

# MINNESOTA ENERGY RESOURCES - NNG

## DESIGN-DAY DEMAND SUMMARY

NOVEMBER 1, 2013

NNG

Design Day Requirement	245,878
Total Peak Day Entitlement	253,485
Firm Peak Day Actual Sendout -Non Coincidental (Jan. 31)	206,230
Firm Annual Throughput - Minnesota	21,397,632
No. of Firm Customers	178,578
Department Load Factor Calculation	28.43%

**MINNESOTA ENERGY RESOURCES - NNG**

**NNG MINNESOTA DESIGN DAY REQUIREMENTS**

NOVEMBER 1, 2013

NNG

Pipeline Group	Nov12-Mar 13 Avg. Customer Count	Zone Total Customer Count	1/20 Design DDD	Regression Factors		Regression Total Footnote 1	Regression Adjustment Footnote 2	1/20 Requirements Regression Load Footnote 3	Nov12-Mar 13 Avg. Customer Growth	Total *
				Intercept	Slope					

PEAK										
NNG	178,578	178,578	100	41,361	2,341	287,358	43,041	244,317	0.60%	245,783
<b>Total</b>	178,578	178,578								245,783

OFF PEAK										
NNG	178,578	178,578	55	41,361	2,341	182,893	27,735	155,158	0.60%	156,089
<b>Total</b>	178,578	178,578								156,089

\* Adjusted for customer growth

**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 adjustment to achieve 97.5% confidence level confidence level that actual demand under design conditions will not exceed estimate.

**Footnote 3:** Total equals Regression Total minus Regression Adjustment.

\*55 is the 30 yr unadjusted heating degree days from NOAA, not adjusted for windspeed.

**MINNESOTA ENERGY RESOURCES - NNG**

**DESIGN-DAY DEMAND PER CUSTOMER - GS**

**NOVEMBER 1, 2013**

**NNG**

<b><u>Heating Season</u></b>	<b><u>No. of Firm Customers</u></b>	<b><u>Design Day Requirements</u></b>	<b><u>MMBtus /Customer /Day</u></b>
13/14	178,578	245,878	1.38
12/13	176,937	225,883	1.28
11/12	175,241	235,055	1.34
10/11	176,027	218,213	1.24
09/10	175,228	228,040	1.30
08/09	173,962	247,188	1.42
07/08	172,116	223,754	1.30
06/07	165,053	222,119	1.35

<b>MINNESOTA ENERGY RESOURCES - NNG</b>
---

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

<u>Class</u>	<u>Summer Apr-Oct</u>	<u>Winter Nov-Mar</u>	<u>Total</u>
GS	6,026,020	15,356,677	21,382,697
SVI	429,569	720,094	1,149,663
SVJ	6,730	8,205	14,935
LVI	291,319	477,383	768,702
LVJ	0	0	0
SLV	<u>0</u>	<u>0</u>	0
<b>Total</b>	<b><u>6,753,638</u></b>	<b><u>16,562,359</u></b>	<b><u>23,315,997</u></b>

Source: Calendar data from MERCFCST201304 NEW PGA WIP (Matt's).xlsx

**MINNESOTA ENERGY RESOURCES - NNG**

**ENTITLEMENT LEVELS**

**PROPOSED TO BE EFFECTIVE NOVEMBER 1, 2013**

<b>Type of Capacity or Entitlement</b>	<b>Current Amount Mcf or MMBtu</b>	<b>Proposed Change Mcf or MMBtu</b>	<b>Proposed Amount Mcf or MMBtu</b>
TF-12 Base & Variable	75,316	763	76,079
TF5	32,278	(763)	31,515
TFX - 12	32,297	0	32,297
TFX - 5	90,184	0	90,184
TFX- (Apr) Offpeak*	2,000	0	2,000
TFX- (Oct) Offpeak*	2,000	0	2,000
Bison	50,000	0	50,000
NBPL	50,000	0	50,000
Northwest Gas (Windom)	2,500	0	2,500
Northwestern Energy (Ortonville)	910	0	910
NNG Zone Delivery Call Option	0	20,000	20,000
Heating Season Total	<b>233,485</b>	<b>20,000</b>	<b>253,485</b>
Non-Heating Season Total	113,023	763	113,786
Heating Season			
Forecasted Design Day-Adjusted	225,883	19,995	245,878
Non-Heating Season			
Forecasted Design Day	141,002	15,087	156,089
Heating Season			
Capacity Surplus/Shortage	7,602	5	7,607
Non-Heating Season			
Capacity Surplus/Shortage	(27,979)	(14,324)	(42,303)

\*Not included in Heating Season Total entitlement

**MINNESOTA ENERGY RESOURCES - NNG**

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

All costs in \$/Dth	Last Base Cost of Gas G007, G011/ MR10-978*	Last Demand Change G011- 12-1193 Nov. 12	Last Demand Change G011- 10-977 Jan. 13	Most Recent PGA Aug. 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 \$
<b>1) General Service Residential: Avg. Annual Use:</b>		<b>71</b>		<b>Dth</b>					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	(\$0.9356)	\$0.3529	-2.11%	(\$0.0820)
Demand Cost	\$1.6894	\$1.8818	\$1.6711	\$1.6968	\$1.7561	\$0.0667	\$0.0850	3.49%	\$0.0593
Commodity Margin	\$1.9754	\$1.9417	\$1.9754	\$1.9754	\$1.9754	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$8.4109	\$7.2886	\$7.1041	\$7.5647	\$7.5420	(\$0.8689)	\$0.4379	-0.30%	(\$0.0227)
Avg Annual Cost	\$595.49	\$516.03	\$502.97	\$535.58	\$533.97	(\$61.52)	\$31.00	-0.30%	(\$1.61)
Effect of proposed commodity change on average annual bills:									(\$5.81)
Effect of proposed demand change on average annual bills:									\$4.20
<b>2) Small Vol. Interruptible: Avg. Annual Use:</b>		<b>4,034</b>		<b>Dth</b>					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	(\$0.9356)	\$0.3529	-2.11%	(\$0.0820)
Demand Cost	\$0.0000								
Commodity Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.8108	\$4.7432	\$4.5223	\$4.9572	\$4.8752	(\$0.9356)	\$0.3529	-1.65%	(\$0.0820)
Avg Annual Cost	\$23,440.77	\$19,134.07	\$18,242.96	\$19,997.34	\$19,666.56	(\$3,774.21)	\$1,423.60	-1.65%	(\$330.79)
Effect of proposed commodity change on average annual bills:									(\$330.79)
Effect of proposed demand change on average annual bills:									\$0.00
<b>3) Large Vol. Interruptible: Avg. Annual Use:</b>		<b>20,096</b>		<b>Dth</b>					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	(\$0.9356)	\$0.3529	-2.11%	(\$0.0820)
Demand Cost									
Commodity Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.1029	\$3.8205	\$3.8144	\$4.2493	\$4.1673	(\$0.9356)	\$0.3529	-1.93%	(\$0.0820)
Avg Annual Cost	\$102,547.88	\$76,776.77	\$76,654.18	\$85,393.93	\$83,746.06	(\$18,801.82)	\$7,091.88	-1.93%	(\$1,647.87)
Effect of proposed commodity change on average annual bills:									(\$1,647.87)
Effect of proposed demand change on average annual bills:									\$0.00
<b>4) Small Vol. Firm: Avg. Annual Use:</b>		<b>4,800</b>		<b>Dth</b>					
		<b>25</b>		<b>Dth</b>					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	(\$0.9356)	\$0.3529	-2.11%	(\$0.0820)
Demand Cost	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$18.7211	(\$0.8409)	(\$0.6417)	-3.57%	(\$0.6929)
Commodity Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	\$0.0000	\$0.0000	0.00%	\$0.0000
Demand Margin	\$2.3000	\$1.9695	\$2.3000	\$2.3000	\$2.3000	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.8108	\$4.7432	\$4.5223	\$4.9572	\$4.8752	(\$0.9356)	\$0.3529	-1.65%	(\$0.0820)
Total Demand Cost	\$21.8620	\$21.3323	\$21.6628	\$21.7140	\$21.0211	(\$0.8409)	(\$0.6417)	-3.19%	(\$0.6929)
Avg Annual Cost	\$28,438.39	\$23,300.67	\$22,248.61	\$24,337.41	\$23,926.49	(\$4,511.90)	\$1,677.88	-1.69%	(\$410.92)
Effect of proposed commodity change on average annual bills:									(\$393.60)
Effect of proposed demand change on average annual bills:									(\$17.32)
<b>5) Large Vol. Firm: Avg. Annual Use:</b>		<b>14,841</b>		<b>Dth</b>					
		<b>75</b>		<b>Dth</b>					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	(\$0.9356)	\$0.3529	-2.11%	(\$0.0820)
Demand Cost	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$18.7211	(\$0.8409)	(\$0.6417)	-3.57%	(\$0.6929)
Commodity Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	\$0.0000	\$0.0000	0.00%	\$0.0000
Demand Margin	\$2.3000	\$1.5319	\$2.3000	\$2.3000	\$2.3000	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.1029	\$3.8205	\$3.8144	\$4.2493	\$4.1673	(\$0.9356)	\$0.3529	-1.93%	(\$0.0820)
Total Demand Cost	\$21.8620	\$20.8947	\$21.6628	\$21.7140	\$21.0211	(\$0.8409)	(\$0.6417)	-3.19%	(\$0.6929)
Avg Annual Cost	\$77,371.79	\$58,267.14	\$58,234.22	\$64,692.41	\$63,423.48	(\$4,511.90)	\$5,189.26	-1.96%	(\$1,268.93)
Effect of proposed commodity change on average annual bills:									(\$1,216.96)
Effect of proposed demand change on average annual bills:									(\$51.97)

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 - NNG

### RATE IMPACT OF THE PROPOSED DEMAND CHANGE

NOVEMBER 1, 2013

NNG

IV. NORTHERN NATURAL GAS COMPANY'S RATES -- CURRENT COST OF GAS EFFECTIVE						01-Nov-13	
		Tariff-Summer(7)	Tariff-Winter(5)	Wt. Annual	GRI	Total	
TF-12B	112495	\$5.6830	\$10.0850	\$7.5171	\$0.0000	\$7.5171	
TF-12B Discount	112495	\$5.6830	\$7.6000	\$6.4818	\$0.0000	\$6.4818	
TF-12V	112495	\$5.6830	\$13.8660	\$9.0926	\$0.0000	\$9.0926	
TF-5	112495		\$15.1530	\$15.1530	\$0.0000	\$15.1530	
TFX	112486	\$5.6830	\$15.1530	\$9.6288	\$0.0000	\$9.6288	
TFX-5	112486		\$15.1530	\$15.1530	\$0.0000	\$15.1530	
TFX-5 Discount	112486		\$7.6000	\$7.6000	\$0.0000	\$7.6000	
TFX - Discount	111866	\$7.6025		\$7.6025	\$0.0000	\$7.6025	
TFX - Discount	111866	\$15.1392		\$15.1392	\$0.0000	\$15.1392	
TFX - Discount	111866	\$5.4720	\$5.4720	\$5.4720	\$0.0000	\$5.4720	
TFX - Discount	111866	\$4.8640	\$4.8640	\$4.8640	\$0.0000	\$4.8640	
Gas Commodity Cost						\$3.8105	

