PUBLIC VERSION

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF MONTANA-DAKOTA UTILITIES CO., A SUBSIDIARY OF MDU RESOURCES GROUP, INC. FOR AUTHORITY TO INCREASE ITS ELECTRIC RATES

STAFF MEMORANDUM SUPPORTING SETTLEMENT STIPULATION

DOCKET EL23-020

Commission Staff (Staff) submits this Memorandum in support of the Settlement Stipulation (Settlement) of July 26, 2024, between Staff and Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group, Inc. (MDU or Company) in the above-captioned matter.

BACKGROUND

On August 15, 2023, the Company filed an application with the South Dakota Public Utilities Commission (Commission) requesting approval to increase rates for electric service to customers in its South Dakota retail service territory by approximately $2.98 million annually or approximately 17.3%. A typical residential electric customer using 900 kWh per month would see a bill increase of $20.00 per month, or 17.6% under MDU's proposed rates.

MDU's proposed increase was based on a historical test year ended December 31, 2022, adjusted for what MDU believed to be known and measurable changes, a 10.50% return allowance on common equity, and a 7.60% overall rate of return allowance on rate base.

MDU's last base rate increase application was filed on June 30, 2015[1]. MDU states[2] the need for an increase in electric rates is primarily driven by investments made since the last rate case, including the Heskett IV gas turbine, and increases in O&M expenses, depreciation, and property taxes.

The Commission officially noticed MDU's filing on August 17, 2023, and set an intervention deadline of October 13, 2023. On September 1, 2023, the Commission issued an Order Suspending Operation of Proposed Rates; Order Assessing Filing Fee; Order Authorizing Executive Director to Enter into Consulting Contracts.

On April 4, 2024, after extensive discovery, Staff provided MDU with its draft revenue requirement determination. Thereafter, Staff and MDU (jointly, the Parties) engaged in settlement discussions to arrive at a mutually acceptable resolution of the issues. In-person discussions occurred on April 15, 2024, through April 17, 2024. Ultimately, the Parties reached a comprehensive agreement on MDU's

[1] See Docket EL15-024.
[2] See Testimony of Nicole Kivisto

overall revenue deficiency and other issues presented in this case including, but not limited to, class revenue responsibilities, rate design, and tariff concerns.

OVERVIEW OF SETTLEMENT

Staff's revenue requirement determination is the result of comprehensive analyses of MDU's filing and information obtained during discovery. Staff accepted some Company adjustments, made corrections where necessary, modified other adjustments, and rejected those that did not qualify as known and reasonably measurable. Lastly, Staff introduced new adjustments not reflected in MDU's filed case.

Company and Staff positions were discussed thoroughly at the in-person settlement conferences. As a result, some positions were modified, and others were accepted where consensus was found. Ultimately, the Parties agreed on a comprehensive resolution of all issues. Staff believes the settlement is based on sound regulatory principles and avoids additional costly and unnecessary litigation.

The Parties agree MDU's revenue deficiency recovered through electric base rates is $1,004,298. The revenue requirement and supporting calculations described in this Memorandum and attachments depict Staff's positions regarding all components of MDU's South Dakota jurisdictional electric revenue requirement.

STAFF OVERVIEW OF BASE RATE SETTLEMENT

Staff's settlement revenue requirement determination begins with total Company costs for the test year ended December 31, 2022, and allocates those amounts to the South Dakota retail jurisdiction. Staff then adjusted the test year results for known and measurable post-test year changes. Staff Exhibit___(BAM-1), Schedule 3 illustrates Staff's determination of MDU's *pro forma* operating income under present rates. Staff Exhibit___(BAM-2), Schedule 2 illustrates Staff's calculation of MDU's South Dakota retail rate base, and Staff Exhibit___(BAM-1), Schedule 2 and Staff Exhibit___(BAM-2), Schedule 1 summarize the positions. Staff Exhibit___(BAM-1), Schedule 1 summarizes Staff's determination of MDU's base rate revenue deficiency and total revenue requirement.

The agreed-upon base revenue increase by rate schedule is shown on Staff Exhibit___(EJP-7), Schedule 2. The total bill impact summary is shown on Staff Exhibit___(EJP-7), Schedule 1. Staff Exhibit___(EJP-7), Schedules 3-1 through 3-7 reflect the settlement base rates for each rate schedule. The comparison between present and settlement rates and resulting bill impacts for the Residential Electric Service Rate 10 rate schedule is shown on Exhibit___(EJP-7), Schedule 4.

Below is a brief discussion of the issues that Staff identified in the case and Staff's view of the resulting settlement of each issue. Unless otherwise noted, all changes discussed below are changes from the Company's filed position.

RATE BASE AND OPERATING INCOME ADJUSTMENTS

Test Year Per Books Rate Base – The Company proposed a test year per books rate base using the year-end balances as of December 31, 2022. The settlement revised this to an average rate base consisting of the average of the 13 month-end account balances, December 31, 2021, through December 31, 2022. This change decreases rate base by approximately $701,000. This decrease to rate base results in a decrease to the revenue deficiency of approximately $62,000.

