



main: 651.296.4026 tty: 651.296.2860

fax: 651.297.7891

www.energy.mn.gov

March 4, 2013

Burl W. Haar Executive Secretary Minnesota Public Utilities Commission 121 7th Place East, Suite 350 St. Paul, Minnesota 55101-2147

RE: Comments of the Minnesota Department of Commerce, Division of Energy Resources
Docket No. G007/M-12-1195

Dear Dr. Haar:

Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

A request by Minnesota Energy Resources Corporation-NMU (MERC-NMU, MERC, or the Company) for approval by the Minnesota Public Utilities Commission (Commission) of a change in demand entitlement for its MERC-NMU Transmission System Purchased Gas Adjustment (PGA) effective November 1, 2012.

The filing was submitted on November 1, 2012. The petitioner is:

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

Based on its investigation, the Department recommends that the Commission:

- **allow** MERC to recover storage gas costs through the commodity portion of the PGA, rather than the demand portion;
- **accept** MERC-NMU's peak-day analysis with the caveat that the Department cannot fully verify the results of MERC's analysis as mentioned herein;
- accept the corrected level of demand entitlement; and
- **allow** the proposed recovery of associated demand costs effective November 1, 2012.

The Department requests that, in future demand entitlement filings, MERC check the regression models it ultimately uses for autocorrelation and correct the models if autocorrelation is present.

Additionally, for future demand entitlement filings, MERC should take additional care in its designation of trade secret data in its attachments. The Department puts MERC on notice that it may recommend rejection of any of the Company's future filings that are in the same or similar condition as the instant Petition.

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The Department is available to answer any questions that the Commission may have.

Sincerely,

/s/ MICHELLE ST. PIERRE Financial Analyst

/s/ SACHIN SHAH Rates Analyst

MS/SS/jl Attachment



### BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

# COMMENTS OF THE MINNESOTA DEPARTMENT OF COMMERCE DIVISION OF ENERGY RESOURCES

DOCKET NO. G007/M-12-1195

#### I. SUMMARY OF COMPANY'S PROPOSAL

Pursuant to Minnesota Rules 7825.2910, subpart 2, Minnesota Energy Resources Corporation-Northern Minnesota Utilities (MERC-NMU, MERC, or the Company) filed a change in demand entitlement (capacity) petition (Petition) on November 1, 2012 for its MERC-NMU Transmission System Purchased Gas Adjustment (PGA). MERC-NMU has a consolidated PGA which includes the following four pipeline companies:

- Northern Natural Gas Co. (NNG) which also serves MERC-Peoples Natural Gas (MERC-PNG-NNG);
- Viking Gas Transmission Co. (VGT) which also serves MERC-PNG (MERC-PNG-VGT);
- Great Lakes Gas Transmission, L.P. (GLGT) which also serves MERC-PNG (MERC-PNG-GLGT); and
- Centra.

In its Petition, MERC requests that the Minnesota Public Utilities Commission (Commission) accept the following corrected changes in MERC-NMU's level of contracted capacity and recovery of related costs.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The Company initially proposed to increase the design-day winter entitlements by 1,252 Dekatherms (Dkt) (or approximately 2.02 percent) from the previous year's level. As discussed below, MERC-NMU overlooked a decrease in Centra FT-1 service of 358 Dkt/day. Thus, the corrected entitlement net change should be an increase of 894 Dkt (or approximately 1.44 percent) from the previous year. The Department incorporates this correction in its tables and attachments.

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Table 1

	DIC 1					
	<b>Total Entitlement Changes</b>					
Type of Entitlement	Proposed Changes: increase (decrease) (Dkt)					
TF 12 Base and Variable	718					
TF5	307					
TFX-12	308					
TFX-5	860					
Sum of NNG winter capacity	2,193					
NNG Zone GDD Call Option	(1,265)					
NNG Subtotal	928					
GLGT FT0016	(24)					
GLGT FT16 155 (12)	(8)					
GLGT FT16 155 (5)	(9)					
GLGT FT15782	(22)					
GLGT Subtotal	(63)					
VGT AF0012	51					
VGT AF0014	4					
VGT AF0102	9					
VGT AF0183	(1,852)					
Sum of GLGT winter capacity	(1,788)					
Wadena Option	2,175					
VGT Subtotal	387					
Sum of Increases	1,315					
Sum of Decreases	(63)					
Total Proposed Entitlement Net Change	1,252					
Correction-Centra FT-1	(358)					
Corrected Entitlement Net Change	894					

The Company's corrected proposal would increase MERC-NMU's design-day (winter) capacity by 894 Dkt from the previous level. As discussed further below, MERC-NMU's 2012-2013 design-day requirements (overall needs of its customers on a design day) would increase by 2,276 Dkt (or approximately 3.92 percent) from the previous year.

MERC described the factors contributing to the change in demand entitlements as follows:<sup>2</sup>

- MERC-NMU's prorated share <sup>3</sup> of NNG winter capacity increased by 2,193 Dkt/day;
- MERC-NMU's prorated share of NNG Zone GDD Call Option decreased by 1,265 Dkt/day;
- MERC-NMU's prorated share of GLGT<sup>4</sup> winter capacity decreased by 63 Dkt/day;

<sup>&</sup>lt;sup>2</sup> MERC Petition pages 2-3.

<sup>&</sup>lt;sup>3</sup> MERC's allocates its NNG, Bison Pipeline (Bison), and Northern Border Pipeline (NBPL) capacity between MERC-PNG and MERC-NMU based on design day numbers. For the 2012-13 heating season, MERC-PNG's prorated share of NNG capacity decreased from 89.88 percent to 88.93 percent while MERC-NMU's prorated share increased from 10.12 percent to 11.07 percent.

<sup>&</sup>lt;sup>4</sup> Capacity on GLGT is allocated between MERC-NMU and MERC-PNG-GLGT based on design day numbers.

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• MERC-NMU's prorated share of VGT<sup>5</sup> winter capacity decreased by 1,788 Dkt/day; and

• MERC-NMU's prorated share of Wadena Option increased by 2,175 Dkt/day.

The Company also proposed changes to non-capacity items in the November 2012 PGA compared to the October 2012 PGA as follows:

- MERC-NMU's prorated share of NNG non-winter capacity increased by 19 Dkt/day for both its TFX April and TFX October contracts;
- MERC-NMU's prorated share of Bison/NBPL non-winter capacity increased by 477 Dkt/day;<sup>6</sup>
- MERC-NMU reduced its AECO/Emerson swap contract by 17,958 Dkt/day; and
- MERC-NMU increased its Firm Deferred Delivery (FDD) storage contract.

The Minnesota Department of Commerce, Division of Energy Resources (Department or DOC) does not oppose any of the proposed changes. As discussed below, the effect of the above proposed changes is an increase in demand costs. The Company requested that the Commission allow recovery of the associated demand costs in its monthly PGA effective November 1, 2012.

#### II. THE DEPARTMENT'S ANALYSIS OF THE COMPANY'S PROPOSAL

The Department's analysis of the Company's request includes the:

- trade secret designation;
- timeline for filing the annual demand entitlement filing;
- storage costs allocated to commodity costs;
- changes to capacity;
- design-day requirement;
- reserve margin; and
- PGA cost recovery proposal.

#### A. TRADE SECRET DESIGNATION

Regarding the designation of trade secret data, the Department notes that in MERC's November 1, 2012 trade secret and public filings, the trade secret data is not identified in a manner that

<sup>&</sup>lt;sup>5</sup> Capacity on Viking is allocated between MERC-PNG's Viking PGA and MERC-NMU's PGA system.

<sup>&</sup>lt;sup>6</sup> MERC previously contracted for 50,000 Dkt/day of capacity on Bison which went into service on January 14, 2011. The contracted capacity with NBPL went into effect at the in-service of Bison. This arrangement allows MERC to access gas supplies in the Rocky Mountain region. This agreement is discussed in greater detail in Docket No. G007,011/M-08-698 as well as in the Department's *Comments* in Docket Nos. G011/M-10-1168 and G007/M-10-1166.

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satisfies the Commission's requirements. Further, such data appears to be inconsistently designated in the trade secret and public versions. MERC initially filed three trade secret attachments for each of its demand entitlement filings. Specifically, the Department identifies the following trade secret designation issues in the Company's attachments:

- On Attachment 1, page 1, the trade secret copy states "Non-public Document –
  Contains Trade Secret Data" but no indication of which words or numbers are
  considered trade secret was given; and
- No words or numbers are redacted from the public copy of Attachment 1, page 1.

When the Department asked MERC whether information was considered trade secret on Attachment 1, page 1, the response was that Attachment 1, page 1 should not have been marked trade secret. The Department cautions MERC about this erroneous designation of trade secret data. For future demand entitlement filings, MERC should take additional care in its designation of trade secret data in its attachments.

Additionally, the Department notes that MERC initially filed all of its attachments (approximately 13-15 attachments for each of its four demand entitlement filings) as electronic spreadsheets. While the Department appreciates spreadsheets that show formulas, some of the spreadsheets had no labels, certain pages seemed to be missing, and much formatting needed to be done in order to print paper copies. Rather than recommending rejection of the filing in this instance, the Department requested that the Company re-file its attachments in PDF format with the trade secret correctly marked and labels on every attachment so that the labels agreed with the references in the filing and could easily be printed. The Department puts MERC on notice that it may recommend rejection of any of the Company's future filings that are in the same or similar condition as the instant Petition.

