COMMERCE DEPARTMENT

October 3, 2024

Will Seuffert
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. G011/M-24-270

Dear Mr. Seuffert:

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

> In the Matter of Minnesota Energy Resources Corp.'s Petition for Approval of a Change in Demand Entitlements for its Customers Served off the Northern Natural Gas Company (NNG) System (Petition)

The Petition was filed on August 1, 2024 by Minnesota Energy Resources Corporation.

The Department will provide its final recommendations to the Minnesota Public Utilities Commission (Commission) after the Company files its Reply Comments and its November 1, 2024 updated filing. The Department is available to answer any questions the Commission may have.

Sincerely,

/s/ Dr. Sydnie Lieb
Assistant Commissioner of Regulatory Analysis

AZ/DT/ad
Attachment

# Before the Minnesota Public Utilities Commission

## Comments of the Minnesota Department of Commerce
## Division of Energy Resources

Docket No. G011/M-24-270

## I. INTRODUCTION

The Minnesota Department of Commerce, Division of Energy Resources (Department) provides its comments on the Demand Entitlement Filing (Petition) of Minnesota Energy Resources Corporation (MERC or the Company) for its NNG System in Docket No. G011/M-24-270.[1] Pursuant to Minn. R. 7825.2910, Subp. 2,[2] MERC filed a petition requesting a change in demand[3] on August 1, 2024 for MERC customers served off the Northern Natural Gas (NNG or Northern) System (MERC-NNG).[4]

MERC proposes to decrease its total design-day requirement by 765 dekatherms to 290,169 dekatherms (Dth) per day. The Company proposes no changes to the Company's current demand entitlement quantity of 320,242 Dth/day. The Company proposes changes to its contracts that do not impact demand entitlement levels but do impact the demand costs recovered from customers in the monthly purchased gas adjustment (PGA).

The Department provides its initial recommendations in these comments, primarily related to the Company's proposed design-day requirements. The Department will provide its analysis on the remaining components of the Company's Petition and final recommendations after the Company files its Reply Comments and its November 1, 2024 updated filing. For example, the remaining analysis of the Company's request would include the following areas:

- Remaining Compliances, for example the Rochester project compliance;
- changes to capacity;
- reserve margins; and
- PGA cost recovery proposals.

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[1] *Petition for Approval of a Change in Demand Entitlement for its NNG System – Minnesota Energy Resources Corporation, In the Matter of Minnesota Energy Resources Corporation's Petition for Approval of a Change in Demand Entitlement for its NNG System, Docket No. G011/M-24-270* (August 1, 2024). (eDocket No. 20248-209171-01). Hereinafter "Petition."

[2] Minn. R. 7825.2910, Subp. 2: "Filing upon a change in demand. Gas utilities shall file for a change in demand to increase or decrease demand, to redistribute demand percentages among classes, or to exchange one form of demand for another."

[3] Also called entitlement, capacity, or transportation on the pipeline.

[4] In its December 21, 2012, Order in Docket No. G007,011/GR-10-977, the Commission approved consolidation of MERC's four Purchased Gas Adjustment (PGA) systems effective July 1, 2013. See eDocket No. 201212-82091-01. MERC named the PGA for the NNG customers "MERC-NNG." At the time, MERC's only other PGA system was named "MERC-Consolidated." Effective May 1, 2015, MERC acquired Interstate Power & Light Company's Minnesota natural gas operations and customers. The Commission required MERC to maintain the transitioned customers on a separate PGA until MERC's next rate case. MERC named the PGA for the transitioned customers "MERC NNG-Albert Lea." Pursuant to the Commission's October 31, 2016 Order in Docket No. G011/GR-15-736, the MERC-NNG and MERC NNG–Albert Lea PGAs were consolidated effective July 1, 2017. See eDocket No. 201610-126124-01. On August 1, 2024, MERC filed a demand entitlement request for MERC-Consolidated in Docket No. G011/M-24-269.

## II. PROCEDURAL HISTORY AND SUMMARY OF MERC'S REQUEST

The Department provides the relevant procedural history and a summary of MERC's requests in the Petition below.

