	\$6.7687	\$6.7600	\$6.6466	-13.62%	-1.80%	-1.68%	(\$0.1134)
Average Annual Use	90	90	90	90	90				
Average Annual Cost of Gas	\$692.53	\$641.77	\$609.18	\$608.40	\$598.19	-13.62%	-1.80%	-1.68%	(\$10.21)

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Oct. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case [^]	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Large General Service									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	11.27%	-2.39%	(\$0.0926)
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.8968	-15.71%	-36.00%	-2.27%	(\$0.0208)
Margin	\$1.6868	\$2.1856	\$1.6868	\$1.6868	\$1.6868	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$7.4062	\$6.8975	\$6.4801	\$6.4714	\$6.3580	-14.15%	-1.88%	-1.75%	(\$0.1134)
Average Annual Use	4,932	4,932	4,932	4,932	4,932				
Average Annual Cost of Gas	\$36,527.38	\$34,018.47	\$31,959.85	\$31,916.94	\$31,357.47	-14.15%	-1.88%	-1.75%	(\$559.47)

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Oct. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case [^]	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
SV Interruptible Service									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	11.27%	-2.39%	(\$0.0926)
Commodity Margin	\$1.0647	\$1.0628	\$1.0647	\$1.0647	\$1.0647	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$5.7202	\$4.4316	\$4.4568	\$4.9317	\$4.8391	-15.40%	8.58%	-1.88%	(\$0.0926)
Average Annual Use	6,068	6,068	6,068	6,068	6,068				
Average Annual Cost of Gas	\$34,710.17	\$26,890.95	\$27,043.86	\$29,925.56	\$29,363.66	-15.40%	8.58%	-1.88%	(\$561.90)

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Oct. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case [^]	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
LV Interruptible Service									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.7744	-18.93%	11.27%	-2.39%	(\$0.0926)
Commodity Margin	\$0.3568	\$0.3164	\$0.3568	\$0.3568	\$0.3568	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$5.0123	\$3.6852	\$3.7489	\$4.2238	\$4.1312	-17.58%	10.20%	-2.19%	(\$0.0926)
Average Annual Use	40,821	40,821	40,821	40,821	40,821				
Average Annual Cost of Gas	\$204,607.10	\$150,433.55	\$153,033.85	\$172,419.74	\$168,639.72	-17.58%	10.20%	-2.19%	(\$3,780.02)

November Change Summary	Commodity Change \$/Mcf	Commodity Change %	Demand Change \$/Mcf	Demand Change \$/Mcf	Demand Change %	Total Change \$/Mcf	Total Change %	Average Annual Change
General Service	(\$0.0926)	-9.26%	(\$0.0227)	(\$0.0208)	-2.27%	(\$0.1134)	-1.68%	(\$10.21)
Large General Service	(\$0.0926)	-9.26%	(\$0.0227)	(\$0.0208)	-2.27%	(\$0.1134)	-1.75%	(\$559.47)
SV Interruptible Service	(\$0.0926)	(\$0.0926)	\$0.0000	\$0.0000	0.00%	(\$0.0926)	-1.88%	(\$561.90)
LV Interruptible Service	(\$0.0926)	(\$0.0926)	\$0.0000	\$0.0000	0.00%	(\$0.0926)	-2.19%	(\$3,780.02)

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

MINNESOTA ENERGY RESOURCES - Consolidated

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

Consolidated

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Aug. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
General Service-Residential									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	17.23%	2.83%	\$0.1095
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.6409	-39.76%	-54.26%	-30.16%	(\$0.2767)
Margin	\$1.9754	\$2.4189	\$1.9754	\$1.9754	\$1.9754	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$7.6948	\$7.1308	\$6.7687	\$6.7600	\$6.5928	-14.32%	-2.60%	-2.47%	(\$0.1672)
Average Annual Use	90	90	90	90	90				
Average Annual Cost of Gas*	\$692.53	\$641.77	\$609.18	\$608.40	\$593.35	-14.32%	-2.60%	-2.47%	(\$15.05)

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Aug. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Large General Service									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	17.23%	2.83%	\$0.1095
Demand Cost	\$1.0639	\$1.3431	\$1.4012	\$0.9176	\$0.6409	-39.76%	-54.26%	-30.16%	(\$0.2767)
Margin	\$1.6868	\$2.1856	\$1.6868	\$1.6868	\$1.6868	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$7.4062	\$6.8975	\$6.4801	\$6.4714	\$6.3042	-14.88%	-2.71%	-2.58%	(\$0.1672)
Average Annual Use	4,932	4,932	4,932	4,932	4,932				
Average Annual Cost of Gas*	\$36,527.38	\$34,018.47	\$31,959.85	\$31,916.94	\$31,092.19	-14.88%	-2.71%	-2.58%	(\$824.76)

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Aug. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
SV Interruptible Service									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	17.23%	2.83%	\$0.1095
Commodity Margin	\$1.0647	\$1.0628	\$1.0647	\$1.0647	\$1.0647	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$5.7202	\$4.4316	\$4.4568	\$4.9317	\$5.0412	-11.87%	13.11%	2.22%	\$0.1095
Average Annual Use	6,068	6,068	6,068	6,068	6,068				
Average Annual Cost of Gas*	\$34,710.17	\$26,890.95	\$27,043.86	\$29,925.56	\$30,590.00	-11.87%	13.11%	2.22%	\$664.45

	Base Cost of Gas Change MR10-978*	Demand Change Nov. '12	Last Demand Change Jan. '13	Most Recent PGA Aug. 2013	Nov.1,2013 w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
LV Interruptible Service									
Commodity Cost	\$4.6555	\$3.3688	\$3.3921	\$3.8670	\$3.9765	-14.58%	17.23%	2.83%	\$0.1095
Commodity Margin	\$0.3568	\$0.3164	\$0.3568	\$0.3568	\$0.3568	0.00%	0.00%	0.00%	\$0.0000
Total Cost of Gas	\$5.0123	\$3.6852	\$3.7489	\$4.2238	\$4.3333	-13.55%	15.59%	2.59%	\$0.1095
Average Annual Use	40,821	40,821	40,821	40,821	40,821				
Average Annual Cost of Gas*	\$204,607.10	\$150,433.55	\$153,033.85	\$172,419.74	\$176,889.64	-13.55%	15.59%	2.59%	\$4,469.90