#### B. TIMELINE FOR FILING

As stated above, MERC filed its Petition on November 1. In MERC's January 31, 2012 *Reply Comments* in Docket No. G011/M-11-1083, the Company stated that it would comply with the Department's recommended initial filing date of August 1 for its annual demand entitlement filings on a going-forward basis. The Department continues to conclude that July 1 or August 1 is an optimal filing time since it would enable any reliability issues to be identified and possibly resolved prior to the start of the heating season.

#### C. STORAGE COSTS

The Department has advocated in several recent demand entitlement filings<sup>7</sup> that demand costs associated with storage contracts be recovered through the commodity portion of the PGA since all customers, not just firm customers, benefit from stored gas. The Commission has not yet

<sup>&</sup>lt;sup>7</sup> See the Commission's February 6, 2008 Order in Docket No. E,G999/AA-06-1208, for more background.

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determined whether storage-related costs are more appropriately recovered through the commodity or through the demand portion of MERC's PGAs.

The Department notes that the Commission allowed CenterPoint Energy to allocate a portion of its storage costs to commodity costs in CenterPoint Energy's PGA.<sup>8</sup> Similarly, the Department recommends that the Commission allow MERC to recover storage gas costs through the commodity portion of the PGA, rather than the demand portion.

While the Department has been recommending this rate design change since MERC's 2007 demand entitlement dockets, the Department is aware that it would be problematic to implement such changes retroactively; as a result, the Department urges the Commission to address this question of rate design and implement the change on a going-forward basis.

#### D. MERC'S PROPOSED CHANGES

#### 1. Capacity

As indicated in DOC Attachments 1 and 2, the Company proposed to increase MERC-NMU's entitlement level in Dkt as follows:

Entitlement Change From **Previous** Proposed Entitlement Previous Entitlement Changes (Dkt) (Dkt) (Dkt) Year (%) Proposed 63,352 1,252 62,100 2.02 Corrected 62,100 62,994 894 1.44

Table 2

As stated above, MERC-NMU's share of NNG winter capacity increased by 2,193 Dkt/day. Additionally, MERC-NMU's share of NNG Zone GDD Call Option decreased by 1,265 Dkt/day due to the Company not purchasing a NNG Zone Delivery Call Option for the heating season. For the 2011-12 heating season, MERC purchased a NNG Zone Delivery Call Option totaling 12,500 Dkt (Docket No. G011/M-11-1084). In MERC's March 22, 2012 Reply Comments in that docket, the Company stated that the NNG Zone Delivery Call Option was a three-month contract to meet the 2011-2012 peak day:

The gas daily call option delivered to MERC's EF Zone that MERC entered into was a short term contract for a period starting December 1, 2011, through February 29, 2012. The purpose of the contract was to replace the LS Power contract, meet the theoretical peak day and address the positive reserve margins that have

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<sup>&</sup>lt;sup>8</sup> See the Commission's February 28, 2012 Order in Docket No. G008/M-07-561.

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occurred in the previous demand entitlement filings. . . .MERC did not call on the gas daily call option, so MERC incurred no volumetric charges.

Thus, MERC-NMU's net NNG winter capacity increased by 928 Dkt/day (2,193 Dkt – 1,265 Dkt).

As also stated above, MERC-NMU's share of VGT winter capacity decreased by 1,788 Dkt/day and the Company's share of Wadena Option increased by 2,175 Dkt/day. MERC stated that it was not able to purchase firm winter capacity only (November 2012 through March 2013) from VGT, so instead MERC purchased a Wadena Delivered Call Option.<sup>9</sup> The result is that MERC-NMU's net VGT winter capacity increased by 387 Dkt/day (2,175 Dkt – 1,788 Dkt).

The reported level of Centra FT-1 was 9,858 Dkt/day in MERC-NMU's 2011-2012 demand entitlement filing. On page 17 of the Petition, MERC-NMU stated "There was no change in Centra firm entitlements." Also, MERC's Attachment 3, *Entitlement Levels Proposed to be Effective November 1, 2012*, shows no change to the current amount of 9,858 Dkt/day for Centra FT-1. However, MERC-NMU implemented 9,500 Dkt/day in its November 2012 PGA. The Department discussed the inconsistency with Company personnel. The Company clarified that it overlooked a decrease in Centra FT-1 service of 358 Dkt/day from 9,858 to 9,500 Dkt/day.

As discussed below, MERC-NMU's projected 2012-2013 design day reflects an increase of 2,278 Dkt over the 2011-2012 level. As also discussed below, MERC-NMU's proposed reserve margin is reasonable. Therefore, the Department concludes that MERC-NMU's corrected level of demand entitlement is reasonable and recommends acceptance of the corrected level of capacity.

#### 2. Design-Day Requirement

As indicated in DOC Attachments 1 and 2, the Company proposed to increase its design day in Dkt as follows:

Table 3

Previous	Proposed	Design Day	Change From
Design Day	Design Day	Changes	Previous
(Dkt)	(Dkt)	(Dkt)	Year (%)
57,989	60,265	2,276	3.92

MERC provided significant discussion regarding its design-day calculation. The Department notes that the Company's design-day analysis is similar to the process that it has used in prior

<sup>10</sup> Docket No. G007/AA-12-1199.

<sup>&</sup>lt;sup>9</sup> Filing, page 17.

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demand entitlement filings. MERC once again explored the use of additional weather variables in its review of other design-day regression models but did not use the variables in the Company's final design-day analysis. The Department does not oppose MERC's evaluation of other weather determinants in its efforts to produce the most robust design-day estimates possible; however, the Department also notes that some of these additional data were taken from a proprietary source as was discussed in the Department's January 3<sup>rd</sup>, 10<sup>th</sup>, and March 12<sup>th</sup>, 2012 *Comments* in Docket Nos. G011/M-11-1082, G011/M-11-1083, and G011/M-11-1084 respectively. When a utility uses proprietary data in its analysis, the Department cannot fully verify that the results of the analysis are correct.

The Department notes that MERC's analysis and models had autocorrelation present in the regression analysis. The presence of autocorrelation in an Ordinary Least Squares (OLS) regression analysis implies that the errors are not independent of each other. This would violate one of the basic assumptions in typical regression analysis which is that one normally assumes that the errors are all independent of one another. Hence the presence of autocorrelation would affect the validity of the statistical tests that are typically applicable to OLS multiple regression analysis such as, for example, the coefficient of determination ("R-squared") test statistic, and the t-statistic. When forecasting with an OLS regression model, absence of autocorrelation between the errors is very important. Thus, in the Company's future demand entitlement filings, MERC should check the regression models it ultimately uses for autocorrelation and correct the models if autocorrelation is present.

The Department recommends that the Commission accept MERC's peak-day analysis with the caveat that the Department cannot fully verify the results of MERC's analysis as mentioned above. Further, the Department requests that in its future demand entitlement filings, MERC check the regression models it ultimately uses for autocorrelation and correct the models if autocorrelation is present.

#### 3. Reserve Margin

As indicated in DOC Attachment 3, MERC-NMU's corrected reserve margin increased by 2,729 Dkt as follows:

Table 4

	Proposed Entitlement (Dkt)	Proposed Design Day (Dkt)	Difference (Dkt)	Reserve Margin (%)	Change From Prior Year (%)
Proposed	63,352	60,265	3,087	5.12	-1.97
Corrected	62,994	60,265	2,729	4.53	-2.56

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The corrected reserve margin of 4.53 percent represents a decrease of 2.56 percent over last year's reserve margin of 7.09 percent. Generally, a reserve margin up to five percent is not unreasonable. Based on this information and the Department's analysis of the Company's design-day analysis, the Department concludes that the reserve margin is reasonable at this time.

#### E. THE COMPANY'S PGA COST RECOVERY PROPOSAL

The demand entitlement amounts listed in DOC Attachment 1 represent the demand entitlements for which the Company's firm customers would pay. In its Petition, the Company compared its October 2012 PGA to its November 2012 PGA as a means of highlighting its changes in demand costs (MERC-NMU's Attachment 4, Page 1 of 6).<sup>11</sup> The Company's demand entitlement proposal would result in the following annual demand cost impacts as shown in DOC Attachment 4:

- an annual bill increase of \$5.12 related to demand costs, or approximately 4.43 percent, for the average General Service Residential customer consuming 90 Dkt annually;
- an annual bill increase of \$280.84 related to demand costs, or approximately 4.43 percent, for the average Large General Service customer consuming 4,932 Dkt annually;
- no demand cost impacts related to MERC-NMU's other rate classes.

Based on its analysis, the Department recommends that the Commission allow the proposed recovery of associated demand costs effective November 1, 2012.

#### III. THE DEPARTMENT'S RECOMMENDATIONS

Based on its investigation, the Department recommends that the Commission:

- allow MERC to recover storage gas costs through the commodity portion of the PGA, rather than the demand portion;
- accept MERC-NMU's peak-day analysis with the caveat that the Department cannot fully verify the results of MERC's analysis as mentioned herein;
- accept the corrected level of demand entitlement; and
- allow the proposed recovery of associated demand costs effective November 1, 2012.