V. ANNUAL SALES -- As approved in Docket No. G007,011/MR-10-977 248,613,760 Therms  
**Total MERC NNG Annual Sales**

VI. PNG'S CURRENT COST OF GAS EFFECTIVE:						01-Nov-13	
A. GS	Contract #(s)	Monthly Entitlement (Dth)	Months	Rate \$/Dth	=	Contract Costs	Rate/Therm
TF12B (Max Rate)	112495	41,844	12	\$7.5171	=	\$3,774,555	\$0.01693
TF12V (Max Rate)	112495	29,035	12	\$9.0926	=	\$3,168,044	\$0.01421
TF5 (Max Rate)	112495	31,515	5	\$15.1530	=	\$2,387,734	\$0.01071
TF12B (Discount-Winter)	112495	5,200	12	\$6.4818	=	\$404,464	\$0.00181
TFX5 (Discount)	112561	6,000	5	\$4.5600	=	\$136,800	\$0.00061
TFX12 (Max Rate)	112486	10,822	12	\$9.6288	=	\$1,250,434	\$0.00561
TFX Apr (Max Rate)	112486	2,000	1	\$5.6830	=	\$11,366	\$0.00005
TFX Oct (Max Rate)	112486	2,000	1	\$5.6830	=	\$11,366	\$0.00005
TFX5 (Max Rate)	112486	57,371	5	\$15.1530	=	\$4,346,714	\$0.01950
TFX5 (Discount)	112486	1,800	5	\$7.6000	=	\$68,400	\$0.00031
TFX12 (Discount)	111866	1,283	12	\$4.8640	=	\$74,886	\$0.00034
TFX12 (Discount)	111866	8,271	12	\$5.4720	=	\$543,107	\$0.00244
TFX12 (Discount)	111866	11,921	12	\$7.6025	=	\$1,087,553	\$0.00488
TFX5 (Discount)	111866	379	5	\$4.8640	=	\$9,217	\$0.00004
TFX5 (Discount)	111866	2,445	5	\$5.4720	=	\$66,895	\$0.00030
TFX5 (Discount)	111866	22,189	5	\$15.1392	=	\$1,679,619	\$0.00753
SMS	112521	22,680	12	\$2.1800	=	\$593,309	\$0.00266
Bison	FT0003	50,000	12	\$17.4896	=	\$10,493,750	\$0.04707
NBPL	T8673F	50,000	12	\$6.9958	=	\$4,197,500	\$0.01883
Windom		2,500	12	\$0.0000	=	\$0	\$0.00000
Ortonville		910	12	\$8.0000	=	\$87,360	\$0.00039
NNG Zone GDD Call Option		20,000	3	\$0.9000	=	\$54,000	\$0.00024
FDD: Storage Reservation	118657	75,437	12	\$1.7140	=	\$1,551,588	\$0.00696
Storage Cycle Volume	118657	869,864	5	\$0.3567	=	\$1,551,402	\$0.00696
Storage Reservation	118657	5,550	12	\$3.3157	=	\$220,826	\$0.00099
Storage Cycle Volume	118657	64,000	5	\$0.6901	=	\$220,832	\$0.00099
Storage Reservation	125344	13,008	12	\$1.7140	=	\$267,549	\$0.00120
Storage Cycle Volume	125344	150,000	5	\$0.3567	=	\$267,525	\$0.00120
Storage Reservation	125345	3,468	12	\$1.7140	=	\$71,330	\$0.00032
Storage Cycle Volume	125345	40,000	5	\$0.3567	=	\$71,340	\$0.00032
<b>Total Demand Cost</b>						<b>\$38,669,465</b>	<b>\$0.17281</b>
<b>Rate Case volume as approved in Docket No. G007,011/MR-10-977 in therms</b>						<b>222,946,650</b>	
<b>NNG-GS Demand Current Cost of Gas/therm</b>							<b>\$0.17345</b>
<b>NNG-GS Commodity Current Cost of Gas/therm+</b>							<b>\$0.38410</b>
<b>Total NNG-GS Current Cost of Gas/therm</b>							<b>\$0.55755</b>

B. NNG-GS, NNG-SVI, NNG-LVI, NNG-SJ, NNG-LJ, SLV-Commodity						
	Annual Sales (Dth)	x	Rate (\$/Dth)	Commodity Cost	Rate Case Sales (therm)	Rate (\$/therm)
CD-1 Commodity	24,861,376	x	\$3.8105	\$94,734,273.25	248,613,760	\$0.38105
Call Option Premium				\$ 758,741	248,613,760	\$0.00305
<b>GS-1, SVI-1, SJ-1, LJ-1, SLV Commodity Current Cost of Gas/therm</b>				\$ 95,493,014	248,613,760	\$0.38410

# MINNESOTA ENERGY RESOURCES - NNG

## RATE IMPACT OF THE PROPOSED DEMAND CHANGE

NOVEMBER 1, 2013

NNG

### COSTS ASSIGNED IN COMMODITY:

### COSTS ASSIGNED IN JOINT RATE:

	<u>Units</u>	<u>Contract #</u>	<u>Month</u>	<u>Cost/Unit</u>		<u>Cost</u>	<u>\$/Ccf</u>
TF12B (Max Rate)	41,844	112495	12	\$7.5171	=	\$3,774,555	\$0.18742
TF12V (Max Rate)	29,035	112495	12	\$9.0926	=	\$3,168,044	\$0.15731
TF5 (Max Rate)	31,515	112495	5	\$15.1530	=	\$2,387,734	\$0.11856
TF12B (Discount-Winter)	5,200	112495	12	\$6.4818	=	\$404,464	\$0.02008
TFX5 (Discount)	6,000	112561	5	\$4.5600	=	\$136,800	\$0.00679
TFX12 (Max Rate)	10,822	112486	12	\$9.6288	=	\$1,250,434	\$0.06209
TFX Apr (Max Rate)	2,000	112486	1	\$5.6830	=	\$11,366	\$0.00056
TFX Oct (Max Rate)	2,000	112486	1	\$5.6830	=	\$11,366	\$0.00056
TFX5 (Max Rate)	57,371	112486	5	\$15.1530	=	\$4,346,714	\$0.21583
TFX5 (Discount)	1,800	112486	5	\$7.6000	=	\$68,400	\$0.00340
TFX12 (Discount)	1,283	111866	12	\$4.8640	=	\$74,886	\$0.00372
TFX12 (Discount)	8,271	111866	12	\$5.4720	=	\$543,107	\$0.02697
TFX12 (Discount)	11,921	111866	12	\$7.6025	=	\$1,087,553	\$0.05400
TFX5 (Discount)	379	111866	5	\$4.8640	=	\$9,217	\$0.00046
TFX5 (Discount)	2,445	111866	5	\$5.4720	=	\$66,895	\$0.00332
TFX5 (Discount)	22,189	111866	5	\$15.1392	=	\$1,679,619	\$0.08340
SMS	22,680	112521	12	\$2.1800	=	\$593,309	\$0.02946
Bison	50,000	FT0003	12	\$17.4896	=	\$10,493,750	\$0.52106
NBPL	50,000	T8673F	12	\$6.9958	=	\$4,197,500	
Windom	2,500		12	\$0.0000	=	\$0	\$0.00000
Ortonville	910		12	\$8.0000	=	\$87,360	\$0.00434
NNG Zone GDD Call Option	20,000		3	\$0.9000	=	\$54,000	\$0.00268
Storage Reservation	75,437	118657	12	\$1.7140	=	\$1,551,588	\$0.07704
Storage Cycle Volume	869,864	118657	5	\$0.3567	=	\$1,551,402	\$0.07703
Storage Reservation	5,550	118657	12	\$3.3157	=	\$220,826	\$0.01096
Storage Cycle Volume	64,000	118657	5	\$0.6901	=	\$220,832	\$0.01097
Storage Reservation	13,008	125344	12	\$1.7140	=	\$267,549	\$0.01328
Storage Cycle Volume	150,000	125344	5	\$0.3567	=	\$267,525	\$0.01328
Storage Reservation	3,468	125345	12	\$1.7140	=	\$71,330	\$0.00354
Storage Cycle Volume	40,000	125345	5	\$0.3567	=	\$71,340	\$0.00354
				<b>TOTAL</b>		\$38,669,465	
				Annualized Entitlement		20,139,270	
				<b>Demand Component</b>		<b>\$1.92010</b>	<b>\$1.71168</b>



**MINNESOTA ENERGY RESOURCES - NNG**

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

NNG

All costs in \$/Dth	Last Base Cost of Gas G007,G011/ MR10-978*	Demand Change G011- 12-1193 Nov. 12	Last Demand Change G011- 10-977 Jan. 13	Most Recent PGA Aug. 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		71		Dth					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$4.0109	(\$0.7352)	\$0.5533	3.04%	\$0.1184
Demand Cost	\$1.6894	\$1.8818	\$1.6711	\$1.6968	\$1.5387	(\$0.1507)	(\$0.1324)	-9.32%	(\$0.1581)
Commodity Margin	\$1.9754	\$1.9417	\$1.9754	\$1.9754	\$1.9754	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$8.4109	\$7.2886	\$7.1041	\$7.5647	\$7.5250	(\$0.8859)	\$0.4209	-0.52%	(\$0.0397)
Avg Annual Cost	\$595.49	\$516.03	\$502.97	\$535.58	\$532.77	(\$62.72)	\$29.80	-0.52%	(\$2.81)
Effect of proposed commodity change on average annual bills:									\$8.38
Effect of proposed demand change on average annual bills:									(\$11.19)

2) Small Vol. Interruptible: Avg. Annual Use:		4,034		Dth					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$4.0109	(\$0.7352)	\$0.5533	3.04%	\$0.1184
Demand Cost									
Commodity Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.8108	\$4.7432	\$4.5223	\$4.9572	\$5.0756	(\$0.7352)	\$0.5533	2.39%	\$0.1184
Avg Annual Cost	\$23,440.77	\$19,134.07	\$18,242.96	\$19,997.34	\$20,474.79	(\$2,965.97)	\$2,231.84	2.39%	\$477.45
Effect of proposed commodity change on average annual bills:									\$477.45
Effect of proposed demand change on average annual bills:									\$0.00

3) Large Vol. Interruptible: Avg. Annual Use:		20,096		Dth					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$4.0109	(\$0.7352)	\$0.5533	3.04%	\$0.1184
Demand Cost									
Commodity Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.1029	\$3.8205	\$3.8144	\$4.2493	\$4.3677	(\$0.7352)	\$0.5533	2.79%	\$0.1184
Avg Annual Cost	\$102,547.88	\$76,776.77	\$76,654.18	\$85,393.93	\$87,772.42	(\$14,775.46)	\$11,118.24	2.79%	\$2,378.49
Effect of proposed commodity change on average annual bills:									\$2,378.49
Effect of proposed demand change on average annual bills:									\$0.00

4) Small Vol. Firm: Avg. Annual Use:		4,800		Dth					
		25		DTh					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$4.0109	(\$0.7352)	\$0.5533	3.04%	\$0.1184
Demand Cost	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$17.3631	(\$2.1989)	(\$1.9997)	-10.56%	(\$2.0509)
Commodity Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	\$0.0000	\$0.0000	0.00%	\$0.0000
Demand Margin	\$2.3000	\$1.9695	\$2.3000	\$2.3000	\$2.3000	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.8108	\$4.7432	\$4.5223	\$4.9572	\$5.0756	(\$0.7352)	\$0.5533	2.39%	\$0.1184
Total Demand Cost	\$21.8620	\$21.3323	\$21.6628	\$21.7140	\$19.6631	(\$2.1989)	(\$1.9997)	-9.45%	(\$2.0509)
Avg Annual Cost	\$28,438.39	\$23,300.67	\$22,248.61	\$24,337.41	\$24,854.25	(\$3,584.14)	\$2,605.64	2.12%	\$516.84
Effect of proposed commodity change on average annual bills:									\$568.11
Effect of proposed demand change on average annual bills:									(\$51.27)

5) Large Vol. Firm: Avg. Annual Use:		14,841		Dth					
		75		DTh					
Commodity Cost	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$4.0109	(\$0.7352)	\$0.5533	3.04%	\$0.1184
Demand Cost	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$17.3631	(\$2.1989)	(\$1.9997)	-10.56%	(\$2.0509)
Commodity Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	\$0.0000	\$0.0000	0.00%	\$0.0000
Demand Margin	\$2.3000	\$1.5319	\$2.3000	\$2.3000	\$2.3000	\$0.0000	\$0.0000	0.00%	\$0.0000
Total Cost of Gas	\$5.1029	\$3.8205	\$3.8144	\$4.2493	\$4.3677	(\$0.7352)	\$0.5533	2.79%	\$0.1184
Total Demand Cost	\$21.8620	\$20.8947	\$21.6628	\$21.7140	\$19.6631	(\$2.1989)	(\$1.9997)	-9.45%	(\$2.0509)
Avg Annual Cost	\$77,371.79	\$58,267.14	\$58,234.22	\$64,692.41	\$66,295.12	(\$3,584.14)	\$8,060.90	2.48%	\$1,602.71
Effect of proposed commodity change on average annual bills:									\$1,756.53
Effect of proposed demand change on average annual bills:									(\$153.82)

Note: Average Annual Average based on PNG Annual Automatic Adjustment Report in Docket No. E,G999/AA-09-896