Plant Annualization – Since the Company proposed a test year rate base using the year-end balances as of December 31, 2022, test year plant[3] was already annualized in the Company's proposal. However, since the settlement revises MDU's per books test year to be based on an average rate base, the settlement also annualizes non-operating income-producing plant. This adjustment reduces rate base by approximately $359,000, which results in a decrease to the revenue deficiency of approximately $32,000. The reduction in plant in-service is primarily due to plant retirements occurring during the test year.

Plant Additions – MDU's proposed *pro forma* rate base included estimated capital costs associated with projects projected to be in-service by the end of 2023. The settlement revises MDU's post-test year plant adjustment to exclude projects identified as growth related and to include the actual, rather than estimated, costs for projects that were in-service as of December 31, 2023. These changes increase rate base by approximately $1.2 million, resulting in an increase to the revenue deficiency of approximately $110,000. The increase in plant additions compared to MDU's filed case is primarily related to actual Heskett IV Gas Turbine costs being greater than those estimated in the initial filing[4] as well as additional plant additions in the Distribution, General, and Common categories.

The impact on depreciation expense associated with the plant adjustments is included in the depreciation adjustment discussed below.

Depreciation and Amortization Expense – MDU's proposed *pro forma* depreciation expense was based on its proposed depreciation rates applied to the proposed *pro forma* plant in-service amounts. MDU's proposed depreciation rates were based on the depreciation study performed by MDU's consultant, Mr. Larry Kennedy. Staff carefully reviewed Mr. Kennedy's depreciation study and proposed certain adjustments. However, for settlement purposes, the Parties agreed to utilize MDU's depreciation rates approved in MDU's most recent Montana rate case. The agreed-upon rates result in a compromise between Staff's proposed depreciation rates and the Company's proposed depreciation rates, reducing depreciation expense compared to MDU's filed case. Using the rates agreed to in Montana allow MDU to have consistent depreciation rates among all of its jurisdictions, as these depreciation rates are utilized in North Dakota as well. While consistency among all jurisdictions is not appropriate in all instances, in this case, the settlement depreciation rates are just and reasonable in Staff's opinion.

The settlement depreciation rates are applied to the settlement *pro forma* plant in-service resulting in an approximate $344,000 decrease to the Company's filed depreciation expense.

The Company also proposed an adjustment to the amortization expense associated with expected future costs for decommissioning of its existing generation fleet upon retirement. Although actual amounts are not known at this time, it is Staff's opinion this is appropriate to ensure these decommissioning costs are matched with the customers who are seeing the benefit from the existing fleet of generation. The decommissioning costs proposed by MDU are based on decommissioning studies[5] and are amortized over the estimated remaining life of each generation facility. The settlement accepts the Company's adjustment, with one modification to exclude contingency costs from the

[3] Including operating income-producing plant and non-operating income-producing plant.
[4] See Heskett IV discussion under Other Issues.
[5] Decommissioning studies performed by Sargent & Lundy, Wanzek Construction, and Frattalone Companies.

decommissioning estimates, since these are non-specific, inflated costs that should not be charged to ratepayers. This modification decreases amortization expense by approximately $5,000.

The Company also proposed an adjustment to remove the test year amortization expense of approximately $1,230,000 associated with the regulatory asset established upon the retirement of Heskett Units I & II and Lewis & Clark Unit I. MDU proposed to continue to recover the remaining regulatory asset balance through the Infrastructure Rider. In Docket EL19-040, the Commission approved the Company's request for deferred accounting treatment related to the costs to retire the Lewis & Clark Unit I and Heskett Units I & II generating stations. In subsequent Infrastructure Rider filings, beginning with Docket EL21-007, MDU amortized the regulatory asset related to the deferred accounting treatment for these retired power plants, including accelerated depreciation, decommissioning, and employee related costs. The amortization amount was determined by using the annual revenue requirement associated with these units currently included in base rates that would result in savings upon retirement of these generation facilities. By determining the regulatory asset in this manner, the retirement savings offset the regulatory asset amortization, resulting in no increase to rates, while at the same time, reducing the regulatory asset balance to be recovered at the time of the next rate case.

The determination of new base rates in this docket eliminates a need to continue to offset the regulatory asset balance, as base rates reflect the cost savings associated with these retirements. Therefore, the remaining regulatory asset balance must be recovered from customers. Staff agrees with MDU's proposal to recover the remaining regulatory asset balance through the Infrastructure Rider. Recovery through the rider will result in no under or over recovery of the regulatory asset balance and mitigates the impact to customers by amortizing the costs over three years as opposed to continuing the current level of amortization[6]. The Commission approved MDU's proposed three-year amortization of the remaining regulatory asset balance to be recovered through the Infrastructure Rider in Docket EL24-008.

In addition to removing the test year amortization expense associated with the regulatory assets as proposed by MDU, the settlement also removes the excess deferred income taxes amortization included in the test year. This correction increases amortization expense by approximately $27,000.

In sum, these adjustments decrease depreciation and amortization expense by approximately $322,000. This results in a reduction to the revenue deficiency of approximately $322,000 as well.

