

Minnesota Public Utilities Commission
Staff Briefing Papers

Meeting Date: November 24, 2014..... ***Agenda Item #14**

Company: Minnesota Energy Resources Corporation (MERC)

Docket Nos. G-007/M-09-1282
In the Matter of a Petition by Minnesota Energy Resources Corporation (MERC-NMU) for Approval of Changes in Contract Demand Entitlements for the 2009-2010 Heating Season Supply Plan effective November 1, 2009.

G-011/M-09-1283
In the Matter of a Petition by Minnesota Energy Resources Corporation (MERC-PNG GLGT) for Approval of Changes in Contract Demand Entitlements for the 2009-2010 Heating Season Supply Plan effective November 1, 2009.

G-011/M-09-1284
In the Matter of a Petition by Minnesota Energy Resources Corporation (MERC-PNG NNG) for Approval of Changes in Contract Demand Entitlements for the 2009-2010 Heating Season Supply Plan effective November 1, 2009.

G-011/M-09-1285
In the Matter of a Petition by Minnesota Energy Resources Corporation (MERC-PNG Viking) for Approval of Changes in Contract Demand Entitlements for the 2009-2010 Heating Season Supply Plan effective November 1, 2009.

Issue: Should the Commission approve MERC’s proposed demand entitlement capacity (levels) and cost changes to meet its Design Day and Reserve Margin requirements as described in the listed dockets, effective November 1, 2009?

Staff: Bob Brill 651-201-2242
Bob Harding 651-201-2237

Relevant Documents

G-007/M-09-1282 (MERC-NMU)

MERC Initial PetitionNovember 2, 2009
Department of Commerce (Department) Comments April 2, 2010
MERC Attachments April 12, 2010
MERC Reply Comments and Attachments April 28, 2010

G-011/M-09-1283 (MERC-PNG GLGT)

MERC Initial PetitionNovember 2, 2009
Department of Commerce (Department) Comments March 10, 2010
MERC Reply Comments March 22, 2010

G-011/M-09-1284 (MERC-PNG NNG)

MERC Initial PetitionNovember 2, 2009
Department of Commerce (Department) Comments April 2, 2010
MERC Reply Comments and Attachments April 12, 2010

G-011/M-09-1285 (MERC-PNG VGT)

MERC Initial PetitionNovember 2, 2009
Department of Commerce (Department) Comments March 10, 2010
MERC Reply Comments March 22, 2010

All Four Dockets (#s 09-1282, 09-1283, 09-1284 and 09-1285)

Department Reply Comments June 7, 2010

The attached materials are workpapers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless otherwise noted.

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Statement of the Issue

Should the Commission approve MERC's proposed demand entitlement capacity (levels) and cost changes to meet its Design Day and Reserve Margin requirements as described in the listed dockets, effective November 1, 2009?

Introduction

MERC has entered into various natural gas supply and interstate pipeline contracts to provide natural gas to its customers. MERC annually reviews and updates these contracts to ensure continued system reliability of natural gas supply deliveries to its customers.

MERC's annual demand entitlement¹ petitions seek Commission approval to recover certain cost and capacity changes in these interstate pipeline transportation entitlements, supplier reservation fees, and other demand-related contract costs and to implement the rate impact of these petitions through its Purchased Gas Adjustment (PGA)² charges.

PUC staff reviewed MERC's Demand Entitlement Petitions and the several rounds of *Comments* filed by MERC and the Department. The Department and MERC have worked together and either resolved or agreed to defer to the following year all of the issues raised by the Department. PUC staff generally agrees with the Department's June 7, 2010 recommendations with minor qualifications.

For its briefing papers, PUC staff is consolidating all of MERC's 4 PGA areas³ into one discussion, but will discuss issues related to a particular PGA area separately.

Minnesota Rules

Minnesota Rule, part 7825.2910, subpart 2⁴ require gas utilities to make a filing whenever there is a change to its demand-related entitlement services provided by a supplier or transporter of natural gas.