### *A. PROCEDURAL HISTORY*

In its February 4, 2015 Order in Docket Nos. G011/M-12-1192, G011/M-12-1193, G011/M-12-1194, G011/M-12-1195, the Commission stated in part the following: "Required MERC to check its regression models for autocorrelation and correct the model if autocorrelation is present by removing the autocorrelation from the model."[5]

In its April 28, 2016 Order in Docket Nos. G011/M-15-722, G011/M-15-723, G011/M-15-724, the Commission stated in part the following: "Required MERC to verify its regression analysis results in future demand entitlement filings to ensure the results are consistent with the underlying theory the analysis attempts to explain."[6]

In its May 5, 2017, Order in Docket No. G011/M-15-895, the Commission required the Company to include Rochester Project related capacity costs in the commodity portion of the monthly Purchased Gas Adjustment (PGA).[7]

In its May 8, 2018, Order in Docket No. G011/M-15-895, the Commission required the Company to provide a discussion of each capacity substitution in its annual demand entitlement filing on a going-forward basis.[8]

On February 17, 2023, the Commission issued its Order Requiring Actions To Mitigate Impacts From Future Natural Gas Price Spikes, Setting Filing Requirements, and Initiating A Proceeding to Establish Gas Resource Planning Requirements in Docket Nos. G999/CI-21-135, G008/M-21-138, G004/M-21-235, G002/CI-21-610, and G011/CI-21-611.[9] Ordering Paragraphs 9 and 10 stated the following:

> 9. In future contract demand entitlement filings, the gas utilities in this docket shall discuss how changes to their pipeline capacity affect their supply diversity and, if pipeline capacity comes at a cost premium but increases supply diversity, provide a meaningful cost/benefit discussion of the tradeoff, including a comparison with the least-cost capacity option.

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[5] See eDocket No. 20152-107016-04. Hereinafter "February 4, 2015 Order."
[6] See eDocket No. 20164-120779-03. Hereinafter "April 28, 2016 Order."
[7] See eDocket No. 20175-131604-01. Hereinafter "May 5, 2017 Order."
[8] See eDocket No. 20185-142843-01. Hereinafter "May 8, 2018 Order."
[9] See eDocket No. 20232-193249-04. Hereinafter "February 17, 2023 Order."

10. Each gas utility in this docket shall include in its relevant annual, forward-looking gas planning or hedging filings:
A. Its expected supply mixes across different load and weather conditions throughout each month of the upcoming winter season;
B. The forecasted minimum, average, and maximum day load requirements; and
C. The expected mix of baseload, storage and spot supply on those days.

In its January 17, 2024 Order in Docket No. G011/M-23-359, the Commission accepted the Company's proposed demand entitlement, allowed the Company to recover associated demand costs through the monthly PGA effective November 1, 2023, and denied MERC's proposal to file a compliance filing in the same docket regarding its NNG pipeline refunds.[10]

In its July 16, 2024 Order in Docket No. G011/M-24-155, the Commission approved the Company's purchase of additional capacity and the corresponding increase in demand costs implemented April 1, 2024.[11]

On August 21, 2024, the Company submitted its Petition in the current proceeding, requesting a change to the Company's demand entitlements pursuant to Minn. R. 7829.2910, Subp. 2.[12]

*B. SUMMARY OF MERC'S REQUEST*

MERC proposes to decrease its total design-day requirement by 765 dekatherms (Dth) to 290,169 Dth/day.[13] The Company currently has design-day capacity of 320,042 Dth/day on its MERC-NNG system and proposes no change for the 2024-2025 heating season.[14] The Company proposes a reserve margin of 11.59 percent, an increase of 0.29 percent from the 10.07 percent reserve margin for the 2023-2024 heating season.[15] MERC also proposes changes to its non-design-day deliverable contracts.[16]

MERC's proposed entitlement changes results in an estimated increase in demand costs for residential customers of $0.0235 per Dth, 1.87 percent, or approximately $2.01 per year compared to the rates included in the Company's July 2024 PGA.[17] MERC also includes commodity costs in this Petition. Commodity costs are unusual demand entitlement filings; however, the Commission's May 5, 2017

[10] See eDocket No. 20241-202257-01. Hereinafter "January 17, 2024 Order."
[11] See eDocket No. 20247-208672-01. Hereinafter "July 16, 2024 Order."
[12] Minn. R. 7825.2910, Subp. 2
[13] Petition at 2-3.
[14] Petition Attachment 3.
[15] Petition at 3.
[16] Petition at 5-6.
[17] Petition Attachment 4.

