Minnesota Public Utilities Commission
Staff Briefing Papers

Meeting Date: **February 26, 2015 .... Agenda Item #2**

Company: Minnesota Energy Resources Corporation (MERC)

Docket Nos. **G-011/M-13-669**
In the Matter of a Petition by Minnesota Energy Resources Corporation (MERC-Consolidated) for Approval of Changes in Contract Demand Entitlements for the 2013-2014 Heating Season Supply Plan effective November 1, 2013.

G-011/M-13-670
In the Matter of a Petition by Minnesota Energy Resources Corporation (MERC-Northern Natural Gas (NNG)) for Approval of Changes in Contract Demand Entitlements for the 2013-2014 Heating Season Supply Plan effective November 1, 2013.

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, 2013?

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

Relevant Documents

<u>G-011/M-13-669 (MERC-Consolidated)</u>
MERC Initial Petition and Schedules .... August 1, 2013
Department of Commerce (Department) Comments .... October 3, 2013
MERC Revised Petition and Schedules .... November 1, 2013
Department Reply Comments .... January 8, 2014

<u>G-011/M-13-670 (MERC-NNG)</u>
MERC Initial Petition and Schedules .... August 1, 2013
Department of Commerce (Department) Comments .... October 3, 2013
MERC Reply Comments .... October 31, 2013
MERC Revised Petition and Schedules .... November 1, 2013
Department Reply Comments .... January 13, 2014

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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Table of Contents

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, 2013?

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 entitlement[1] 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.

In these petitions, MERC consolidated its previous 4 PGA rate areas into 2 PGA rate areas effective July 1, 2013;[3] MERC-Consolidated and MERC-NNG. The MERC-Consolidated PGA area groups all of MERC's customers that receive gas delivered through the Viking Gas Transmission, Great Lakes Gas Transmission, and Centra pipelines.[4] The MERC-NNG PGA area includes all customers that receive gas delivered through the NNG pipeline.[5]

PUC staff reviewed MERC's Demand Entitlement Petitions and the *Comments* filed by the Department and MERC. The Department and MERC have worked together and resolved all of issues raised by the Department. PUC staff generally agrees with the Department's January 8, 2014 and January 13, 2014 recommendations for these petitions with one qualification.

For its briefing papers, PUC staff consolidated MERC's 2 PGA areas[6] into one discussion, but will discuss issues related to a particular PGA area separately.

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[1] D*emand 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] Pursuant to MERC's rate case in Docket No. 10-977, the Commission's December 21, 2012 Order approved MERC's consolidation request, see the Commission Ordering Point 13

[4] See MERC's Revised Petition, Attachment 3, p. 4

[5] Ibid.

[6] MERC has two separate PGA areas, MERC-Consolidated (13-669) and MERC-NNG (13-670).

Minnesota Rules

Minnesota Rule, part 7825.2910, subpart 2[7] 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.

MERC – Initial Filings

MERC's Design Day (DD) Requirements

MERC calculated its 2013-2014 Design Day (DD) requirements at 295,926 Mcf/day.

Table 1 - Design Day (DD) requirements[8] by PGA area (reflected in Mcf/day):

Total MERC	MERC-Consolidated	MERC-NNG
295,926	50,048	245,878

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

Pipeline	Total	MERC-Consolidated	MERC-NNG
Viking	17,402	17,402	
GLGT	24,906	24,906	
Centra	7,740	7,740	
NNG	245,878		245,878
Total	295,926	50,048	245,878

MERC's Demand Entitlement Contract Levels

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 2013-2014 transportation demand entitlement contract levels were modified from the previous 2012-2013 levels, which resulted in 309,344 Mcf/day of available interstate pipeline transportation capacity.

Table 3 – Transportation Demand Entitlements[9] by PGA area (reflected in Mcf/day):[10]

Total MERC	MERC-Consolidated	MERC-NNG
309,344	52,959	256,385

[7] 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.

[8] Includes Transportation only, does not include Storage Entitlements.

[9] Ibid.

[10] MERC initially proposed to increase the MERC-NMU winter demand entitlements by 1,252 Dth/day from the 2011-2012 demand entitlement petitions. The Department noted that MERC-NMU overlooked a decrease in Centra FT-1 service of 358 Dth/day in calculating its petition's spreadsheets. The corrected entitlement net change should be an increase of 894 Dth. PUC staff has incorporated this correction in the tables and attachments reflected in these PUC staff briefing papers.