Vehicles and Work Equipment – The Company charges depreciation expense for vehicles and work equipment to clearing accounts rather than to specific depreciation accounts. The clearing accounts in which the expenses are recorded are O&M expense accounts which are identified for vehicles or work equipment. MDU proposed to adjust the vehicles and work equipment expenses to reflect the results of its depreciation rate study and to reflect its proposed *pro forma* plant for the associated vehicles and work equipment accounts. The settlement revises the adjustment based on the settlement *pro forma* plant and settlement depreciation rates. This adjustment increases operating expense and the revenue deficiency by approximately $14,000.

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[6] Continuing the test year amortization amount would result in a fully amortized regulatory asset by November 2024.

Accumulated Reserve for Depreciation – MDU proposed a rate base adjustment to reflect the corresponding impact of its proposed depreciation expense adjustment on the accumulated depreciation reserve, including the adjustment to the amortization of generation facility decommissioning expense. The settlement revises the Company's adjustment to reflect the test year average *pro forma* accumulated depreciation, which also recognizes the settlement *pro forma* plant and the agreed-upon depreciation rates discussed above. The settlement depreciation reserve adjustment increases rate base by approximately $174,000 and increases the revenue deficiency by approximately $15,000.

ADIT on Plant and Decommissioning – These adjustments reflect the impact on test year accumulated deferred income taxes (ADIT) resulting from the settlement *pro forma* plant and the updates to the expected costs for decommissioning the existing generation fleet upon retirement. Updating ADIT based on these adjustments explained above increases rate base by approximately $47,000 and increases the revenue deficiency by approximately $4,000.

Book/Tax Depreciation on Plant Additions – The Company proposed an adjustment to deferred income taxes associated with 2023 plant additions. The settlement revises MDU's adjustment based on the settlement *pro forma* plant additions. Due to the offsetting adjustment to federal income taxes currently payable, this adjustment has no impact to the revenue requirement other than *de minimus* changes to cash working capital.

Regulatory Asset L&C I and Heskett I & II – This adjustment reflects the removal of the rate base associated with the Lewis and Clark Unit I and Heskett Units I and II regulatory assets, as MDU proposed to recover the remaining regulatory asset balance through the Infrastructure Rider. MDU's proposed adjustment was based on its proposed test year rate based reflecting year-end amounts. The settlement revises this adjustment based on the 13-point average rate base used as the settlement per books. This adjustment decreases rate base by approximately $66,000 and decreases the revenue deficiency by approximately $6,000.

Regulatory Commission Expense – MDU proposed to amortize projected rate case costs of $940,078 over a five-year period, plus a three-year average of ongoing regulatory commission expense and include the average unamortized amount in rate base. MDU's projected rate case costs were based on an assumption of a litigated case. This settlement reflects a five-year amortization of $297,076 in rate case expense, includes a three-year average of ongoing regulatory commission expense, and reflects the average unamortized amount in rate base. The reduced rate case expenses are a result of the Parties working together to achieve a settlement, avoiding additional costly and unnecessary litigation. The effect of this adjustment decreases rate base by approximately $792,000, operating expenses by approximately $128,000, and decreases the revenue deficiency by approximately $184,000.

Other Working Capital Updates – The settlement reflects the average balances for materials and supplies, fuel stores, prepaid insurance, and customer advances for construction using more recent actual 13-month period ending December 31, 2023.This adjustment also includes a partially offsetting accumulated deferred income tax adjustment for customer advances for construction. The net effect of these changes increases rate base by approximately $127,000 and increases the revenue deficiency by approximately $11,000.

Unamortized Gain/Loss on Debt – The Company proposed an adjustment to reflect the year-end December 31, 2023 balance for unamortized loss on debt and its associated accumulated deferred

income tax. The settlement reflects a 13-month ending December 31, 2023 average for unamortized loss on debt and a partially offsetting accumulated deferred income tax adjustment. The net effect of this change increases rate base by approximately $300 and increases the revenue deficiency by approximately $30.

Retired Power Plants Amortization – In rate case docket F-3576, an amortization was established for the projected decommissioning costs of several retired power plants. In rate case docket EL15-024, a ten-year amortization was established to true-up the over-recovery from the prior amortization. MDU simply proposes to update the rate base components of this amortization to reflect the year-end 2023 value. The settlement reflects a 13-month ending December 31, 2023 average for retired power plant amortization and a partially offsetting accumulated deferred income tax adjustment. The net effect of this change increases rate base by approximately $2,000 and increases the revenue deficiency by approximately $200.

Unamortized Redemption of Preferred Stock – The Company proposed an adjustment to reflect the year-end December 31, 2023 balance for unamortized redemption of preferred stock. The settlement reflects a 13-month ending December 31, 2023 average for unamortized redemption of preferred stock. This changes the pro forma rate base amount; however, given the revised per books to a 13-month average discussed above, there is no change in the value of this adjustment from the proposed amount.