Order requires the Company to include Rochester Project-related capacity costs in the commodity portion of the monthly PGA. MERC's estimated change to the commodity cost for residential customers is a decrease of $0.0164 per Dth, resulting in an annual decrease of $1.40 for an average customer's bill, or approximately 0.64 percent.[18]

MERC also requests that the Commission allow recovery of the associated demand costs in the Company's monthly PGA effective November 1, 2024.[19]

## III. DEPARTMENT ANALYSIS

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

- The design-day requirements.

The Department will provide its analysis and recommendations on the remaining components of Company's Petition after the Company files its November 1, 2024 updated filing.

### *A. DESIGN-DAY REQUIREMENTS*

The Company proposes to decrease its total design-day in Dth as follows.[20] Table 1 shows MERC's consolidated design-day levels.

**Table 1: MERC's NNG Design-Day Levels**

| Filing | Previous Design-Day (Dth) | Proposed Design-Day (Dth) | Design-Day Changes (Dth) | Change From Previous Year (%) |
|---|---|---|---|---|
| Aug 1, 2023 | 290,934 | 290,169 | (765) | (0.26)% |

At pages 2-3 of its Petition, MERC states the following:

> The NNG Design-Day requirement has slightly decreased by 765 dekatherms (dth), or 0.26% from the April 2, 2024, filing of the 2023-2024 heating season.
> …
> For the Demand Entitlement filing effective November 1, 2024, the total Design-Day requirement for MERC NNG is 290,169 dth (Attachment 1). The

[18] *Id*.
[19] Petition at 1.
[20] Petition at 3.

> difference between the total Design-Day requirement and total Design Day capacity results in a 10.36% reserve margin (Attachment 3).

MERC uses a similar approach to last year's filing for its design-day analysis. As a result of MERC's telemetry program, which makes it possible for all interruptible customers to have daily metered data, the Company no longer has to estimate interruptible customers' peak-day impact for the customers in the Company's former MERC-NNG PGA service area. The Company states the following:[21]

> Order Point 11 from the Commission's April 28, 2016, Order in Docket Nos. G011/M-15-722, G011/M-15-723, and G011/M-15-724, required:
>
> If the Commission approves MERC's general rate case proposal to consolidate its MERC-NNG and MERC-Albert Lea PGA areas into one PGA area, direct MERC to work with the Department in developing an appropriate Design Day regression analysis methodology for its subsequent demand entitlement petitions until MERC has three years daily interruptible data available for all its interruptible customers for the consolidated NNG PGA area.

MERC's 2024-2025 Design-Day Regression analysis utilizes daily telemetry data for all of the MERC-NNG customers. MERC obtained the daily large volume transportation, interruptible and joint interruptible customer's volumes by pipeline and weather station (Data A). In addition, MERC obtained the daily small volume interruptible customer's volumes by pipeline and weather station (Data B). MERC calculated the daily firm volumes by subtracting both Data A and Data B from the total throughput volumes.

In addition, MERC makes some adjustments to its data; for example for the NNG pipeline in its regression analysis. In its Petition MERC states the following:[22]

> Review daily total metered throughput, Data A, and Data B and identify missing or bad reads, and to the extent possible, fix missing or bad reads. To the extent that the data could not be fixed, it was not included in the regressions.

In its Petition, MERC also states the following:[23]

> Identify the coldest Adjusted Heating Degree Day (AHDD) since January 1996 for each weather station. Note, this is a change in practice from prior

[21] Petition Attachment 12 at 11.
[22] Petition Attachment 12 at 3.
[23] *Id.*

> analysis that used a rolling 20-year period. The change was included because many weather stations experienced historically cold weather in the January/February 1996 time period and without inclusion of that additional data from January/February 1996, AHDD were materially lower and not reflective of MERC's capacity needs.