The Department requests that, in future demand entitlement filings, MERC check the regression models it ultimately uses for autocorrelation and correct the models if autocorrelation is present.

<sup>11</sup> MERC's Attachment 4 included the correct demand level for Centra FT-1.

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Additionally, for future demand entitlement filings, MERC should take additional care in its designation of trade secret data in its attachments. The Department puts MERC on notice that it may recommend rejection of any of the Company's future filings that are in the same or similar condition as the instant Petition.

/jl

Docket No. G007/M-11-1088	10-1166 NMU GS	Proposed Change	11-1088 NMU GS	Proposed Change	12-559 NMU GS	Proposed Change	12-1195 NMU GS	Proposed Change
NNG Design Day	23,615	Orlange	23,778	Offurige	23,778	Orlango	25,003	Onlange
Customer Requirements moving to Transportation	23,615	(4 OCE)	0 22 770	163	23,778	0	25,003	1,225
Adjusted Design Day Total NMU Design Day Capacity	57,662	(1,065) (3,254)	23,778 57,989	327	57,989	0	60,265	2,276
NNG Allocated Entitlements in PGA						_		
TF12B TF12V	4,232 3,919	(3,281)	4,774	542 (1,071)	4,774 2,848	0	6,014 2,326	1,240 (522)
TF(5)	3,493	(1,324) 1,502	2,848 3,267	(226)	3,267	0	3,574	307
TFX12 (112486)	1,171	1,171	1,095	(76)	1,095	0	1,198	103
TFX(5) (112486)	6,208	69	5,806	(402)	5,806	0	6,370	564
TFX(5) (112561) TFX(5) (112486)	649 195	649 195	607 182	(42) (13)	607 182	0	664 182	57 0
TFX(5) (112400) TFX(5) (12-V)	0	195	0	0	0	0	0	0
TFX12 (111866)	139	139	130	(9)	130	0	142	12
TFX12 (111866)	895	895	837	(58)	837	0	916	79
TFX5 (111866) Windom	2,707 0	2,707 0	2,531 0	. (176) 0	2,531 0	0	2,770 0	239 0
LS Power	3,149	424	0	(3,149)	0	ő	ő	0
Northwestern Energy (Ortonville)	0	0	0	0	0	0	0	0
NNG Zone GDD Call Option	0 1,290	0 1,290	1,265 1,206	1,265	1,265 1,206	0	0 1,320	(1,265) 1 <b>14</b>
TFX7 chg to TFX12 (111866)* Total NNG Allocated Entitlements in PGA	28,047	4,436	24,548	-3,499	24,548	0	25,476	928
Other Pipelines Entitlements in PGA	7,966	0	7,711	(255)	7711	0	7,762	51
Viking FT-A (AF 0012) Viking FT-A backhaul	7,300	(5,902)	7,711	(200)	0	0	7,702	0
Viking FT-A (AF 0014)	0	. 0	678	678	678	0	682	4
Viking FT-A (AF 0102)	0	0	1,234	1,234	1,234	0	1,243	9
Viking FT-A (AF 0183) Viking Chisago TF 12 (112495) B	0	0 (1,368)	1,852 0	1,852 0	1,852 0	0 0	0	(1,852) 0
Viking Chisago TF 12 (112495) V	0	(955)	ő	0	Ö	0	0	o
Viking Chisago TF 5 (112495)	0	(563)	0	0	0	0	0	0
Viking Chisago TF 12 (112486)	0	(2,089)	0	0 0	0	0	0	. 0
Viking Chisago TF 5 (112486) Great Lakes T-16 & T-155 -12	0 11,308	(926) 0	0 8,445	(2,863)	8,445	0	8,413	(32)
Great Lakes T-16 & T-155 -5	2,138	0	2,238	100	2,238	0	2,229	(9)
Great Lakes FT8466-12	3,000	0	0	(3,000)	0	0	0	0
Great Lakes FT15782-12 Centra FT-1	9,858	0	5,536 9,858	5,536 0	5,536 9,858	0	5,514 9,500	(22) (358)
Centra -Boise	0,000	Ö	0,000	0	0,000	ő	0,000	0
Nexen Storage	0	0	0	0	0	0	0	0
Tenaska PSO GL	0	0	0	0	0	0	0	0 475
Wadena Delivered Option Tenaska PSO Centra	5,902 0	5,902 0	0	(5,902) 0	0	0	2,175 0	2,175 0
ANR Storage	Ö	0	Ō	0	0	0	0	0
Total Capacity	68,219	4,437	62,100	-6,119	62,100	0	62,994	894
Total NNG Transportation Total Transportation	28,047 57,878	4,436 -1,465	24,548 55,865	-3,499 -217	24,548 55,865	0	25,476 57,574	928 1,709
Total Seasonal Transportation	12,408	8,617	11,604	-1,086	11,604	. 0	12,714	1,110
Percent Seasonal on NNG	44.2%		47.3%		47.3%	0	49.9%	. 0
Reserve Margin	18.31%		7.09%		7.09%	0	4.53%	(0)
Other Entitlements not included in Peak Day Deliverability Field TF (TFF) (NMU direct assigned)	0	0	0	0	0	0	0	0
TFX Offpeak Old Oct. (60,000)	0	0	0	0	0	0	0	0
TFX Offpeak Old Oct. (35,000)	0	0	0	0	0	0	0	0
TFX Offpeak New Oct. (14,600) TFX Offpeak New Apr. (39,600)	0	0 0	0	0	0	0	0	0
TFX Oct	216	216	202	(14)	202	Ö	221	19
TFX Apr	216	216	202	(14)	202	0	221	19
TFX7 chg to TFX12 (111866)*	0	0	0	0	. 0	0 0	0	0
TFX Apr-Oct TFX May-Sept	0	0	o	0	ō	0	ő	0
FDD Storage reservation (112490)	8,164	1,331	7,634	(530)	7,634	0	8,354	720
FDD Storage capacity MSQ 1/	470,684	76,735	440,149	(30,535)	440,149	0	481,629	41,480
FDD Storage reservation (113704) FDD Storage capacity MSQ 2/	0	0 0	0	0	351 20,245	351 20,245	384 22,150	33 1,905
FDD Storage reservation (118215)	751	269	702	(49)	1,317	615	1,441	124
FDD Storage capacity MSQ 3/	43,301	15,479	40,491	(2,811)	75,920	35,429	83,072	7,152
FDD Storage reservation (118657) FDD Storage capacity MSQ <i>4I</i>	601 34,630	86 4,965	562 32,385	(39) (2,245)	562 32,385	0	615 35,435	53 3,050
ANR Capacity	0 0	4,900	32,385 0	(2,243)	0	0	0	0,000
Nexen PSO	0	(684,604)	0	0	0	0	0	0
Tenaska PSO	0	0	. 0	0	0	0	0	0
NGPL SMS	2,454	351	2,295	(159)	2,295	0	2,512	217
SBA	0	0	0	0	0	0	0	0
Upstream Demand per Mo	0	0	0	(254)	0	0	0	0
Bison/NBPL (FT0003 & T8673F) AECO Storage	5,411 665,043	5,411 665,043	5,060 666,223	(351) 1,180	5,060 666,223	0	5,537 648,265	477 (17,958)
1/ Cycled Volumes =	94,137	15,347	88,030	(6,107)	88,030	0	96,326	8,296
2/ Cycled Volumes =	0	0	0	0	4,048	4,048	4,429	381
3/ Cycled Volumes =	8,658 6,926	3,095 993	8,096 6.477	(562) (449)	15,180 6,477	7,084 0	16,610 7,087	1,430 610
4/ Cycled Volumes =	6,926	583	6,477	(443)	. 0,477	U	1,001	010