¹ *Demand entitlements* can be defined as reservation charges paid by the Local Distribution Company (LDC) to an interstate natural gas pipeline to reserve pipeline capacity used to store and transport the natural gas supply for delivery to its system and contract charges associated with the LDC procuring its gas supply; these costs are recovered through the LDC's PGA.

² The Purchased Gas Adjustment is a mechanism used by regulated utilities to recover its cost of energy. Minn. Rules 7825.2390 through 7825.2920 enable regulated gas and electric utilities to adjust rates on a monthly basis to reflect changes in its cost of energy delivered to customers based upon costs authorized by the Commission in the utility's most recent general rate case.

³ MERC has four separate PGA areas, 09-1282 MERC-NMU, 09-1285 MERC-PNG Viking, 09-1283 MERC-PNG GLGT, and 09-1284 MERC-PNG NNG.

⁴ Filing upon a change in demand, is included in the Automatic Adjustment of Charges rule parts 7825.2390 through 7825.2920 and requires gas utilities to file to increase or decrease demand, to redistribute demand percentages among classes, or to exchange one form of demand for another.

Should the Commission approve MERC's proposed demand entitlement capacity (levels) and cost changes to meet its Design Day and Reserve Margin requirements as described in the listed dockets, effective November 1, 2009?

MERC

MERC calculated its 2009-2010 DD requirements at 284,942 Mcf/day.

Table 1 - Design Day (DD) requirements⁵ by PGA areas (reflected in Mcf/day):

Total MERC	MERC-NMU	MERC-PNG Viking	MERC-PNG GLGT	MERC-PNG NNG
284,942	60,916	6,891	10,802	206,333

Table 2 - DD requirements by interstate pipeline (reflected in Mcf/day):

Pipeline	Total	MERC- NMU	MERC-PNG Viking	MERC-PNG GLGT	MERC-PNG NNG
NNG	231,013	24,680			206,333
Viking	19,089	12,198	6,891		
GLGT	25,650	14,848		10,802	
Centra	9,190	9,190			
Total	284,942	60,916	6,891	10,802	206,333

To transport its DD requirements, MERC used a series of interstate pipeline contracts to meet its annual total system transportation and storage requirements for each PGA area, i.e. demand entitlements. The 2009-2010 demand entitlement contract levels were modified from the previous 2008-2009 levels, which resulted in 313,972 Mcf/day for transportation.

Table 3 - Transportation Demand Entitlements⁶ by PGA area (reflected in Mcf/day):

Total MERC	MERC-NMU	MERC-PNG Viking	MERC-PNG GLGT	MERC-PNG NNG
313,972	63,783	7,625	11,500	231,064

The Commission approved MERC's 2008-2009 demand entitlement contract costs of \$21,833,983 MERC proposed to recover 2009-2010 demand entitlement costs of \$21,251,801 or a \$582,182 decrease. See Table 4 below:

⁵ Includes Transportation only, does not include Storage Entitlements.

⁶ Includes Transportation only, does not include Storage Entitlements.

Table 4 - Transportation Demand Entitlement Costs, as filed by MERC:

PGA area	2008-2009 Demand Cost of Gas	2008-2009 Demand Cost of Gas	Difference
MERC-NMU	\$4,284,662	\$4,271,840	(\$12,822)
MERC-PNG Viking	\$385,977	\$391,418	\$5,441
MERC-PNG GLGT	\$404,586	\$440,895	\$36,309
MERC-PNG NNG	\$16,758,758	\$16,147,648	(\$611,110)
Total	\$21,833,983	\$21,251,801	(\$582,182)

(PUC staff has summarized MERC's transportation Design Day (DD) requirements and demand entitlements in *Appendix A*, and its demand entitlement costs in *Appendix B*.)

The Reserve Margin is the difference between MERC's DD requirements and its transportation demand entitlements. MERC stated that its reserve margin in each PGA area is appropriate given the need to balance the uncertainty of DD conditions, customer demand during these conditions, and the need to protect against the potential firm gas supply loss; maintain system reliability.

Table 5 - Reserve Margins⁷ by PGA areas.

