STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS

FROM: BRITTANY MEHLHAFF, PATRICK STEFFENSEN, AND KRISTEN EDWARDS

RE: EL21-007 - In the Matter of the Filing by Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc., for Approval of the Annual Update to Its Infrastructure Rider Rate

DATE: April 22, 2021

BACKGROUND

On February 26, 2021, the South Dakota Public Utilities Commission (Commission) received a filing by Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc. (MDU or Company) for approval of the annual update to its Infrastructure Rider Rate. The Infrastructure Rider was established in the Company's last rate case, Docket EL15-024. The Infrastructure Rider initially allowed for the recovery of Thunder Spirit Wind (TSW1).

Subsequently, in Docket EL19-010, the Commission approved recovery of MDU's Bowdle Substation project and the Thunder Spirit Wind Expansion project (TSW2). Most recently, in Docket EL20-009, MDU began recovering revenue requirements associated with the Sidney Transmission Line Project and phase one of the Mandan Substation and Lines Project.

In this docket, MDU proposes to recover additional costs associated with the Mandan Substation and Lines Project and costs associated with the Lewis & Clark Substation Project. The proposed revenue requirement, including an under-recovery for 2020 costs and carrying charges, is $1,022,966 which results in a rate of $0.00684 per kWh. The proposed rate is a decrease of $0.00157 per kWh from the current authorized rate. MDU proposes the rate be effective May 1, 2021.

On March 11, 2021, MDU filed an update regarding the upcoming retirement of Lewis & Clark Unit 1. The Company proposes to reflect the annual revenue requirement and offset the related amortization of the accelerated depreciation, net of excess deferred income taxes, and the decommissioning and employee related costs as projected to be incurred in 2021. MDU's proposal results in no change in the proposed Infrastructure Rider Rate since the revenue reflected in the Infrastructure Rider will match the related amortizations and the rate of return component.

STAFF ANALYSIS OF NEW PROJECTS

MDU continues to recover costs associated with TSW1 and TSW2, the Bowdle Substation and Lines project, and the Sidney Transmission Line project. The 2021 proposed revenue requirement also includes the Mandan Substation and Lines Project and the Lewis & Clark Substation Project, which are both more thoroughly discussed below.

Mandan Substation and Lines Project

The Mandan Substation and Lines Project includes several components associated with work at the Mandan Transmission Substation and the Heskett Transmission Substation. The existing Heskett Transmission Substation was built in 1966 with a straight bus arrangement, which causes all lines on the bus to trip in the event of a fault or circuit breaker failure. The Mandan Transmission Substation was built in 2010 and provides a superior bus arrangement for reliability and control. MDU plans to retire the existing Heskett Transmission Substation. All 230 kV lines at this location will be terminated at the Mandan Transmission Substation, which will reduce outage contingencies and improve reliability on the electric integrated system. This project involves relocating the Wishek 230 kV transmission line to terminate at the Mandan Transmission Substation instead of terminating at the Heskett Transmission Substation as it does currently, and adding a 230 kV line terminal for the Wishek 230 kV transmission line and a second 230/115 kV transformer at the Mandan Transmission Substation. In order to accommodate the second transformer, the Beulah to Mandan 115 kV line will be relocated to a new line terminal at the Mandan Transmission Substation. A new 115/69/41.6 kV Substation will also be built on the Heskett Transmission Substation site.

MDU received authorization in Docket EL20-009 to begin recovery of costs associated with the Mandan Substation and Lines project, and the 2020 forecasted revenue requirement included costs associated with phase 1 of the project which was to be completed in late 2020. Phase 2 of the project was excluded from the 2020 revenue requirement as it was expected to be in-service in 2021. However, MDU appeared to present the entire project as a new project in its EL21-007 filing with completion dates of July 2021 and September 2021. Staff inquired as to why the Company was seeking additional authorization and if the project scope and/or timing had changed.

In the process of responding to Staff's data requests, MDU learned that Phase I of the project, which consists of relocating the Wishek 230 kV line, was placed in-service. However, it was not closed to plant in service in the Company's fixed asset accounting system. The project will be closed to plant in service at the end of April 2021 in lieu of the July 2021 date referenced in the initial filing. MDU subsequently filed a revision reflecting the April 2021 close out date.

In Docket EL20-009, MDU indicated Phase II of the project would include completing the additions at the Mandan Substation and building the new 115/69/41.6 kV substation on the Heskett Transmission Substation site. The Company indicated in its filing this year that the project also included replacing the existing chain link fence at the Mandan Substation with a high security fence. In response to Staff's data request, MDU indicated that the fence replacement is an addition to the scope of the project and was included within the current project to minimize the overall cost of the project by allowing the coordination of contractors and work. MDU's current filing also includes relocating the 115 kV Beulah to Mandan line to a new line terminal within the Mandan Transmission Substation, which MDU clarified in response to Staff's data request has always been a part of the original project scope. The Company also explained that the new 115/69/41.6 kV Substation is directly assigned to North Dakota customers and is not included in the costs requested for recovery in this docket.