nts between RC-NMU												
RC-NWU	10-1168 PNG	10-1166 NMU		11-1084 PNG	11-1088		12-558 1 PNG	2-559 NMU		12-1193 PNG	12-1195 NMU	
	GS	GS	Total	GS	NMU GS	Total	GS	GS 1	otal	GS	GS	Total
NNG Design Day Customer Requirements moving to Transportation	194,598	23,615 0	218,213 0	211,182	23,778 0	234,960 0	211,182 0	23,778 0	234,960 0	200,785	25,003 0	225,788 0
For NMU - VGT Design Day		10,835		•	11,046	-		11,046			11,523	•
For NMU - GLGT Design Day For NMU - Centra Delsgn Day		14,964 8,248			14,870 8,295			14,870 8,295			15,825 7,914	
Adjusted NNG Design Day Adjusted NNG Design Day Percentages	194,598 89.18%	23,615 10.82%	218,213 100.00%	211,182 89.88%	23,778 10,12%	234,960 100.00%	211,182 89.88%	23,778 10,12%	234,960 100.00%	200,785 88.93%	25,003 11.07%	225,788 100.00%
Total NNG Design Day Capacity Total NMU Design Day Capacity	233,627	23,615 57,662	257,242	221,436	23,778 57,989	245,214	221,436 _	23,778 57,989	245,214	208,007	25,003 60,265	233,010
, ,												
Less: NGPL adjusted for nonrecallable releases	0	0	0	0	0	0	0	0	0	0	0	0
Less: Windom Less: LS Power	2,500 25,951	0 3,149	2,500 29,100	2,500	0	2,500	2,500	0	2,500	2,500	0	2,500 0
Less: Northwestern Energy (Ortonville)	0	0	0	910	0	910	910	0	910	910	0	910
Less: Chisago delivery to Viking Less: TF12B	0	0	0	0	0	0	0	0	. 0	0	0	0
Less: TF5	0	0	0	0	0	0	0	0	0	0	0	0
Less: TFX(5) Less: Contract Demand Units	ŏ	ō	0	. 0	0	0	0	0	0	0	0	0
Total Design Day Capacity (excluding direct assignments) Factors for All Winter Capacity	205,176 70.85%	84,426 29.15%	289,602 100.00%	219,846 72.89%	81,767 27.11%	301,613 100.00%	219,846 72.89%	81,767 27.11%	301,613 100.00%	206,417 70.77%	85,268 29.23%	291,685 100.00%
	10.00%	23.13%	100.00 A	12.03/5	27.1170	100.0076	12.03/6	27.11 10	100,007		25.23%	100.00%
Allocated Entitlements in PGA TF12B	34,875	4.232	39,107	42,396	4,774	47,170	42,396	4.774	47,170	41,156	6,014	47,170
TF12V	32,290	3,919	36,209	25,298	2,848	28,146	25,298	2,848	28,146	25,820	2,326	28,146
TF5 TFX12 (112486)	28,785 9,651	3,493 1,171	32,278 10,822	29,011 9,727	3,267 1,095	32,278 10,822	29,011 9,727	3,267 1,095	32,278 10,822	28,704 9,624	3,574 1,198	32,278 10,822
TFX(5) (112486)	61,163 6,351	6,208 649	57,371 6,000	61,383 5303	5,806	57,189	51,383	5,806 607	57,189 6,000	50,819	6,370 664	57,189
TFX(5) (112561) TFX(5) (112486)	1,605	195	1,800	5,393 1,800	607 182	6,000 1,982	6,393 1,800	182	1,982	5,336 1,800	182	6,000 1,982
TFX(5) (12-V) TFX12 (111866)	0 1,144	0 139	0 1,283	0 1,153	0 130	0 1,283	0 1,153	0 130	1,283	0 1,141	0 142	0 1,283
TFX12 (111866)	7,376	895	8,271	7,434	837	8,271	7,434	837	8,271	7,355	916	8,271
TFX5 (111866) Total Allocated Entitlements in PGA	22,306 194,546	2,707	25,013	22,482 196,077	2,531 22,077	25,013 218,154	22,482 196,077	2,531 22,077	25,013 218,154	22,243	2,770 24,156	25,013 218,154
	,	•	,	,		,	,					
Direct Assigned Entitlements in PGA (NNG)												
NGPL Windom	0 2.500	0	0 2.500	0 2,500	. 0	0 2,500	0 2,500	0	0 2,500	0 2,500	0	0 2,500
LS Power	25,951	3,149	29,100	0	0	0	0	0	0	0	0	0
Northwestern Energy (Ortonville) NNG Zone GDD Call Option	0	. 0	0	910 11,235	0 1,265	910 12,500	910 11,235	0 1,265	910 12,500	910 0	0	910 0
TFX(5)	0	0	0	0	0	0	0	0	0	ō	0	0
TFX(7) TFX(5)	0	0	0	0	0	0	0	0	0	0	0	0
TFX7 chg to TFX12 (111866)* Total Direct Assignments	10,631 39,082	1,290 4,439	11,921 43,521	10,715 25,360	1,206	11,921 27,831	10,715 25,360	1,206 2,471	11,921 27,831	10,601	1,320	11,921
Total Capacity before Peak Shaving	233,628	28,047	261,675	221,437	2,471 24,548	245,985	221,437	24,548	245,985	208,009	25,476	15,331 233,485
LP Peak Shaving Total Design Day Capacity w/o Contract Demand	233,628	28,047	261,675	221,437	24,548	245,985	221,437	24,548	245,985	208,009	25,476	233,485
Total Transp. (with TFX Offpeak less LSP)	207,677	20,0 11	201,010	221,437	24,040	210,000	221,437	2 1,0 10	2.0,000	208,009	20,	200,100
Total Annual Transportation Total Seasonal Transportation	67,165 52,696			67,694 53,293			67,694 53,293			66,976 <b>62,74</b> 7		
Total Percent Seasonal	22.6%			24.1%			24.1%			25.4%		
LS Power as % of Total DD Capacity Reserve Margin	11.1% 20.06%			0.0% 4.86%			0.0% 4.86%			0.0% 3,60%		
Direct Assigned Entitlements in PGA (NMU)												
Viking FT-A (AF 0012)		7,966 0			7,711 0			7,711 0			7,762 0	
Viking FT-A (AF 0012) Viking FT-A backhaul Viking FT-A (AF 0014)		0			0 678			0 678			0 682	
Viking FT-A (AF 0012) Viking FT-A backhaul Viking FT-A (AF 0014) Viking FT-A (AF 0102)		0			0 678 1,234			0 678 1,234			0 682 1,243	
Viking FT-A (AF 0012) Viking FT-A backhaul Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0183) Viking Chisago TF 12 (112495) B		0 0 0 0			0 678 1,234 1,852 0			0 678 1,234 1,652 0			0 682 1,243 0 0	
Vising FT-A (AF 0012) Vising FT-A bachwau Vising FT-A (AF 0014) Vising FT-A (AF 0102) Vising FT-A (AF 0102) Vising FT-A (AF 0103) Vising CT-B (AF 0103) Vising Chisago TT-12 (112405) B Vising Chisago TT-12 (112405) Vising Chisago TT-5 (112405)		0 0 0 0 0			0 678 1,234 1,852			0 678 1,234 1,852 0 0			0 682 1,243 0 0 0	
Vising FT-A (AF 0012) Vising FT-A (AF 0014) Vising FT-A (AF 014) Vising FT-A (AF 0183) Vising FT-A (AF 0183) Vising Chisago TF 12 (112495) B Vising Chisago TF 12 (112495) V Vising Chisago TF 12 (112495) Vising Chisago TF 5 (112495)		0 0 0 0 0			0 678 1,234 1,852 0 0			0 678 1,234 1,652 0 0 0			0 682 1,243 0 0 0 0	
Vising FT-A (AF 0012) Vising FT-A AF 0014) Vising FT-A (AF 0104) Vising FT-A (AF 0102) Vising FT-A (AF 0102) Vising Chisago TF 12 (112495) B Vising Chisago TF 12 (112495) V Vising Chisago TF 12 (112495) Vising Chisago TF 12 (112495) Vising Chisago TF 3 (112495) Vising Chisago TF 3 (112495) Vising Chisago TF 3 (112496)		0 0 0 0 0 0 0 0			0 678 1,234 1,852 0 0 0 0 0 8,445			0 678 1,234 1,852 0 0 0 0 0			0 682 1,243 0 0 0 0 0 0 0 0	
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112405) B Viking Chisago TF 12 (112405) B Viking Chisago TF 12 (112405) Viking Chisago TF 12 (112405) Viking Chisago TF 12 (112406) Viking Chisago TF 12 (112406) Great Lakes T-16 8 T-155 - 12 Great Lakes T-16 8 T-155 - 5		0 0 0 0 0 0 0 0 0 0 11,308 2,138			0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238			0 678 1,234 1,652 0 0 0 0 0 0 0 0 0 0 0			0 682 1,243 0 0 0 0 0 0 0 0 8,413 2,229	
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112486) Great Lakes T-16 8 T-155 -1 Great Lakes FT-64 8 T-155 -5 Great Lakes FT-646-12 Great Lakes FT-646-12 Great Lakes FT-6472-12		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 678 1,234 1,852 0 0 0 0 0 0 0 8,445 2,238 0 5,536			0 678 1,234 1,652 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5,445 2,238 0 0 5,536			0 682 1,243 0 0 0 0 0 0 0 0 8,413 2,229 0 5,514	
Vising FT-A (AF 0012) Vising FT-A (AF 0012) Vising FT-A (AF 0104) Vising FT-A (AF 0102) Vising FT-A (AF 0102) Vising FT-A (AF 0103) Vising Chisago FT 12 (112405) B Vising Chisago FT 12 (112405) V Vising Chisago FT 12 (112405) Vising Chisago FT 12 (112406) Vising Chisago FT 12 (112406) Vising Chisago FT 16 (112406) Vising Chisago FT 16 (112406) Circel Lakes F1-16 A T-155-12 Great Lakes F1-16 A T-155-5 Great Lakes F1-646-12		0 0 0 0 0 0 0 0 0 0 11,308 2,138 3,000 0 9,858			0 678 1,234 1,852 0 0 0 0 8,445 2,238 0			0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 5,536 9,858			0 682 1,243 0 0 0 0 0 0 0 0 8,413 2,229 0	
Vising FT-A (AF 0012) Vising FT-A (AF 0014) Vising FT-A (AF 0014) Vising FT-A (AF 0102) Vising FT-A (AF 0102) Vising FT-A (AF 0103) Vising Chisago TF 12 (112495) B Vising Chisago TF 12 (112495) Vising Chisago TF 5 (12495) Vising Chisago TF 5 (124		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 678 1,234 1,852 0 0 0 0 0 8,445 2,238 0 5,536 9,858			0 678 1,234 1,852 0 0 0 0 0 0 0 8,445 2,238 0 5,536 9,858			0 682 1,243 0 0 0 0 0 0 0 0 0 0 8,413 2,229 0 5,514 9,500	
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking Chisago TT-12 (112495) B Viking Chisago TT-12 (112495) V Viking Chisago TT-12 (112495) Viking Chisago TT-12 (112496) Viking Chisago TT-13 (112496) Viking Chisago TT-15 (112496) Viking Chisago TT-16		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0 678 1,234 1,852 0 0 0 0 8,445 2,238 0 5,536 9,858 0 0			0 678 1,234 1,652 0 0 0 0 8,445 2,238 0 5,536 9,858 0			0 682 1,243 0 0 0 0 0 0 0 0,413 2,229 0 5,514 9,500 0 0 0	
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes F1-68 T-155 - 5 Great Lakes F1-68 T-155 - 12 Great Lakes F1-68 T-155 - 12 Centra FT-1 Centra FT-1 Centra FT-1 Centra FT-1 Centra FT-1 Centra FSO GL Viking Chisago Ukadena Delivered Option Tenaska FSO G Centra	0	0 0 0 0 0 0 0 0 0 0 11,338 2,138 3,000 0 9,858 0		0	0 678 1,234 1,852 0 0 0 0 0 8,445 2,238 0 5,536 9,858 0 0	D	0	0 678 1,234 1,652 0 0 0 0 0 8,445 2,238 0 5,536 9,858	0		0 682 1,243 0 0 0 0 0 0 0 8,413 2,229 0 5,514 9,500 0 0	0
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 5 (112495) Viking Chisago TF 5 (112495) Viking Chisago TF 16 (11	0	0 0 0 0 0 0 0 0 0 0 0 11,308 2,138 3,000 0 9,858 0 0 0 5,902 0		0	0 678 1,234 1,852 0 0 0 0 8,445 2,238 0 0,5,536 9,858 0 0 0 0	0	0	0 678 1,234 1,852 0 0 0 0 8,445 2,238 0 0 5,536 9,858 0 0 0	0		0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0_
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Creat Lakes T-16 8 T-155 - 12 Creat Lakes FT-16 8 T-155 - 5 Creat Lakes FT-16 8 T-155 - 5 Creat Lakes FT-16 8 T-155 - 12	0	0 0 0 0 0 0 0 0 0 0 0 0 0 11,308 3,000 0 9,858 0 0 0 0 5,902 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0 678 1,234 1,852 0 0 0 0 0 8,445 2,238 0 5,536 9,858 0 0 0	0	0	0 678 1,234 1,852 0 0 0 0 0 8,445 2,238 0 0 0 0 5,536 9,858 0 0 0 0 24,548 55,865 55,865	0		0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0_
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking Chisago TT-12 (112495) B Viking Chisago TT-12 (112495) V Viking Chisago TT-12 (112495) Viking Chisago TT-12 (112495) Viking Chisago TT-12 (112496) Viking Chisago TT-12 (112496) Viking Chisago TT-13 (112496) Viking Chisago TT-15 (112496) Viking Chisago TT-1 (112496) Viking Chisago TT-1 (112496) Viking Chisago TT-1 (112496) Viking Chisago Viking C	0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<u> </u>	0	0 678 1,234 1,852 0 0 0 0 0 8,445 2,238 0 0 5,536 9,858 0 0 0 0 0 5,210 0 0 0 5,536 0 0 0 0 0 0 5,536 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0		0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0_