	MERC-NMU	MERC-PNG Viking	MERC-PNG GLGT	MERC-PNG NNG
Quantities in Mcf ⁸	2,864	734	698	24,731
As a Percentage ⁹	4.70%	10.65%	6.46%	11.99%

Table 6 - Reserve Margin – MERC total system

All Dockets-Total MERC	Quantities in Mcf
Total MERC Reserve Margin	29,027
Total MERC DD requirements	284,942
Reserve Margin as a percentage	10.19%

Department

The Department reviewed MERC's proposed Design Day (DD) requirements, demand entitlements, and resulting reserve margins.

The Department summarized MERC's proposed DD requirements by PGA area, for a total decrease of 21,898 Mcf/day, see Table 7:

⁷ See Appendix A for calculation

⁸ Calculated by taking the Total Demand Entitlements contracts and subtracting the total DD requirements

⁹ Calculated by dividing the difference between the total Demand Entitlements contracts and the total DD requirements by the total DD requirements

Table 7 – MERC’s DD requirements

PGA area	2008-2009	2009-2010	Difference	% increase/(decrease)
MERC-NMU	63,726	60,918	(2,808)	(4.41%)
MERC-PNG Viking	7,420	6,891	(529)	(7.13%)
MERC-PNG GLGT	10,299	10,802	503	4.89%
MERC-PNG NNG	225,397	206,333	(19,064)	(8.46%)
Total	306,842	284,942	(21,898)	(7.14%)

MERC’s proposed changes to its 2009-2010 demand entitlement and Reserve Margin levels in its 4 PGA areas are summarized in Tables 8 and 9.

Table 8 – MERC’s Demand Entitlements requirements

PGA area	2008-2009	2009-2010	Difference	% increase/(decrease)
MERC-NMU	64,835	63,782	(1,053)	(1.62%)
MERC-PNG Viking	7,625	7,625	0	0%
MERC-PNG GLGT	10,500	11,500	1,000	9.52%
MERC-PNG NNG	226,785	231,064	4,279	1.89%
Total	309,745	313,971	4,226	1.36%

Table 9 – Reserve Margin Comparison by PGA area

Comparison in Percentage	2008-2009 Demand Entitlement Filing	2009-2010 Demand Entitlement Filing	Difference
Docket No. 08-1329 (NMU)	1.74%	4.70%	2.96%
Docket No. 08-1331 (Viking)	2.76%	10.65%	7.89%
Docket No. 08-1330 (GLGT)	1.95%	6.46%	4.51%
Docket No. 08-1329 (NNG)	0.62%	11.99%	11.37%

The Department has stated in previous dockets that a typical Reserve Margin range is between 5% - 7%.

The Department was concerned primarily about¹⁰:

- A. MERC’s design-day analysis will provide sufficient volumes on a peak day as defined by Commission practice.
- B. MERC’s adjusted Heating Degree Day (HDD) calculation was different than the official calculation used by the National Weather Service (NWS).
- C. MERC’s use of a volume risk adjustment, which removed interruptible and transportation customer usage, used by taconites and other large industrial users
- D. MERC’s use of its customer growth figure to its estimate of total system throughput.

¹⁰ The Department requested responses in MERC’s *Reply Comments*

As a result, and after several rounds of comments, the Department recommended that for all 4 MERC PGA areas that the Commission:

- approve MERC's demand entitlement level for all PGA areas;
- approve the PGA recovery of costs associated with MERC's proposed demand entitlement level effective November 1, 2009;
- require that until actual daily transportation and interruptible data is available for all customers, that MERC use, for all its PGA systems, the modified non-firm gas use method as presented in its March 22, 2010 *Reply Comments* for the Great Lakes PGA system;

For PGA areas MERC-NMU and MERC-PNG NNG:

- require MERC-NMU to provide in its next demand entitlement filing a full discussion of how it intends to deal with the capacity limitations currently in place on the Northern Natural Gas system and how it intends to charge appropriate rates to Northern pipeline customers on both the MERC-NMU and MERC-PNG Northern PGA systems;