October Change Summary	Commodity Change \$/Mcf	Commodity Change %	Demand Change \$/Mcf	Demand Change \$/Mcf	Demand Change %	Total Change \$/Mcf	Total Change %	Average Annual Change
General Service	\$0.1095	10.95%	(\$0.3016)	(\$0.2767)	-30.16%	(\$0.1672)	-2.47%	(\$15.05)
Large General Service	\$0.1095	10.95%	(\$0.3016)	(\$0.2767)	-30.16%	(\$0.1672)	-2.58%	(\$824.76)
SV Interruptible Service	\$0.1095	\$0.1095	\$0.0000	\$0.0000	0.00%	\$0.1095	2.22%	\$664.45
LV Interruptible Service	\$0.1095	\$0.1095	\$0.0000	\$0.0000	0.00%	\$0.1095	2.59%	\$4,469.90

* Average Annual Bill amount does not include customer charges.

** Commodity includes Upstream costs.

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

Change in Costs due to November, 1 2013 Change in Entitlement Levels and Related Demand Costs

	Consolidated							
	Aug. 2013	Nov. 2013	Entitlement	Aug. 2013		Aug. 2013	Nov. 2013	Total Annual Cost
	Entitlements	Entitlements	Change	Rate	Months	Total Annual Cost	Total Annual Cost	Change
Call Options Premium	\$470,146	\$295,511	-\$174,635			\$470,146	\$295,511	-\$174,635
Viking Pipeline								
AF0012	12,493	12,493	0	\$ 3.4033	12	\$510,212	\$510,212	\$0
AF0014 (3)	1,098	1,098	0	\$ 3.4033	3	\$11,211	\$11,211	\$0
AF0102	2,000	2,000	0	\$ 3.4033	12	\$81,680	\$81,680	\$0
TBD	0	1,500	1,500	\$ 3.7043	3	\$0	\$16,669	\$0
Wadena Delivered GDD Option	3,500	0	-3,500	\$ -	3	\$0	\$0	\$0
GLGTPipeline								
FT Western Zone	10,130	10,130	0	\$ 3.8490	12	\$420,355	\$467,886	\$47,531
FT Western Zone (12)	1,178	3,600	2,422	\$ 3.8490	12	\$149,385	\$166,277	\$16,892
FT Western Zone (5)	2,138	3,638	1,500	\$ 3.8490	5	\$62,901	\$70,013	\$7,112
FT Western Zone	3,000	9,000	6,000	\$ 3.8490	12	\$373,464	\$415,693	\$42,229
CENTRA Pipeline								
CENTRA Transmission (\$cdn/103M3)				255.82700				
Centra Transmission	9,858	9,500	-358	\$ 7.2470	12	\$662,537	\$826,161	\$163,624
Centra MN Pipelines	9,858	9,500	-358	\$ 1.7780	12	\$202,692	\$202,692	\$0
NISKA STORAGE (AECO)								
Niska Storage (AECO)	665,043	947,820	282,777	\$ 0.7263	1	\$905,000	\$688,362	-\$216,638
AECO/Emerson Swap	665,015	947,823	282,808	\$ 0.5200	1	\$417,042	\$417,042	\$0
TOTAL DEMAND						\$4,266,625	\$4,169,408	-\$113,886
NMU's DE Attachment 4 page 2							<u>\$3,873,898</u>	
VGT Balancing Agreement	7,465	7,465	0	\$ 1.0000	12	\$89,580	\$89,580	\$0
Union Balancing	4,500	4,500	0	\$ 1.0000	12	\$54,000	\$54,000	\$0
							<u>-\$295,511</u>	Call Option Premiums

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

GLGT

	1/20 Design Day	HDD Regression Intercept	HDD Slope	Customer Growth	1/20 Regression Load	Total
Peak	105	3,337	231	0.30%	24,832	24,906
Off Peak	57	3,337	231	0.30%	15,827	15,874

VGT

	1/20 Design Day	HDD Regression Intercept	HDD Slope	Customer Growth	1/20 Regression Load	Total
Peak	109	3,519	173	0.30%	17,350	17,402
Off Peak	57	3,519	173	0.30%	11,287	11,321

Centra

	1/20 Design Day	HDD Regression Intercept	HDD Slope	Customer Growth	1/20 Regression Load	Total
Peak	107	1,874	78	0.30%	7,717	7,740
Off Peak	57	1,874	78	0.30%	4,963	4,978

Consolidated

	1/20 Design Day	HDD Regression Intercept	HDD Slope	Customer Growth	1/20 Regression Load	Total
Peak	8,730	482	0.30%	49,899	50,048	
Off Peak	8,730	482	0.30%	32,077	32,173	

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

13/14 Winter Portfolio Plan - MERC Consolidated Hedging Plan

10,000 Contract Size

REVISED:

System	Purchase Month	Nov-13		Dec-13		Jan-14		Feb-14		Mar-14		Total		Percent of Requirements
		Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	Number Contracts	Contract Volume	
MN Requirements			554,243		823,568		949,791		823,773		687,744		3,839,118	3,839,118
GLGT -MN			18,475		26,567		30,638		28,406		22,185		25,425	
	70%		387,970		576,497		664,853		576,641		481,420		2,687,383	
	40%		221,697		329,427		379,916		329,509		275,097		1,535,647	
			<u>85,304</u>		<u>231,769</u>		<u>231,769</u>		<u>209,339</u>		<u>96,374</u>		<u>854,555</u>	
			136,393		97,658		148,147		120,170		178,723		681,092	
	30%		166,273		247,070		284,937		247,132		206,323		1,151,735	
Contracts	Feb-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-13	0	0	0	0	0	0	0	0	0	0	0	0	
	May-13	3	30,000	2	20,000	3	30,000	2	20,000	3	30,000	13	130,000	
	Jun-13	3	30,000	2	20,000	3	30,000	2	20,000	3	30,000	13	130,000	
	Jul-13	2	20,000	2	20,000	3	30,000	2	20,000	3	30,000	12	120,000	
	Aug-13	2	20,000	2	20,000	2	20,000	2	20,000	3	30,000	11	110,000	
	Sep-13	2	20,000	1	10,000	2	20,000	2	20,000	3	30,000	10	100,000	
	Oct-13	2	20,000	1	10,000	2	20,000	2	20,000	3	30,000	10	100,000	
	Total	14	140,000	10	100,000	15	150,000	12	120,000	18	180,000	69	690,000	17.97%
Call Options	Feb-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-13	0	0	0	0	0	0	0	0	0	0	0	0	
	May-13	2	20,000	4	40,000	5	50,000	4	40,000	3	30,000	18	180,000	
	Jun-13	3	30,000	4	40,000	5	50,000	4	40,000	3	30,000	19	190,000	
	Jul-13	3	30,000	4	40,000	5	50,000	4	40,000	3	30,000	19	190,000	
	Aug-13	3	30,000	4	40,000	5	50,000	4	40,000	4	40,000	20	200,000	
	Sep-13	3	30,000	4	40,000	5	50,000	4	40,000	4	40,000	20	200,000	
	Oct-13	3	30,000	5	50,000	4	40,000	5	50,000	4	40,000	21	210,000	
	Total	17	170,000	25	250,000	29	290,000	25	250,000	21	210,000	117	1,170,000	30.48%
Collars	Feb-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Mar-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Apr-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Aug-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Sep-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Oct-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Index (back financial)	May-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Jun-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Jul-13	0	0	0	0	0	0	0	0	0	0	0	0	
	Aug-13	3,446	103,380	3,767	116,777	4,732	146,692	4,405	123,340	4,193	129,983	20,543	620,172	
	Sep-13	3,444	103,320	3,762	116,622	4,731	146,661	4,405	123,340	4,194	130,014	20,536	619,957	
	Oct-13	3,444	103,320	3,762	116,622	4,731	146,661	4,405	123,340	4,194	130,014	20,536	619,957	
	Total		310,020		350,021		440,014		370,020		390,011		1,860,086	48.45%
Physical Hedges			0		0		0		0		0		0	
Storage			85,304		231,769		231,769		209,339		96,374		854,555	22.26%
Prepaid Obl			0		0		0		0		0		0	0.00%
			71.33%		70.64%		70.73%		70.33%		70.72%		70.71%	
Term Index	Aug-13	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
	Sep-13	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
	Oct-13	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Total NNG MN														
Contracts													690,000	17.97%
Call Options													1,170,000	30.48%
Costing Collar													0	0.00%
Storage													854,555	22.26%
Prepaid Obl													0	0.00%
Term Index													0	0.00%
Month/Daily													1,124,563	29.29%
Total													3,839,118	100.00%

MINNESOTA ENERGY RESOURCES - Consolidated

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

Base	6,734
Variable	495

Date	21.70% Bemidji Adjusted HDD	49.07% Cloquet Adjusted HDD	13.77% Fargo Adjusted HDD	15.47% Intl. Falls Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
7/1/12	0	0	0	0	0	3,691	6,734
7/2/12	0	0	0	0	0	4,103	6,734
7/3/12	0	0	0	0	0	3,421	6,734
7/4/12	0	0	0	0	0	3,007	6,734
7/5/12	2	1	0	2	1	4,924	7,375
7/6/12	0	0	0	0	0	5,018	6,734
7/7/12	0	0	0	0	0	4,701	6,734
7/8/12	0	0	0	0	0	5,074	6,734
7/9/12	0	0	0	0	0	5,598	6,734
7/10/12	0	0	0	0	0	5,033	6,734
7/11/12	0	0	0	0	0	5,205	6,734
7/12/12	0	0	0	0	0	5,164	6,734
7/13/12	0	0	0	0	0	4,468	6,734
7/14/12	0	0	0	0	0	4,340	6,734
7/15/12	0	0	0	0	0	4,544	6,734
7/16/12	0	0	0	0	0	4,393	6,734
7/17/12	0	0	0	0	0	4,856	6,734
7/18/12	0	0	0	0	0	5,510	6,734
7/19/12	0	0	0	0	0	5,421	6,734
7/20/12	0	0	0	0	0	4,537	6,734
7/21/12	0	0	0	0	0	3,641	6,734
7/22/12	0	0	0	0	0	4,133	6,734
7/23/12	0	0	0	0	0	5,878	6,734
7/24/12	0	0	0	0	0	5,831	6,734
7/25/12	1	0	0	0	0	5,974	6,850
7/26/12	0	1	0	2	1	5,950	7,141
7/27/12	0	0	0	1	0	4,946	6,813
7/28/12	0	0	0	0	0	-389	6,734
7/29/12	0	0	0	0	0	419	6,734
7/30/12	0	0	0	0	0	5,518	6,734
7/31/12	0	0	0	0	0	5,822	6,734
8/1/12	0	0	0	0	0	5,663	6,734
8/2/12	0	0	0	0	0	5,374	6,734
8/3/12	4	0	0	4	2	4,779	7,545
8/4/12	7	2	2	4	3	4,036	8,444
8/5/12	0	0	0	0	0	3,946	6,734
8/6/12	4	0	0	5	2	5,022	7,579
8/7/12	0	4	0	0	2	5,433	7,715
8/8/12	4	4	0	7	4	5,296	8,815
8/9/12	6	5	1	8	5	5,604	9,369
8/10/12	8	4	0	5	5	4,621	8,995
8/11/12	2	0	0	3	1	3,350	7,194
8/12/12	5	1	0	5	2	3,889	7,967
8/13/12	7	2	1	6	4	5,173	8,550
8/14/12	0	0	0	4	1	5,359	7,062
8/15/12	12	9	5	12	9	4,975	11,410
8/16/12	11	8	4	11	9	5,486	11,003
8/17/12	4	3	0	7	4	4,866	8,519
8/18/12	9	7	2	11	8	3,691	10,524
8/19/12	10	8	4	6	8	4,317	10,610
8/20/12	3	4	0	3	3	5,643	8,349
8/21/12	0	0	0	0	0	5,649	6,734
8/22/12	0	0	0	0	0	5,427	6,734
8/23/12	0	0	0	0	0	5,342	6,734
8/24/12	1	0	0	4	1	4,770	7,176
8/25/12	0	0	0	2	0	4,047	6,898
8/26/12	2	0	0	5	1	4,651	7,352
8/27/12	0	0	0	0	0	5,772	6,734
8/28/12	0	0	0	0	0	5,902	6,734
8/29/12	3	0	0	3	1	5,232	7,317
8/30/12	3	0	0	4	1	5,941	7,381
8/31/12	0	1	0	5	1	4,626	7,391
9/1/12	0	0	0	0	0	3,405	6,734
9/2/12	0	0	0	0	0	3,200	6,734
9/3/12	0	0	0	0	0	4,959	6,734
9/4/12	2	0	0	6	1	5,673	7,460