Pensions and Post-Retirement Benefits Other Than Pensions (OPEB) – MDU's cash contributions to its pension and OPEB funds have exceeded its actuarily determined pension and OPEB expenses. The actuarily determined expense is the amount that is recognized for ratemaking purposes. Thus, the excess cash contributions have created prepaid pension and OPEB assets on MDU's financial statements. MDU is requesting that these prepaid assets be included in rate base and thereby earn a return on the excess contributions. If it were not for the excess cash contributions, MDU's pension and OPEB expenses would be much higher than what they are now. This would result because a portion of the pension and OPEB expense determination is a credit for the return earned on pension assets. Without the excess contributions, the earned return on pension assets will be lower, resulting in a higher periodic pension and OPEB expense, and therefore, higher utility rates. That is, MDU's customers are already being compensated for the earnings on excess cash contributions in the form of lower pension and OPEB expenses. In discovery, MDU stated that its proposed rate base inclusion of the pension and OPEB assets has been accepted (or at least not rejected) by all of its state regulators except South Dakota. Therefore, Staff believes it is reasonable for MDU to include the pension and OPEB assets in its South Dakota rate base as well.

Investment Tax Credit – The Company proposed an adjustment to reflect the year-end December 31, 2023 balance for unamortized investment tax credit and its associated accumulated deferred income tax. The settlement reflects a 13-month ending December 31, 2023 average for unamortized investment tax credit and a partially offsetting accumulated deferred income tax adjustment. The net effect of this change increases rate base by approximately $42,000 and increases the revenue deficiency by approximately $4,000.

Cash Working Capital – MDU's proposed rate base included an allowance for cash working capital based on a lead-lag analysis. A lead-lag analysis examines the timing of the Company's receipt of service revenues from customers in relation to the Company's payments to vendors and employees. Staff carefully examined MDU's revenue lag and expense lead day determinations and made the following modifications:

1. Included a separate expense line item in the analysis for vacation pay expenses and assigned a lead day using the standard turnover rate calculation;
2. Included a separate expense line item in the analysis for injuries and damages expenses and assigned a lead day using the standard turnover rate calculation;
3. Used the standard turnover rate calculation for uncollectible accounts expense;
4. Revised revenue lag days to remove payment processing time for payments made by check and decreased the collection lag to the statutory number of days before a late payment charge can be applied;
5. Revised expense lead days for federal unemployment tax, state unemployment tax, state gross receipts tax, and federal income tax to properly reflect the statutory payment deadlines for federal and state taxes and to keep consistent with lead days used for other utilities;
6. Revised expense lead days for interest on long-term debt;
7. Calculated a separate rate base deduction for certain tax collections the Company receives from customers in advance of the time that MDU has to turn the related payments over to the taxing authorities; and
8. Revised expenses to reflect the impacts of the settlement pro forma operating expense.

These modifications decreased rate base by approximately $263,000 and decreased the revenue deficiency by approximately $23,000.

Excess Deferred Income Taxes ARAM – The settlement in Docket GE17-003[7] requires MDU to amortize its excess plant-related accumulated deferred income tax (ADIT) using the Average Rate Assumption Method (ARAM), which the Company did in its original filing. The settlement accepts this MDU deferred tax adjustment; however, it revises the rate base portion of the adjustment to reflect the average balance rather than the year-end. This reduces rate base by approximately $49,000 and reduces the revenue deficiency by approximately $4,000.

Current Rates – The Company proposed to adjust test year revenues by restating per books consumption at current rates, eliminating the unbilled revenue, and including a pro forma fuel and purchased power rate of $0.01445. The settlement accepts this adjustment.

Sales for Resale – The Company proposed a revenue adjustment to match fuel and purchased power expense with the excess generation that is sold in the MISO market. This pro forma revenue amount is determined by creating a model that forecasts the anticipated 2023 generation runs and defines the revenue attributed to excess generation. It should be noted that this revenue amount was not updated to 2023 actual, because it was already perfectly matched, and offsetting, with expense. Thus, the settlement accepts this adjustment.

Other Revenue – MDU proposed several adjustments to test year other operating revenue based on either two-year or three-year averages, test year annualization, or a complete removal. The settlement does not adjust the other revenue items that did not have a significant year-to-year variance. In addition, the settlement provides the following:

1. Removed all late payment revenues, because customer late payments are not considered in the cash working capital allowance;

[7] In the Matter of Staff's Request to Investigate the Effects of the Tax Cuts and Jobs Act on South Dakota Utilities

2. Removed transmission service revenue, because this revenue is returned through the annual Transmission Cost Recovery Rider filing;
3. Removed Renewable Energy Credit (REC) and capacity sales revenue, because this revenue is returned through the Fuel and Purchased Power Adjustment;
4. Removed revenue associated with the retired Heskett and Lewis & Clark assets;
5. Adjusted the miscellaneous other operating revenue to reflect a five-year average to account for year-to-year variability and removed FERC Schedule GG ROE True-up revenue; and
6. Adjusted the general office cost of service revenue to its 2023 level to reflect the increase in 2023 that resulted from the Knife River spinoff, which is expected to have a continuing impact going forward.

These modifications decreased revenue and increased the revenue deficiency by approximately $27,000.

Fuel and Purchased Power – MDU proposed an adjustment to fuel and purchased power costs to reflect *pro forma* generation and power purchase requirements. Fuel and purchased power were updated to reflect *pro forma* cost assumptions and purchased power prices including recent purchase power agreements. In addition, MDU is proposing to move the productions tax credits related to the Thunder Spirit Wind Facility and the Diamond Wind Facility to offset the fuel and purchased power costs in the FPPA. The result of this adjustment will lower the cost per kWh from 2.280 ¢/kWh in 2022 to 1.445 ¢/kWh in the 2023 pro forma period. Absent the new PTC credits being moved to the FPPA, the fuel and purchased power costs would be 2.164 ¢/kWh. This settlement accepts this adjustment.