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Creat Lakes T-16 8 T-155 - 12 Creat Lakes FT-16 8 T-155 - 5 Creat Lakes FT-16 8 T-155 - 5 Creat Lakes FT-16 8 T-155 - 12	0	0 0 0 0 0 0 0 0 0 0 0 0 0 11,308 3,000 0 9,858 0 0 0 0 5,902 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0	0 678 1,234 1,852 0 0 0 0 0 8,445 2,238 0 0 0 0 5,536 9,858 0 0 0 0 24,548 55,865 55,865	0		0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<u>o</u>
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0105) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes T-16 8 T-155 - 5 Great Lakes FT-64 8-155 - 5 Great Lakes FT-64 8-12 Great Lakes FT-64 8-	0	0 0 0 0 0 0 0 0 0 0 11,208 2,138 3,000 0 9,858 0 0 0 5,902 0 0 5,902 0 0 44,2% 18,31%		<u> </u>	0 678 1,234 1,852 0 0 0 0 0 0,4445 2,238 0 0 5,536 9,858 0 0 0 0 0 0 0 0 5,536 9,858 10,600 10,000 1	0	0	0 678 1,234 1,852 0 0 0 0 0 0 0,445 2,238 9,858 9,858 0 0 0 0 0 0 24,545 5,865 51,604 47,3%			0 682 1,243 0 0 0 0 0 0 0 0 0 8,413 2,229 0 0 5,514 9,500 0 0 2,175 0 0 62,994 25,476 57,574 12,714	0_
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes T-16 8 T-155 - 5 Great Lakes FT6466-12 Great Lakes FT6466-12 Great Lakes FT6468-12 Centra FT-1 Tensaka FSC G Centra ANR Storage T-1041 Capacity Total NNG transportation Total Seasonal Transportation Total Favoual Transportation Total Seasonal Transportation Total Seasonal Transportation Total Seasonal Transportation Total Percent Seasonal on NNG Reserve Margin	0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0 678 1,234 1,852 0 0 0 0 0 0,4445 2,238 0 0 5,536 9,858 0 0 0 0 0 0 0 0 5,536 9,858 10,600 10,000 1	0	0	0 678 1,234 1,852 0 0 0 0 0 0 0,445 2,238 9,858 9,858 0 0 0 0 0 0 24,545 5,865 51,604 47,3%	0		0 682 1,243 0 0 0 0 0 0 0 0 0 8,413 2,229 0 0 5,514 9,500 0 0 2,175 0 0 62,994 25,476 57,574 12,714	0_
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12	0 233,628	0 0 0 0 0 0 0 0 0 11,308 2,138 3,000 0 9,858 0 0 0,5902 0 0 68,219 28,047	0 261,675		0 678 1,234 1,852 0 0 0 0 8,445 2,238 0 0 5,536 0 0 0 0 0 0 0 0 0 5,536 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985	0 221,437	0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 0 0 5,536 9,858 0 0 0 0 0 0 0 0 5,536 9,858 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985	0 208,009	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0102) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) V Viking Chisago TF 12 (112495) Viking Chisago TF 12	0	0 0 0 0 0 0 0 0 0 11,338 3,000 0 9,858 0 0 0,5902 0 0 5,902 2,138 12,408 44,2% 18,31%	0	. 0	0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 0 5,536 9,858 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	c	0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 0 5,536 9,858 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	0	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0014) Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495)	0 233,628 89.18%	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100.00%	0 221,437 89.88%	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00%	0 221,437 89.88%	0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 0 0 5,536 9,858 0 0 0 0 0 0 0 0 0 0 5,536 9,858 1,600 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00%	0 208,009 88.93%	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00%
Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0105) Viking FT-A (AF 0105) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes F1-68 T-155 - 15 Great Lakes F1-68 T-155 - 12 Great Lakes F1-68 T-155 - 12 Great Lakes F1-68 T-185 T-1	0 233,628	0 0 0 0 0 0 0 0 0 11,308 2,138 3,000 0 9,858 0 0 0,5902 0 0 68,219 28,047	0 261,675	221,437	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985	0 221,437	0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 0 0 5,536 9,858 0 0 0 0 0 0 0 0 5,536 9,858 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985	0 208,009	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 -12 Great Lakes FT-68 4T-155 -5 Great Lakes FT-68 4T-155 -5 Great Lakes FT-68 4T-155 -5 Great Lakes FT-68 4T-185 -12 Centra FT-1 Centra	0 233,928 89,18% 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100.00% 0 0	221,437 89.88%	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0	0 221,437 89,88% 0 0	0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 0 0 5,536 9,858 0 0 0 0 0 24,548 10,12% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00%	0 208,009 88,93% 0 0	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00%
Vising FT-A (AF 0012) Vising FT-A (AF 0012) Vising FT-A (AF 0014) Vising FT-A (AF 0014) Vising FT-A (AF 0012) Vising FT-A (AF 0012) Vising FT-A (AF 0103) Vising Chisago TF-12 (112495) B Vising Chisago TF-12 (112495) Vising Chisago TF-12 (112495) Vising Chisago TF-12 (112495) Vising Chisago TF-16 (112495) Creat Lakes FT-16 8-T-155-1 Creat Lakes FT-16 8-T-155-5 Creat Lakes FT-16 8-T-155-1 Creat Lakes FT-16 8-T-15	233,628 89,18% 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100.00% 0 0 0	0 221,437 89.88%	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00%	0 221,437 89,88% 0 0 0	0 678 1,234 1,852 0 0 0 0 0 0 8,445 2,238 0 0 0 5,536 9,858 0 0 0 0 24,549 10,12% 0 0 0 24,548 10,12%	0 245,985 100.00% 0 0 0	0 208,009 88,93% 0 0 0	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00% 0 0 0
Vising FT-A (AF 0012) Vising FT-A (AF 0012) Vising FT-A (AF 0014) Vising FT-A (AF 0104) Vising FT-A (AF 0102) Vising FT-A (AF 0103) Vising FT-A (AF 0103) Vising Chisago TF 12 (112495) B Vising Chisago TF 12 (112495) Vising Chisago TF 12 (112496) Great Lakes FT-16 AT-155-12 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-12 Centra FT-1 Centra Boltse Haven Starage Testa Contra FT-1 Centra FT-1 Centra Boltse Haven Starage Testa Contra FT-1 Testa TS-10 Te	0 233,628 89,18% 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100.00% 0 0 0 0	0 221,437 89.88% 0 0 0 0 0	0 678 1,234 1,835 1,234 1,835 1,234 1,835 1,234 1,835 1,238 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 0 0 0 0	0 221,437 89.88% 0 0 0 0 0 0,0 1,798	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 0,2,000	0 208,009 88,93% 0 0 0 0	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00%
Vising FT-A (AF 0012) Vising FT-A (AF 0012) Vising FT-A (AF 0014) Vising FT-A (AF 0104) Vising FT-A (AF 0102) Vising FT-A (AF 0103) Vising FT-A (AF 0103) Vising Chisago TF 12 (112495) B Vising Chisago TF 12 (112495) Vising Chisago TF 12 (112496) Great Lakes FT-16 AT-155-12 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-5 Great Lakes FT-16 AT-155-12 Centra FT-1 Centra Boltse Haven Starage Testada FT-16 AT-157-12 Centra FT-1 Centra Boltse Haven Starage Testada FT-16 AT-157-12 Testada FT-16 AT-167-12 Testada FT-167-12 Te	0 233,628 89.18% 0 0 0 0 0 1,784 1,764	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100.00% 0 0 0 0 2,000 2,000	221,437 89.88% 0 0 0 0 0 0,1,798	0 678 1,234 1,832 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00%	221,437 89.88% 0 0 0 0 0 1,798 1,798	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00%	0 208,009 88,93% 0 0 0 1,779 1,779	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00%
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes F1-68 AT-155 - 15 Great Lakes F1-68 AT-155 - 12 Great Lakes F1-68 AT-165 - 12	233,628 89,18% 0 0 0 0 1,784 1,784	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100.00% 0 0 0 0 0 0 0 2,000	221,437 \$9,88% 0 0 0 0 0 1,798	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 0 2,000 2,000	0 221,437 89.88% 0 0 0 0 1,798	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 2,000	0 208,009 88,93% 0 0 0 0 1,779	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00% 0 0 0 0 2,000
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes F1-68 AT-155 - 15 Great Lakes F1-68 AT-155 - 12 Great Lakes F1-68 AT-165 - 12	233,628 89,18% 0 0 0 0 1,784 1,784 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 0 0 2,000 2,000 0 0 0 75,437	221,437 \$9,88% 0 0 0 0 1,798 1,798 0 0 0 67,803	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 0 0 2,000 0 0 0 0 0 75,437	221,437 89.88% 0 0 0 0 1,798 1,798 0 0 0 67,803	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 0 2,000 0 0 0 75,437	208,009 88,93% 0 0 0 0 1,779 1,779 0 0 0,7,803	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00% 0 0 0 0 0 2,000 0 0 0 76,157
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes F1-68 6-12 G	233,628 89.18% 0 0 0 0 1,784 1,784 0 0 0 97,273	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 2,000 2,000 2,000 0 0 75,437 4,349,326	221,437 \$9.88% 0 0 0 0 1,798 1,798 0 0 67,803 3,909,172	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 2,000 0 0 0 75,437 4,349,321	221,437 89.88½ 0 0 0 0 1,798 1,798 0 0 0 67,803 3,909,172 3,118	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 0 2,000 0 0 2,000 0 0 75,437 4,349,321 3,469	208,009 88,93% 0 0 0 1,779 1,779 0 0 0 67,833 3,867,632	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00% 0 0 0 0 2,000 0 0 2,000 0 0 76,157 4,349,321 3,469
Vising FT-A (AF 0012) Vising FT-A (AF 0012) Vising FT-A (AF 0014) Vising FT-A (AF 0104) Vising FT-A (AF 0104) Vising FT-A (AF 0105) Vising FT-A (AF 0105) Vising Chisago TF 12 (112495) B Vising Chisago TF 12 (112495) Vising Chisago TF 12 (112490) Vising FT AV 12 (111986) Vif XA Pr Vising Chisago Vising	233,628 89.18% 0 0 0 0 0 1,784 1,784 0 0 87,273 3,878,642	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 0 2,000 2,000 0 0 0 75,437 4,349,326 0	221,437 \$9.88% 0 0 0 0 0 1,798 1,798 0 0 67,803 3,909,172	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 0 2,000 0 0 0 75,437 4,349,321	221,437 89,88% 0 0 0 0 0 1,798 1,798 0 0 67,803 3,909,172 3,909,172	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 0 2,000 2,000 0 0 0 75,437 4,349,321 3,469 200,000	208,009 88,93% 0 0 0 0,0 1,779 1,779 0 0 67,803 3,867,803 17,808	0 682 1.243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 233,485 100.00% 0 0 0 2,000 2,000 0 0 0 76,157 4,349,321 3,469