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9/5/12	13	1	6	11	6	6,193	9,652
9/6/12	14	10	7	14	11	6,024	12,124
9/7/12	15	14	7	16	14	6,478	13,448
9/8/12	11	8	10	13	10	6,583	11,659
9/9/12	0	3	0	3	2	5,921	7,767
9/10/12	0	0	0	0	0	5,665	6,734
9/11/12	8	6	6	9	7	6,085	10,202
9/12/12	15	10	12	18	12	7,275	12,867
9/13/12	17	13	8	19	14	7,832	13,873
9/14/12	5	9	0	12	8	6,846	10,559
9/15/12	10	2	9	13	6	4,445	9,901
9/16/12	22	19	18	24	20	5,848	16,754
9/17/12	24	23	20	27	23	10,672	18,260
9/18/12	15	11	12	14	13	10,654	12,931
9/19/12	17	15	12	20	16	10,228	14,597
9/20/12	22	21	15	24	21	10,475	16,970
9/21/12	26	26	24	29	26	11,767	19,614
9/22/12	26	24	22	27	24	11,040	18,806
9/23/12	13	10	4	20	11	9,961	12,399
9/24/12	24	21	21	27	22	10,448	17,759
9/25/12	24	22	18	22	22	11,812	17,443
9/26/12	18	19	7	19	17	11,835	15,227
9/27/12	5	12	0	12	9	9,361	11,183
9/28/12	6	13	0	12	9	6,950	11,404
9/29/12	2	10	0	4	6	4,935	9,812
9/30/12	15	9	8	19	12	5,160	12,444
10/1/12	15	17	6	18	15	8,075	14,183
10/2/12	19	8	18	17	13	7,590	13,340
10/3/12	31	22	33	26	26	8,930	19,642
10/4/12	37	32	34	33	33	17,164	23,313
10/5/12	32	30	30	31	31	17,870	22,017
10/6/12	26	28	21	29	27	15,325	19,967
10/7/12	25	26	21	28	25	13,289	19,260
10/8/12	33	29	33	34	31	16,061	22,121
10/9/12	32	28	28	33	30	19,204	21,441
10/10/12	36	31	32	37	33	18,148	23,232
10/11/12	34	33	28	37	33	20,463	23,007
10/12/12	18	23	14	25	21	16,043	17,050
10/13/12	23	19	23	26	21	10,883	17,361
10/14/12	24	21	16	26	22	12,734	17,512
10/15/12	5	11	5	9	9	12,163	11,156
10/16/12	18	17	14	18	17	8,765	15,120
10/17/12	21	18	24	15	19	11,833	16,262
10/18/12	24	24	26	22	24	13,117	18,635
10/19/12	22	24	21	25	24	13,709	18,436
10/20/12	18	20	17	20	19	11,915	16,070
10/21/12	22	20	20	22	21	11,374	17,001
10/22/12	20	21	14	20	20	14,767	16,465
10/23/12	24	16	26	21	20	13,592	16,563
10/24/12	35	30	32	32	32	16,452	22,329
10/25/12	38	34	32	37	35	22,430	24,119
10/26/12	39	34	36	39	36	23,056	24,537
10/27/12	39	34	38	42	37	20,929	24,884
10/28/12	31	28	26	37	30	21,124	21,375
10/29/12	30	28	23	32	29	20,707	20,856
10/30/12	35	36	26	39	35	20,540	23,946
10/31/12	28	25	27	30	27	18,771	19,963
11/1/12	39	39	38	39	39	23,428	25,993
11/2/12	35	33	32	39	34	21,124	23,767
11/3/12	37	38	30	39	37	19,365	24,960
11/4/12	31	35	29	41	34	19,103	23,633
11/5/12	33	30	28	33	31	20,200	21,896
11/6/12	33	30	32	32	31	19,939	22,135
11/7/12	27	28	27	30	28	17,941	20,525
11/8/12	32	25	33	32	29	19,328	20,868
11/9/12	36	33	31	40	35	20,771	23,915
11/10/12	35	26	39	34	31	18,542	22,070
11/11/12	51	41	54	44	45	26,910	29,117
11/12/12	54	48	52	47	50	31,611	31,443
11/13/12	40	39	40	44	40	26,388	26,708
11/14/12	32	27	33	35	30	22,532	21,751
11/15/12	46	39	40	47	42	27,385	27,280
11/16/12	37	34	36	39	36	23,063	24,508
11/17/12	27	20	24	25	23	16,150	18,109
11/18/12	22	17	25	24	20	14,642	16,680
11/19/12	30	26	32	26	28	20,395	20,537
11/20/12	32	29	29	32	30	20,989	21,471