**MINNESOTA ENERGY RESOURCES - NNG**

**RATE IMPACT OF THE PROPOSED DEMAND CHANGE**

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

NOVEMBER 1, 2013

NNG

IV. NORTHERN NATURAL GAS COMPANY'S RATES -- CURRENT COST OF GAS EFFECTIVE							01-Nov-10	
		Tariff-Summer(7)	Tariff-Winter(5)	Wt. Annual	GRI	Total		
TF-12B	112495	\$5.6830	\$10.0850	\$7.5172	\$0.0000	\$7.5172		
TF-12B Discount	112495	\$5.6830	\$7.6000	\$6.4818	\$0.0000	\$6.4818		
TF-12V	112495	\$5.6830	\$13.8660	\$9.0926	\$0.0000	\$9.0926		
TF-5	112495	\$0.0000	\$15.1530	\$6.3138	\$0.0000	\$6.3138		
TFX	112486	\$5.6830	\$15.1530	\$9.6288	\$0.0000	\$9.6288		
TFX-5	112486	\$0.0000	\$15.1530	\$6.3138	\$0.0000	\$6.3138		
TFX-5 Discount	112486	\$0.0000	\$7.6000	\$3.1667	\$0.0000	\$3.1667		
TFX - Discount	111866	\$7.6025	\$0.0000	\$4.4348	\$0.0000	\$4.4348		
TFX - Discount	111866	\$15.1392	\$0.0000	\$8.8312	\$0.0000	\$8.8312		
TFX - Discount	111866	\$5.4720	\$5.4720	\$5.4720	\$0.0000	\$5.4720		
TFX - Discount	111866	\$4.8640	\$4.8640	\$4.8640	\$0.0000	\$4.8640		
Gas Cost						\$3.8105		
<b>V. ANNUAL SALES -- RATE CASE 2008 TOTAL</b>							248,613,760	
VI. PNG'S CURRENT COST OF GAS EFFECTIVE:							01-Nov-10	
	Contract #(s)	Months					Rate/CCF	
<b>A. GS</b>	TF12B (Max Rate)	112495	41,844	12	\$7.5171	=	\$3,774,555	\$0.01693
	TF12V (Max Rate)	112495	29,035	12	\$9.0926	=	\$3,168,044	\$0.01421
	TF5 (Max Rate)	112495	31,515	5	\$15.1530	=	\$2,387,734	\$0.01071
	TF12B (Discount-Winter)	112495	5,200	12	\$6.4818	=	\$404,464	\$0.00181
	TFX5 (Discount)	112561	6,000	5	\$4.5600	=	\$136,800	\$0.00061
	TFX12 (Max Rate)	112486	10,822	12	\$9.6288	=	\$1,250,434	\$0.00561
	TFX Apr (Max Rate)	112486	2,000	1	\$5.6830	=	\$11,366	\$0.00005
	TFX Oct (Max Rate)	112486	2,000	1	\$5.6830	=	\$11,366	\$0.00005
	TFX5 (Max Rate)	112486	57,371	5	\$15.1530	=	\$4,346,714	\$0.01950
	TFX5 (Discount)	112486	1,800	5	\$7.6000	=	\$68,400	\$0.00031
	TFX12 (Discount)	111866	1,283	12	\$4.8640	=	\$74,886	\$0.00034
	TFX12 (Discount)	111866	8,271	12	\$5.4720	=	\$543,107	\$0.00244
	TFX12 (Discount)	111866	11,921	12	\$7.6025	=	\$1,087,553	\$0.00488
	TFX5 (Discount)	111866	379	5	\$4.8640	=	\$9,217	\$0.00004
	TFX5 (Discount)	111866	2,445	5	\$5.4720	=	\$66,895	\$0.00030
	TFX5 (Discount)	111866	22,189	5	\$15.1392	=	\$1,679,619	\$0.00753
	SMS	112521	22,680	12	\$2.1800	=	\$593,309	\$0.00266
	Bison	FT0003	50,000	12	\$17.4896	=	\$10,493,750	\$0.04707
	NBPL	T8673F	50,000	12	\$6.9958	=	\$4,197,500	\$0.01883
	Windom		2,500	12	\$0.0000	=	\$0	\$0.00000
	Ortonville		910	12	\$8.0000	=	\$87,360	\$0.00039
	NNG Zone GDD Call Option		20,000	3	\$0.9000	=	\$54,000	\$0.00024
<b>Total Demand Cost</b>							\$34,447,073	<b>\$0.15387</b>
<b>Rate Case 2008 volume in Ccf</b>							222,946,650	
<b>GS-1 Demand Current Cost of Gas/Ccf</b>								<b>\$0.15451</b>
<b>GS-1 Commodity Current Cost of Gas/Ccf</b>								<b>\$0.40109</b>
<b>Total GS-1 Current Cost of Gas/Ccf</b>								<b>\$0.55559</b>
<b>B. GS-1, SVI, LVI, SJ-1, LJ-1, SLV-Commodity</b>								
		Monthly Entitlement (Dth)	Months	Rate (\$/Dth)	Contract Costs	Contract Costs	Rate (\$/therm)	
FDD:	FDD - Reservation	118657	75,437	12	\$1.7140	=	\$1,551,588	\$0.00624
	FDD - Storage Cycle	118657	869,864	5	\$0.3567	=	\$1,551,402	\$0.00624
	FDD - Reservation	118657	5,550	12	\$3.3157	=	\$220,826	\$0.00089
	FDD - Storage Cycle	118657	64,000	5	\$0.6901	=	\$220,832	\$0.00089
	FDD - Reservation	125344	13,008	12	\$1.7140	=	\$267,549	\$0.00108
	FDD - Storage Cycle	125344	150,000	5	\$0.3567	=	\$267,525	\$0.00108
	FDD - Reservation	125345	3,468	12	\$1.7140	=	\$71,330	\$0.00029
	FDD - Storage Cycle	125345	40,000	5	\$0.3567	=	\$71,340	\$0.00029
<b>Firm Deferred Delivery Storage Contracts</b>							\$4,222,392	\$0.01641
		Annual Sales (Dth)		Rate (\$/Dth)	Commodity Cost	Rate Case Sales (therm)	Rate (\$/therm)	
	CD-1 Commodity	24,861,376	x	\$3.8105	\$94,734,273	248,613,760	\$0.38105	
	Call Option Premium				\$758,741	248,613,760	\$0.00305	
<b>GS-1, SVI-1, SJ-1, LJ-1, SLV Commodity Current Cost of Gas/therm</b>					\$99,715,405	248,613,760	<b>\$0.40109</b>	
<b>CURRENT FIRM TRANSPORTATION COST OF GAS (CCF)</b>							\$0.75172	
<b>C. JOINT RATE DEMAND CALCULATION (SEE SCHEDULE C)</b>					\$1.73631		\$1.73631	



<b>MINNESOTA ENERGY RESOURCES - NNG</b>
---

**NNG Entitlement Allocation**  
Heating Season 2013-2014

	Total Entitlement Levels	Total
1 Design Day	245,783	245,783
2 Customer Requirements moving to Transport	-	-
3 Adjusted Design Day	245,878	245,878
	100.00%	100.00%
5 Total Design Day Capacity	232,575	232,575
6 Less: Windom	(2,500)	(2,500)
7 Less: Northwestern Energy	(910)	(910)
8 Less: LS Power	0	-
9 Less: Chisago Delivery to Viking	0	-
10 Less: Contract Demand Units	(95)	(95)
	229,070	229,070
<b>Direct Assigned Entitlement</b>		
11 TF12B (112495)	47,044	47,044
12 TF12V (112495)	29,035	29,035
13 TF5 (112495)	31,515	31,515
14 TFX12 (112486)	10,822	10,822
15 TFX April Only (112486)	2,000	2,000
16 TFX October Only (112486)	2,000	2,000
17 TFX5 (112486)	59,171	59,171
18 TFX12 (111866)	21,475	21,475
19 TFX5 (111866)	25,013	25,013
20 TFX5 (112561)	6,000	6,000
21 Bison (FT 0003) *	50,000	50,000
22 NBPL (T6873F) *	50,000	50,000
23 Total Winter Allocated Entitlement	230,075	230,075
24 Northwest Gas (Windom)	2,500	2,500
25 Northwestern Energy (Ortonville)	910	910
26 NNG Zone Delivery Call Option	20,000	20,000
27 LS Power	0	-
28 Total Design Day Capacity	253,485	253,485
29 Contract Demand		
30 Total Design Day Capacity	253,485	253,485
		100.00%
31 <u>Storage</u>		
32 Storage MSQ - 118657	4,669,321	4,669,321
33 Storage MSQ - 123780	750,000	750,000
34 Storage MSQ - 123781	200,000	200,000
35 SMS	22,680	22,680
36 Total Entitlement	253,485	253,485
37 Design Day	245,878	245,878
38 Reserve Margin	7,607	7,607
	3.09%	3.09%

\* 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 - NNG**

**CALCULATION OF DESIGN DAY REQUIREMENTS**

**2013-2014**

<u>State</u>	<u>1/20 Design DDD</u>	<u>12/13 Customer Counts*</u>	<u>Regression Intercept</u>	<u>Factors Slope</u>	<u>Regression Total</u>	<u>Adjustment Total *</u>	<u>1/20 Requirements Regression Load</u>	<u>Nov13-Mar14 Customer Growth</u>	<u>Total</u>
<b>MERC - Peak Day</b>									
<b>NNG</b>	100	178,578	41,361	2,341	287,358	43,041	244,317	0.60%	245,783
<b>TOTAL</b>	<b>100</b>	<b>178,578</b>	<b>41,361</b>	<b>2,341</b>	<b>287,358</b>	<b>43,041</b>	<b>244,317</b>		<b>245,783</b>
<b>MERC - Non-Peak Day</b>									
<b>NNG</b>	55	178,578	41,361	2,341	182,893	27,735	155,158	0.60%	156,089
<b>TOTAL</b>	<b>55</b>	<b>178,578</b>	<b>41,361</b>	<b>2,341</b>	<b>182,893</b>	<b>27,735</b>	<b>155,158</b>		<b>156,089</b>

\* Adjustment to remove interruptible and transportation volumes and add adjustment to achieve 97.5% confidence level that actual demand under design conditions will not exceed estimate.

<b>MINNESOTA ENERGY RESOURCES-PNG/NMU CAPACITY RESOURCE ANALYSIS</b>
--

**2014-2013 VS. 2013-2012**

	<u>2013-2014 Proposed</u>		<u>2012-2013</u>		<u>Difference</u>	
	<u>NNG</u>	<u>NNG</u>	<u>NNG</u>	<u>NNG</u>	<u>Winter</u>	<u>Total</u>
	<u>Winter</u>	<u>Total</u>	<u>Winter</u>	<u>Total</u>		
TF12(base)	47,044	47,044	46,281	46,281	763	763
TF12(variable)	29,035	29,035	29,035	29,035	-	-
TF12	76,079	76,079	75,316	75,316	763	763
Peak Capacity	-	-	-	-	-	-
TF5	31,515	31,515	32,278	32,278	(763)	(763)
<b>TF Total</b>	<b>107,594</b>	<b>107,594</b>	<b>107,594</b>	<b>107,594</b>	<b>-</b>	<b>-</b>
TFX12	32,297	32,297	32,297	32,297	-	-
TFX5	90,184	90,184	90,184	90,184	-	-
<b>TFX Total</b>	<b>122,481</b>	<b>122,481</b>	<b>122,481</b>	<b>122,481</b>	<b>-</b>	<b>-</b>
<b>NNG Total</b>	<b>230,075</b>	<b>230,075</b>	<b>230,075</b>	<b>230,075</b>	<b>-</b>	<b>-</b>
Bison	50,000	50,000	50,000	50,000	-	-
NBPL	50,000	50,000	50,000	50,000	-	-
Windom	2,500	2,500	2,500	2,500	-	-
Ortonville	910	910	910	910	-	-
NNG Zone GDD Call Option	20,000	20,000	-	-	20,000	20,000
<b>Total</b>	<b>253,485</b>	<b>253,485</b>	<b>233,485</b>	<b>233,485</b>	<b>20,000</b>	<b>20,000</b>

	<u>NNG-Total</u>
	<u>EF</u>
Design Day	245,878
Capacity	253,485
Reserve Margin	7,607
	3.09%

# MINNESOTA ENERGY RESOURCES - NNG

## Financial Options Heating Season 2013-2014

### Units - Gas Daily Peaker Packages (Physical)

<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Daily</u>	<u>Term</u>
<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Total</u>	<u>Total</u>
<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>		
		TBD	20,000	TBD	20,000	TBD	20,000			60,000	1,800,000

### Premium - Gas Daily Peaker (Monthly Cost)

<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Total</u>	
<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>
<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>
		\$ 0.0300	\$18,600	\$ 0.0300	\$18,600	\$ 0.0300	\$18,600			\$ 0	\$ 55,800

### Units - Futures (Daily Volume)

<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Daily</u>	<u>Term</u>	
<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Total</u>	<u>Total</u>	
<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>			
1	05/17/13	1,889	05/03/13	-	05/23/13	1,720	05/07/13	204	05/29/13	3,592	7,406	227,078
2	06/19/13	1,889	05/03/13	-	06/24/13	215	05/07/13	612	06/27/13	3,592	6,309	191,840
3	07/19/13	1,889	06/04/13	-	06/24/13	1,505	06/11/13	408	TBD	3,849	7,651	234,080
4	TBD	1,889	07/02/13	-	07/24/13	1,720	06/11/13	408	TBD	3,849	7,866	240,747
5	TBD	1,889	TBD	-	TBD	1,505	07/09/13	1,020	TBD	3,849	8,264	251,223
6	TBD	1,889	TBD	-	TBD	1,505	TBD	1,020	TBD	3,849	8,264	251,223
7			TBD	-	TBD	1,505	TBD	1,020			2,526	75,238
8							TBD	1,020			1,020	28,571
9											-	-
10											-	-
Total		11,333	0		9,677		5,714		22,581	49,306	1,500,000	
		340,000	0		300,000		160,000		700,000		1,500,000	
		480,000	100,000		450,000		280,000		880,000		2,190,000	

### Units - Call Options (Daily Volume)

<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Daily</u>	<u>Term</u>	
<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Contract</u>	<u>Daily</u>	<u>Total</u>	<u>Total</u>	
<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>	<u>Date</u>	<u>Volume</u>			
1	05/09/13	3,446	05/30/13	5,151	05/14/13	6,546	05/21/13	6,747	05/02/13	4,727	26,617	801,450
2	06/13/13	3,711	06/26/13	5,151	06/18/13	6,808	06/20/13	6,747	06/06/13	4,727	27,144	817,519
3	07/11/13	3,711	07/26/13	5,151	07/16/13	6,808	07/22/13	6,747	07/03/13	4,727	27,144	817,519
4	TBD	3,711	TBD	5,408	TBD	6,808	TBD	6,747	TBD	4,990	27,664	833,644
5	TBD	3,711	TBD	5,408	TBD	6,808	TBD	6,747	TBD	5,253	27,927	841,786
6	TBD	3,711	TBD	5,666	TBD	6,546	TBD	7,334	TBD	5,253	28,510	858,082
7												
Total		22,000	31,935		40,323		41,071		29,677	165,007	4,970,000	
		660,000	990,000		1,250,000		1,150,000		920,000		4,970,000	
		830,000	1,240,000		1,540,000		1,400,000		1,130,000		6,140,000	