For PGA area MERC-PNG GLGT:

- require MERC-PNG GLGT to refund any, and all, over-recoveries associated with the Call Option rate impact calculation for its Great Lakes PGA system, discussed in the Department *Comments*, in the Company's September 1, 2010 true-up filing and accompanying true-up factor;

PUC Staff Comment

PUC staff has reviewed the 2009-2010 demand entitlement petitions for all of MERC's PGA areas and appreciates all the party comments. Staff believes that for the time period at issue in these dockets, all issues have been resolved by the parties in the various rounds of *Comments* and *Reply Comments*. PUC staff believes that the Department's analysis covers most of the relevant factors and will not repeat those comments.

PUC staff generally agrees with the Department's June 7, 2010 recommendations. However, PUC staff is still concerned over MERC-PNG NNG reserve margin calculations in its 2007-2008, 2008-2009, and 2009-2010 demand entitlement petitions. For example, the MERC-PNG NNG reserve margin decreased from the 2007-2008 demand entitlement petition level of 12.12% to its 2008-2009 level of 0.62%, and then increased to 2009-2010 level of 11.99%. PUC staff continues to believe that these differences are partially explained by MERC's treatment of its Joint Rate Service volumes being added back to or subtracted from its actual DD requirements before calculating its reserve margins.^{11 12}

¹¹ See MERC's initial 2008-2009 demand entitlement petitions, p. 12

MERC's treatment of its joint customers and the Joint Rate Service volumes in the 2008-2009 and 2009-2010 demand entitlement petitions led PUC staff to believe that a valid comparison between MERC's 2007-2008, 2008-2009 and 2009-2010 DD requirements, demand entitlements, and Reserve Margins cannot be made.

Staff's understanding is that MERC's DD analysis and estimates in 2008-2009 and 2009-2010 demand entitlement petitions were further complicated by the fact MERC was required to start telemetering for all of its interruptible and transportation customers.¹³ Because of the lack of telemetering on its system at that time, MERC did not have daily data that distinguished between firm and interruptible loads and its previous estimates of DD requirements may not have been as accurate as they should have been. The Department discusses telemetering on MERC's system on pp. 2-3 in its June 7, 2010 comments and believes the telemetering question has for the most part been resolved.

PUC staff believes that the Commission may wish to ask MERC and Department, at the November 24, 2014 Commission meeting, before making its final decision:

- for further discussion on MERC's treatment of joint customers in calculating its DD requirements, demand entitlements, and Reserve Margins and MERC's telemetering installation efforts;
- confirm that MERC and the Department addressed MERC's DD analysis and reserve margin calculations in MERC's following year's entitlement filings; and
- whether or not MERC has complied with the Department's recommendation to require MERC-PNG GLGT to refund any, and all, over-recoveries associated with the Call Option rate impact calculation for its Great Lakes PGA system, as discussed in the Department's initial *Comments*, in MERC's September 1, 2010 true-up filing and its accompanying true-up factor.

With respect to the last bullet point, the Department made this recommendation in its March 10, 2010 comments in docket 09-1283. In its March 22, 2010 reply, MERC acknowledged the error and said it would make the correction in its April 2010 PGA filing. MERC also said that "if there are any over-recoveries due to this error, MERC will refund or re-allocate the over-recoveries among rate classes in the September 1, 2010 true-up filing," in docket 10-960.

The Commission approved MERC's September 1, 2010 true-up filing in its April 3, 2012 Order in docket 10-960 and this does not appear to have been an issue in that docket. Staff believes this issue has been resolved but the Commission may want that confirmed on the record. If that is the case and the Commission intends to issue an informal order adopting the Department's

¹² Previously, MERC stated that it did not purchase firm interstate pipeline capacity specifically to serve its joint customers. The joint customer contract is for firm service, but this customer can vary the term of service and can cancel the contract with 90 days' notice. Because of this variability, MERC does not plan for these contracted volumes, but serves these joint customers out of its reserve margin, see PUC staff briefing papers dated July 24, 2014 in the 2007-2008 demand entitlement petitions, p. 11

¹³ The Commission ordered telemetering in Docket No. 08-835

June 7, 2010 comments and recommendations, the Commission may want to remove that bullet point from its order.