Phase I of the project has an estimated cost of $1.176 million, with South Dakota's share being approximately $63,000. Phase II of the project has an estimated cost of $6.8 million, with South Dakota's share being approximately $368,000.

Lewis & Clark Substation Project

MDU is also requesting recovery of its Lewis & Clark Substation Project. The Lewis & Clark Unit I Plant ceased operation on March 31, 2021, but Lewis & Clark Unit II continues to operate. The Unit I plant control room currently houses the protection and control equipment for the Lewis & Clark Substation and therefore its closure requires relocation of this equipment to a new building in the substation switchyard as well as replacing this equipment and portions of the switchyard. The project has a planned completion date of August 2021. MDU's initial filing indicated the project is estimated at $2.0 million, with South Dakota' share being approximately $110,000.

In response to Staff's data requests, the Company indicated that the $2.0 million in estimated project costs inadvertently excluded a portion of the costs. The original scope of work only included relocating equipment to a new building in the substation switchyard. Upon further review the Company discovered the existing equipment and portions of the existing switchyard could not be re-used. Therefore, the scope of the project changed to include replacing the station service transformer, bus switches, and instrument transformer, which increased the costs. MDU stated the scope change was known at the time of the initial filing, but information related to the scope change was inadvertently excluded from the filing. The entire estimated cost is approximately $3.9 million, with South Dakota's share being approximately $209,000. MDU subsequently filed a revision reflecting the entire estimated costs.

The Company also explained that in lieu of installing a new control house in the substation switchyard, the alternative option was to build a new substation which would cost approximately $9.0 million, and therefore the lower cost option was chosen.

REVENUE REQUIREMENT AND RATE

Actual 2020 Revenue Requirement and Over/Under Recovery

The rate approved in Docket EL20-009 was based on the true-up of prior period costs and revenues and the projected 2020 revenue requirement. Staff continues to review the actual capital costs to determine if the costs were prudent and at the lowest reasonable cost to ratepayers. Staff also reviewed the Company's calculation of the under/over collection of costs incorporated in the new Infrastructure Rider rates, comparing actual recoveries to actual costs.

Attachment C of MDU's initial filing provides the calculation of the actual 2020 South Dakota revenue requirement, which totals $971,427. This compares to the projected 2020 revenue requirement from

Docket EL20-009 of $981,974. The Sidney Transmission Line Project went into service during 2020, and final costs were not significantly different than those projected in Docket EL20-009. The 2020 revenue requirement continues to reflect ongoing costs associated with TSW1, TSW2, and the Bowdle Substation and Lines Project as well.

Attachment D of MDU's initial filing compares the 2020 revenue requirement of $971,427 with the revenue recovered from ratepayers in 2020 of $1,167,947. Given the year-beginning under-recovered balance of $253,004, the 2020 cumulative year-ending balance is an under-recovered balance of $56,484. The 2020 true-up also continues to use the proration method when calculating accumulated deferred income taxes, in compliance with IRS normalization rules. Carrying charges are calculated using the rate of return of 7.216% from Docket EL15-024. The resulting total cumulative under-recovered balance is $80,941.

2021 Revenue Requirement

The projected 2021 Infrastructure Rider revenue requirement included in MDU's initial filing was $942,025. This combined with the under-recovered balance of $80,941, results in a total revenue requirement of $1,022,966.

On April 16, 2021, MDU filed a letter regarding a revision to its proposed Infrastructure Rider rate. The revision updates the revenue requirement to reflect the end of April 2021 close out of Phase I of the Mandan Substation and Lines Project and reflects the increased costs for the Lewis & Clark Substation Project, as discussed above. The revision results in an increase to the 2021 revenue requirement of $5,650.

Revised Attachment B details the calculation of the revised 2021 revenue requirement of $947,675. The estimated 2021 revenue requirement is a decrease compared to the 2020 actual revenue requirement. Although the 2021 revenue requirement includes increased plant balances and expenses associated with the addition of the Mandan Substation and Lines Project and the Lewis & Clark Substation Project, these projects are only included for part of 2021 due to the in-service dates. In addition, accumulated depreciation balances continue to increase for existing projects, resulting in a net decrease to average net plant in service balances for 2021 compared to 2020.

When the revised 2021 revenue requirement of $947,675 is combined with the under-recovered balance, the total revenue requirement is $1,028,616.