### Premium - Call Option (Monthly Cost)

<u>November</u>		<u>December</u>		<u>January</u>		<u>February</u>		<u>March</u>		<u>Total</u>		
<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	<u>Option</u>	<u>Premium</u>	
<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	<u>Premium</u>	<u>Cost</u>	
1	\$ 0.3100	\$ 32,046	\$ 0.2500	\$39,919	\$ 0.3520	\$71,429	\$ 0.3850	\$72,738	\$ 0.4000	\$ 58,619	\$ 0.3428	\$ 274,751
2	\$ 0.2450	\$ 27,275	\$ 0.2830	\$45,189	\$ 0.3230	\$68,166	\$ 0.3520	\$66,503	\$ 0.3230	\$ 47,335	\$ 0.3113	\$ 254,467
3	\$ 0.2150	\$ 23,935	\$ 0.1870	\$29,860	\$ 0.2960	\$62,468	\$ 0.3280	\$61,969	\$ 0.3500	\$ 51,292	\$ 0.2808	\$ 229,523
4	\$ -	\$ -	\$ -	\$0	\$ -	\$0	\$ -	\$0	\$ -	\$ -	\$ -	\$ -
5	\$ -	\$ -	\$ -	\$0	\$ -	\$0	\$ -	\$0	\$ -	\$ -	\$ -	\$ -
6	\$ -	\$ -	\$ -	\$0	\$ -	\$0	\$ -	\$0	\$ -	\$ -	\$ -	\$ -
7												
Total	\$ 0.1261	\$ 83,255	\$ 0.1161	\$ 114,968	\$ 0.1616	\$ 202,062	\$ 0.1750	\$ 201,209	\$ 0.1709	\$ 157,247	\$ 0.1527	\$ 758,741
		\$ 104,700	\$ 144,000		\$ 248,940		\$ 244,950		\$ 193,140		\$ 935,730	

### Units - Collar Floor (put)

No Puts were purchased.

13/14 Winter Portfolio Plan - MERC NNG 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	
<b>MN Requirements</b>			2,197,940		3,325,111		4,167,658		3,833,379		3,042,634		16,566,721	16,566,721
<b>NNG -MN</b>			73,265		107,262		134,441		136,906		98,149		109,713	
	70%		1,538,558		2,327,577		2,917,361		2,683,365		2,129,843		11,596,705	
	40%		879,176		1,330,044		1,667,063		1,533,352		1,217,053		6,626,688	
			<u>547,884</u>		<u>1,376,734</u>		<u>1,376,734</u>		<u>1,376,734</u>		<u>547,884</u>		<u>5,225,970</u>	
			331,292		-46,690		290,329		156,618		669,169		1,400,718	
	30%		659,382		997,533		1,250,297		1,150,014		912,790		4,970,016	
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	5	50,000	0	0	5	50,000	2	20,000	11	110,000	23	230,000	
	Jun-13	5	50,000	0	0	5	50,000	2	20,000	11	110,000	23	230,000	
	Jul-13	6	60,000	0	0	5	50,000	3	30,000	12	120,000	26	260,000	
	Aug-13	6	60,000	0	0	5	50,000	3	30,000	12	120,000	26	260,000	
	Sep-13	6	60,000	0	0	5	50,000	3	30,000	12	120,000	26	260,000	
	Oct-13	6	60,000	0	0	5	50,000	3	30,000	12	120,000	26	260,000	
	<b>Total</b>	<b>34</b>	<b>340,000</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>300,000</b>	<b>16</b>	<b>160,000</b>	<b>70</b>	<b>700,000</b>	<b>150</b>	<b>1,500,000</b>	9.05%
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	11	110,000	16	160,000	20	200,000	19	190,000	15	150,000	81	810,000	
	Jun-13	11	110,000	16	160,000	21	210,000	19	190,000	15	150,000	82	820,000	
	Jul-13	11	110,000	16	160,000	21	210,000	19	190,000	15	150,000	82	820,000	
	Aug-13	11	110,000	17	170,000	21	210,000	19	190,000	15	150,000	83	830,000	
	Sep-13	11	110,000	17	170,000	21	210,000	19	190,000	16	160,000	84	840,000	
	Oct-13	11	110,000	17	170,000	21	210,000	20	200,000	16	160,000	85	850,000	
	<b>Total</b>	<b>66</b>	<b>660,000</b>	<b>99</b>	<b>990,000</b>	<b>125</b>	<b>1,250,000</b>	<b>115</b>	<b>1,150,000</b>	<b>92</b>	<b>920,000</b>	<b>497</b>	<b>4,970,000</b>	30.00%
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	
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	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	11,112	333,360	10,646	330,026	16,666	516,646	15,596	436,688	17,420	540,020	71,440	2,156,740	
	Sep-13	11,111	333,330	10,645	329,995	16,667	516,677	15,595	436,660	17,419	539,989	71,437	2,156,651	
	Oct-13	11,111	333,330	10,645	329,995	16,667	516,677	15,595	436,660	17,419	539,989	71,437	2,156,651	
	<b>Total</b>		<b>1,000,020</b>		<b>990,016</b>		<b>1,550,000</b>		<b>1,310,008</b>		<b>1,619,998</b>		<b>6,470,042</b>	39.05%
Physical Hedges			0		0		0		0		0		0	
Storage			547,884		1,376,734		1,376,734		1,376,734		547,884		5,225,970	31.54%
Prepaid Obl			0		0		0		0		0		0	0.00%
			70.43%		71.18%		70.22%		70.09%		71.25%		70.60%	
Term Index		0	0	0	0	0	0	0	0	0	0	0	0	0.00%
		0	0	0	0	0	0	0	0	0	0	0	0	0.00%
<b>Total NNG MN</b>													1,500,000	9.05%
Fixed Price													4,970,000	30.00%
Call Options													0	0.00%
Costing Collar													0	0.00%
Storage													5,225,970	31.54%
Prepaid Obl													0	0.00%
Term Index													0	0.00%
Month/Daily													4,870,751	29.40%
<b>Total</b>													16,566,721	100.00%

NOTE:



**MINNESOTA ENERGY RESOURCES**

**NNG WINTER PLAN**

**NOVEMBER, 2013 THROUGH MARCH, 2014**

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

<u>INDEX</u>	<u>Contract Number</u>	<u>Date</u>	<u>Receipt Point</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Total</u>
Index - Back Financial Options	TBD		NNG Welcome	8,932	8,932	8,932	8,932	8,932	1,348,732
Index - Back Financial Options	TBD		NNG Aberdeen	3,249	3,249	3,249	3,249	3,249	490,599
Index - Back Financial Options	TBD		NNG Beatrice	5,632	5,632	5,632	5,632	5,632	850,432
Index - Back Financial Options	TBD		NNG Marshall	12,200	12,200	12,200	12,200	12,200	1,842,200
Total Actual Seasonal Index				<b>33,334</b>	<b>31,936</b>	<b>50,000</b>	<b>46,786</b>	<b>52,258</b>	<b>6,470,042</b>

<u>GAS DAILY PACKAGES</u>									
TBD	TBD		MERC Zone EF	-	25,000	25,000	25,000	-	75,000

<u>STORAGE</u>				
<u>Injection Month</u>	<u>Contract #</u>	<u>Contract #</u>	<u>Contract #</u>	<u>Total Volume Injected</u>
	<u>118657</u>	<u>125344</u>	<u>125345</u>	
	<u>Volume Injected</u>	<u>Volume Injected</u>	<u>Volume Injected</u>	
May - balance forward	302,570	0	0	302,570
June	584,713	144,780	38,610	768,103
July	974,342	154,240	41,129	1,169,711
August	946,071	151,960	40,522	1,138,553
Sept	915,553	147,059	39,216	1,101,828
Oct (est)	<u>946,072</u>	<u>151,961</u>	<u>40,523</u>	<u>1,138,556</u>
Total	<b>4,669,321</b>	<b>750,000</b>	<b>200,000</b>	<b>5,619,321</b>

## MINNESOTA ENERGY RESOURCES - NNG

	M-09- Peoples Mn GS	M-10- Peoples Mn GS	M-11- Peoples Mn GS	M-12- Peoples Mn GS	M-13- Peoples Mn GS	Proposed Change
Design Day	203,360	194,598	211,182	<b>200,785</b>	<b>245,878</b>	45,093
Customer Requirements moving to Transportation 2005-6						
Adjusted Design Day						
Design Day Percentages	31.50%	35.92%	33.31%	<b>38.29%</b>	<b>28.43%</b>	-9.86%
Total Design Day Capacity (includes non-recallable capacity)	238,064	233,627	221,436	<b>208,007</b>	<b>253,485</b>	45,478
Less: Windom	2,500	2,500	2,500	<b>2,500</b>	<b>2,500</b>	0
Less: Northwestern Energy	0	0	910	<b>910</b>	<b>910</b>	0
Less: LS Power	26,375	25,951	0	<b>0</b>	<b>0</b>	0
Less: TF12B	7,000	0	0	<b>0</b>	<b>0</b>	0
Less: TF5						
Less: TFX(5)						
Total Design Day Capacity	202,189	205,176	218,026	<b>204,597</b>	<b>250,075</b>	45,478
Factors for All Winter Capacity	100.00%	100.00%	100.00%	<b>100.00%</b>	<b>100.00%</b>	
<u>Allocated Entitlements in PGA</u>						
TF12B	35,221	34,875	42,396	<b>41,156</b>		-41,156
TF12V	24,583	32,290	25,298	<b>25,820</b>		-25,820
TF5	29,619	28,785	29,011	<b>28,704</b>		-28,704
TFX12	31,199	28,802	29,029	<b>28,721</b>		-28,721
TFX(5)	81,567	80,424	81,057	<b>80,197</b>		-80,197
TFX(5) (12-V)	0	0	0	<b>0</b>		0
TFX (October Only)	0	1,784	1,798	<b>1,779</b>		-1,779
TFX (April Only)	0	1,784	1,798	<b>1,779</b>		-1,779
NNG Zone Delivery Call Option	0	0	11,235	<b>0</b>		0
LS Power	26,375	25,951	0	<b>0</b>		0
Bison *	0	44,589	44,940	<b>44,463</b>		-44,463
NBPL *	0	44,589	44,940	<b>44,463</b>		-44,463
Peak Capacity	228,564	231,127	218,026	<b>205,508</b>	<b>0</b>	-205,508
Total Allocated Entitlements in PGA	228,564	323,873	311,502	297,082	0	-297,082

\* Bison/NBPL does not add incremental capacity but is utilized to deliver Rockies supply to NNG. Volume is not included in Peak Capacity.

Direct Assigned Entitlements in PGA

TF12B					<b>47,044</b>	<b>47,044</b>
TF12V					<b>29,035</b>	<b>29,035</b>
TF5					<b>31,515</b>	<b>31,515</b>
TFX12					<b>32,297</b>	<b>32,297</b>
TFX(5)					<b>90,184</b>	<b>90,184</b>
TFX(5) (12-V)						0
TFX (October Only)					<b>2,000</b>	<b>2,000</b>
TFX (April Only)					<b>2,000</b>	<b>2,000</b>
Windom	2,500	2,500	2,500	<b>2,500</b>	<b>2,500</b>	0
Northwestern Energy	0	0	910	<b>910</b>	<b>910</b>	0
NNG Zone Delivery Call Option					<b>20,000</b>	<b>20,000</b>
LS Power	0	0	0	<b>0</b>	<b>0</b>	0
Bison *					<b>50,000</b>	<b>50,000</b>
NBPL *					<b>50,000</b>	<b>50,000</b>
TFX (October Only)	2,000	0	0	<b>0</b>	<b>0</b>	0
TFX (April Only)	2,000	0	0	<b>0</b>	<b>0</b>	0
TFX(5)	0	0	0	<b>0</b>	<b>0</b>	0
TFX(7)	0	0	0	<b>0</b>	<b>0</b>	0
TFX(5)	0	0	0	<b>0</b>	<b>0</b>	0
Total Direct Assignments	6,500	2,500	3,410	<b>3,410</b>	<b>253,485</b>	<b>250,075</b>
Total Capacity before Peak Shaving	235,064	233,627	221,436	<b>208,918</b>	<b>253,485</b>	<b>44,567</b>
LP Peak Shaving	0	0	0			0
Total Design Day Capacity	231,064	233,627	221,436	<b>208,918</b>	<b>253,485</b>	<b>44,567</b>
Total Transp. (with TFX Offpeak less LSP)	204,689	207,676	221,436	<b>208,918</b>	<b>253,485</b>	<b>44,567</b>
Total Annual Transportation	93,503	98,467	100,133	<b>99,107</b>	<b>111,786</b>	<b>12,679</b>
Total Seasonal Transportation	137,561	135,160	110,068	<b>108,901</b>	<b>141,699</b>	<b>32,798</b>