Should the Commission approve MERC's proposed allocation method for assigning storage demand charges to firm and interruptible customers?

In Docket No. 06-1208, the Commission requested MERC to submit its proposal on storage classification and allocation. On March 7, 2008, MERC submitted its proposal to allocate all storage demand charges to both firm and interruptible sales customers through its commodity charges. In the 2009-2010 demand entitlement petitions, MERC and the Department continued their discussion of assigning storage demand costs to MERC's commodity costs. MERC's initial petitions do not reflect the assignment of demand storage costs to the commodity factors, with the exception of Attachment 11 provided by MERC that shows the effect of re-classifying storage cost recovery in its commodity factors. The Department recommended to the Commission that MERC be required to reflect the storage demand costs in its commodity factors.

In its June 7, 2010 comments, the Department recommendations that apply to the PNG-NNG (docket 09-1284) PGA area was as follows:

- approve the PGA recovery of costs associated with MERC-PNG's Northern PGA systems demand entitlement level, based on FDD storage costs being included in the commodity cost of gas, as presented in the Company's initial petition, Attachment 11, and OES Attachment 7 in its April 2, 2010 Comments effective November 1, 2009;

However, in its August 6, 2014 Order on MERC's 2007-2008 demand entitlements, the Commission approved MERC's storage classification and allocation proposal,¹⁴ effective November 1, 2014.

PUC Staff Comment

PUC staff agrees the Department's recommendation that the Commission approve the PGA cost recovery associated with MERC's PNG NNG PGA systems, but it considers the FDD storage costs allocation issue to be resolved on a going forward basis for all outstanding MERC demand entitlement petitions, thus, will not revisit it in the 2009-2010 demand entitlement petitions briefing papers. The Commission approved MERC's March 7, 2008 storage classification and allocation proposal,¹⁵ effective November 1, 2014, in its August 6, 2014 Order in MERC's 2007-2008 demand entitlement petitions.

PUC staff believes the Commission does not need to address the Department's recommendation in this docket because the Commission has made its decision on storage cost recovery.

¹⁴ For further detail, see the July 15, 2014 PUC staff briefing papers for Docket Nos. 07-1402, 07-1403, 07-1404, and 07-1405

¹⁵ Ibid.

Staff did not include this issue in the decision alternatives at the end of these briefing papers because it believes this issue has been addressed and resolved. If the Commission issues informal letter orders adopting the Department's recommendations in these dockets, it may want to make clear in its order that it is not adopting that part of the Department's recommendation.

(Staff is working on bringing the filings from 2010-2014 to the Commission now that this issue is resolved.)

Decision Alternatives

The following Decision Alternatives apply to all of the MERC dockets addressed in these briefing papers. Those dockets were:

Docket Nos. G-007/M-09-1282 (MERC NMU)

Docket Nos. G-007/M-09-1283 (MERC-PNG GLGT)

Docket Nos. G-007/M-09-1284 (MERC-PNG NNG)

Docket Nos. G-007/M-09-1285 (MERC-PNG Viking)

1. MERC is seeking Commission Approval for Demand Entitlement petitions effective November 1, 2009 for its 4 PGA areas; MERC-NMU, MERC-PNG Viking, MERC-PNG GLGT, and MERC-PNG NNG.

MERC and the Department do not have any issues remaining on the following resolved issues:

- Design Day Requirements Estimates
 - Demand Entitlement Estimates without endorsing its design-day study analysis
 - Reserve Margin Calculation
 - Peak day send-out use per customer
 - Storage Contract changes and cost recovery
 - PGA Cost Recovery
- A. Approve MERC's request for interstate pipeline and other capacity changes to meet its Design Day and Reserve Margin requirements as described in the listed dockets, and
 - B. Approve MERC's request to recover the associated cost changes in its pipeline demand entitlement contracts and supplier reservation fees as requested by MERC, and
 - C. Require that until actual daily transportation and interruptible data is available for all customers, that MERC use, for all its PGA systems, the modified non-firm gas use method as presented in its March 22, 2010 *Reply Comments* for the Great Lakes PGA system, and
 - D. Require MERC-NMU to provide in its next demand entitlement filing a full discussion of how it intends to deal with the capacity limitations currently in place on the Northern Natural Gas system and how it intends to charge appropriate rates to Northern pipeline customers on both the MERC-NMU and MERC-PNG Northern PGA systems.

