STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS

FROM: BRITTANY MEHLHAFF AND KRISTEN EDWARDS

RE: NG22-011 - In the Matter of the Filing by Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc., for Approval of Authority to Establish North Deadwood Expansion Area Surcharge Rate 75

DATE: February 24, 2023

BACKGROUND

On November 18, 2022, the South Dakota Public Utilities Commission (Commission) received a filing from Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc. (MDU), for approval of authority to establish a new rate schedule, North Deadwood Expansion Area Surcharge Rate 75 (Rate 75). MDU proposes this new rate schedule to accommodate the recovery of costs associated with the construction of a new town border station near Deadwood, South Dakota, to allow extension to a new development on the north side of Deadwood referred to as “the Ridge”.

MDU’s Development of “the Ridge” Area

MDU states “the Ridge” is projected to have over 400 residential services and approximately twenty commercial services. MDU’s development in this area consists of three construction phases. Phase I is estimated to serve up to 120 customers and can be served off an existing farm tap (Hayes Tap) that currently serves one customer north of Deadwood. At the time of filing, MDU expected Phase I to be completed by the end of 2022. Phase II construction was anticipated to start in November 2022, with a targeted completion in Summer 2023. This second phase provides the infrastructure for the remainder of the Ridge development. A large commercial customer, not part of the Ridge, anticipates needing firm natural gas service in this area as well during this time. MDU reports to Staff that while Phase I was expected to be completed by the end of 2022, some dirt work was delayed due to weather so Phase I is not yet complete and Phase II construction has not yet begun.

Phase III is the construction of a new town border station (TBS) at the same location as another farm tap (Tuepal Tap) currently serving one customer towards the south side of the new development area. The new TBS is necessary for MDU to be able to provide natural gas service to Phase II due to the daily load limitations imposed by the pipeline company on farm taps. Phase III construction is expected to start in Spring 2024 and take three to six months to complete. Refer to MDU’s Attachment B for a map of the Ridge development, the existing farm taps and customers, and extended area that would also be served by the new TBS.

Natural Gas Extension Tariff

MDU's South Dakota Natural Gas Tariff includes Interruptible Gas Service Extension Policy Rate 119[1] and Firm Gas Service Extension Policy Rate 120[2]. These policies specify the determination of customer (or developer) contributions required prior to construction. MDU states the extension of mains and service lines to and within the Ridge will be constructed and administered in accordance with Rates 119 and 120. Per MDU's response to Staff Data Request 1-4, the developer for the Ridge has committed to pay for the mains and service lines within the development consistent with Rate 120.

Rate 119 states that prior to construction, the interruptible sales or interruptible transportation customer shall contribute an amount equal to the total cost of construction. Rate 120 establishes a calculation for determining whether a customer contribution is required for gas extensions necessary to provide firm sales or firm transportation service. If the estimated capital expenditure is not cost justified under this formula, the customer or developer will pay the portion of the capital expenditure that is not cost justified.

MDU's Rate 120 also includes an Incremental Expansion Surcharge provision which states[3]:

3. Incremental Expansion Surcharge

> *a. The Company, in its sole discretion, may offer an Incremental Expansion Surcharge (Surcharge) to groups of customers requesting service totaling 10 or more when the total estimated cost would otherwise have been prohibitive under the Company's present rates and gas service extension policy. The contribution requirement to be collected under the Surcharge shall be the amount of the capital expenditure in excess of the Maximum Allowable Investment determined in accordance with paragraph A.3.*
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> > *i. A minimum up-front payment of $100.00 will be collected from each customer who signs an agreement to participate in the expansion.*
> >
> > *ii. For projects that are expected to be recovered within a 5-year period, the Surcharge shall be set at a fixed monthly charge of $5.00 per month plus $1.50 per dk.*
> >
> > *iii. For projects that are not expected to be recovered within a 5-year period, the Surcharge shall be set at a fixed monthly charge of $5.00 per month plus a commodity charge designed to provide recovery of the contribution requirement.*
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> *b. The Surcharge shall remain in effect until the net present value of the contribution requirement, calculated using a discount rate equal to the overall rate of return authorized in the last rate case, is collected.*

[1] Gas Rate Schedule – SDPUC Volume No. 2, Section No. 5, Sheet No. 19 and 19.1
[2] Gas Rate Schedule – SDPUC Volume No. 2, Section No. 5, Sheet No. 20 – 20.5
[3] Gas Rate Schedule – SDPUC Volume No. 2, Section No. 5, Sheet No. 20.3

c. The Surcharge shall apply to all customers connecting to natural gas service within the expansion area until the contribution requirement is satisfied.

d. The net present value of the Surcharge will be treated as a contribution-in-aid of construction for accounting purposes.