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11/21/12	24	23	21	26	23	16,584	18,271
11/22/12	50	36	50	44	42	27,499	27,666
11/23/12	59	60	58	63	60	33,068	36,435
11/24/12	54	51	47	55	52	28,755	32,432
11/25/12	62	57	56	59	58	33,376	35,532
11/26/12	58	58	54	58	58	33,883	35,264
11/27/12	50	45	42	57	48	31,379	30,279
11/28/12	47	46	44	54	47	29,879	30,064
11/29/12	53	44	46	55	48	31,680	30,636
11/30/12	41	36	37	42	38	25,757	25,776
12/1/12	33	31	31	32	31	20,157	22,256
12/2/12	30	28	29	28	28	20,264	20,799
12/3/12	43	36	37	41	38	26,241	25,739
12/4/12	56	52	50	54	53	33,449	33,052
12/5/12	44	41	39	43	42	28,138	27,466
12/6/12	51	41	46	44	44	29,071	28,668
12/7/12	54	45	47	57	49	31,473	30,950
12/8/12	48	43	53	56	48	27,222	30,261
12/9/12	69	53	74	71	62	37,403	37,451
12/10/12	67	58	67	65	62	38,893	37,487
12/11/12	69	61	57	67	63	39,892	38,107
12/12/12	49	48	50	55	50	33,003	31,278
12/13/12	54	54	42	50	52	33,365	32,303
12/14/12	48	42	45	45	44	27,595	28,492
12/15/12	45	33	50	40	39	24,942	26,165
12/16/12	49	46	48	48	47	29,423	30,224
12/17/12	49	46	46	50	47	31,883	30,111
12/18/12	43	43	46	47	44	29,026	28,641
12/19/12	51	42	52	45	46	29,661	29,412
12/20/12	63	61	64	64	63	36,641	37,747
12/21/12	58	57	63	64	59	36,136	36,030
12/22/12	61	56	64	66	60	34,371	36,195
12/23/12	66	60	75	71	65	36,179	38,942
12/24/12	77	71	77	76	74	42,004	43,356
12/25/12	72	67	72	77	70	39,796	41,547
12/26/12	66	58	63	70	62	40,881	37,585
12/27/12	56	54	56	65	56	36,476	34,647
12/28/12	54	52	63	55	54	31,945	33,474
12/29/12	67	59	64	62	62	33,854	37,522
12/30/12	65	60	65	66	63	32,701	37,796
12/31/12	73	68	69	76	70	40,225	41,581
1/1/13	63	63	53	65	62	34,088	37,233
1/2/13	59	51	59	55	55	34,585	33,776
1/3/13	61	56	56	59	57	40,884	35,020
1/4/13	53	45	54	55	49	33,043	31,171
1/5/13	55	48	60	62	53	32,833	32,999
1/6/13	58	51	55	61	55	34,064	33,953
1/7/13	49	42	46	46	45	27,892	28,886
1/8/13	50	45	42	47	46	34,048	29,472
1/9/13	42	42	43	45	43	33,169	27,800
1/10/13	29	29	31	27	29	22,111	21,120
1/11/13	49	35	56	46	43	28,013	27,945
1/12/13	72	61	73	72	67	41,120	39,669
1/13/13	71	64	66	72	67	39,629	39,980
1/14/13	63	63	64	67	64	40,094	38,169
1/15/13	53	54	49	56	53	35,109	33,103
1/16/13	67	57	66	73	63	41,463	37,929
1/17/13	65	66	55	78	66	43,323	39,355
1/18/13	49	51	39	59	50	32,644	31,546
1/19/13	71	63	61	74	66	44,451	39,538
1/20/13	87	81	82	86	83	49,326	47,830
1/21/13	88	87	80	91	87	55,528	49,786
1/22/13	80	78	72	84	78	48,730	45,540
1/23/13	85	79	81	93	83	52,115	47,790
1/24/13	75	73	71	82	75	49,459	43,779
1/25/13	76	67	73	77	71	43,632	42,067
1/26/13	63	63	60	66	63	39,941	38,020
1/27/13	48	42	43	51	45	28,337	28,899
1/28/13	38	37	42	37	38	30,589	25,556
1/29/13	57	48	55	53	51	31,002	32,202
1/30/13	75	67	74	69	70	42,822	41,416
1/31/13	91	84	87	88	87	52,529	49,633
2/1/13	82	78	77	88	80	59,691	46,444
2/2/13	77	69	69	83	73	42,011	42,774
2/3/13	74	73	64	80	73	42,222	42,960
2/4/13	63	64	56	62	63	40,517	37,706
2/5/13	62	58	58	67	60	37,808	36,618

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2/6/13	54	51	50	59	53	36,552	32,744
2/7/13	60	48	54	62	53	37,224	33,168
2/8/13	59	49	51	49	52	33,240	32,377
2/9/13	43	44	38	43	43	28,457	27,883
2/10/13	49	44	49	48	46	31,267	29,601
2/11/13	57	52	53	56	54	35,506	33,298
2/12/13	48	45	46	45	46	30,751	29,429
2/13/13	48	37	46	48	42	30,022	27,626
2/14/13	67	59	64	65	62	37,307	37,574
2/15/13	66	63	64	74	65	38,139	39,026
2/16/13	58	61	61	69	62	33,101	37,212
2/17/13	46	50	52	48	49	29,232	31,095
2/18/13	66	63	83	66	66	41,611	39,630
2/19/13	80	76	84	78	78	46,661	45,451
2/20/13	70	62	71	72	66	42,404	39,590
2/21/13	61	54	59	61	58	36,724	35,247
2/22/13	50	44	53	54	48	31,547	30,662
2/23/13	50	47	56	53	50	29,748	31,429
2/24/13	47	42	55	46	45	28,756	29,221
2/25/13	46	47	50	48	48	30,933	30,264
2/26/13	44	41	51	41	43	29,655	27,990
2/27/13	42	39	52	47	42	29,151	27,763
2/28/13	48	46	52	51	48	31,134	30,635
3/1/13	55	62	53	64	59	30,650	36,155
3/2/13	52	47	52	54	50	31,061	31,537
3/3/13	44	46	45	48	46	27,558	29,400
3/4/13	47	45	44	47	46	33,130	29,319
3/5/13	48	52	49	60	52	30,203	32,568
3/6/13	56	58	51	60	57	32,355	34,776
3/7/13	50	47	48	46	48	28,751	30,348
3/8/13	39	39	39	40	39	25,905	26,070
3/9/13	42	35	47	39	39	26,247	25,867
3/10/13	55	42	59	51	49	29,774	30,803
3/11/13	51	46	49	50	48	29,728	30,563
3/12/13	58	57	60	62	58	31,323	35,593
3/13/13	41	44	46	53	45	28,102	28,912
3/14/13	40	35	43	46	39	26,974	26,001
3/15/13	59	52	64	63	57	33,090	34,882
3/16/13	76	67	71	79	71	34,185	41,949
3/17/13	50	47	53	52	49	31,676	31,021
3/18/13	63	56	68	54	59	35,079	35,809
3/19/13	70	62	66	66	65	39,284	38,758
3/20/13	67	60	65	67	63	41,038	38,148
3/21/13	57	50	62	56	54	30,927	33,632
3/22/13	43	43	55	50	46	22,173	29,361
3/23/13	39	34	49	47	39	23,595	26,149
3/24/13	44	46	46	46	45	25,760	29,244
3/25/13	48	35	54	41	41	28,722	27,215
3/26/13	45	32	53	35	38	25,419	25,691
3/27/13	38	37	40	42	38	22,561	25,784
3/28/13	32	33	41	36	34	19,994	23,743
3/29/13	25	23	33	31	26	15,633	19,663
3/30/13	35	26	36	32	31	20,969	21,881
3/31/13	54	49	49	55	51	30,290	31,959
4/1/13	49	47	45	48	47	27,871	30,176
4/2/13	44	41	39	47	42	22,826	27,747
4/3/13	37	29	33	33	32	20,926	22,524
4/4/13	45	39	43	46	42	23,896	27,344
4/5/13	36	36	32	35	36	23,346	24,311
4/6/13	32	32	31	31	32	20,409	22,497
4/7/13	40	31	45	35	36	20,178	24,364
4/8/13	47	34	51	42	40	26,216	26,687
4/9/13	38	38	42	36	38	24,857	25,772
4/10/13	42	44	37	41	42	24,538	27,584
4/11/13	40	41	38	41	41	28,843	26,818
4/12/13	41	40	37	42	40	25,593	26,495
4/13/13	43	48	40	46	45	22,583	29,129
4/14/13	34	35	36	34	35	24,880	23,821
4/15/13	34	31	36	34	33	22,650	23,100
4/16/13	33	37	35	34	35	21,666	24,259
4/17/13	37	37	38	37	37	23,845	25,148
4/18/13	45	47	42	45	46	25,926	29,325
4/19/13	42	43	40	44	43	24,840	27,823
4/20/13	37	36	34	37	36	22,618	24,526
4/21/13	40	33	38	35	35	21,749	24,288
4/22/13	43	35	35	38	37	24,926	25,053
4/23/13	36	36	31	37	36	22,660	24,411