Total Percent Seasonal	59.5%	57.9%	49.7%	<b>52.1%</b>	<b>55.9%</b>	<b>2.4%</b>
LS Power as % of Total DD Capacity	11.4%	11.1%	0.0%	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
Reserve Margin	13.62%	20.06%	4.86%	<b>4.05%</b>	<b>3.09%</b>	<b>-0.8%</b>
<u>Direct Assigned Demand Not in PGA</u>						
TF-12-B Contract Demand	0	0	0	<b>0</b>	<b>0</b>	0
Total Design Day Capacity w/ contract demand	238,064	233,627	221,436	<b>208,007</b>	<b>253,485</b>	-12,191
Factors	31.50%	35.92%	33.31%	<b>38.29%</b>	<b>28.43%</b>	-2.61%
<u>Other Entitlements not included in Peak Day Deliverability</u>						
Field TF (TFF) (NMU direct assigned)	0	0	0	<b>0</b>	<b>0</b>	0
TFX Offpeak Old Oct. (60,000)	0	0	0	<b>0</b>	<b>0</b>	0
TFX Offpeak Old Oct. (35,000)	0	0	0	<b>0</b>	<b>0</b>	0
TFX Offpeak New Oct. (14,600)	0	0	0	<b>0</b>	<b>0</b>	0
TFX Offpeak New Apr. (39,600)	0	0	0	<b>0</b>	<b>0</b>	0
TFX Oct	2,000	1,784	1,798	<b>1,779</b>	<b>2,000</b>	221
TFX Apr	2,000	1,784	1,798	<b>1,779</b>	<b>2,000</b>	221
TFX Apr-Oct	0	0	0	<b>0</b>	<b>0</b>	0
TFX May-Sept	0	0	0	<b>0</b>	<b>0</b>	0
FDD Storage reservation	76,628	78,409	84,483	<b>86,671</b>	<b>97,463</b>	10,792
FDD Storage capacity	4,417,893	4,520,719	4,870,885	<b>4,997,056</b>	<b>5,619,321</b>	622,265
Nexen PSO	0	0	0	<b>0</b>	<b>0</b>	0
Tenaska PSO New	0	0	0	<b>0</b>	<b>0</b>	0
NGPL	0	0	0	<b>0</b>	<b>0</b>	0
SMS	20,577	20,226	20,385	<b>20,168</b>	<b>22,680</b>	2,512
SBA	0	0	0	<b>0</b>	<b>0</b>	0

## MINNESOTA ENERGY RESOURCES - NNG

Rate Impacts  
NNG

1) General Service Residential: Avg. Annual Use: 71 Dth									
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	-19.71%	10.21%	-2.11%	(\$0.0820)
Demand Rate	\$1.6894	\$1.8818	\$1.6711	\$1.6968	\$1.7561	3.95%	5.09%	3.49%	\$0.0593
Margin	\$1.9754	\$1.9417	\$1.9754	\$1.9754	\$1.9754	0.00%	0.00%	0.00%	\$0.0000
Total Recovery	\$8.4109	\$7.2886	\$7.1041	\$7.5647	\$7.5420	-10.33%	6.16%	-0.30%	(\$0.0227)
Avg. Annual Bill*	\$595.49	\$516.03	\$502.97	\$535.58	\$533.97	-10.33%	6.16%	-0.30%	-\$1.61
Effect of proposed commodity change on average annual bills:									-\$5.81
Effect of proposed demand change on average annual bills:									\$4.20
2) Small Volume Interruptible: Avg. Annual Use: 4,034 Dth									
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	-19.71%	10.21%	-2.11%	(\$0.0820)
Demand Rate									\$0.0000
Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	0.00%	0.00%	0.00%	\$0.0000
Total Recovery	\$5.8108	\$4.7432	\$4.5223	\$4.9572	\$4.8752	-16.10%	7.80%	-1.65%	(\$0.0820)
Avg. Annual Bill*	\$23,440.77	\$19,134.07	\$18,242.96	\$19,997.34	\$19,666.56	-16.10%	7.80%	-1.65%	-\$330.79
Effect of proposed commodity change on average annual bills:									-\$330.79
Effect of proposed demand change on average annual bills:									\$0.00
3) Large Volume Interruptible: Avg. Annual Use: 20,096 Dth									
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	-19.71%	10.21%	-2.11%	(\$0.0820)
Demand Rate									\$0.0000
Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	0.00%	0.00%	0.00%	\$0.0000
Total Recovery	\$5.1029	\$3.8205	\$3.8144	\$4.2493	\$4.1673	-18.33%	9.25%	-1.93%	(\$0.0820)
Avg. Annual Bill*	\$102,547.88	\$76,776.77	\$76,654.18	\$85,393.93	\$83,746.06	-18.33%	9.25%	-1.93%	-\$1,647.87
Effect of proposed commodity change on average annual bills:									-\$1,647.87
Effect of proposed demand change on average annual bills:									\$0.00
4) Small Volume Firm: Avg. Annual Use: 4,800 Dth Avg. Annual CD Volumes: 25 Dth									
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	-19.71%	10.21%	-2.11%	(\$0.0820)
Demand Rate	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$18.7211	-4.30%	-3.31%	-3.57%	(\$0.6929)
Comm. Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	0.00%	0.00%	0.00%	\$0.0000
SV Dem. Margin	\$2.3000	\$1.9695	\$2.3000	\$2.3000	\$2.3000	0.00%	0.00%	0.00%	\$0.0000
Total Commodity Cost	\$5.8108	\$4.7432	\$4.5223	\$4.9572	\$4.8752	-16.10%	7.80%	-1.65%	(\$0.0820)
Total Demand Cost	\$21.8620	\$21.3323	\$21.6628	\$21.7140	\$21.0211	-3.85%	-2.96%	-3.19%	(\$0.6929)
Avg. Annual Bill*	\$28,438.39	\$23,300.67	\$22,248.61	\$24,337.41	\$23,926.49	-15.87%	7.54%	-1.69%	-\$410.92
Effect of proposed commodity change on average annual bills:									-\$393.60
Effect of proposed demand change on average annual bills:									-\$17.32
5) Large Volume Firm: Avg. Annual Use: 14,841 Dth Avg. Annual CD Units: 75 Dth									
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case	% Change From Last Demand Filing	% Change From Last PGA	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$3.8105	-19.71%	10.21%	-2.11%	(\$0.0820)
Demand Rate	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$18.7211	-4.30%	-3.31%	-3.57%	(\$0.6929)
Comm. Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	0.00%	0.00%	0.00%	\$0.0000
LV Dem. Margin	\$2.3000	\$1.5319	\$2.3000	\$2.3000	\$2.3000	0.00%	0.00%	0.00%	\$0.0000
Total Commodity Cost	\$5.1029	\$3.8205	\$3.8144	\$4.2493	\$4.1673	-18.33%	9.25%	-1.93%	(\$0.0820)
Total Demand Cost	\$21.8620	\$20.8947	\$21.6628	\$21.7140	\$21.0211	-3.85%	-2.96%	-3.19%	(\$0.6929)
Avg. Annual Bill*	\$77,371.79	\$58,267.14	\$58,234.22	\$64,692.41	\$63,423.48	-18.03%	8.91%	-1.96%	-\$1,268.93
Effect of proposed commodity change on average annual bills:									-\$1,216.96
Effect of proposed demand change on average annual bills:									-\$51.97

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

Customer Class	Commodity Change (\$/Mcf)	Commodity Change (Percent)	Commodity Change (Percent)	Demand Change (\$/Mcf)	Demand Change (Percent)	Total Change (\$/Mcf)	Total Change (Percent)
All Firm	(\$0.0820)	-2.11%	-8.20%	\$0.0593	3.49%	(0.0227)	-0.30%
Sm Vol Inter. Service	(\$0.0820)	-2.11%	-8.20%	\$0.0000	0.00%	(0.0820)	-1.65%
Lrg Vol Inter. Service	(\$0.0820)	-2.11%	-8.20%	\$0.0000	0.00%	(0.0820)	-1.93%
Sm Vol Joint Service	(\$0.0820)	-2.11%	-8.20%	(\$0.6929)	-3.57%	(0.0820)	*** -1.65%
Lrg Vol Joint Service	(\$0.0820)	-2.11%	-8.20%	(\$0.6929)	-3.57%	(0.0820)	*** -1.93%

\*\*\* Joint total change includes only commodity change since not all joint customers purchase CD units.

## MINNESOTA ENERGY RESOURCES - NNG

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

1) General Service Residential: Avg. Annual Use: 71 Dth										
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	% Change From Last	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$4.0109	-15.49%	16.00%	3.04%		\$0.1184
Demand Rate	\$1.6894	\$1.8818	\$1.6711	\$1.6968	\$1.5387	-8.92%	-7.92%	-9.32%		(\$0.1581)
Margin	\$1.9754	\$1.9417	\$1.9754	\$1.9754	\$1.9754	0.00%	0.00%	0.00%		\$0.0000
Total Recovery	\$8.4109	\$7.2886	\$7.1041	\$7.5647	\$7.5250	-10.53%	5.92%	-0.52%		(\$0.0397)
Avg. Annual Bill*	\$595.49	\$516.03	\$502.97	\$535.58	\$532.77	-10.53%	5.92%	-0.52%		(\$2.81)
Effect of proposed commodity change on average annual bills:										\$8.38
Effect of proposed demand change on average annual bills:										(\$11.19)
2) Small Volume Interruptible: Avg. Annual Use: 4,034 Dth										
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	% Change From Last	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8925	\$4.0109	-15.49%	16.00%	3.04%		\$0.1184
Demand Rate										
Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	0.00%	0.00%	0.00%		\$0.0000
Total Recovery	\$5.8108	\$4.7432	\$4.5223	\$4.9572	\$5.0756	-12.65%	12.23%	2.39%		\$0.1184
Avg. Annual Bill*	\$23,440.77	\$19,134.07	\$18,242.96	\$19,997.34	\$20,474.79	-12.65%	12.23%	2.39%		\$477.45
Effect of proposed commodity change on average annual bills:										\$477.45
Effect of proposed demand change on average annual bills:										\$0.00
3) Large Volume Interruptible: Avg. Annual Use: 20,096 Dth										
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	% Change From Last	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8105	\$4.0047	-15.62%	15.82%	5.10%		\$0.1942
Demand Rate										
Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	0.00%	0.00%	0.00%		\$0.0000
Total Recovery	\$5.1029	\$3.8205	\$3.8144	\$4.1673	\$4.3615	-14.53%	14.34%	4.66%		\$0.1942
Avg. Annual Bill*	\$102,547.88	\$76,776.77	\$76,654.18	\$83,746.06	\$87,647.70	-14.53%	14.34%	4.66%		\$3,901.64
Effect of proposed commodity change on average annual bills:										\$3,901.64
Effect of proposed demand change on average annual bills:										\$0.00
4) Small Volume Firm: Avg. Annual Use: 4,800 Dth										
Avg. Annual CD Volumes: 25 Dth										
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	% Change From Last	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8105	\$4.0047	-15.62%	15.82%	5.10%		\$0.1942
Demand Rate	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$17.3631	-11.24%	-10.33%	-10.56%		(\$2.0509)
Comm. Margin	\$1.0647	\$1.2781	\$1.0647	\$1.0647	\$1.0647	0.00%	0.00%	0.00%		\$0.0000
SV Dem. Margin	\$2.3000	\$1.9695	\$2.3000	\$2.3000	\$2.3000	0.00%	0.00%	0.00%		\$0.0000
Total Commodity Cost	\$5.8108	\$4.7432	\$4.5223	\$4.8752	\$5.0694	-12.76%	12.10%	3.98%		\$0.1942
Total Demand Cost	\$21.8620	\$21.3323	\$21.6628	\$21.7140	\$19.6631	-10.06%	-9.23%	-9.45%		(\$2.0509)
Avg. Annual Bill*	\$28,438.39	\$23,300.67	\$22,248.61	\$23,943.81	\$24,824.46	-12.71%	11.58%	3.68%		\$880.65
Effect of proposed commodity change on average annual bills:										\$931.92
Effect of proposed demand change on average annual bills:										(\$51.27)
5) Large Volume Firm: Avg. Annual Use: 14,841 Dth										
Avg. Annual CD Units: 75 Dth										
Recovery	Base Cost of Gas Change G011/MR10-978	Demand Change Nov '12 12-1193	Last Demand Change Jan '13 10-977	Most Recent PGA Aug. 2013	Nov13 PGA w/ Proposed Demand Changes**	% Change From Last Rate Case^^	% Change From Last Demand Filing	% Change From Last PGA	% Change From Last	\$ Change From Last PGA
Commodity Rate	\$4.7461	\$3.4651	\$3.4576	\$3.8105	\$4.0047	-15.62%	15.82%	5.10%		\$0.1942
Demand Rate	\$19.5620	\$19.3628	\$19.3628	\$19.4140	\$16.9452	-13.38%	-12.49%	-12.72%		(\$2.4688)
Comm. Margin	\$0.3568	\$0.3554	\$0.3568	\$0.3568	\$0.3568	0.00%	0.00%	0.00%		\$0.0000
LV Dem. Margin	\$2.3000	\$1.5319	\$2.3000	\$2.3000	\$2.3000	0.00%	0.00%	0.00%		\$0.0000
Total Commodity Cost	\$5.1029	\$3.8205	\$3.8144	\$4.1673	\$4.3615	-14.53%	14.34%	4.66%		\$0.1942
Total Demand Cost	\$21.8620	\$20.8947	\$21.6628	\$21.7140	\$19.2452	-11.97%	-11.16%	-11.37%		(\$2.4688)
Avg. Annual Bill*	\$77,371.79	\$58,267.14	\$58,234.22	\$63,475.45	\$66,171.67	-14.48%	13.63%	4.25%		\$2,696.22
Effect of proposed commodity change on average annual bills:										\$2,881.38
Effect of proposed demand change on average annual bills:										(\$185.16)

\* Average Annual Bill amount does not include customer charges.