Labor – The Company proposed to adjust test year labor expense by removing costs related to the Heskett Units I & II, applying a 3.96% increase to test year labor expenses, using an average target level of 12.21% of straight time and vacation pay for incentive compensation, and adding new labor expenses related to the distribution outage management system. This settlement reflects the removal of the costs related to Heskett Units I & II, inclusion of the 3.96% weighted wage and salary increase, the removal of financial based incentives in the Bonuses & Commissions sub account as well as the removal of executive portion of the incentive compensation sub account, and inclusion of new labor expenses related to the distribution outage management system. This settlement also stipulates that if incentive compensation is not paid during a calendar year, the money included in base rates will be put into a separate account and be refunded in the next rate case. The effect of this adjustment decreases expenses and the revenue deficiency by approximately $157,000.

Benefits – The Company's filing removed test year costs related to Heskett Units I & II, included estimated benefit costs for additional employees, increased medical/dental and pension expenses based on estimates. MDU's filing also reflected an estimated decrease in post-retirement benefits expense, an increase to 401-K, slight decrease to workers compensation, and an increase to other benefits based on the straight time labor increase percentage. The settlement reflects actual medical/dental costs for 2023 to account for changes due to the removal of Heskett Units I & II going forward. The settlement also reflects a five-year average for pension, post-retirement benefits, 401-K, workers compensation, and other benefits to account for the volatility in those accounts that remain even after the removal of Heskett I & II. The effect of this adjustment decreases expenses and the revenue deficiency by approximately $66,000.

Subcontract Labor – The Company adjusted subcontract labor by removing transmission service charges that will be recovered in the Transmission Rider, removing Heskett I & II expenses, and reflecting an

increase to the maintenance agreement for Thunder Spirit. The settlement reflects actual 2023 costs for all subcontract labor accounts. This corrects an error in the adjustment for the increase in the Thunder Spirit contract that inadvertently was too high as well as captures actual changes due to Heskett I & II retirements while still capturing the removal of the transmission service charges to be collected in the Transmission Rider. The effect of this adjustment decreases expenses and the revenue deficiency by approximately $141,000.

Big Stone/Coyote – The Company adjusted operations and maintenance costs for both Big Stone and Coyote generation units to reflect expected *pro forma* levels of expense for the year ending December 31, 2023. MDU's proposed adjustment also reflected normalized major boiler and turbine outages and removed a one-time expense for Coyote that will not be repeated. Big Stone's last major outage was in 2021 and Coyote's last major outage was in 2022, which is the historical test year used in this case. O&M expenses vary from year to year largely due to when major plant maintenance outages occur, and Staff agrees an adjustment to reflect normalized expenses is necessary. The settlement revises the adjustment to reflect a four-year average of actual O&M costs for Big Stone and a three-year average of actual O&M costs for Coyote. One-time expenses incurred are excluded from the calculation of the averages. These changes reduce O&M expense and the revenue deficiency by approximately $44,000.

Materials – The Company adjusted materials expense by removing costs related to Heskett I & II and increasing the production, transmission, and distribution accounts by 4.84%. The settlement reflects a three-year average off all materials expense accounts except the production account. The production account was updated to 2023 actuals to account for the removal of Heskett I & II. A three-year average appropriately accounts for the year-to-year variability of expenses in the other accounts. The effect of this adjustment decreases expenses and the revenue deficiency by approximately $2,000.

Company Consumption – The Company adjusted test year gas usage in Company buildings using the ratio of firm sales revenues to annualized weather normalized sales at current rates and adjusted the electric and general utilities to reflect 2022 actual volumes at current rates. The settlement includes an adjustment in the gas usage in Company buildings that reflects the total weather normalized usage in the gas case, adjusts the electric consumption based on the change between per books revenues and *pro forma* revenues, and rejects the general utilities adjustment. The effect of this adjustment increases expenses and the revenue deficiency by approximately $2,000.

Postage Expense – MDU proposed an adjustment to reflect an increase in postage costs net of a reduction in postage expense calculated by annualizing the number of customers that were paying bills electronically as of December 2022. This settlement accepts this adjustment.

Uncollectible Accounts – MDU adjusted test year uncollectible accounts expenses by using the five-year average ratio of net write-offs to revenues applied to the Company's determination of *pro forma* sales revenues. The settlement reflects the five-year average net write-off ratio applied to Staff's *pro forma* sales revenues. The adjustment five-year average net write-off ratio was also applied to Staff's revenue deficiency. The effect of this adjustment increases expenses and the revenue deficiency by approximately $3,000.

Advertising – MDU removed advertising expenses that should not be charged to customers. The settlement accepts this adjustment and removes additional advertising costs that do not contribute to the provision of safe, adequate, and reliable electric service for South Dakota ratepayers. The effect of this adjustment reduces operating expenses and the revenue deficiency by approximately $3,000.