The addition of the above Incremental Expansion Surcharge section of Rate 120 was approved by the Commission 1999 in Docket NG99-001. Staff is not aware of this provision being utilized since its inclusion in the tariff.

Proposed North Deadwood Expansion Area Surcharge Rate 75

MDU proposes to utilize the Incremental Expansion Surcharge provision for the recovery of the TBS costs in Phase III, as MDU estimates the TBS cost of approximately $1,144,500, will result in a sizeable cost responsibility for customers. To establish such surcharge, MDU proposes Rate 75. As provided for under Paragraph 3.a.i of Rate 120, a minimum up-front payment of $100 shall be collected from each customer. MDU requests to charge a different down payment by customer class under Rate 75 in recognition of the demand differences customers of different classes of service will place on the new TBS. Since MDU intends to recover the costs of the TBS beyond a five-year period, in accordance with Paragraph 3.a.iii of Rate 120, MDU proposes the remaining costs be recovered through a flat Expansion Charge of $5.00 per month and a volumetric Expansion Commodity Charge of $4.00 per Dk.

The Rate 75 charges will be in addition to the rates charged customers under the rate schedule applicable to each customer’s natural gas service. The surcharge rates will be separately billed and identified on each customer’s bill.

MDU states the town border station project and surcharge will be reviewed annually to determine if sufficient customers and natural gas load have initiated service to ensure complete recovery of the town border station by the anticipated end date of the surcharge, which MDU is projecting to be November 2034.

STAFF ANALYSIS

Staff reviewed MDU’s filing and issued some data requests to further analyze MDU’s proposed Rate 75. First, Staff wants to ensure that existing customers are not impacted by the expansion. The nature of the existing extension policies and the incremental surcharge expansion provision are designed to protect existing customers from excess costs associated with extensions. In addition, Staff agrees with MDU that all South Dakota natural gas customers will benefit from the additional distribution revenue collected from these new customers and the ability to spread costs over more sales volumes.

Since existing customers are protected under the provision, next Staff’s analysis focused on ensuring the surcharge is not unduly burdensome for the customers that do take service under the expansion surcharge provision. Staff’s analysis in this regard centered on the anticipated level of development and the impact of a lesser adoption rate on the surcharge as well as the likelihood of customers to choose natural gas service over other options.

MDU's Attachment C provides the determination of the surcharge required per customer to recover the costs of the TBS, based on a projected 405 Residential Rate 60 customers, 14 Small Firm General Rate 70 customers, and 5 Large Firm General Rate 70 customers. The total project cost for the TBS is estimated at $1,144,500. MDU proposes different down payment levels for each rate class in recognition of the demand differences customers of different classes of service will place on the new TBS: $100 per residential customer, $500 per small firm general customer, and $1,000 per large firm general customer[4]. The total down payments based on the projected number of customers is $52,500. When the down payment amount is deducted from the total estimated cost, the remaining costs to be recovered under the surcharge is $1,092,000. MDU determined a surcharge consisting of a flat $5.00 customer charge per month and a distribution charge of $4.00 per Dk would sufficiently recover the costs over a 10-year period. The calculation is based on an average annual usage per customer of 60 Dk for residential, 300 Dk for small firm general, and 3,000 Dk for large firm general. The calculation also assumes the number of customers taking service will ramp up over the first few years with the total 424 customers served beginning in year 5. The estimated average monthly surcharge per customer is $25 for residential, $105 for small firm general, and $1,005 for large firm general.

The number of customers taking service each year, as well as the actual Dk used will impact the actual contributions. Therefore, MDU intends to review the TBS project annually to determine if sufficient customers and natural gas load have initiated service to ensure complete recovery of the TBS by the anticipated end date of the surcharge (November 2034). MDU may revise the surcharge rates and/or extend the surcharge period if the projected level of customers and/or volumes are not being attained.