[PUC staff note: The transportation demand entitlements reflected in Table 3 does not include the 50,000 Dth/d Bison and NBPL interstate pipeline contracts.]

MERC's Reserve Margin

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 4 - Reserve Margins[11] by PGA areas.

	MERC-Consolidated	MERC-NNG
Quantities in Mcf[12]	2,911	10,507
As a Percentage[13]	5.82%	4.27%

Table 5 - Reserve Margin – MERC total system

All Dockets-Total MERC	Quantities in Mcf
Total MERC Reserve Margin	13,418
Total MERC DD requirements	295,926
Reserve Margin as a percentage	**4.53%**

For these petitions, MERC stated its demand entitlement increased primarily due to:

1. Purchasing a NNG Zone Delivery Call Option for 20,000 Dth/day, which the 2012-2013 demand entitlement petitions did not include.

2. MERC participated in NNG's Tomah line open season and was awarded 2,900 Mcf/day of winter capacity. The additional NNG Tomah line capacity will be used for anticipated Rochester, MN area growth.

MERC's Demand Entitlement Contract Costs

The Commission approved MERC's 2012-2013 demand entitlement contract costs of $35,622,116.[14] In these two dockets, MERC proposed to recover 2013-2014 demand entitlement costs of $36,841,976, an increase of $1,219,860.

Tables 6a reflects the Bison/NBPL contract cost as part of MERC's demand entitlement costs, while Table 6b does not reflect the contracts as part of MERC's demand entitlement costs.

[11] See Appendix A for calculation
[12] Calculated by taking the Total Demand Entitlements contracts and subtracting the total DD requirements
[13] Calculated by dividing the difference between the total Demand Entitlements contracts and the total DD requirements by the total DD requirements
[14] See Docket Nos. 12-1192, 12-1193, 12-1194, and 12-1195, MERC's 2012-2013 demand entitlement petitions were approved at the January 29, 2015 Commission Agenda meeting

Table 6a - Transportation Demand Entitlement Costs, with Bison and NBPL:

PGA area	2013-2014 Demand Cost of Gas
MERC-Consolidated	$2,768,494
MERC-NNG	$34,073,482
Total	**$36,841,976**

Table 6b - Transportation Demand Entitlement Costs, without Bison and NBPL:

PGA area	2013-2014 Demand Cost of Gas
MERC-Consolidated	$2,768,494
MERC-NNG	$19,382,232
Total	**$21,150,726**

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

Department - Comments

The Department reviewed MERC's proposed Design Day (DD) requirements, demand entitlements, resulting reserve margins, and the miscellaneous changes that occurred since MERC's last 2012-2013 demand entitlement petitions.

The Department summarized MERC's proposed 2013-2014 DD requirements by PGA area, for a total increase of 17,849 Mcf/day, see Table 7:

Table 7 – MERC's DD requirements

PGA area	2012-2013	2013-2014	Difference	% increase/(decrease)
MERC-Consolidated	52,289	50,048	(2,241)	(4.29%)
MERC-NNG	225,788	245,878	20,090	8.90%
Total	278,077	295,926	17,849	6.42%

MERC's proposed changes to its 2013-2014 demand entitlement requirements and Reserve Margin levels in its 2 PGA areas are summarized in Tables 8 and 9.

Table 8 – MERC's Demand Entitlements requirements

PGA area	2012-2013	2013-2014	Difference	% increase/(decrease)
MERC-Consolidated	54,959	52,959	(2,000)	(3.64%)
MERC-NNG	233,484	256,385	22,901	9.81%
Total	288,443	309,344	20,901	7.25%

Table 9 – Reserve Margin Comparison by PGA area

PGA area	2012-2013 Demand Entitlement Filing	2013-2014 Demand Entitlement Filing	Difference	% Difference
MERC-Consolidated	5.11%	5.82%	0.71%	13.89%
MERC-NNG	3.41%	4.27%	0.86%	25.22%

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

Department Concerns

MERC's Design Day Calculations

The Department's 2013-2014 demand entitlement discussion continued to include additional weather variables in certain DD regression models these dockets, but did not use the variables in its final DD analysis, similar to MERC's 2012-2013 demand entitlement petitions. The Department continued to state that it does not oppose MERC's evaluation of other weather determinants in its effort to produce robust DD estimates, but noted that some of this additional data was taken from a proprietary source. The Department stated that when a utility company uses proprietary data in its analysis, the Department cannot fully verify that the results of the analysis. The Department recommended that the Commission accept MERC's peak-day analysis with the caveat that the Department cannot fully verify the results of MERC's analysis.