Staff Note

Staff believes the adoption of alternatives 1-A, 1-B, 1-C and 1-D would accomplish the same result as adopting the Department's June 7, 2010 comments and recommendations with the two qualifications noted in the staff briefing papers (on pp. 6-7) involving allocation of storage costs and the refund of over-recovered call option costs to MERC's PNG-GLGT customers.

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MERC-NMU (09-1282) Transportation Demand Entitlements Changes

Quantities in Mcf

MERC-NMU	08-1329 Level ¹⁶	09-1282 Level ¹⁷	Difference
	(1)	(2)	(3)
NNG TF 12 B&V	9,296	12,756	3,460
NNG TF 5	5,451	1,991	(3,460)
NNG TFX 5	6,139	6,139	0
LS Power	2,777	2,725	(52)
GLGT FT	10,130	10,130	0
GLGT FT (12)	1,178	1,178	0
GLGT FT (5)	2,138	2,138	0
GLGT FT	4,000	3,000	(1,000)
VGT FT-A	7,966	7,966	0
VGT FT-A (4)	5,902	5,902	
NNG-TF 12 Chisago Base	926	1,368	442
NNG-TF 12 Chisago Var.	0	955	955
NNG-TF 5 Chisago	2,089	563	(1,526)
NNG-TFX12Chisago	2,324	2,089	(235)
NNG-TFX 5 Chisago	563	926	363
Centra FT-1	9,858	9,858	0
VGT Capacity Release	0	0	0
Total Demand Entitlement	64,835 ¹⁸	63,782 ¹⁹	(1,053)
Forecasted DD Requirement	63,726	60,918	(2,808)
Demand Entitlements Surplus/Storage	1,109	2,864	1,755
Reserve Margin	1.74%	4.70%	2.96%

[PUC staff note: The VGT FT-A (4) volumes are not included in the Total Demand Entitlement volume.]

¹⁶ Source of this information is Docket 08-1329 Initial Petition dated November 1, 2008, Attachments 3 and 4, p. 2.

¹⁷ Source of this information is Docket 09-1282 Initial Petition dated November 1, 2009, Attachments 3 and 4, p. 2.

¹⁸ Include only the VGT RT-A (4) demand entitlements and not the NNG-TF, NNG-TFX12, NNG-TFX 5 volumes, which total to 5,902 (backhaul arrangement)

¹⁹ Ibid.

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MERC-PNG GLGT (09-1283) Transportation Demand Entitlements Changes

Quantities in Mcf

MERC-PNG GLGT	08-1330 Level ²⁰	09-1283 Level ²¹	Difference
	(1)	(2)	(3)
FT0017	4,105	4,105	0
FT0075	1,973	1,973	0
FT0155 (12)	2,422	2,422	0
FT0155 (5)	1,500	1,500	0
FT8466	500	1,500	1,000
Total Demand Entitlement	10,500	11,500	1,000
Forecasted DD Requirement	10,299	10,802	503
Demand Entitlements Surplus/Storage	201	698	497
Reserve Margin	1.95%	6.46%	4.51%

²⁰ Source of this information is Docket 08-1330 Initial Petition dated November 1, 2008, Attachments 3 and 4, p. 2.

²¹ Source of this information is Docket 09-1283 Initial Petition dated November 1, 2009, Attachments 3 and 4, p. 2.