In response to Staff Data Request 1-1, MDU indicated there are currently commitments for 93 residential apartment units, a clubhouse, a fire station, 26 residential townhome units, and a single larger commercial customer. The Company also states that the developer still owns the majority of the lots within the Ridge development and the developer is supportive of the surcharge and anticipates that the homes built in the development will have natural gas service. MDU also notes that historically, when natural gas is available in a new development, the Company sees an adoption rate of 98% or more.

While MDU's current commitments and historical perspective indicate a promising adoption rate, Staff did explore the impact of a lesser adoption rate for customer participation. The Company's response to Staff Data Request 1-2 provides revised calculations based on a 25%, 50%, and 75% adoption rates. The other variables of average annual Dk/customer, timing of additional customers taking service, and surcharge period of 10 years were held constant. The table below summarizes the impact of the lower adoption rates on the average monthly surcharge per customer.

Average Monthly Surcharge per Customer				
	100%	75%	50%	25%
Residential Rate 60	$25	$ 33	$ 50	$100
Firm General Rate 70	$105	$ 140	$ 210	$420
Firm General Rate 70	$1,005	$ 1,340	$ 2,010	$4,020

[4] The tariff also specifies a down payment of $1,500 for a Small Interruptible Sales Rate 71 customer.

As the adoption rate drops, the feasibility of the surcharge for customers decreases. An additional $50-100 per month under the 25% and 50% adoption rate scenarios may be too much of an additional charge for some customers. Data Request 1-2c Attachment A shows that some customers would no longer benefit from taking natural gas service with the expansion surcharge compared to electric service. However, the savings would still be realized once the surcharge period was complete, likely making the additional charges worth it for customers in the long run if customers could afford the added cost.

However, as MDU indicated in response to Staff Data Request 1-2c, the Company would want to evaluate the cost/benefit of extending the surcharge period compared to increasing the surcharge rates if projected participation doesn't materialize. Staff agrees this would be a preferred option for customers if participation is drastically lower than anticipated, as it would keep costs affordable and still make natural gas the best option compared to other sources.

The analysis shown in Data Request 1-2c Attachment A does demonstrate that under the current projections for customer participation, customers are expected to benefit by choosing natural gas compared to propane and electric, even with the added cost of the surcharge. These estimated benefits should encourage customers to take natural gas service, which will help to ensure MDU's historical adoption rate of 98% for new developments holds true in this case as well.

Data Request 1-2c Attachment A uses heating costs from August 2022. MDU provided an additional analysis in Data Request 1-6 Attachment A which provides the same cost comparison to propane and electricity, but utilizes a three-year average[5] cost of gas instead. This scenario shows that under more moderated natural gas prices, even if the participation rates decrease, natural gas service is a benefit to customers compared to the other options for heating sources.

Although customer participation and load are not known with certainty, MDU's recent experience with new developments supports the decision to go forward with the developer's request to extend service. Ultimately, Staff believes any concerns in regard to load not materializing can be adequately addressed by the Company's plans for annually reviewing the project to ensure recovery is on track. In the event customer projections and/or volumes do not materialize at the level or pace projected, MDU will evaluate what it believes to be the appropriate modifications to make to the surcharge, which would most likely involve proposing to extend the surcharge period in lieu of increasing the charge, based on MDU's responses to Staff's data requests. Any proposed changes to the surcharge would require Commission approval. At that time the Commission can weigh the appropriate balance of remaining cost responsibility for MDU, its shareholders, and the customers. Furthermore, after the surcharge has expired, any remaining costs left unrecovered would be subject to Commission approval during a rate case.

Given the surcharge has the potential to change in future years based on development progress, Staff believes transparency and communication for customers will be important. This is true for not only the initial customers taking service in the Ridge development, but also any future customers that buy a

[5] 2020-2022

home or begin renting an apartment previously occupied by someone else. The surcharge will transfer to the new customer in these circumstances if taking service within the surcharge period. The Company has indicated to Staff that information on the surcharge area will be available on MDU's website and the Company recognizes a need for a continued effort of awareness with developers and customers.

RECOMMENDATION

Staff recommends the Commission approve MDU's request for authority to establish the New Deadwood Expansion Area Surcharge Rate 75 and the associated tariff revisions, with an effective date of March 1, 2023. Such approval does not preclude Commission review of any future requests by the Company for modifying the surcharge rate or time period. Staff further requests that the Company provide to Staff a report of its annual review of the project detailing the project's progress including customer participation levels and volumes and the resulting impact on projected recovery of the TBS.