Department requested MERC-NNG to respond in *Reply Comments* to the following:[15]

1. Changes to MERC's TFX5 MAX and Discount demand levels
2. Differences in FDD storage contract reservation and capacity amounts[16]

Design Day and Demand Entitlement Requirements

The Department determined that MERC's proposed levels of DD requirements and demand entitlements were reasonable for its 2 PGA areas, see Tables 7 and 8 above.

Reserve Margins

The Department determined that MERC's 2 PGA areas' reserve margins percentage were reasonable, see Table 9 above.

MERC - Reply Comments

In its October 31, 2013 Reply Comments in these petitions, MERC-NNG provided its response to the Department's comments regarding: 1) changes to MERC's TFX5 MAX and Discount demand levels, 2) differences in FDD storage contract reservation and capacity amounts.[17]

[15] Applicable to MERC-NNG and no MERC-Consolidated

[16] See Department's October 3, 2013 *Comments*, Attachment 1

Department - Reply Comments

In its January 13, 2014 *Reply Comments,* the Department reviewed MERC October 31, 2013 *Reply Comments* and stated that the explanations provided by MERC were reasonable and raised no further issues.

Based on its analysis, the Department recommended that the Commission:

- allow MERC to recover storage gas costs through the commodity portion of the PGA, rather than the demand portion;
- accept MERC's peak-day analysis with the caveat that the Department cannot fully verify the results of MERC's analysis as mentioned above;
- accept MERC's proposed level of demand entitlement; and
- allow the proposed recovery of associated demand costs effective November 1, 2013.

PUC Staff Comment

PUC staff reviewed the 2013-2014 demand entitlement petitions for MERC's 2 PGA areas and appreciates all the party comments. PUC staff believes that for the time period at issue in these dockets, all issues have been resolved by the parties in the rounds of comments provided. 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 January 8, 2014 (MERC-Consolidated) and January 13, 2014 (MERC-NNG) recommendations with one qualification.

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 its August 6, 2014 Order on MERC's 2007-2008 demand entitlements, the Commission approved MERC's storage classification and allocation proposal,[18] effective November 1, 2014.

In the 2013-2014 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, page 2[19] provided by MERC that shows the effect of re-classifying storage cost recovery in its commodity factors. The Department continued to endorse its original recommendation to the Commission that MERC be required to reflect the storage

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[17] See MERC's October 31, 2013 *Reply Comments, pp. 1-3*
[18] For further detail, see the July 15, 2014 PUC staff briefing papers for Docket Nos. 07-1402, 07-1403, 07-1404, and 07-1405
[19] For further details, see Petition, Attachment 4, pp. 4-6, and Attachment 11, p. 2

demand costs in its commodity factors.[20]

In its January 13, 2014 *Reply Comments* for the 2013-2014 demand entitlement petitions, the Department continues to recommend that MERC apply its storage proposal as follows:

- allow MERC to recover storage gas costs through the commodity portion of the PGA, rather than the demand portion

PUC staff agrees with the Department's recommendation that the Commission approve the PGA cost recovery associated with MERC's PNG-NNG and NMU 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 2013-2014 demand entitlement petitions briefing papers. The Commission approved MERC's March 7, 2008 storage classification and allocation proposal,[21] 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. Staff did not include this issue in the decision alternatives at the end of these briefing papers because this issue has been addressed and resolved.

Decision Alternatives

The following Decision Alternatives apply to the two MERC dockets addressed in these briefing papers. Those dockets are:

Docket Nos. G-011/M-13-669 (MERC-Consolidated)
Docket Nos. G-011/M-13-670 (MERC-NNG)

1. Approve MERC's demand entitlement petitions for 2013-2014, effective November 1, 2013, for its 2 PGA areas – MERC-Consolidated and MERC-NNG; <u>and</u>

2. Accept MERC's peak-day analysis with the caveat that the Department cannot fully verify the results of MERC's analysis (as described above and in the Department's comments) for all of its PGA areas; <u>and</u>

3. Accept MERC's proposed level of demand entitlement for all of its PGA areas; <u>and</u>

4. Allow MERC's proposed recovery of associated demand costs effective November 1, 2013 for all of its PGA areas.

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[20] See the Department comments in MERC's 2008-2009, 2009-2010, 2010-2011, and 2011-2012 demand entitlement petitions

[21] Ibid.