To the Department's knowledge, MERC's prior design-day analyses have relied on the coldest days from 1996. In any event, the Department agrees with MERC that it would not be acceptable to use a rolling 20-year weather period in the design-day calculations when planning for the Company's capacity needs in meeting the design-day. The 20-year weather period may not necessarily reflect the coldest days that need to be planned for.

The design-day analysis employed by MERC, as described in the Petition,[24] is similar to what was used by the Company in recent demand entitlement filings. The Company's design-day analysis is based on Ordinary Least Squares (OLS) regression and daily heating season (i.e., December, January, February) data over the period from December 2021 to February 2024.

Given the disparate nature of MERC's service area, the Company used six separate regression models for the various parts of the NNG PGA area. MERC used Adjusted Heating Degree Days (AHDD)[25] and various other determinants (e.g., month, day of the week, holiday) to estimate daily heating season consumption for each weather station area. The Department reviewed each of MERC's design-day regression models, and except for Ortonville, concluded that the signs of the determinant coefficients are appropriate and reasonable. The Ortonville regression is discussed below.

During the 2018-2019 heating season, MERC's service area, and the entire state of Minnesota, experienced a cold weather outbreak in late January and early February. This cold weather event marked the coldest conditions since the 1995-1996 heating season, and the Company included information and a discussion regarding this event in its Petition.[26] On an AHDD basis, the cold weather event during the 2018-2019 heating season was the coldest weather on record for all of MERC's NNG PGA system weather stations (Table 2).

**Table 2: Coldest Weather Conditions**

| Station | Date | Avg. Temp (F) | Avg. Wind Speed (mph) | HDD65 | AHDD65 | AHDD65-1 |
|---|---|---|---|---|---|---|
| Bemidji | 1/29/2019 | -32 | 14 | 97 | 110 | 84 |

[24] Petition Attachment 12.
[25] AHDD incorporates the impacts of wind into the weather determinant used to estimate peak day consumption. MERC has historically used AHDD in its design-day analysis.
[26] Petition Attachment 12 at 4-5.

| | | | | | | |
|---|---|---|---|---|---|---|
| Cloquet* | 1/29/2019 | -24 | 16 | 89 | 103 | 74 |
| Fargo | 1/18/1996 | -16 | 34 | 81 | 109 | 85 |
| International Falls | 2/2/1996 | -34 | 8 | 99 | 107 | 107 |
| Minneapolis* | 1/29/2019 | -20 | 17 | 85 | 100 | 71 |
| Rochester* | 1/29/2019 | -20 | 21 | 85 | 104 | 76 |
| Worthington* | 1/29/2019 | -20 | 21 | 85 | 103 | 81 |
| Ortonville* | 1/29/2019 | -23 | 14 | 88 | 101 | 77 |

* NNG PGA weather station.

In previous demand entitlement filings, the Company's planning objective was based on the coldest day, defined as the highest AHDD, for each of MERC's regional regression models. Beginning with the 2019 demand entitlement filing (covering the 2019-2020 heating season), the Company considered the day prior to the coldest day (AHDD65-1) when determining whether a specific date represents the planning objective for a weather station. MERC provided the following explanation in its Petition:[27]

> While the January 2019 cold weather outbreak was significant, it was not considered to be as severe as the weather conditions experienced in 1996. With the exception of Worthington, the 1996 weather conditions overall were colder when considering both the current day and the prior day weather conditions.

As a result, the following planning objective data for the various weather stations were used in the Company's design-day analysis.

[27] Petition Attachment 12 at 4.

**Table 3: MERC Planning Objective Data**

| Station | Date | Avg. Temp (F) | Avg. Wind Speed (mph) | HDD65 | AHDD65 | AHDD65-1 |
|---|---|---|---|---|---|---|
| Bemidji | 2/1/1996 | -34 | 8 | 99 | 107 | 94 |
| Cloquet* | 2/2/1996 | -31 | 7 | 96 | 103 | 100 |
| Fargo | 1/18/1996 | -16 | 34 | 81 | 109 | 85 |
| International Falls | 2/2/1996 | -34 | 8 | 99 | 107 | 107 |
| Minneapolis* | 2/2/1996 | -25 | 8 | 90 | 97 | 92 |
| Rochester* | 2/2/1996 | -27 | 10 | 92 | 101 | 94 |
| Worthington* | 1/29/2019 | -20 | 21 | 85 | 103 | 81 |
| Ortonville* | 1/14/2009 | -21 | 11 | 86 | 95 | 86 |

* NNG PGA weather station.