Insurance – MDU adjusted test year insurance expense using its projected expenses for 2023 and a five-year average of self-insurance expenses. This settlement reflects actual 2023 insurance expenses and a five-year average of self-insurance expenses. The effect of this adjustment increases expenses and the revenue deficiency by approximately $7,000.

Software Maintenance – MDU adjusted its test year software maintenance expense using a three-year average. The settlement updates the test year software maintenance expense to the 2023 actual software expense. The effect of this adjustment decreases operating expenses and the revenue deficiency by approximately $9,000.

Industry Dues – MDU adjusted test year industry dues expense by removing some that provides no benefits to South Dakota customers The settlement accepts those adjustments and removes additional industry dues expenses related to lobbying and other activities that do not provide for the provision of safe, adequate, and reliable electric service for South Dakota ratepayers. The effect of this adjustment decreases operating expenses and the revenue deficiency by approximately $37,000.

Rent Expense – MDU adjusted test year rent expense by reflecting increased costs due to an increase in shared services. MDU's allocation of MDU Resources Group, Inc. assets and expenses has also slightly increased. The settlement accepts this adjustment.

Annual Easements – MDU adjusted test year easement expense to include radio tower leases in support of a new 2-way radio replacement as well as an increase in contractual wind farm easements. This settlement accepts MDU's adjustment.

Office Supplies – MDU proposed an adjustment to remove office supply expenses related to Heskett I & II while also including a normalizing adjustment to reflect the average costs from 2018 to 2022. This settlement accepts this adjustment.

Other O&M – MDU proposed an adjustment to test year Other O&M expense to reflect Heskett I & II retirements. The settlement accepts this adjustment.

Ad Valorem Taxes – MDU restated property taxes to the *pro forma* level of plant in service, using test year ratio of ad valorem taxes to plant. The settlement revises this adjustment to reflect ad valorem taxes corresponding to the settlement *pro forma* plant in-service. This adjustment increases property taxes and the revenue deficiency by approximately $13,000.

Payroll Taxes – The Company proposed a payroll adjustment to reflect the 2023 wage increases. Staff agreed the pay increases would have a similar impact on payroll tax expense but made one modification to MDU's adjustment. Staff revised the *pro forma* increase to exclude taxes on the portions of incentive compensation relating to financial goals, which are removed from the settlement cost of service. These modifications decrease operating expense and the revenue deficiency by approximately $11,000.

Electric Production Taxes – MDU pays a Wholesale Energy Tax based on the number of kilowatt hours of electricity transmitted in the state of Montana, a Generation Tax on all electricity and electrical energy generated in the state of Montana, and a Coal Conversion Tax based on installed capacity of generating plants and the kilowatt hours of electricity produced in North Dakota. After review MDU recognized an

error in the calculation of the North Dakota Coal Conversion Tax and updated the calculation. The effect of this adjustment decreases operating expenses and the revenue deficiency by approximately $7,000.

Interest Synchronization – MDU proposed an adjustment to synchronize the tax deduction for interest expense with the weighted cost of long-term debt and short-term debt and the historic test year rate base as adjusted for known and measurable changes. The settlement modifies this adjustment to use the settlement *pro forma* rate base and the settlement weighted cost of long-term debt. This modification increases tax expense and the revenue deficiency by approximately $16,000.

Electric Production Tax Credit – MDU proposed an adjustment to the production tax credits related to the company's wind generating facilities. The pro forma adjustment is based on a PTC rate of $0.0260 cents per kWh of production for Thunder Spirit Wind Facility and $0.0275 cents per kWh for the Diamond Willow Wind Facility Repower project. This settlement accepts this adjustment.

Elimination of Closing/Filing – For any given year, MDU records estimates on its books for income taxes. The Company's tax returns are generally filed in the year following the tax year. There are differences between the estimated amounts that were booked during the tax year and the final amounts that show up on the tax return the following year. Therefore, once the tax return is prepared and filed, MDU records a reconciliation or true-up entry for the difference between the previous estimate and the final tax amounts. During the 2022 test year in this case, MDU recorded a true-up entry correcting its 2021 tax year estimates. For ratemaking purposes, it is proper to eliminate this true-up entry since it relates to 2021 operations. Staff accepted and the settlement includes MDU's out-of-period reconciliation adjustment.

Overhead Lines Expense – Staff's analysis of Statement H operating and maintenance expenses showed an outlier in the test year for accounts 563 – Transmission Overhead Lines Expense and 583 – Distribution Overhead Lines Expense due to an elevated level of maintenance work in 2022. MDU indicated that this increase was due to several factors, including less capital work being done in that year, and agreed that the 2023 costs would be more indicative of future costs in these accounts and should be used as the *pro forma* amount. This adjustment decreases operating and maintenance expense and the revenue requirement by approximately $98,000.