Vising FT-A (AF 0012) Vising FT-A (AF 0012) Vising FT-A (AF 0104) Vising FT-A (AF 0104) Vising FT-A (AF 0104) Vising FT-A (AF 0105) Vising FT-A (AF 0105) Vising Chisago TF 12 (112495) B Vising Chisago TF 12 (112495) Vising Chisago TF 12 (112490) Vising FT AV 12 (111986) Vif X Apr Cott Vix Miscago Teservation (112490) Vising Visi	233,628 89.18% 0 0 0 0 0 0 1,784 1,784 0 0 87,273 3,878,642 0 0 6,187	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 0 2,000 0 0 0 75,437 4,349,326 0 6,938 400,002	221,437 \$9.88% 0 0 0 0 0 1,798 1,798 0 0 67,803 3,909,172 0 6,236	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 0 2,000 0 0 0 0 0 75,437 4,349,321 0 0,6,938	221,437 89,88% 0 0 0 0 0 1,798 1,798 0 0 67,803 3,909,172 3,919,172 3,118 179,765 11,592 674,081	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 0 0 2,000 0 0 0 75,437 4,349,321 20,469 20,000 13,009 750,001	0 208,009 88,93% 0 0 0 0 1,779 1,779 0 0 67,803 3,887,822 3,088 177,809 4,935	0 682 1.243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	233,465 100.00% 0 0 0 0 0 2,000 0 0 0 76,157 4,349,327 20,469 20,469 20,469 40,910 40,910
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes T-16 8 T-155 - 12 Great Lakes FT-68 6-12 G	233,628 89,18% 0 0 0 0 1,784 1,784 0 0 0,67,273 3,878,642 0 0,6187	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 0 2,000 2,000 2,000 4,349,328 0 0,5437 4,349,328 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	221,437 \$9.88% 0 0 0 1,798 1,798 0 0 67,803 3,909,172	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 2,000 0 0 0 75,437 4,349,321 0 0 6,938	221,437 89.88% 0 0 0 1,798 1,798 0 0 0 67,803 3,909,172 3,118 179,765	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100.00% 0 0 0 2,000 0 0 0,5437 4,349,321 3,469 200,000 13,009	208,009 88,93% 0 0 0 0,1,779 0 0,77,930 3,867,622 3,085 177,850 4,933 67,838	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 233,485 100,00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes F1-68 AT-155 -12 Great Lakes F1-68 AT-155 -5 Great Lakes F1-68 AT-155 -5 Great Lakes F1-68 AT-155 -5 Great Lakes F1-68 AT-155 -12 Centra FT-1 Centra Bolise Nexen Storage Tensaka F50 GL Wadena Delivered Option Tensaka F50 C entra ANR Storage Total Capacity Total NNG transportation Total Seasonal Transportation Total Seasonal Transportation Total Annual Transportation Total Seasonal Transportation Total Seasonal Transportation Total Percent Seasonal on NNG Reserve Margin  Direct Assigned Demand Notin PGA TF-12-B Contract Demand Total Design Day Capacity w/ contract demand Factors  Other Entitlements not Included in Peak Day Deliverability. Field TF (TFF) (NNU direct assigned) TFX Offpeak Cld Oct. (35.000) TFX Offpeak New Opt. (14,600) TFX Offpeak New Apr. (14,9900) TFX Offpeak Paper seasovation (112490) FDD Storage capacity MSQ 21 FDD Storage reservation (112490) FDD Storage reservation (112450) FDD Storage reservation (112657) FDD Storage capacity MSQ 31 FDD Storage reservation (116575) FDD Storage capacity MSQ 31 FDD Storage reservation (116575) FDD Storage reservation (116657) FDD Storage res	233,628 89,18% 0 0 0 0 0 1,784 1,784 0 0 0 57,273 3,878,642 0 0 6,187 356,700 4,949 285,370	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 0 2,000 2,000 2,000 2,000 4,349,328 0 0,938 400,002 5,550 320,000 0 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,00	221,437 \$9.88% 0 0 0 0 0 1,798 1,798 0 0 0,7,803 3,909,172 0 0 6,236 359,510 4,988 287,615	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	245 985 100.00% 0 0 0 0 2,000 0 0 2,000 0 0 0 0 0 0 0 0	221,437 89.88% 0 0 0 0 0 1,793 1,798 0 0 0 0 67,803 3,909,172 3,118 179,765 11,692 674,081 4,988 207,615	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 2,000 0 0 75,437 4,349,321 3,469 200,000 13,009 750,001 5,550 320,000 320,000	208,009 88,93% 0 0 0 0,0 1,779 0 0,0 57,803 3,867,628 57,838 177,850 4,935 67,838	0 682 1.243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 233,485 100.00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0104) Viking FT-A (AF 0104) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Viking Chisago TF 12 (112496) Great Lakes F1-68 AT-155 - 12 Great Lakes F1-68 AT-155 - 5 Great Lakes F1-68 AT-155 - 5 Great Lakes F1-68 AT-155 - 5 Great Lakes F1-68 AT-155 - 12 Centra FT-1 Centra -Bolse Nexen Storage Tensaks PSO GL Wadena Delivered Option Tensaks PSO GL Wadena Delivered Option Tensaks PSO GL Viking Chisago Total Capacity Total NNG transportation Total Seasonal Transportation Total Seasonal Transportation Total Seasonal Transportation Total Seasonal Transportation Total Percent Seasonal on NNG Reserve Margin  Direct Assigned Demand Not in PGA TF-12-B Contract Demand Total Design Day Capacity w/ contract demand Factors  Other Entitlements not included in Peak Day Deliverability. Field TF (TFF) (NNU direct assigned) TFX Offpeak New Opt. (14,600) TFX Offpeak New Apr. (14,600) TFX Offpeak New Apr. (14,9500) TFX Offpeak Paper sersevation (112490) FDD Storage capacity MSO 2 FDD Storage reservation (112450) FDD Storage reservation (112450) FDD Storage reservation (112657) FDD Storage capacity MSO 3 FDD Storage reservation (112657) FDD Storage reservation (116657) F	233,628 89,18% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 0 2,000 2,000 2,000 0 0 0 75,437 4,349,328 0 0,938 400,002 5,550 320,000 0 0	221,437 \$9.88% 0 0 0 0 0 0 1,798 1,798 0 0 67,803 3,909,172 0 0 6,236 359,510 4,988 227,615	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 0 0 2,000 0 0 0 0 0 0 0 0 0 0 0	221,437 89,88% 0 0 0 0 0 1,798 1,798 0 0 0,7803 3,909,172 3,918,172 64,081 1,938 27,615	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	245,985 100,00% 0 0 0 0 2,000 0 0 2,000 0 0 75,437 4,349,321 3,469 200,000 13,009 750,001 5,550 320,000 0 0	0 208,009 88,93% 0 0 0 0 0 1,779 1,779 0 0 67,803 3,867,803 17,805 4,935 57,833 133,390 28,456	0 682 1,243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	233,485 100.00% 0 0 0 0 0 2,000 0 0 76,157 4,349,329 200,000 6,376 140,910 134,005 320,000 0 0
Viking FT-A (AF 0012) Viking FT-A (AF 0012) Viking FT-A (AF 0014) Viking FT-A (AF 0104) Viking FT-A (AF 0102) Viking FT-A (AF 0103) Viking FT-A (AF 0103) Viking Chisago TF 12 (112495) B Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112495) Viking Chisago TF 12 (112496) Great Lakes FT-16 AT-15S-12 Great Lakes FT-16 AT-15S-15 Great Lakes FT-16 AT-15S-15 Great Lakes FT-16 AT-15S-15 Great Lakes FT-16 AT-15S-12 Centra FT-1 Centra -Botise Nexen Storage Nexen Storage Tensaka PSC OE Wadena Delivered Option Total Seasonal Transportation Total Seasonal Transportation Total Seasonal Transportation Total Seasonal Transportation Total Percent Seasonal on NNG Reserve Margin  Direct Assigned Demand Not in PGA TF-12-B Contract Demand Total Design Day Capacity w/ contract demand Factors Total Design Day Capacity w/ contract demand Factors Other Entitlements not included in Peak Day Deliverability Field TF (FFF) (NNMI direct assigned) TFX Oftpack New Apr. (14,600) TFX Oftpack New Apr. (14,600) TFX Oftpack New Apr. (14,600) TFX Oftpack New Apr. (19,500) TFX Oftpack Seasonal (11,600) TF	0 233,628 89.18% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 261,675 100,00% 0 0 0 0 0 2,000 2,000 0 0 75,437 4,349,326 6,938 400,002 5,550 320,000 0 0	221,437 \$9.88% 0 0 0 0 0 0 0 1,798 1,798 1,798 0 0 67,803 3,909,172 0 0 6,236 359,510 14,988 287,615	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	221,437 89,88% 0 0 0 0 0 1,798 1,798 0 0 67,803 3,909,172 674,081 4,988 287,615	0 678 1,234 1,852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 245,985 100,00% 0 0 0 0 0 2,000 0 0 0 0 75,437 4,349,321 30,009 750,001 5,550 320,000 0 0	0 208,009 88,93% 0 0 0 0 0 1,779 1,779 0 0 67,803 3,887,823 177,805 4,935 57,833 133,390 284,655	0 682 1.243 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	233,485 100.00% 0 0 0 0 0 0 2,000 0 0 0 0 0 0 0 0 0 0 0
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Reserve	Margin (10)			Margin [(7)-(4)]/(4)	4.53%	7.09%	18.31%	4.70%	1.74%	5.59%	2.82%	3.79%	1.59%	3.45%	4.00%	2.86%	0.83%	0.68%	0.62%	-3.83%	0.29%	23.83%	3.47%	
Shaving	9	(%)	% Change From	Previous Year	1.44%	-8.97%	6.95%	-1.62%	0.64%	2.61%	-2.41%	4.33%	-4.15%	14.09%	0.46%	0.00%	2.20%	0.28%	7.70%	0.00%	-16.80%		0.40%	
Total Entitlement + Peak Shaving	8	(9)	Change from	Previous Year	894	(6,119)	4,436	(1,052)	415	1,639	(1,553)	2,668	(2,672)	7,945	260	0	1,210	151	3,918	0	(10,270)			
Total	ξ	S	Change from % Change From Total Entitlement	(Mcf)*	62,994	62,100	68,219	63,783	64,835	64,420	62,781	64,334	999,19	64,338	56,393	56,133	56,133	54,923	54,772	50,854	50,854	61,124		
rement	9	(a)	% Change From	Previous Year	3.92%	0.57%	-5.34%	-4.41%	4.46%	~60.0-	-1.49%	2.11%	-2.40%	14.69%	-0.63%	-1.97%	2.05%	0.22%	2.93%	4.29%	2.72%		1.27%	
Design Day Requirement	(4)	6	Change from	Previous Year	2,276	327	(3,256)	(2,808)	2,718	(52)	(922)	1,279	(1,491)	7,968	(344)	(1,099)	1,118	119	1,551	2,176	1,342			
Desig	3	€	Design Day	(Mcf)	60,265	57,989	57,662	816'09	63,726	61,008	61,060	61,982	60,703	62,194	54,226	54,570	55,669	54,551	54,432	52,881	50,705	49,363		
тег	ę	જ	% Change From	Previous Year	1.06%	0.17%	-1.79%	5.17%	2.23%	-0.58%	0.72%	4.04%	7.39%	1.68%	1.00%	1.16%	2.05%	3.24%	2.94%	4.32%	2.57%		1.72%	
Number of Firm Customers	ę	(7)	Change from %	Previous Year	430	70	(322).	2,023	854	(225)	275	(1,608)	2,740	612	362	415	717	1,097	896	1,362	790			
Numbe			DD No.of		40,900	40,470	40,400	41,135	39,112	38,258	38,483	38,208	39,816	37,076	36,464	36,102	35,687	34,970	33,873	32,905	31,543	30,753		
			Heating	Season	2012-2013	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005	2003-2004	2002-2003	2001-2002	2000-2001	1999-2000	1998-1999	1997-1998	1996-1997	1995-1996	Aversoe.	