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4/24/13	32	31	31	32	31	21,396	22,322
4/25/13	21	17	17	17	18	18,040	15,452
4/26/13	13	17	10	13	14	11,259	13,878
4/27/13	17	13	16	16	15	8,780	14,052
4/28/13	21	14	18	20	17	11,773	15,081
4/29/13	24	13	20	20	18	10,793	15,451
4/30/13	37	28	32	35	31	15,943	22,234
5/1/13	40	32	35	34	34	22,591	23,699
5/2/13	35	36	29	34	35	22,327	23,870
5/3/13	32	33	21	31	31	18,499	22,032
5/4/13	26	23	21	25	24	17,953	18,466
5/5/13	16	14	7	16	14	14,516	13,721
5/6/13	11	10	3	10	9	9,786	11,358
5/7/13	5	11	3	10	9	8,100	10,978
5/8/13	15	25	12	19	20	10,076	16,588
5/9/13	19	26	13	23	22	12,671	17,676
5/10/13	33	29	27	32	30	12,213	21,639
5/11/13	29	28	22	32	28	14,128	20,508
5/12/13	9	19	0	23	15	11,767	14,066
5/13/13	1	10	0	8	6	9,827	9,819
5/14/13	5	1	0	6	3	7,739	8,008
5/15/13	10	9	2	17	9	7,292	11,293
5/16/13	5	18	0	5	11	8,656	12,028
5/17/13	13	21	0	11	15	6,238	14,079
5/18/13	7	17	0	12	12	5,994	12,428
5/19/13	16	22	7	19	18	6,784	15,619
5/20/13	21	21	15	22	20	11,721	16,848
5/21/13	9	18	6	10	13	12,667	13,219
5/22/13	15	21	8	19	18	9,844	15,491
5/23/13	17	18	8	17	16	8,769	14,712
5/24/13	7	18	2	8	12	7,538	12,725
5/25/13	8	15	8	6	11	6,970	12,327
5/26/13	8	16	2	10	11	6,660	12,390
5/27/13	5	12	0	6	8	6,820	10,628
5/28/13	2	6	0	0	4	7,115	8,496
5/29/13	0	5	0	0	3	6,674	8,033
5/30/13	4	2	3	3	3	6,385	8,190
5/31/13	21	15	14	18	17	6,481	14,979
6/1/13	17	14	13	19	15	7,622	14,276
6/2/13	19	16	11	19	16	6,723	14,689
6/3/13	8	13	9	12	11	8,460	12,193
6/4/13	19	18	7	15	16	10,778	14,784
6/5/13	17	16	4	17	15	10,558	13,944
6/6/13	15	10	2	15	11	9,081	12,048
6/7/13	9	8	1	11	8	6,783	10,611
6/8/13	12	15	7	10	13	4,716	12,925
6/9/13	1	8	3	4	5	6,792	9,365
6/10/13	0	0	0	3	0	6,343	6,973
6/11/13	5	1	0	7	3	6,374	8,134
6/12/13	4	2	0	1	2	6,312	7,776
6/13/13	1	7	0	4	5	6,160	8,979
6/14/13	0	3	0	0	2	4,988	7,492
6/15/13	0	0	0	2	0	3,657	6,898
6/16/13	4	19	0	12	12	4,196	12,756
6/17/13	4	14	0	9	9	8,308	11,180
6/18/13	0	2	0	0	1	13,207	7,239
6/19/13	0	6	0	0	3	-3,846	8,293
6/20/13	0	4	0	0	2	5,677	7,774
6/21/13	0	11	0	0	5	5,203	9,333
6/22/13	0	0	0	0	0	4,865	6,734
6/23/13	0	0	0	0	0	5,141	6,734
6/24/13	0	0	0	0	0	5,454	6,734
6/25/13	0	0	0	0	0	5,395	6,734
6/26/13	0	0	0	0	0	5,226	6,734
6/27/13	0	0	0	0	0	5,405	6,734
6/28/13	0	3	0	1	2	4,897	7,579
6/29/13	0	0	0	1	0	3,453	6,813
6/30/13	8	6	2	8	6	4,281	9,896
Totals	10,997	10,282	10,258	11,354	10,599	6,976,263	7,704,594

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

MERC

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

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MINNESOTA ENERGY RESOURCES - Consolidated