Revised Infrastructure Rider Rate

MDU's initial filing proposed a rate of $0.00684 per kWh based on the proposed revenue requirement and projected kWh of 149,660,000. As shown on Revised Attachment A, the revisions to the 2021 revenue requirement results in a minor change to the proposed rate which is revised to $0.00687 per kWh. This is a decrease of $0.00154 compared to the current rate in effect. A typical residential customer using 853 kWh per month will see a decrease of $1.31 per month, or $15.72 annually. When combined with the Transmission Cost Recovery Rider rate, also effective May 1, 2021, this results in a net increase of $0.23 per month, or $2.76 annually, for the typical residential customer using 853 kWh per month.

OTHER ISSUES

Retirement Analysis

On January 10, 2020, the Commission issued an Order Approving Deferred Accounting Treatment in Docket EL19-040. The Commission's order approved MDU's request to use deferred accounting treatment for costs related to the retirement of the Lewis & Clark Unit 1, Heskett Unit 1, and Heskett Unit 2 coal-fired generators. The Commission's order was subject to the following conditions:

1) That the deferral/amortization accounting method and the resulting creation of a regulatory asset (the deferred balance) shall not preclude Commission review of these amounts for prudence, reasonableness, and possible disallowance of the rate recovery in any determination of rates, including both rate filings by the company and rate reviews initiated by the Commission;
2) That this allowance of a deferral/amortization accounting method and the resulting creation of a regulatory asset, after the related costs have been incurred, is not to be interpretated as allowing future post expenditure deferrals; and
3) That the Commission's decision int his case is based on the facts of this case and any future allowance of the deferral/amortization accounting method and the resulting creation of a regulatory asset must be approved by the Commission.

On March 11, 2021, MDU filed an update in this Infrastructure Rider docket regarding the upcoming retirement of Lewis & Clark Unit 1, which ceased operations on March 31, 2021. The Company proposes to reflect the value of the annual revenue requirement associated with retiring Lewis & Clark Unit 1 and offset the related amortization of the accelerated depreciation, net of excess deferred income taxes, and the decommissioning and employee related costs as projected to be incurred in 2021. MDU's proposal results in no change in the proposed Infrastructure Rider Rate since the revenue reflected in the Infrastructure Rider will match the related amortizations and the rate of return component. The Company states its proposal attempts to stabilize rates for customers while allowing for recovery of the regulatory asset in an expedited manner to minimize the overall cost to customers.

Given MDU is now requesting to begin recovery of the regulatory asset associated with Lewis & Clark Unit 1, offset with savings due to the retirement, Staff believes it is the right time to evaluate the Integrated Resource Plan including the decision to retire the three coal-fired generators. This analysis will take additional time past the May 1, 2021, effective date. However, given MDU's proposal results in no change in rates, Staff believes it is appropriate to change the rates effective May 1, 2021, and save the recovery of the regulatory asset for Commission decision at a future Commission meeting. Therefore, Staff's recommendation at this time does not include any decision regarding the recovery of costs related to the Lewis & Clark Unit 1 retirement.

Annual Report on Thunder Spirit Wind Performance

As part of the stipulation in Docket EL15-024, MDU agreed to report average capacity factors, transmission curtailments, and economic curtailments on an annual basis. MDU included such a report for TSW1 and TSW2 on page 4 of its initial filing in this docket. Staff also requested additional information in discovery.

The 2020 capacity factors for Thunder Spirit Wind are provided in the table below. As explained in Staff's Memorandum in Docket EL20-009, the resulting capacity factor depends on whether the nameplate capacity or MISO generator interconnection capacity is used in the calculation.

Capacity	TSW1 Capacity Factor	TSW2 Capacity Factor	Combined Capacity Factor
Nameplate	44.3%	43.5%	44.1%
MISO Generator Interconnection	46.0%	45.1%	45.7%

MDU also reported that neither TSW1 nor TSW2 experienced transmission curtailments during 2020. TSW1 did experience 9,575 MWh of economic curtailments and TSW2 experienced 4,565 MWh of economic curtailments in 2020. There were no MISO generation interconnection curtailments experienced by TSW1 and TSW2 in 2020.

RECOMMENDATION

Staff's recommendation is based on its analysis of MDU's filing, discovery information, relevant statutes, and previous Commission orders. Staff's review consisted of, but was not limited to, new project eligibility, the 2020 tracker report, the forecasted 2021 revenue requirement, and rate calculation.

Staff believes the Company's filing is consistent with the settlement approved in Docket EL15-024 and consistent with prior Infrastructure Rider filings. Staff recommends the Commission approve the revised Infrastructure Rider rate of $0.00687 per kWh, with an effective date of May 1, 2021. Staff also recommends the Commission delay any decision regarding recovery of the regulatory asset associated with retiring Lewis & Clark Unit 1 until a later date.