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MERC-PNG NNG (09-1284) Transportation Demand Entitlements Changes

Quantities in Mcf

MERC-PNG NNG	08-1328 Level ²²	09-1284 Level ²³	Difference
	(1)	(2)	(3)
TF-12 Base and Variable	62,596	59,804	(2,792)
TF5	26,827	29,619	2,792
TFX-12	29,246	31,199	1,953
TFX-5	79,293	81,567	2,274
Windom	2,500	2,500	0
LSP Peaking Service	26,323	26,375	52
Total Demand Entitlement	226,785	231,064	4,279
Forecasted DD Requirement	225,397	206,333	(19,064)
Demand Entitlements Surplus/Storage	1,388	24,731	23,343
Reserve Margin	0.62%	11.99%	11.37%

²² Source of this information is Docket 08-1328 Initial Petition dated November 1, 2008, Attachments 3 and 4, p. 2.

²³ Source of this information is Docket 09-1284 Initial Petition dated November 1, 2009, Attachments 3 and 4, p. 2.

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MERC-PNG Viking (09-1285) Transportation Demand Entitlements Changes

Quantities in Mcf

MERC-PNG Viking	08-1331 Level ²⁴	09-1285 Level ²⁵	Difference
	(1)	(2)	(3)
AF0012	3,527	3,527	0
AF0016	1,000	1,000	0
AF0102	2,000	2,000	0
NNG-TF 12 Chisago 112495 B	172	255	83
NNG-TF 12 Chisago 112495 V	0	178	178
NNG-TF 5 Chisago 112495	389	105	(284)
NNG-TFX12Chisago112486	432	389	(43)
NNG-TFX 5 Chisago112486	105	172	67
Total Demand Entitlement	7,625	7,625	0
Forecasted DD Requirement	7,420	6,891	(529)
Demand Entitlements Surplus/Storage	205	734	529
Reserve Margin	2.76%	10.65%	(2.22%)

²⁴ Source of this information is Docket 08-1331 Initial Petition dated November 1, 2008, Attachments 3 and 4, p. 2.

²⁵ Source of this information is Docket 09-1285 Initial Petition dated November 1, 2009, Attachments 3 and 4, p. 2.

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MERC-NMU (09-1282) Transportation Demand Entitlements PGA Costs, as adjusted

MERC-NMU	Contract Number	08-1329 Demand Costs ²⁶	09-1282 Demand Costs ²⁷	Difference
	(1)	(2)	(3)	(4)
NNG TF 12 B&V	112495	\$966,064	\$1,255,236	\$289,172
NNG TF 5	112495	\$412,995	\$150,848	(\$262,147)
NNG TFX 5	112486	\$465,121	\$465,121	\$0
LS Power		\$36,211	\$35,531	(\$680)
GLGT FT	FT0016	\$420,354	\$420,354	\$0
GLGT FT (12)	FT0155	\$48,882	\$48,882	\$0
GLGT FT (5)	FT0155	\$36,966	\$36,966	\$0
GLGT FT	FT8466	\$165,984	\$124,488	(\$41,496)
VGT FT-A	AF0012	\$331,427	331,427	\$0
VGT FT-A		\$111,167	88,934	(\$22,233)
VGT – Cap. Release	RF0361	\$0	\$0	\$0
NNG-TF 12 B Chisago	112495	\$84,181	\$124,431	\$40,250
NNG-TF 12 V Chisago		\$0	\$104,232	\$104,232
NNG-TF 5 Chisago	112495	\$158,296	\$42,672	(\$115,624)
NNG-TFX12Chisago	112486	\$268,494	\$241,411	(\$27,083)
NNG-TFX 5 Chisago	112486	\$42,672	\$70,141	\$27,469
Centra FT-1		\$536,214	\$531,532	(\$4,682)
Union Balancing		\$54,000	\$54,000	\$0
Centra MN Pipelines		\$145,634	\$145,634	\$0
Total Demand Entitlement Costs		\$4,284,662	\$4,271,840	(\$12,822)

²⁶ Source of this information is Docket 08-1329 Initial Petition dated November 1, 2008, Attachment 4, p. 2.

²⁷ Source of this information is Docket 09-1282 Initial Petition dated November 1, 2009, Attachment 4, p. 2.