\*\* Commodity includes Upstream costs.

Customer Class	Commodity Change (\$/Mcf)	Commodity Change (Percent)	Commodity Change (Percent)	Commodity Change (\$/Mcf)	Demand Change (Percent)	Total Change (\$/Mcf)	Total Change (Percent)
All Firm	\$0.1184	3.04%	11.84%	(\$0.1581)	-9.32%	(0.0397)	-0.52%
Sm Vol Inter. Service	\$0.1184	3.04%	11.84%	\$0.0000	0.00%	0.1184	2.39%
Lrg Vol Inter. Service	\$0.1942	5.10%	19.42%	\$0.0000	0.00%	0.1942	4.66%
Sm Vol Joint Service	\$0.1942	5.10%	19.42%	(\$2.0509)	-10.56%	0.1942	*** 3.98%
Lrg Vol Joint Service	\$0.1942	5.10%	19.42%	(\$2.4688)	-12.72%	0.1942	*** 4.66%

\*\*\* Joint total change includes only commodity change since not all joint customers purchase CD units.

# MINNESOTA ENERGY RESOURCES - NNG

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

	Contract	NNG								
		Aug-13 PGA	Nov-13 Entitlement	Entitlement Change	Months	Nov-13 Rate/MCF	Aug-13 Total Cost	Entitlement Total Cost	Entitlement Change	
TF-12-B (Max Rate)	112495	41,081	41,844	763	12	\$ 7.5171	\$3,804,925	\$3,774,555	(\$30,370)	
TF-12-B (Discount)	112495	5,200	5,200	0	12	\$ 6.4818	\$374,111	\$404,464	\$30,353	
TF-12-V (Max Rate)	112495	29,035	29,035	0	12	\$ 9.0926	\$3,168,044	\$3,168,044	(\$0)	
TF-5 (Max Rate)	112495	32,278	31,515	(763)	5	\$ 15.1530	\$2,387,734	\$2,387,734	(\$0)	
TFX-12 (Max Rate)	112486	10,822	10,822	0	12	\$ 9.6288	\$1,250,434	\$1,250,434	\$0	
TFX-12 (Discount)	111866	1,283	1,283	0	12	\$ 4.8640	\$74,886	\$74,886	\$0	
TFX-12 (Discount)	111866	8,271	8,271	0	12	\$ 5.4720	\$543,107	\$543,107	(\$0)	
TFX-12 (Discount)	111866	11,921	11,921	0	12	\$ 7.6025	\$1,087,553	\$1,087,553	(\$0)	
TFX-5 (Max Rate)	112486	57,371	57,371	0	5	\$ 15.1530	\$4,346,714	\$4,346,714	(\$0)	
TFX-5 (Discount)	112486	1,800	1,800	0	5	\$ 7.6000	\$68,400	\$68,400	\$0	
TFX-5 (Discount)	111866	379	379	0	5	\$ 4.8640	\$9,217	\$9,217	\$0	
TFX-5 (Discount)	111866	2,445	2,445	0	5	\$ 5.4720	\$66,895	\$66,895	\$0	
TFX-5 (Discount)	111866	22,189	22,189	0	5	\$ 15.1392	\$1,679,619	\$1,679,619	(\$0)	
TFX-5 (Discount)	112561	6,000	6,000	0	5	\$ 4.5600	\$136,800	\$136,800	\$0	
TFX Apr (Max Rate)	112486	2,000	2,000	0	1	\$ 5.6830	\$11,366	\$11,366	\$0	
TFX Oct (Max Rate)	112486	2,000	2,000	0	1	\$ 5.6830	\$11,366	\$11,366	\$0	
SMS Charge		22,680	22,680	0	12	\$ 2.1800	\$593,309	\$593,309	(\$0)	
WINDOM		2,500	2,500	0	12	\$ -	\$0	\$0	\$0	
Northwestern Energy		910	910	0	12	\$ 8.0000	\$87,360	\$87,360	\$0	
NNG Zone GDD Call Option		0	20,000	20,000	3	\$ 0.9000	\$0	\$54,000	\$54,000	
Bison		50,000	50,000	0	12	\$ 17.4896	\$10,493,750	\$10,493,750	\$0	
NBPL		50,000	50,000	0	12	\$ 6.9958	\$4,197,500	\$4,197,500	\$0	
FDD: Storage Reservation		91,913	91,913	0	12	\$ 1.7140	\$1,890,467	\$1,890,467	(\$0)	
FDD: Storage Reservation		5,550	5,550	0	12	\$ 3.3157	\$220,826	\$220,826	(\$0)	
FDD: Storage Cycle Volume		1,059,864	1,059,864	0	5	\$ 0.3567	\$1,890,267	\$1,890,267	\$0	
FDD: Storage Cycle Volume		64,000	64,000	0	5	\$ 0.6901	\$220,832	\$220,832	\$0	
Total Demand Cost							<u>\$38,615,482</u>	<u>\$38,669,465</u>	<u>\$53,983</u>	
<b>Costs Assigned In Commodity:</b>										
<u>Upstream</u>		Aug-13 PGA	Nov-13 Entitlement	Entitlement Change	Months	Nov-13 Rate/MCF	Aug-13 Total Cost	Entitlement Total Cost	Entitlement Change	
				0				\$0	\$0	
<u>Surcharges:</u>				0				\$0	\$0	
				0				\$0	\$0	
<u>Storage</u>				0				\$0	\$0	
FDD Withdrawal		5,619,321	5,619,321	0	1	\$0.0000	\$0	\$0	\$0	
FDD Injection		5,619,321	5,619,321	0	1	\$0.0000	\$0	\$0	\$0	
								\$0	\$0	
								\$0	\$0	
Producer Demand Payments/Option Premium							\$1,428,138	\$758,741	(\$669,397)	
Total Commodity Costs							<u>\$1,428,138</u>	<u>\$758,741</u>	<u>(\$669,397)</u>	

# MINNESOTA ENERGY RESOURCES - NNG

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

NNG

Base	35,875
Variable	2,365

Date	12.29%	28.34%	47.60%	11.77%	100.00%	Actual Total Through- Put *	Estimated Through- Put **
	Cloquet Adjusted HDD	Minneapolis Adjusted HDD	Rochester Adjusted HDD	Worthington Adjusted HDD	Weighted Adjusted HDD		
7/1/12	0	0	0	0	0	47,629	35,875
7/2/12	0	0	0	0	0	60,941	35,875
7/3/12	0	0	0	0	0	56,519	35,875
7/4/12	0	0	0	0	0	45,639	35,875
7/5/12	1	0	0	0	0	61,802	36,183
7/6/12	0	0	0	0	0	66,578	35,875
7/7/12	0	0	0	0	0	56,055	35,875
7/8/12	0	0	0	0	0	47,123	35,875
7/9/12	0	0	0	0	0	50,549	35,875
7/10/12	0	0	0	0	0	51,377	35,875
7/11/12	0	0	0	0	0	52,144	35,875
7/12/12	0	0	0	0	0	60,219	35,875
7/13/12	0	0	0	0	0	51,084	35,875
7/14/12	0	0	0	0	0	49,717	35,875
7/15/12	0	0	0	0	0	49,624	35,875
7/16/12	0	0	0	0	0	58,482	35,875
7/17/12	0	0	0	0	0	64,567	35,875
7/18/12	0	0	0	0	0	50,151	35,875
7/19/12	0	0	0	0	0	49,815	35,875
7/20/12	0	0	0	0	0	49,973	35,875
7/21/12	0	0	0	0	0	50,671	35,875
7/22/12	0	0	0	0	0	51,526	35,875
7/23/12	0	0	0	0	0	65,497	35,875
7/24/12	0	0	0	0	0	58,243	35,875
7/25/12	0	0	0	0	0	56,852	35,875
7/26/12	1	0	0	0	0	48,309	36,177
7/27/12	0	0	0	0	0	42,853	35,875
7/28/12	0	0	0	0	0	42,720	35,875
7/29/12	0	0	0	0	0	49,078	35,875
7/30/12	0	0	0	0	0	56,200	35,875
7/31/12	0	0	0	0	0	57,853	35,875
8/1/12	0	0	0	0	0	53,332	35,875
8/2/12	0	0	0	0	0	51,384	35,875
8/3/12	0	0	0	0	0	48,571	35,875
8/4/12	2	0	1	0	1	46,022	37,725
8/5/12	0	0	0	0	0	47,802	35,875
8/6/12	0	0	0	0	0	51,620	35,875
8/7/12	4	0	0	0	0	54,752	37,050
8/8/12	4	0	0	0	1	47,164	37,131
8/9/12	5	0	0	0	1	44,205	37,401
8/10/12	4	0	2	5	2	42,509	40,853
8/11/12	0	0	3	0	1	44,171	39,320
8/12/12	1	0	0	7	1	44,631	38,021

# MINNESOTA ENERGY RESOURCES - NNG

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

NNG

Base	35,875
Variable	2,365

Date	12.29%	28.34%	47.60%	11.77%	100.00%	Actual Total Through- Put *	Estimated Through- Put **
	Cloquet Adjusted HDD	Minneapolis Adjusted HDD	Rochester Adjusted HDD	Worthington Adjusted HDD	Weighted Adjusted HDD		
8/13/12	2	0	0	0	0	47,866	36,474
8/14/12	0	0	0	0	0	51,617	35,875
8/15/12	9	1	6	0	4	51,196	45,571
8/16/12	8	3	6	8	6	48,506	49,751
8/17/12	3	0	3	3	2	42,063	41,231
8/18/12	7	0	1	4	2	47,915	40,375
8/19/12	8	0	2	3	2	53,407	41,527
8/20/12	4	0	1	1	1	53,437	38,577
8/21/12	0	0	0	0	0	51,433	35,875
8/22/12	0	0	0	0	0	49,339	35,875
8/23/12	0	0	0	0	0	47,334	35,875
8/24/12	0	0	0	0	0	44,673	35,875
8/25/12	0	0	0	0	0	44,983	35,875
8/26/12	0	0	0	0	0	47,971	35,875
8/27/12	0	0	0	0	0	50,918	35,875
8/28/12	0	0	0	0	0	53,017	35,875
8/29/12	0	0	0	0	0	53,098	35,875
8/30/12	0	0	0	0	0	46,458	35,875
8/31/12	1	0	0	0	0	42,284	36,180
9/1/12	0	0	0	0	0	43,041	35,875
9/2/12	0	0	0	0	0	43,762	35,875
9/3/12	0	0	0	0	0	47,351	35,875
9/4/12	0	0	0	0	0	52,921	35,875
9/5/12	1	0	0	2	0	44,858	36,776
9/6/12	10	2	7	0	5	43,669	47,673
9/7/12	14	1	3	11	5	46,329	47,621
9/8/12	8	2	4	2	4	44,895	45,109
9/9/12	3	0	1	1	1	47,681	38,387
9/10/12	0	0	0	0	0	49,070	35,875
9/11/12	6	0	1	0	1	45,429	38,975
9/12/12	10	1	4	15	5	48,716	48,244
9/13/12	13	1	3	5	4	51,039	45,483
9/14/12	9	0	1	0	2	46,950	39,883
9/15/12	2	0	0	0	0	48,591	36,497
9/16/12	19	10	11	1	10	50,511	60,646
9/17/12	23	15	16	17	17	58,188	75,460
9/18/12	11	2	5	14	6	59,071	49,718
9/19/12	15	8	13	8	11	57,074	62,660
9/20/12	21	15	13	9	14	57,371	69,062
9/21/12	26	18	21	16	20	57,910	83,666
9/22/12	24	18	21	25	21	71,676	85,929
9/23/12	10	6	10	16	10	65,483	58,997
9/24/12	21	8	4	4	8	56,010	53,660