COST OF CAPITAL AND RATE OF RETURN

MDU initially proposed a capital structure consisting of 5.268 percent short-term debt, 44.340 percent long-term debt, and 50.392 percent common equity. Staff challenged MDU's inclusion of short-term debt in its capital structure. Short-term debt is not commonly included in capital structure for ratemaking purposes because the rate base generally represents capitalized assets of longer than one year duration. In the settlement of MDU's 2015 dockets (EL15-024 and NG15-005) Staff took notice of MDU's atypical capitalization but accepted it for settlement purposes citing case specific circumstances including the fact that at the time short-term debt was less costly than long-term debt. In this case circumstances have changed. Federal Reserve monetary policy designed to bring down current levels of inflation has created an "inverted yield curve" in which short-term debt is more costly than long-term debt, and this is reflected in the cost rates of the current proceeding, with short-term debt in MDU's proposed capital structure at a cost of 5.929 percent and long-term debt at a cost of 4.503 percent. Staff's position is that ratepayers should not be burdened by the impact of current Federal Reserve monetary policy on MDU's decision to finance its capital structure in such atypical fashion. Had MDU

pursued common utility practice it would have issued larger amounts of long-term debt over time as capital projects funded by short-term debt go into service. In developing a capital structure fair to ratepayers and more reflective of typical utility practice, Staff treated the short-term debt in MDU's capital structure as long-term debt repriced at the current embedded cost of long-term debt. MDU was opposed to Staff's position on the matter, but agreed to accept Staff's position for settlement purposes as long as the same methodology is utilized in future rate cases as well.

[Begin Confidential]

[End Confidential], the settlement overall rate of return is 7.01 percent.

RATE DESIGN ISSUES

The settlement position reached between Staff and MDU on all issues regarding rate design and the class revenue distribution is discussed below.

Class Cost of Service/Spread of the Increase – MDU's initial filing included a class cost of service study (CCOSS). Studies of this nature, if performed carefully and objectively, can be useful tools in apportioning revenue responsibility fairly among the rate classes and in designing unit charges within rate classes. The results of the Company's CCOSS indicate that the Residential, Small General Service – Primary, Irrigation Power, General Electric Space Heating, Outdoor Lighting Service and Municipal Street Lighting classes are contributing less than the systemwide average rate of return. The CCOSS also indicates that the Small General Electric Service – Secondary, Small General TOD, Large General Electric Service – Secondary, Municipal Pumping and Company-Owned Street Lighting classes are contributing more than the systemwide average rate of return.

Staff carefully reviewed MDU's CCOSS. Staff found that MDU's CCOSS consultant used a different method for allocating production facilities than was used in prior rate cases. In prior rate cases, MDU used the "Average and Excess Demand" (AED) method for allocating the costs of production facilities. The "excess" demand portion of the AED method focuses on class ***non-coincident*** peak ("NCP") demands to apportion diversity benefits among the classes. The "average" demand portion is mathematically equivalent to class energy usage. Therefore, the AED method focuses on class diversity (NCP's) and class energy usage.

In this case, MDU's CCOSS witness used the twelve coincident peak ("12 CP") method for allocating production-related costs to the various service classes. The 12 CP method focuses on rate class contributions to the system's twelve monthly coincident peaks. The argument for a coincident peak

allocation method is that utilities must buy or build capacity sufficient to meet its expected coincident peak demand.

Arguing against MDU's 12 CP production cost allocation method seems necessary only if that method produces significantly different results than those produced under the former AED method. That does not appear to be the case, however. In discovery, Staff asked MDU to provide the results of its AED class cost study in Docket EL15-024. Staff then compared the AED results to MDU's 12 CP cost study in this case. On a relative basis, the results of the two different allocation methods are surprisingly similar. For example, for the Residential class, the "unitized" rate of return (unitized rate of return = class rate of return divided by system rate of return) was .94 under the AED method and .96 under the 12 CP method. Similar findings were evidenced in several of the other rate classes as well. Where the differences were greater, they were mostly in rate classes where the dollar amounts were much smaller. One can expect wide variations in relative rates of return in such smaller classes even when the same underlying cost allocation methods are the same. Just a swing of a few dollars can significantly impact the indicated results for smaller rate classes. Given similar results from the two allocation methods, Staff did not oppose the 12CP production cost allocation method in this case.

Staff's most significant concern with MDU's CCOSS is the Company's use of the "Minimum Distribution System" approach to classify a significant portion of the Company's distribution system (e.g. lines and transformers) to the customer cost component. Since the Residential class has far more customers than the other classes, the MDS approach is significantly disadvantageous to the Residential class. This can be seen by comparing Residential class unitized rates of return with and without the MDS. With the MDS, the Residential class unitized rate of return under present rates is .96, indicating the class is paying ***less*** than its fair share. Without the MDS, however, the Residential class unitized rate of return is 1.06, indicating Residential customers are paying ***more*** than their fair share to the system return.

Staff opposes the MDS approach. Utilities do not install minimum systems. Rather electric distribution systems are designed and operated to meet expected customer maximum loads. Rather than engage in a protracted debate at hearings on the theoretical merits of the MDS, the parties agreed to, and the settlement provides for, a relatively uniform percentage increase in base rate revenues as a percentage of total test year revenues.

Rate Design (Residential Customer Service Charge) – MDU's present rate schedules contain a $0.247/day ($7.51/month) customer charge for the Residential Rate 10 class. MDU proposed to nearly double this charge to $0.494/day ($15.02/month). MDU claimed that its cost studies support an even higher Residential monthly customer charge --- $20.70/month. Staff's cost analysis did not support such a large increase in the Residential service charge, but Staff agreed that some increase in the customer charge is reasonable at this time. Ultimately, MDU and Staff agreed to a $0.329/day ($10.00/month) customer charge for the Residential Rate 10 class.