Customer Counts by PGAC Class - July 1, 2012 through June 30, 2013

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

Projected Fixed Cost - November 2013 through March 2014

Futures Contracts WACOG

NMU

Futures

Purchase Date	Nov-13						Dec-13						Jan-14								
	Financial Volume	Purchase Price	Total Cost	Emerson Index	Emerson Index Cost	Over/(Under) Market	Purchase Date	Financial Volume	Purchase Price	Total Cost	Emerson Index	Emerson Index Cost	Over/(Under) Market	Purchase Date	Financial Volume	Purchase Price	Total Cost	Emerson Index	Emerson Index Cost	Over/(Under) Market	
05/17/13	23,333	\$ 4.1999	\$ 97,998	\$ 3.8970	\$ 90,930	\$ 7,068	05/03/13	10,000	\$ 4.3820	\$ 43,820	\$ 4.0020	\$ 40,020	\$ 3,800	05/23/13	26,667	\$ 4.6130	\$ 123,013	\$ 3.9935	\$ 106,493	\$ 16,520	
06/19/13	23,333	\$ 4.0540	\$ 94,593	\$ 3.8970	\$ 90,930	\$ 3,663	05/03/13	10,000	\$ 4.3830	\$ 43,830	\$ 4.0020	\$ 40,020	\$ 3,810	06/24/13	3,333	\$ 4.0980	\$ 13,660	\$ 3.9935	\$ 13,312	\$ 348	
07/19/13	23,333	\$ 3.8580	\$ 90,020	\$ 3.8970	\$ 90,930	\$ (910)	06/04/13	20,000	\$ 4.2420	\$ 84,840	\$ 4.0020	\$ 80,040	\$ 4,800	06/24/13	23,333	\$ 4.0990	\$ 95,643	\$ 3.9935	\$ 93,182	\$ 2,462	
08/20/13	5,833	\$ 3.5960	\$ 20,977	\$ 3.8970	\$ 22,732	\$ (1,756)	07/02/13	20,000	\$ 3.8980	\$ 77,960	\$ 4.0020	\$ 80,040	\$ (2,080)	07/24/13	26,667	\$ 4.0210	\$ 107,227	\$ 3.9935	\$ 106,493	\$ 733	
08/20/13	8,750	\$ 3.5970	\$ 31,474	\$ 3.8970	\$ 34,099	\$ (2,625)	08/06/13	20,000	\$ 3.6470	\$ 72,940	\$ 4.0020	\$ 80,040	\$ (7,100)	08/26/13	23,333	\$ 3.9190	\$ 91,443	\$ 3.9935	\$ 93,182	\$ (1,738)	
08/20/13	8,750	\$ 3.5980	\$ 31,483	\$ 3.8970	\$ 34,099	\$ (2,616)	09/17/13	10,000	\$ 3.9760	\$ 39,760	\$ 4.0020	\$ 40,020	\$ (260)	09/25/13	23,333	\$ 3.8440	\$ 89,693	\$ 3.9935	\$ 93,182	\$ (3,488)	
09/23/13	23,333	\$ 3.6910	\$ 86,123	\$ 3.8970	\$ 90,930	\$ (4,807)	10/08/13	10,000	\$ 3.8630	\$ 38,630	\$ 4.0020	\$ 40,020	\$ (1,390)	10/21/13	23,333	\$ 3.9200	\$ 91,467	\$ 3.9935	\$ 93,182	\$ (1,715)	
10/16/13	23,333	\$ 3.7990	\$ 88,643	\$ 3.8970	\$ 90,930	\$ (2,287)															
Total WACOG	140,000		\$ 541,311 \$ 3,8665		\$ 545,580 \$ 3,8970	\$ (4,269) \$ (0,0305)		100,000		\$ 401,780 \$ 4,0178		\$ 400,200 \$ 4,0020	\$ 1,580 \$ 0,0158		150,000		\$ 612,147 \$ 4,0810		\$ 599,025 \$ 3,9935	\$ 13,122 \$ 0,0875	

Purchase Date	Feb-12						Mar-12						Total							
	Physical Volume	Purchase Price	Total Cost	Emerson Index	Emerson Index Cost	Over/(Under) Market	Purchase Date	Physical Volume	Purchase Price	Total Cost	NNG Indexes	NNG Indexes Cost	Over/(Under) Market	Financial Volume	Purchase Price	Total Cost	NNG Indexes	NNG Indexes Cost	Over/(Under) Market	
05/07/13	4,286	\$ 4.3480	\$ 18,634	\$ 4.0060	\$ 17,169	\$ 1,466	05/29/13	28,636	\$ 4.4130	\$ 126,372	\$ 3.9815	\$ 114,016	\$ 12,357							
05/07/13	12,857	\$ 4.3490	\$ 55,916	\$ 4.0060	\$ 51,506	\$ 4,410	06/27/13	28,636	\$ 3.8820	\$ 111,166	\$ 3.9815	\$ 114,016	\$ (2,849)							
06/11/13	8,571	\$ 4.0940	\$ 35,091	\$ 4.0060	\$ 34,337	\$ 754	07/30/13	30,682	\$ 3.7950	\$ 116,438	\$ 3.9815	\$ 122,160	\$ (5,722)							
06/11/13	8,571	\$ 4.0950	\$ 35,100	\$ 4.0060	\$ 34,337	\$ 763	08/29/13	30,682	\$ 3.9190	\$ 120,242	\$ 3.9815	\$ 122,160	\$ (1,918)							
07/09/13	21,429	\$ 3.9830	\$ 85,350	\$ 4.0060	\$ 85,843	\$ (493)	09/27/13	30,682	\$ 3.8530	\$ 118,217	\$ 3.9815	\$ 122,160	\$ (3,943)							
08/13/13	21,429	\$ 3.7100	\$ 79,500	\$ 4.0060	\$ 85,843	\$ (6,343)	10/25/13	30,682	\$ 3.8740	\$ 118,861	\$ 3.9815	\$ 122,160	\$ (3,298)							
09/19/13	21,429	\$ 4.0400	\$ 86,571	\$ 4.0060	\$ 85,843	\$ 729														
10/11/13	12,857	\$ 4.0240	\$ 51,737	\$ 4.0060	\$ 51,506	\$ 231														
10/11/13	8,571	\$ 4.0250	\$ 34,500	\$ 4.0060	\$ 34,337	\$ 163														
Total WACOG	120,000		\$ 482,400 \$ 4,0200		\$ 480,720 \$ 4,0060	\$ 1,680 \$ 0,0140		180,000		\$ 711,297 \$ 3,9516		\$ 716,670 \$ 3,9815	\$ (5,373) \$ (0,0299)		681,429		\$ 2,714,434 \$ 3,9834		\$ 2,707,858 \$ 3,9738	\$ 6,576 \$ 0,0097