**MINNESOTA ENERGY RESOURCES - NNG**

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

NNG

Base	35,875
Variable	2,365

Date	12.29%	28.34%	47.60%	11.77%	100.00%	Actual Total Through- Put *	Estimated Through- Put **
	Cloquet Adjusted HDD	Minneapolis Adjusted HDD	Rochester Adjusted HDD	Worthington Adjusted HDD	Weighted Adjusted HDD		
9/25/12	22	14	9	12	12	57,745	65,257
9/26/12	19	10	9	18	12	57,154	63,844
9/27/12	12	4	6	10	7	51,554	52,032
9/28/12	13	0	0	3	2	47,534	40,407
9/29/12	10	3	1	0	3	44,784	42,151
9/30/12	9	2	2	0	3	46,556	42,384
10/1/12	17	7	4	15	8	63,605	54,502
10/2/12	8	1	2	7	3	64,259	43,218
10/3/12	22	14	16	9	16	63,270	72,630
10/4/12	32	28	24	27	26	79,231	98,210
10/5/12	30	28	28	30	28	87,848	103,035
10/6/12	28	27	27	36	28	95,990	102,747
10/7/12	26	13	14	24	16	91,070	74,329
10/8/12	29	24	22	9	22	82,792	87,466
10/9/12	28	23	24	31	25	95,198	95,406
10/10/12	31	23	26	22	25	88,968	96,148
10/11/12	33	27	26	34	28	102,262	102,478
10/12/12	23	16	9	28	15	84,565	70,943
10/13/12	19	14	17	13	16	72,001	73,965
10/14/12	21	16	16	20	17	80,059	76,216
10/15/12	11	7	7	10	8	68,391	54,477
10/16/12	17	11	13	3	12	66,178	63,365
10/17/12	18	20	20	24	20	70,805	83,931
10/18/12	24	20	22	27	22	74,261	88,792
10/19/12	24	21	21	28	22	75,162	88,817
10/20/12	20	9	8	20	11	74,480	61,901
10/21/12	20	9	6	11	9	61,915	57,994
10/22/12	21	5	0	15	6	63,826	49,874
10/23/12	16	12	0	13	7	56,898	52,145
10/24/12	30	27	22	31	25	57,514	95,528
10/25/12	34	32	32	37	33	91,186	113,612
10/26/12	34	31	28	39	31	95,437	108,877
10/27/12	34	29	28	35	30	89,148	106,220
10/28/12	28	29	29	27	28	92,507	102,841
10/29/12	28	29	27	27	27	104,972	100,880
10/30/12	36	29	29	29	30	102,006	106,680
10/31/12	25	20	23	25	23	91,671	89,577
11/1/12	39	30	31	31	32	95,799	110,874
11/2/12	33	29	26	35	29	93,545	103,956
11/3/12	38	29	25	28	28	91,317	102,003
11/4/12	35	26	22	26	25	81,261	95,766
11/5/12	30	25	25	31	26	88,791	98,025
11/6/12	30	26	26	31	27	90,902	99,839

**MINNESOTA ENERGY RESOURCES - NNG**

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

NNG

Base	35,875
Variable	2,365

Date	12.29% Cloquet Adjusted HDD	28.34% Minneapolis Adjusted HDD	47.60% Rochester Adjusted HDD	11.77% Worthington Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
11/7/12	28	27	27	27	27	91,005	99,316
11/8/12	25	22	22	22	23	79,703	89,327
11/9/12	33	19	21	23	22	73,573	88,062
11/10/12	26	15	9	24	15	54,900	70,528
11/11/12	41	43	41	51	43	109,726	136,985
11/12/12	48	46	48	46	47	134,622	147,906
11/13/12	39	34	35	30	35	104,254	117,626
11/14/12	27	22	22	25	23	83,951	90,849
11/15/12	39	29	29	37	31	91,686	109,882
11/16/12	34	31	27	32	30	90,405	105,647
11/17/12	20	20	20	22	20	71,415	83,616
11/18/12	17	15	16	20	16	68,043	74,804
11/19/12	26	20	22	27	22	78,484	88,934
11/20/12	29	20	21	20	21	80,392	86,183
11/21/12	23	11	6	12	10	58,136	59,835
11/22/12	36	32	29	36	31	87,248	110,228
11/23/12	60	51	53	51	53	127,535	161,285
11/24/12	51	45	46	42	46	111,071	144,206
11/25/12	57	50	43	46	47	117,674	147,180
11/26/12	58	51	53	51	53	142,798	160,581
11/27/12	45	39	43	44	42	127,749	135,045
11/28/12	46	35	37	37	38	115,239	124,752
11/29/12	44	33	28	35	32	104,397	112,019
11/30/12	36	32	32	36	33	101,069	114,565
12/1/12	31	27	26	27	27	84,643	99,954
12/2/12	28	26	25	21	25	84,861	95,130
12/3/12	36	24	21	28	24	83,670	93,297
12/4/12	52	43	40	37	42	121,172	134,408
12/5/12	41	36	38	32	37	111,738	123,695
12/6/12	41	34	33	31	34	101,868	116,335
12/7/12	45	37	38	43	39	111,975	128,748
12/8/12	43	38	35	40	38	104,792	124,655
12/9/12	53	50	47	61	50	127,585	154,154
12/10/12	58	58	59	59	58	155,929	174,142
12/11/12	61	50	48	45	50	145,100	153,068
12/12/12	48	33	36	40	37	112,070	123,708
12/13/12	54	37	38	45	41	116,734	131,823
12/14/12	42	39	36	33	37	99,015	124,531
12/15/12	33	33	32	41	34	92,792	115,195
12/16/12	46	43	44	50	45	125,192	141,620
12/17/12	46	43	43	43	43	127,732	137,711
12/18/12	43	40	39	44	40	118,017	130,562
12/19/12	42	41	40	47	41	116,472	133,670

**MINNESOTA ENERGY RESOURCES - NNG**

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

NNG

Base	35,875
Variable	2,365

Date	12.29% Cloquet Adjusted HDD	28.34% Minneapolis Adjusted HDD	47.60% Rochester Adjusted HDD	11.77% Worthington Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
12/20/12	61	55	61	64	60	152,631	177,466
12/21/12	57	53	58	60	56	152,622	169,411
12/22/12	56	49	48	55	50	135,222	154,759
12/23/12	60	54	51	61	54	140,421	164,144
12/24/12	71	62	61	71	64	153,764	186,355
12/25/12	67	60	62	68	63	162,774	184,404
12/26/12	58	54	55	62	56	162,322	167,968
12/27/12	54	51	52	56	53	144,611	160,552
12/28/12	52	47	49	58	50	133,296	153,812
12/29/12	59	59	63	60	61	166,422	179,810
12/30/12	60	56	58	52	57	152,791	170,796
12/31/12	68	65	68	66	67	182,002	194,173
1/1/13	63	60	66	58	63	174,632	184,754
1/2/13	51	51	53	55	53	166,490	160,161
1/3/13	56	53	59	64	57	170,477	171,615
1/4/13	45	46	51	51	49	146,433	151,720
1/5/13	48	50	54	56	52	144,471	159,312
1/6/13	51	46	55	55	52	150,148	158,707
1/7/13	42	40	46	47	44	134,810	140,230
1/8/13	45	40	45	45	44	129,675	139,421
1/9/13	42	39	43	38	41	130,281	133,229
1/10/13	29	33	36	35	34	117,288	117,012
1/11/13	35	42	39	49	41	129,557	132,141
1/12/13	61	63	62	67	63	186,103	184,129
1/13/13	64	64	63	63	64	192,959	186,388
1/14/13	63	57	55	57	57	179,032	169,693
1/15/13	54	47	48	50	49	148,231	151,552
1/16/13	57	48	47	49	49	164,871	151,638
1/17/13	66	52	50	47	52	176,165	158,951
1/18/13	51	33	32	29	34	131,881	116,448
1/19/13	63	54	53	51	54	174,215	164,510
1/20/13	81	74	73	73	74	210,322	211,443
1/21/13	87	80	78	76	80	236,124	224,015
1/22/13	78	67	67	60	68	205,228	195,547
1/23/13	79	67	67	70	69	213,008	198,551
1/24/13	73	64	66	66	66	199,406	191,924
1/25/13	67	59	60	58	60	183,865	178,769
1/26/13	63	50	54	52	54	156,267	162,836
1/27/13	42	35	37	34	37	133,051	123,068
1/28/13	37	36	34	36	35	125,419	119,107
1/29/13	48	43	44	50	45	135,099	141,857
1/30/13	67	64	65	70	65	179,102	190,521
1/31/13	84	81	82	81	82	218,269	229,447

**MINNESOTA ENERGY RESOURCES - NNG**

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

NNG

Base	35,875
Variable	2,365

Date	12.29% Cloquet Adjusted HDD	28.34% Minneapolis Adjusted HDD	47.60% Rochester Adjusted HDD	11.77% Worthington Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
2/1/13	78	73	70	63	71	193,054	203,711
2/2/13	69	62	59	55	61	170,709	179,524
2/3/13	73	60	59	54	60	171,433	178,856
2/4/13	64	53	56	52	56	164,429	167,141
2/5/13	58	52	52	41	52	160,827	158,221
2/6/13	51	52	43	40	46	144,634	145,116
2/7/13	48	47	44	49	46	150,611	144,210
2/8/13	49	50	46	46	48	144,002	148,307
2/9/13	44	44	42	35	42	135,433	135,738
2/10/13	44	40	39	44	40	136,362	131,047
2/11/13	52	49	51	51	50	157,796	155,159
2/12/13	45	40	42	42	42	134,937	134,698
2/13/13	37	36	38	36	37	124,450	123,963
2/14/13	59	51	51	53	52	151,848	158,917
2/15/13	63	60	61	54	60	172,204	177,992
2/16/13	61	54	54	48	54	164,311	163,821
2/17/13	50	47	49	38	47	137,382	147,601
2/18/13	63	53	57	63	57	173,152	170,939
2/19/13	76	69	76	75	74	205,258	211,035
2/20/13	62	58	59	64	60	181,007	177,128
2/21/13	54	52	55	54	54	158,926	163,577
2/22/13	44	43	47	53	46	138,065	145,505
2/23/13	47	46	56	50	51	145,551	156,811
2/24/13	42	41	49	45	45	130,121	142,851
2/25/13	47	39	37	45	40	132,494	129,390
2/26/13	41	37	41	43	40	129,231	130,119
2/27/13	39	35	40	47	39	129,151	128,465
2/28/13	46	42	44	46	44	141,738	140,041
3/1/13	62	48	52	53	52	145,971	158,664
3/2/13	47	42	47	46	46	136,167	143,589
3/3/13	46	42	46	42	44	132,302	140,963
3/4/13	45	43	46	41	44	145,628	140,412
3/5/13	52	43	50	51	48	143,519	150,552
3/6/13	58	46	59	48	54	150,538	162,809
3/7/13	47	44	52	44	48	134,255	150,009
3/8/13	39	37	39	36	38	120,693	125,448
3/9/13	35	32	34	38	34	112,801	115,952
3/10/13	42	38	40	56	42	130,326	134,213
3/11/13	46	42	48	51	46	133,799	145,320
3/12/13	57	48	54	54	53	140,774	160,038
3/13/13	44	40	47	47	44	131,859	141,036
3/14/13	35	30	39	29	35	109,852	118,358
3/15/13	52	42	41	39	43	119,229	136,522

**MINNESOTA ENERGY RESOURCES - NNG**

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

NNG

Base	35,875
Variable	2,365

Date	12.29% Cloquet Adjusted HDD	28.34% Minneapolis Adjusted HDD	47.60% Rochester Adjusted HDD	11.77% Worthington Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
3/16/13	67	52	53	53	54	132,213	164,165
3/17/13	47	46	45	49	46	124,082	144,571
3/18/13	56	60	63	62	61	154,760	180,355
3/19/13	62	59	63	56	61	160,603	180,175
3/20/13	60	54	62	54	59	159,807	174,417
3/21/13	50	44	51	49	49	142,540	151,188
3/22/13	43	37	43	42	41	116,055	133,446
3/23/13	34	33	36	43	36	102,172	120,672
3/24/13	46	40	44	44	43	115,939	137,671
3/25/13	35	35	42	48	40	110,073	130,114
3/26/13	32	35	40	40	38	110,322	125,420
3/27/13	37	31	37	34	35	106,783	117,939
3/28/13	33	29	35	26	32	97,178	111,298
3/29/13	23	23	27	18	24	83,179	93,461
3/30/13	26	22	30	24	27	82,832	98,579
3/31/13	49	41	44	42	43	111,674	138,501
4/1/13	47	40	44	39	43	120,420	136,574
4/2/13	41	32	36	33	35	113,973	119,680
4/3/13	29	20	26	25	24	93,843	93,599
4/4/13	39	29	32	30	32	90,004	110,799
4/5/13	36	23	24	27	25	96,162	95,854
4/6/13	32	25	25	29	26	83,279	97,897
4/7/13	31	23	18	23	22	79,160	87,186
4/8/13	34	31	33	26	32	86,330	111,485
4/9/13	38	33	38	41	37	108,189	123,176
4/10/13	44	35	37	36	37	117,936	123,468
4/11/13	41	35	37	34	37	122,226	122,250
4/12/13	40	34	36	38	36	110,855	121,754
4/13/13	48	35	34	38	36	105,505	121,386
4/14/13	35	33	33	37	34	111,739	115,461
4/15/13	31	27	29	38	30	105,770	105,836
4/16/13	37	29	32	34	32	91,999	112,133
4/17/13	37	36	36	37	36	112,510	121,598
4/18/13	47	38	38	48	41	117,816	131,703
4/19/13	43	35	32	46	36	110,933	120,650
4/20/13	36	25	26	39	28	93,046	102,855
4/21/13	33	30	31	26	30	87,912	107,403
4/22/13	35	32	35	45	35	104,746	119,065
4/23/13	36	28	30	42	32	105,351	110,569
4/24/13	31	25	27	32	27	92,772	100,805
4/25/13	17	6	8	22	10	79,465	60,359
4/26/13	17	6	9	12	10	53,110	58,400
4/27/13	13	0	8	6	6	44,513	50,028