OTHER ISSUES

Heskett IV Gas Turbine – Heskett IV is an 88 MW simple cycle natural gas turbine which replaces the retired Heskett Units I and II. [8] Heskett IV is located at the same site where Heskett Units I and II were located. In response to Staff's data request, MDU indicated that it chose the 88 MW size unit to

[8] The Commission addressed the prudency of retiring Heskett I and II in docket EL21-007. The Commission found the retirement of these units to be prudent.

maximize the use of replacement capacity at the same site and to avoid the interconnection queue process. Specifically, MDU stated the following:

> The 88 MW Heskett IV matches the vendor make and model of the adjacent Heskett III generating resource. It also was an exact fit as a MISO Replacement Generator associated with the retirement of Heskett Units I and II. The MISO Replacement Generator process avoided the need for the Company to have to go through the MISO interconnection queue and potential MISO network upgrade and SPP affected system study costs that the Company could have incurred with a new generator interconnection request.

The decision to acquire Heskett IV was made based on the 2019 Integrated Resource Plan (IRP). Consequently, Staff evaluated this IRP. The modeling analysis in this IRP demonstrated that Heskett IV was selected as the least cost resource in the base case and across a range of sensitivity cases. Aside from Heskett IV, the least cost plan consisted of procuring a substantial amount from the spot market, due in large part to the assumptions regarding competitive spot prices. On average, the exposure to spot prices was forecasted to be approximately a third of the time in the Company's preferred plan. Staff had concerns about such exposure. In response to Staff's data request, MDU explained that it procured an energy hedge with a neighboring utility for roughly 20% of its energy requirements and further, to the extent there are increases in market prices, such increases would have resulted in increasing the capacity factors of the owned generation. MDU's analysis shows that exposure to the market is reduced by more than half in the high energy price scenario by increasing the capacity factors of existing owned generation. MDU also explained that the competitiveness of its spot prices during a significant portion of the year were attributable in large part due to the vast amount of wind generation located in its service area which creates an "economic incentive to purchase energy from the MISO energy market during these times versus self-generating".

Heskett IV's costs are consistent with the amount assumed for a generic simple cycle at $68.7 million in the 2019 IRP. The plant additions included in the final revenue requirement include Heskett IV capital costs of $68.5 million total company, or $3.2 million when allocated to South Dakota.

The Heskett IV related revenue requirement was not included in the interim rate calculations due to a delay in its in-service date. MDU informed the Commission of this delay and related reduction in interim rate revenue requirements in a supplemental filing submitted on January 26, 2024. MDU explained in response to Staff's data request that the reason for the delay was due to operational issues during the commissioning phase. Specifically, MDU stated the following:

> On October 31, 2023, an operational issue occurred during the commissioning of Heskett Unit IV. The unit quickly entered an investigatory phase to determine the extent of damage and required repairs. Damage was found on the generator rotor, a row of turbine blades and shrouds, and additional smaller equipment issues were found. Replacement materials for the known damage were found and delivered in the first quarter of 2024. The generator rotor required a full rewind, which has been performed and the rotor has been reinstalled. The damage to the turbine blades and shrouds required parts replacement and that replacement effort has been completed.

Following successful reassembly and re-start of the unit, as well as further testing, Heskett IV went into commercial operation on July 8, 2024. As explained further below under "Interim Rate

Refund", the refund process ensures that ratepayers only begin paying for Heskett IV once it is in-service.

The Stipulation includes provisions that ratepayers will not be exposed to any cost increases associated with the above-mentioned issues. Further, the Company confirmed that any costs associated with the damage caused by the operational issues that occurred during the commissioning of Heskett Unit IV are not included for recovery from South Dakota customers.

Rate Moratorium – The Parties agree that MDU shall not file any rate application for an increase in base rates that will go into effect prior to March 1, 2027, subject to the occurrence of certain extraordinary events.

Implementation of Rates – The tariffs found in Exhibit A attached to the Settlement Stipulation are intended to become effective for services rendered on and after September 1, 2024. Customer bills will be prorated so that usage prior to the implementation date will be billed at current rates and usage on and after the effective date will be billed at the new rates.

Interim Rate Refund – MDU implemented interim rates on March 1, 2024. The agreed-upon revenue deficiency results in a revenue increase that is less than the interim rate level. In the Settlement, the Company agreed to issue refunds to customers for the difference between interim rates and the permanent rates for usage during the period March 1, 2024, through August 31, 2024. The refund calculation incorporates the revenue requirements associated with the Heskett IV Gas Turbine as of July 8, 2024, the plant's in-service date. The calculation ensures customers are only paying for Heskett IV once it is used and useful. The amount to be refunded will include interest, calculated by applying a 7% annual interest rate to the average refund balance for each month that interim revenues were collected. The detailed refund plan is provided as Exhibit C to the Stipulation.

RECOMMENDATION

Staff recommends the Commission approve the Settlement for the reasons stated above.