Transportation Demand Entitlements Changes

MERC-Consolidated	12-1192&1194&1195	13-669	Difference
	(1)	(2)	(3)
	Mcf	Mcf	Mcf
			(2) - (1)
GLGT FT FT0016	10,130	10,130	0
GLGT FT (12) FT0155	3,600	3,600	0
GLGT FT (5) FT0155	3,638	3,638	0
GLGT FT FT15782	9,000	9,000	0
VGT FT-A AF0012	12,493	12,493	0
VGT FT-A AF0014	1,098	1,098	0
VGT FT-A AF0102	2,000	2,000	0
VGT FA-A	0	1,500	1,500
Wadena Delivered Option	3,500	0	(3,500)
Centra FT-1	9,500	9,500	0
Total Demand Entitlements	54,959	52,959	(2,000)
Total DD Requirements	52,289	50,048	(2,241)
Surplus/Deficient	2,670	2,911	241
Reserve Margin	**5.11%**	**5.82%**	

Transportation Demand Entitlements Changes

MERC-NNG	12-1193&1195	13-670	Difference
	(1)	(2)	(3)
	Mcf	Mcf	Mcf
			(2) - (1)
TF-12 Base and Variable	75,316	76,079	763
TF5	32,278	31,515	(763)
TFX-12	32,297	32,297	0
TFX-5	90,183	93,084	2,901
Bison	50,000	50,000	0
NBPL	50,000	50,000	0
Northwest Gas (Windom)	2,500	2,500	0
NW Energy (Ortonville)	910	910	0
NNG Zone Delivery Call Opt	0	20,000	20,000
Total Demand Entitlement	233,484	256,385	22,901
Total DD Requirements	**225,788**	**245,878**	20,090
Surplus/Deficient	7,696	10,507	2,811
Reserve Margin	**3.41%**	**4.27%**	

[PUC staff note: The Bison and NBPL are used to deliver Rockies supply into NNG - does not add incremental capacity deliveries for MERC's design day demand entitlements.]

Transportation Demand Entitlements PGA Costs, as adjusted

MERC-Consolidated	12-1192&1194&1195	13-669	Difference
	(1)	(2)	(3)
	$	$	$
VGT FT-A AF0012	519,774	510,212	(9,562)
VGT FT-A AF0014	11,420	11,211	(209)
VGT FT-A AF0102	83,210	81,680	(1,530)
VGT FA-A	0	16,669	16,669
Wadena Delivery Option	12,597		
GLGT FT FT0016	420,355	467,886	47,531
GLGT FT (12) FT0155	149,385	166,277	16,892
GLGT FT (5) FT0155	62,901	70,013	7,112
GLGT FT FT15782	373,464	415,693	42,229
Balancing Service	55,656	0	(55,656)
Centra FT-1	662,537	826,161	163,624
Union Balancing	54,000	0	(54,000)
Centra MN Pipelines	202,692	202,692	0
Total Demand Entitlement	**2,607,991**	**2,768,494**	**173,100**

Transportation Demand Entitlements PGA Costs

MERC-NNG	12-1193&1195	13-670	Difference
	(1)	(2)	(3)
	$	$	$
			(2) - (1)
TF-12 Base and Variable	7,318,086	7,347,063	28,977
TF5	2,416,728	2,387,734	(28,994)
TFX-12	2,185,889	2,955,980	770,091
TFX-5	6,300,130	6,527,363	227,233
Bison	10,488,000	10,493,750	5,750
NBPL	4,195,200	4,197,500	2,300
TFX 112486	11,366	11,366	0
TFX 112486	11,366	11,366	0
TFX7 111866	0	0	0
Windom	0	0	0
Ortonville	87,360	87,360	0
NNG Zone GDD Call Option	0	54,000	54,000
LSP Peaking Service	0	0	0
Total Demand Entitlement	**33,014,125**	**34,073,482**	**1,059,357**

Summary of demand entitlement costs for all PGA areas

PGA Area	12 Total Costs	13 Total Costs	Difference
	(1)	(2)	(3)
	$	$	$
			(2) - (1)
MERC-NMU	2,607,991	2,768,494	160,503
MERC-PNG NNG	33,014,125	34,073,482	1,059,357
Total Demand Entitlement	**35,622,116**	**36,841,976**	**1,219,860**