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	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)***	(61)
Heating	Number of Peak	E 3	Change from	% Change From	Excess/Def. per Cust.	Design Day per	Entitlement per	Peak Day Sendout per PD Customer (12)/(11)	Peak Day Sendout per DD Customer (12)/(1)
2012-2013	unknown	unknown			0.0667	1,4735	1,5402	unknown	пкпомп
2011-2012	40,470	46,380	2,731	6.26%	0,1016	1.4329	1,5345	1.1460	1.1460
2010-2011	40,400	43,649	(4,284)	-8.94%	0,2613	1.4273	1.6886	1.0804	1.0804
.009-2010**		47,933	1,532	3,30%	0.0696	1.4809	1,5506	1.1810	1.1653
2008-2009		46,401	(7,714)	-14.25%	0.0284	1,6293	1.6577	1.1402	1.1864
2007-2008		54,115	24,019	79.81%	0.0892	1,5946	1.6838	1.4145	1.4145
2006-2007		30,096	(16,324)	-35.17%	0.0447	1.5867	1.6314	0.7821	0.7821
2005-2006		46,420	5,014	12.11%	0.0616	1.6222	1.6838	1.2149	1.2149
2004-2005		41,406	2,123	5.40%	0.0242	1.5246	1,5488	1.0784	1.0399
2003-2004		39,283	(5,858)	-12.98%	0.0578	1.6775	1.7353	1.0439	1.0595
2002-2003		45,141	10,769	31.33%	0.0594	1.4871	1.5465	1.2175	1,2380
2001-2002		34,372	(0,950)	-22.45%	0.0433	1.5116	1.5548	0.9417	0.9521
2000-2001		44,322	3,967	9.83%	0.0130	1.5599	1.5729	1.2327	1.2420
1999-2000		40,355	(8,001)	-16.55%	0.0106	1,5599	1.5706	1.1265	1.1540
1998-1999		48,356	8,320	20.78%	0.0100	1.6069	1.6170	1.3828	1.4276
1997-1998	33,873	40,036	(7,904)	-16.49%	-0.0616	1.6071	1.5455	1.1819	1.2167
1996-1997		47,940	16,790	53.90%	0.0047	1,6075	1.6122	1.4499	1.5198
1995-1996	32,112	31,150			0.3824	1,6051	1.9876	0.9700	1.0129
Average:				%66'5	0.0704	1.5553	1.6257	1.1520	1.1678
Average (Ex. 2003-2004);	2003-2004):			7.26%	0,0711	1.5481	1.6192	1.1588	1.1745