As shown in Table 3, for each of the regression models except Worthington, MERC's planning objective did not occur during the data period (2019 through 2022); as such, the Company adjusted the results to approximate usage at the planning objective. The Company's combined regression analyses resulted in a design-day estimate of 280,554 Dth/day. However, as explained in MERC's filing, the Company modified the analysis such that the ultimate design-day estimate was based on a higher throughput estimate that factors in a volume risk adjustment.[28] This adjustment resulted in a calculated design-day estimate of 290,169 Dth/day, which is 765 Dth/day lesser than the design-day estimate in last year's demand entitlement filing. The Company states that volume risk adjustments were incorporated into the forecast to provide a confidence level that the daily metered load under design conditions would not exceed the daily metered regression estimate.[29] In other words, the volume risk adjustment is meant to modify the results to ensure a bias toward reliability since this adjustment places the design-day estimate at the top end of expected design-day conditions based on the regressions. This post-regression adjustment is similar to adjustments the Company used in previous demand entitlement filings. The Department reviewed MERC's analysis and was able to replicate the Company's results.

In addition, the Company tried to estimate firm peak day estimates for each of its gate stations. The Commission's April 28, 2016, Order in Docket Nos. G011/M-15-722, G011/M-15-723, and G011/M-15-724, at Order point 10, stated in part the following:[30]

> Required MERC to verify its regression analysis results in future demand entitlement filings to ensure the results are consistent with the underlying theory the analysis attempts to explain.

[28] Petition Attachment 12 at 6.
[29] *Id.*
[30] See eDocket No. 20164-120779-03.

In its Petition, MERC states the following:[31]

> Order Point 10 of the Commission's April 28, 2016, Order in Docket No. G011/M-15-723 required that MERC verify its regression analysis results in future demand entitlement filings to ensure the results are consistent with the underlying theory the analysis attempts to explain. MERC has carefully reviewed the results of its regression analysis and verified that the results are consistent with the underlying theory the analysis attempts to explain. Please see MERC's May 31, 2016, compliance filing in Docket Nos. G011/M-15-722, G011/M-15 723, and G011/M-15-724 for further discussion of this issue.

In MERC's analysis for Ortonville, the Company used a regression model with a negative intercept term. The Department concludes that, while MERC's use of a negative intercept in its Ortonville regression analysis is not ideal, our concerns remain somewhat mitigated as described in our previous comments.[32] Thus, MERC complied with the Commission's April 28, 2016, Order described above.

The Department notes that MERC appropriately corrected its models for autocorrelation, as required by the Commission's February 4, 2015 Order in Docket Nos. G011/M-12-1192, G011/M-12-1193, G011/M-12-1194, and G011/M-12-1195[33] wherein the Commission required that, in its future demand entitlement filings, MERC check the regression models it ultimately uses for autocorrelation and correct the model if autocorrelation is present.

Given the fact that MERC must plan for its design-day, the Department concludes that MERC's approach is not unreasonable. As a result, the Department recommends that the Commission approve the Company's peak-day analysis.

## IV. CONCLUSION AND RECOMMENDATIONS

The Department recommends approval of the Company's Design-Day Analysis, but withholds its final recommendations for the remainder of the Company's Petition until after the Company files its Reply Comments and files its update in November 2024.

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[31] Petition Attachment 12 at 10-11.
[32] Please see the Department's February 22, 2016 Response Comments in Docket No. G011/M-15-723 at 3-4. See eDocket No. 20162-118555-01.
[33] See eDocket No. 20152-107016-04.

**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. G011/M-24-270**

Dated this **3rd** day of **October 2024**

**/s/Sharon Ferguson**

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