# MINNESOTA ENERGY RESOURCES - NNG

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

NNG

Base	35,875
Variable	2,365

Date	12.29% Cloquet Adjusted HDD	28.34% Minneapolis Adjusted HDD	47.60% Rochester Adjusted HDD	11.77% Worthington Adjusted HDD	100.00% Weighted Adjusted HDD	Actual Total Through- Put *	Estimated Through- Put **
4/28/13	14	2	4	3	5	47,378	47,153
4/29/13	13	0	2	3	3	48,602	43,258
4/30/13	28	22	27	18	25	51,012	94,029
5/1/13	32	26	39	37	34	91,584	116,588
5/2/13	36	34	39	34	36	100,592	122,161
5/3/13	33	25	27	32	28	102,437	101,408
5/4/13	23	13	17	32	18	76,488	79,455
5/5/13	14	4	7	21	9	56,407	56,748
5/6/13	10	0	1	13	3	45,262	43,740
5/7/13	11	0	2	2	3	43,148	42,136
5/8/13	25	16	16	10	16	45,970	73,929
5/9/13	26	13	14	20	16	64,276	73,476
5/10/13	29	20	25	16	23	53,455	90,636
5/11/13	28	20	23	28	23	67,964	90,907
5/12/13	19	9	17	14	15	65,776	70,461
5/13/13	10	0	0	0	1	52,051	38,701
5/14/13	1	0	1	0	1	44,367	37,422
5/15/13	9	0	0	1	1	43,074	38,677
5/16/13	18	5	9	0	8	43,154	54,274
5/17/13	21	0	0	0	3	44,586	42,039
5/18/13	17	0	0	0	2	39,408	40,716
5/19/13	22	0	0	1	3	41,341	42,537
5/20/13	21	10	4	5	8	45,767	54,637
5/21/13	18	16	11	14	14	50,155	68,182
5/22/13	21	11	14	21	15	55,696	70,513
5/23/13	18	10	13	14	13	52,433	66,331
5/24/13	18	8	15	2	12	42,167	63,942
5/25/13	15	9	17	11	14	44,380	68,927
5/26/13	16	7	12	11	11	44,506	62,255
5/27/13	12	7	7	9	8	48,376	54,937
5/28/13	6	0	0	4	1	45,685	38,887
5/29/13	5	0	0	0	1	43,257	37,431
5/30/13	2	0	0	0	0	45,018	36,486
5/31/13	15	3	6	3	6	41,637	49,602
6/1/13	14	7	12	13	11	41,695	61,575
6/2/13	16	4	10	8	9	43,862	56,427
6/3/13	13	4	11	0	8	43,417	55,183
6/4/13	18	9	8	8	10	47,217	58,639
6/5/13	16	11	8	10	10	49,863	59,037
6/6/13	10	5	5	15	7	50,805	52,219
6/7/13	8	0	3	5	3	43,384	43,450
6/8/13	15	1	1	8	4	36,991	44,624
6/9/13	8	0	0	1	1	40,462	38,551

# MINNESOTA ENERGY RESOURCES - NNG

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

NNG

Base	35,875
Variable	2,365

Date	12.29%	28.34%	47.60%	11.77%	100.00%	Actual Total Through- Put *	Estimated Through- Put **
	Cloquet Adjusted HDD	Minneapolis Adjusted HDD	Rochester Adjusted HDD	Worthington Adjusted HDD	Weighted Adjusted HDD		
6/10/13	0	0	0	0	0	42,452	35,875
6/11/13	1	0	0	0	0	41,579	36,183
6/12/13	2	0	0	3	1	43,982	37,446
6/13/13	7	0	0	0	1	43,313	38,032
6/14/13	3	0	0	0	0	40,101	36,782
6/15/13	0	0	0	0	0	36,422	35,875
6/16/13	19	0	0	0	2	37,803	41,475
6/17/13	14	0	0	0	2	42,458	39,806
6/18/13	2	0	0	0	0	42,456	36,480
6/19/13	6	0	0	0	1	42,646	37,742
6/20/13	4	0	0	0	1	41,775	37,119
6/21/13	11	0	0	0	1	38,239	38,986
6/22/13	0	0	0	0	0	35,685	35,875
6/23/13	0	0	0	0	0	39,196	35,875
6/24/13	0	0	0	0	0	40,199	35,875
6/25/13	0	0	0	0	0	40,701	35,875
6/26/13	0	0	0	0	0	41,496	35,875
6/27/13	0	0	0	0	0	39,284	35,875
6/28/13	3	0	0	0	0	39,860	36,791
6/29/13	0	0	0	0	0	45,064	35,875
6/30/13	6	0	4	0	3	43,107	42,497
Totals	10,282	8,406	8,786	9,175	8,908	33,063,198	34,161,416

\* 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 - NNG

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

Rate Class	Tariff Rate Designation	Jul-12 Average Customers	Aug-12 Average Customers	Sep-12 Average Customers	Oct-12 Average Customers	Nov-12 Average Customers	Dec-12 Average Customers	Jan-13 Average Customers	Feb-13 Average Customers	Mar-13 Average Customers	Apr-13 Average Customers	May-13 Average Customers	Jun-13 Average Customers
Residential w/ Heat	MN001/007/008	143,475	143,858	144,119	144,676	145,031	145,312	145,395	145,402	145,399	145,013	144,373	144,538
Residential w/o Heat	MN002/009/010	931	931	931	938	939	938	937	938	937	927	910	918
Commercial-SV	MN048/050/053/054/070/076/078	7,345	7,340	7,334	7,378	7,414	7,430	7,437	7,434	7,438	7,403	7,349	7,357
Commercial-LV	MN049/056/060/063/064/065/071/077/756	6,679	6,677	6,689	6,705	6,747	6,752	6,763	6,762	6,763	6,752	6,734	6,733
SV-Joint	MN704	3	3	3	3	3	3	3	3	3	3	4	3
SV-Interruptible	MN125/128/129/735	265	264	265	265	263	261	262	261	261	260	259	261
LV-Interruptible	MN200/201/207/720/721	52	53	53	54	54	53	53	54	54	54	56	55
Transport	MN710	2	2	2	2	2	2	2	2	2	2	2	2
Transport	MN790	1	1	1	1	1	1	1	1	1	1	1	1
Transport	MN789/714	1	2	2	2	2	4	5	5	5	3	1	2
Transport	MN718	1	1	1	1	1	1	1	1	1	1	1	1
Transport	MN705	12	12	12	12	12	12	12	12	12	12	12	12
Transport	MN703	2	2	2	2	2	2	2	3	3	4	7	8
Transport	MN/704/739	4	4	4	4	4	4	4	4	4	4	4	4
Transport	MN/712/713	3	3	3	3	3	3	3	3	3	1	0	0
Transport	MN/714	8	7	7	7	7	7	7	7	7	8	8	8
Transport	MN/715	0	0	0	0	0	1	1	1	1	1	1	0
Transport	MN/721	2	2	2	2	2	2	2	2	2	2	2	2
Transport	MN/752	0	0	0	0	0	0	0	1	1	1	0	0
Transport	MN/799	1	1	1	1	1	1	1	1	1	1	1	1
Transport	MN/751/761/82L/781/701/702/706	51	51	51	51	51	52	50	50	50	54	53	54
Transport	MN766	11	11	11	11	11	11	11	11	11	9	7	7
Transport	MN/700	1	1	1	1	1	1	1	1	1	1	1	1
Transport	MN/750	2	2	2	2	2	2	2	1	1	1	1	0
Transport	MN/774	1	1	1	1	1	0	0	0	0	0	0	0
Transport	MN/745	1	1	1	1	1	1	1	1	1	1	1	1
<b>Total</b>		<b>158,854</b>	<b>159,230</b>	<b>159,498</b>	<b>160,123</b>	<b>160,555</b>	<b>160,856</b>	<b>160,956</b>	<b>160,961</b>	<b>160,962</b>	<b>160,519</b>	<b>159,788</b>	<b>159,969</b>

Note: Customer counts do not include NMU-NNG. MERC was not able to separate out customer counts by pipeline for NMU to include in consolidated NNG.





## MINNESOTA ENERGY RESOURCES - NNG

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	\$ 3.6991	\$ 1,684,071	\$ 270,500	\$ 72,133	\$ 2,026,705	85,304	\$ 3.2341	\$ 275,885
Dec-13	1,143,984	183,750	49,000	1,376,734	\$ 3.6991	\$ 4,231,767	\$ 679,719	\$ 181,258	\$ 5,092,744	231,769	\$ 3.2341	\$ 749,574
Jan-14	1,143,984	183,750	49,000	1,376,734	\$ 3.6991	\$ 4,231,767	\$ 679,719	\$ 181,258	\$ 5,092,744	231,769	\$ 3.2341	\$ 749,574
Feb-14	1,143,984	183,750	49,000	1,376,734	\$ 3.6991	\$ 4,231,767	\$ 679,719	\$ 181,258	\$ 5,092,744	209,339	\$ 3.2341	\$ 677,033
Mar-14	455,259	73,125	19,500	547,884	\$ 3.6991	\$ 1,684,071	\$ 270,500	\$ 72,133	\$ 2,026,705	96,374	\$ 3.2341	\$ 311,687
Total	4,342,470	697,500	186,000	5,225,970	\$ 3.6991	\$16,063,444	\$ 2,580,157	\$ 688,042	\$19,331,642	854,555	\$ 3.2341	\$ 2,763,755

Month/ Year	NNG Storage Volume	NNG Indexes Price	NNG Indexes Cost	AECO Storage Volume	Emerson LDS + Basis	Emerson LDS + Cost
Nov-13	547,884	\$ 3.7710	\$ 2,066,071	85,304	\$ 3.9835	\$ 339,808
Dec-13	1,376,734	\$ 3.9390	\$ 5,422,955	231,769	\$ 4.1015	\$ 950,601
Jan-14	1,376,734	\$ 4.0235	\$ 5,539,289	231,769	\$ 4.0960	\$ 949,326
Feb-14	1,376,734	\$ 4.0205	\$ 5,535,159	209,339	\$ 4.0955	\$ 857,348
Mar-14	547,884	\$ 3.9680	\$ 2,174,004	96,374	\$ 4.0680	\$ 392,049
Total	5,225,970	\$ 3.9682	\$20,737,478	854,555	\$ 4.0830	\$ 3,489,132

Max NNG Storage (Storage plan withdrawals through Apr 14)	5,225,970	5,669,321	06/30/13 Storage Balance - NNG	1,070,673	18.89%	986,944
Max AECO Storage	854,555	947,820	06/30/13 Storage Balance - AECO	376,065	39.68%	339,060
						39.68%

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 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	\$ 3.6991	\$ 3.6991	\$ 3.6991	\$ 2,026,705	\$ 3.7710	\$ 2,066,071	\$ (39,366)
Dec-13	1,143,984	183,750	49,000	1,376,734	\$ 3.6991	\$ 3.6991	\$ 3.6991	\$ 5,092,744	\$ 3.9390	\$ 5,422,955	\$ (330,211)
Jan-14	1,143,984	183,750	49,000	1,376,734	\$ 3.6991	\$ 3.6991	\$ 3.6991	\$ 5,092,744	\$ 4.0235	\$ 5,539,289	\$ (446,545)
Feb-14	1,143,984	183,750	49,000	1,376,734	\$ 3.6991	\$ 3.6991	\$ 3.6991	\$ 5,092,744	\$ 4.0205	\$ 5,535,159	\$ (442,415)
Mar-14	455,259	73,125	19,500	547,884	\$ 3.6991	\$ 3.6991	\$ 3.6991	\$ 2,026,705	\$ 3.9680	\$ 2,174,004	\$ (147,299)
Total	4,342,470	697,500	186,000	5,225,970	\$ 3.6991	\$ 3.6991	\$ 3.6991	\$ 19,331,642	\$ 3.9682	\$ 20,737,478	\$ (1,405,835)
							\$ 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	\$ 3.2341	\$ 275,885	\$ 3.9835	\$ 339,808	\$ (63,923)
Dec-13	231,769	\$ 3.2341	\$ 749,574	\$ 4.1015	\$ 950,601	\$ (201,026)
Jan-14	231,769	\$ 3.2341	\$ 749,574	\$ 4.0960	\$ 949,326	\$ (199,751)
Feb-14	209,339	\$ 3.2341	\$ 677,033	\$ 4.0955	\$ 857,348	\$ (180,315)
Mar-14	96,374	\$ 3.2341	\$ 311,687	\$ 4.0680	\$ 392,049	\$ (80,362)
Total	854,555	\$ 3.2341	\$ 2,763,755	\$ 4.0830	\$3,489,132	\$ (725,378)
		\$ 3.2341	\$ (0.8488)	\$ (725,378)		