<sup>\*</sup> The total entitlement includes the 864 Mct/day of entitlement permanently released to Comerstone in 2002-2003.

\*\* The number of peak day customers is calculated using firm customer count numbers provided in MERC-NMUs Initial Filing, Attachment 12.

\*\*\* The number of design day customers are used when the number of firm peak day customers is unknown (18=19).

## DOC Attachment 4 Rate Impact of MERC-NMU's PGA System Proposed Demand Entitlement Changes

1) General Service-Reside	ntial: Avg. Annual	Use:	90	Mcf				
,	Last Base Cost of			_ :				
	Gas	Last Demand	Most Recent	PGA	% Change	% Change	% Change	\$ Change
	G011/MR-10	Change	PGA	11/1/12 with	From Last	From Last	From Last	From Last
Recovery	978	M-12-559	10/1/12	Demand Changes	Rate Case	Demand Filing	PGA	PGA
Commodity Rate	\$5.6422	\$2.3990	\$3.1724	\$3.5309	-37.42%	47.18%	11.30%	\$0.3585
Demand Rate	\$1.3841	\$1.2787	\$1.2862	\$1.3431	-2.96%	5.04%	4.43%	\$0.0569
Margin	\$2.1759	\$2.1759	\$2.1759	\$2.1759	0.00%	0.00%	0.00%	\$0.0000
Total Recovery	\$9.2022	\$5.8536	\$6.6345	\$7.0499	-23.39%	20.44%	6.26%	\$0.4154
Avg. Annual Bill*	\$828.20	\$526.82	\$597.11	\$634.49	-23,39%	20.44%	6.26%	\$37.3891
Effect of proposed commodit								\$32.2644
Effect of proposed demand of		ınnual bills:						\$5.1248
2) Large General Service:			4,932	Mcf				
	Last Base Cost of	l t D t	14 D	DO4	0, 0,	0/ 01	0, 0,	<b>6</b> Ob
	Gas	Last Demand	Most Recent	PGA	% Change	% Change	% Change	\$ Change
_	G011/MR-10	Change	PGA	11/1/12 with	From Last	From Last	From Last	From Last
Recovery	978	M-12-559	10/1/12	Demand Changes	Rate Case	Demand Filing	PGA	PGA
Commodity Rate	\$5.6422	\$2.3990	\$3.1724	\$3.5309	-37.42%	47.18%	11.30%	\$0.3585
Demand Rate	\$1.3841	\$1.2787	\$1.2862	\$1.3431	0.00%	0.00%	4.43%	\$0.0569
Margin	\$1.9660	\$1.9660	\$1.9660	\$1.9660	0.00%	0.00%	0.00%	\$0.0000
Total Recovery	\$8.9923	\$5.6437	\$6.4246	\$6.8400	-23.93%	21.20%	6.47%	\$0.4154
Avg. Annual Bill*	\$44,350.02	\$27,834.73	\$31,686.13	\$33,735.05	-23.93%	21.20%	6.47%	\$2,048.9254
Effect of proposed commodit								\$1,768.0875
Effect of proposed demand of				*****				\$280.8379
<ol><li>SV Interruptible Service</li></ol>		:	6,068	Mcf				
	Last Base Cost of	Last Demand	Most Recent	PGA	% Change	% Change	% Change	\$ Change
	Gas		PGA	11/1/12 with	% Change From Last	From Last	From Last	From Last
	G011/MR-10	Change					PGA	PGA
Recovery	978	M-12-559	10/1/12	Demand Changes	-37.42%	Demand Filing 47.18%		\$0.3585
Commodity Rate	\$5.6422	\$2.3990	\$3.1724	\$3.5309		0.00%		\$0.0000
Demand Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.00%	0.00%		\$0.0000
Margin	\$0.9560	\$0.9560	\$0.9560	\$0.9560	0.00%			
Total Recovery	\$6.5982	\$3.3550	\$4.1284	\$4.4869	-32.00%	33.74%		\$0.3585
Avg. Annual Bill*	\$40,037.88	\$20,358.14	\$25,051.13	\$27,226.47	-32.00%	33.74%	8.68%	\$2,175.3355
Effect of proposed commodit							ĺ	\$2,175.3355
Effect of proposed demand of			10.001					\$0.0000
4) LV Interruptible Service:			40,821	Mct		F		
	Last Base Cost of	Last Demand	Most Recent	PGA	% Change	% Change	% Change	\$ Change
	Gas G011/MR-10	Change	PGA	11/1/12 with	From Last	From Last	From Last	From Last
B	978	M-12-559	10/1/12		Rate Case	Demand Filing	PGA	PGA
Recovery				Demand Changes	-37.42%	47.18%		\$0.3585
Commodity Rate	\$5.6422	\$2.3990	\$3.1724	\$3.5309		0.00%		\$0.0000
Demand Rate	\$0.0000	\$0.0000	\$0.0000	\$0,0000	0.00%			
Margin	\$0.2846	\$0.2846	\$0.2846	\$0.2846	0.00%	0.00%		\$0.0000
TotalCost of Gas	\$5.9268	\$2.6836	\$3.4570	\$3,8155	-35.62%	42.18%		\$0.3585
Avg. Annual Bill*	\$241,937.90	\$109,547.24	\$141,118.20	\$155,752.24	-35.62%	42.18%	10.37%	\$14,634.0428
Effect of proposed commodit								\$14,634.0428
Effect of proposed demand of	nange on average a	annual bilis:						\$0.0000

Customer Class	Commodity Change (\$/Mcf)	Commodity Change (Percent)	Demand Change (\$/Mcf)	Demand Change (Percent)	Total Change (\$/Mcf)	Total Change (Percent)
General Service-Residential	\$0.3585	11.30%	\$0.0569	4.43%	0.4154	6.26%
Large General Service	\$0.3585	11.30%	\$0.0569	4.43%	0.4154	6.47%
Small Vol. Inter, Service	\$0.3585	11.30%	\$0.0000	0.00%	0.3585	8.68%
Large Vo. Inter. Service	\$0.3585	11.30%	\$0.0000	0.00%	0.3585	10.37%

<sup>\*</sup> The average annual bill shown does not include customer charges.

#### **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce Comments** 

Docket No. G007/M-12-1195

Dated this 4<sup>th</sup> of March, 2013

/s/Sharon Ferguson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Michael	Ahem	ahern.michael@dorsey.co m	Dorsey & Whitney, LLP	50 S 6th St Ste 1500  Minneapolis, MN 554021498	Electronic Service	No	OFF_SL_12-1195_12-1195
Julia	Anderson	Julia.Anderson@ag.state.m n.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_12-1195_12-1195
Michael	Bradley	bradleym@moss- barnett.com	Moss & Barnett	4800 Wells Fargo Ctr 90 S 7th St Minneapolis, MN 55402-4129	Electronic Service	No	OFF_SL_12-1195_12-1195
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_12-1195_12-1195
Daryll	Fuentes	N/A	USG	550 W. Adams Street  Chicago, IL 60661	Paper Service	No	OFF_SL_12-1195_12-1195
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_12-1195_12-1195
Richard	Haubensak	RICHARD.HAUBENSAK@ CONSTELLATION.COM	Constellation New Energy Gas	Suite 200 12120 Port Grace Boulevard La Vista, NE 68128	Electronic Service	No	OFF_SL_12-1195_12-1195
Amber	Lee	lee.amber@dorsey.com	Dorsey & Whitney LLP	Suite 1500 50 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	OFF_SL_12-1195_12-1195
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_12-1195_12-1195
Brian	Meloy	brian.meloy@leonard.com	Leonard, Street & Deinard	150 S 5th St Ste 2300 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_12-1195_12-1195

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Andrew	Moratzka	apm@mcmlaw.com	Mackall, Crounse and Moore	1400 AT&T Tower 901 Marquette Ave Minneapolis, MN 55402	Paper Service	No	OFF_SL_12-1195_12-1195
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_12-1195_12-1195
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_12-1195_12-1195
Gregory	Walters	gjwalters@minnesotaenerg yresources.com	Minnesota Energy Resources Corporation	3460 Technology Dr. NW Rochester, MN 55901	Electronic Service	No	OFF_SL_12-1195_12-1195