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MERC-PNG GLGT (09-1283) **Transportation** Demand Entitlements PGA Costs

MERC-PNG GLGT	Contract Number	08-1330 Demand Costs ²⁸	09-1283 Demand Costs ²⁹	Difference
	(1)	(2)	(3)	(4)
FT-A	FT0017	\$170,341	\$170,341	\$0
FT-A	FT0075	\$81,872	\$81,872	\$0
FT-A	FT0155	\$100,503	\$100,503	\$0
FT-A	FT0155	\$25,935	\$25,935	\$0
FT-A	FT8466	\$25,935	\$62,244	\$36,309
Total Demand Entitlement Costs		\$404,586	\$440,895	\$36,309

²⁸ Source of this information is Docket 08-1330 Initial Petition dated November 1, 2008, Attachment 4, p. 2.

²⁹ Source of this information is Docket 09-1283 Initial Petition dated November 1, 2009, Attachment 4, p. 2.

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MERC-PNG NNG (09-1284) **Transportation** Demand Entitlements PGA Costs

MERC-PNG NNG	Contract Number	08-1328 Demand Costs ³⁰	09-1284 Demand Costs ³¹	Difference
	(1)	(2)	(3)	(4)
TF-12 Base and Variable		\$6,227,986	\$5,816,707	(\$411,279)
TF5		\$2,003,752	\$2,244,084	\$240,332
TFX-12		\$1,689,365	\$1,746,271	\$56,906
TFX-5		\$6,303,269	\$5,656,324	(\$646,945)
TFX	112486	\$11,366	\$11,366	\$0
TFX	112486	\$11,366	\$11,366	\$0
TFX7	111866	\$168,437	\$317,633	\$149,196
Windom		\$0	\$0	\$0
LSP Peaking Service		\$343,217	\$343,897	\$680
Total Demand Entitlement Costs		\$16,758,758	\$16,147,648	(\$611,110)

³⁰ Source of this information is Docket 08-1328 Initial Petition dated November 1, 2008, Attachment 4, p. 2.

³¹ Source of this information is Docket 09-1284 Initial Petition dated November 1, 2009, Attachment 4, p. 2.

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MERC-PNG Viking (09-1285) **Transportation** Demand Entitlements PGA Costs

MERC-PNG Viking	Contract Number	08-1331 Demand Costs ³²	09-1285 Demand Costs ³³	Difference
	(1)	(2)	(3)	(4)
FT-A	AF0012	\$146,742	\$146,742	\$0
FT-A	AF0014	\$11,421	\$11,421	\$0
FT-A	AF0016	\$41,605	\$41,605	\$0
FT-A	AF0102	\$83,210	\$83,210	\$0
NNG-TF 12 Chisago B	112495	\$15,661	\$23,149	\$7,488
NNG-TF 12 Chisago V	112495	\$0	\$19,391	\$19,391
NNG-TF 5 Chisago	112495	\$29,449	\$7,939	(\$21,510)
NNG-TFX12Chisago	112486	\$49,950	\$44,912	(\$5,038)
NNG-TFX 5 Chisago	112486	\$7,939	\$13,049	\$5,110
Capacity Release	RF0361	\$0	\$0	\$0
Total Demand Entitlement Costs		\$385,977	\$391,418	5,441

Summary of demand entitlement costs for all PGA areas

	2008-2009 Demand Costs	2009-2010 Demand Costs	Difference
MERC-NMU	\$4,284,662	\$4,271,840	(\$12,822)
MERC-PNG Viking	\$385,977	\$391,418	\$5,441
MERC-PNG GLGT	\$404,586	\$440,895	\$36,309
MERC-PNG NNG	\$16,758,758	\$16,147,648	(\$611,110)
Total	\$21,833,983	\$21,251,801	(\$582,182)

³² Source of this information is Docket 08-1331 Initial Petition dated November 1, 2008, Attachment 4, p. 2.

³³ Source of this information is Docket 09-1285 Initial Petition dated November 1, 2009, Attachment 4, p. 2.