MINNESOTA ENERGY RESOURCES - CONSOLIDATED

Projected Storage Cost - November 2013 through March 2014

Month/ Year	K#118657 NNG Storage	Storage K#125344 LS Power	Storage K#125345 LS Power	Total NNG Storage	Projected Storage NNG WACOG	K#118657 NNG Storage Cost	K#125344 NNG Storage Cost	K#125345 NNG Storage Cost	Total NNG Storage Cost	AECO Storage GLGT/VGT Centra Emerson	AECO Storage GLGT/VGT Centra Emerson WACOG	AECO Storage GLGT/VGT Centra Emerson Cost
Nov-13	455,259	73,125	19,500	547,884	\$ 3.7882	\$ 1,724,612	\$ 277,012	\$ 73,870	\$ 2,075,494	85,304	\$ 3.0943	\$ 263,956
Dec-13	1,143,984	183,750	49,000	1,376,734	\$ 3.7882	\$ 4,333,640	\$ 696,082	\$ 185,622	\$ 5,215,344	231,769	\$ 3.0943	\$ 717,163
Jan-14	1,143,984	183,750	49,000	1,376,734	\$ 3.7882	\$ 4,333,640	\$ 696,082	\$ 185,622	\$ 5,215,344	231,769	\$ 3.0943	\$ 717,163
Feb-14	1,143,984	183,750	49,000	1,376,734	\$ 3.7882	\$ 4,333,640	\$ 696,082	\$ 185,622	\$ 5,215,344	209,339	\$ 3.0943	\$ 647,758
Mar-14	455,259	73,125	19,500	547,884	\$ 3.7882	\$ 1,724,612	\$ 277,012	\$ 73,870	\$ 2,075,494	96,374	\$ 3.0943	\$ 298,210
Total	4,342,470	697,500	186,000	5,225,970	\$ 3.7882	\$16,450,145	\$ 2,642,270	\$ 704,605	\$19,797,020	854,555	\$ 3.0943	\$ 2,644,250

Month/ Year	NNG Storage Volume	NNG Indexes Price	NNG Indexes Cost	AECO Storage Volume	Emerson LDS + Basis	Emerson LDS + Cost
Nov-13	547,884	\$ 3.8520	\$ 2,110,449	85,304	\$ 3.8970	\$ 332,430
Dec-13	1,376,734	\$ 3.9470	\$ 5,433,969	231,769	\$ 4.0020	\$ 927,540
Jan-14	1,376,734	\$ 3.9935	\$ 5,497,987	231,769	\$ 4.0110	\$ 929,625
Feb-14	1,376,734	\$ 4.0035	\$ 5,511,755	209,339	\$ 4.0060	\$ 838,612
Mar-14	547,884	\$ 3.8940	\$ 2,133,460	96,374	\$ 3.9815	\$ 383,713
Total	5,225,970	\$ 3.9586	\$20,687,620	854,555	\$ 3.9926	\$ 3,411,920

Max NNG Storage (Storage plan withdrawals through Apr 14)	5,225,970	5,669,321	10/31/13 Storage Balance - NNG - Est.	5,669,321	100.00%	5,225,970
Max AECO Storage	854,555	947,820	10/31/13 Storage Balance - AECO - Est.	947,820	100.00%	854,555
						100.00%

Month/ Year	K#118657 NNG Storage	Storage K#125344 LS Power	Storage K#125345 LS Power	Total NNG Storage	Projected K#118657 NNG WACOG	Projected K#125344 NNG WACOG	K#118657 NNG Storage WACOG	WACOG NNG PNG Cost	Projected NNG Indexes Price	Projected NNG Index Cost	Additional Storage (Savings)/ Cost
Nov-13	455,259	73,125	19,500	547,884	\$ 3.7882	\$ 3.7882	\$ 3.7882	\$ 2,075,494	\$ 3.8520	\$ 2,110,449	\$ (34,955)
Dec-13	1,143,984	183,750	49,000	1,376,734	\$ 3.7882	\$ 3.7882	\$ 3.7882	\$ 5,215,344	\$ 3.9470	\$ 5,433,969	\$ (218,625)
Jan-14	1,143,984	183,750	49,000	1,376,734	\$ 3.7882	\$ 3.7882	\$ 3.7882	\$ 5,215,344	\$ 3.9935	\$ 5,497,987	\$ (282,643)
Feb-14	1,143,984	183,750	49,000	1,376,734	\$ 3.7882	\$ 3.7882	\$ 3.7882	\$ 5,215,344	\$ 4.0035	\$ 5,511,755	\$ (296,411)
Mar-14	455,259	73,125	19,500	547,884	\$ 3.7882	\$ 3.7882	\$ 3.7882	\$ 2,075,494	\$ 3.8940	\$ 2,133,460	\$ (57,966)
Total	4,342,470	697,500	186,000	5,225,970	\$ 3.7882	\$ 3.7882	\$ 3.7882	\$ 19,797,020	\$ 3.9586	\$ 20,687,620	\$ (890,601)

\$ 3.6991 \$ (0.2690) \$ (1,405,835)

Month/ Year	AECO Storage	AECO Storage Other WACOG	Total AECO Cost	Projected Emerson Index Price	Projected Emerson Index Cost	Additional Storage (Savings)/ Cost
Nov-13	85,304	\$ 3.0943	\$ 263,956	\$ 3.8970	\$ 332,430	\$ (68,474)
Dec-13	231,769	\$ 3.0943	\$ 717,163	\$ 4.0020	\$ 927,540	\$ (210,377)
Jan-14	231,769	\$ 3.0943	\$ 717,163	\$ 4.0110	\$ 929,625	\$ (212,463)
Feb-14	209,339	\$ 3.0943	\$ 647,758	\$ 4.0060	\$ 838,612	\$ (190,854)
Mar-14	96,374	\$ 3.0943	\$ 298,210	\$ 3.9815	\$ 383,713	\$ (85,503)
Total	854,555	\$ 3.0943	\$ 2,644,250	\$ 3.9926	\$3,411,920	\$ (767,670)

\$ 3.2341 \$ (0.8488) \$ (725,378)

Call/Put Options WACOG

Contract = 10,000

Call/Put Options