STAFF MEMORANDUM

TO: COMMISSIONERS AND ADVISORS

FROM: ERIC PAULSON, LOGAN SCHAEFBAUER, AND JENNIE FUERST

RE: EL24-029 - IN THE MATTER OF THE PETITION OF NORTHERN STATES POWER COMPANY DBA XCEL ENERGY FOR APPROVAL OF ITS 2025 INFRASTRUCTURE RIDER PROJECT ELIGIBILITY AND FACTOR UPDATE

DATE: DECEMBER 10, 2024

BACKGROUND

On August 30, 2024, the South Dakota Public Utilities Commission (Commission) received a petition from Northern States Power Company dba Xcel Energy (Xcel or Company) for approval of its 2025 Infrastructure Rider Project Eligibility and Factor Update.

The Infrastructure Rider was established in Docket EL12-046 and was revised in Docket EL14-058 to require annual Commission-approved filings. Since then, the Company has made annual filings requesting approval of revenue requirements, project eligibility, and rates. The Infrastructure Rider is based on estimated costs of the capital projects subject to annual true-up to their actual costs and recoveries.

In Docket GE17-003, as part of the resolution of the Commission's investigation of the impacts of the Tax Cuts and Jobs Act (TCJA), Staff and the Company stipulated to allow the Company to only seek Infrastructure Rider recovery of new wind generation projects and the costs of terminating certain biomass power purchase agreements going forward. The Infrastructure Rider continued in this form up until the filing of the Company's most recent rate case in Docket EL22-017.

The Infrastructure Rider was updated in Docket EL22-026, with rates effective January 1, 2023. In conjunction with the Company's proposal in Docket EL22-017, the Company proposed to roll the costs associated with completed projects from the Infrastructure Rider to base rates. The 2023 Infrastructure Rider revenue requirement approved in Docket EL22-026, effective January 1, 2023, consisted solely of the true-up of the remaining over-recovery to be returned to ratepayers.

Staff and the Company entered into a settlement stipulation in Docket EL22-017. The settlement shifted cost recovery of all Infrastructure Rider projects to base rates, with the exception of revenue requirements associated with wind projects with in-service dates of 2022 and beyond. Retaining projects with recent in-service dates ensures that the reductions associated with depreciation expenses are incorporated in the annual Infrastructure Rider adjustments. These projects include: Dakota Range Wind, Nobles Wind Repowering, Northern Wind (including the Northern Wind expansion, referred to as Rock Aetna), and Grand Meadows Wind.

The EL22-017 settlement also allowed for Infrastructure Rider recovery of major capital additions placed in service in 2023, that Xcel had originally proposed to be recovered in base rates, with the intent to recognize, with conditions, certain additional projects. The settlement limits the Infrastructure Rider for 2023 to non-operating income producing projects totaling no more than $13.9 million in 2023 revenue requirements. However, at the time the settlement was prepared, Xcel's estimated 2023 Infrastructure Rider revenue requirements associated with 2023 projects was approximately $10.7 million.

Going forward, the settlement allows Xcel to seek recovery of other non-operating income producing projects initially proposed for inclusion in the rate case as 2023 additions, which have been delayed. Xcel may also request to include additional projects beginning in 2024, with the condition that the individual project revenue requirements are $250,000 or greater on a South Dakota jurisdictional level[1]. This condition limits the use of the Infrastructure Rider to major projects impacting the revenue requirement.

As part of the EL22-017 settlement, all wind Production Tax Credits (PTCs) will be credited to customers through the Infrastructure Rider instead of the fuel clause in order to help reduce volatility on customers' monthly bills. The Infrastructure Rider was last updated in docket EL23-025, with rates effective September 1, 2024.

In this current filing, Xcel proposed to increase the Infrastructure Rider rate to an estimated $3,036,215 in revenue requirements for 2025. The resulting rate proposed to be implemented on January 1, 2025, is $0.001366 per kWh. Xcel estimated the average bill impact for a typical residential customer using 750 kWh per month to be $1.02 per month, a decrease of $0.86 per month compared to the current rate. It should be noted, the revenue requirement in this docket is higher than the previous docket. The previous docket was delayed, and rates not implemented until September 1, 2024, therefore causing the recovery period to be much shorter resulting in a higher rate for the shortened period.

Staff's recommendation is based on its analysis of Xcel's filing, discovery information, relevant statutes, and previous Commission orders. Staff reviewed updates regarding previously approved projects, the 2024 tracker report, new projects proposed for recovery, the forecasted 2025 revenue requirement, and rate calculations.

EXISTING PROJECTS

Attachment 12 to Xcel's petition in this docket provides a list of all previously approved projects.

Attachment 4 to Xcel's petition in this docket provides a comparison of the revenue requirements for each project compared to the previous filing.

Regarding the ITC-VMWare project approved in docket EL23-025. As part of this project, a software upgrade, there was O&M savings that were achieved. The start of this software contract was July 1, 2023, and it runs through June 30, 2028. Staff recommends that starting with the 2025 Infrastructure Rider docket, Xcel will include all O&M savings related to this software update, dating back to the start

[1] This ongoing condition does not apply to 2023 projects proposed in the rate case that were delayed.

of the contract, be credited back to rate payers to account for cost savings that are in base rates due to this software update.

PRODUCTION TAX CREDITS

As part of the EL22-017 settlement, all wind PTCs are now credited to customers through the Infrastructure Rider instead of the fuel clause in order to help reduce volatility on customers' monthly bills. The estimated 2024 credit included in the previous docket was $18,563,240. Xcel's filing in this docket updates that estimate to $19,370,032. The Company's estimated credit for 2025 filed in this docket is $18,388,269.

In addition, per the EL22-017 settlement, the Parties agreed to track the PTCs in order to ensure customers receive the benefits expected. The settlement establishes a baseline PTC floor for the Company's wind portfolio equal to 90% of the PTC forecasts the Company used to justify the prudence of the wind projects. Actual PTCs received are tracked and compared to the floor annually. Any amounts of PTCs above the PTC floor will be carried forward in the tracker for the following year. If the actual PTCs are below the 90% floor, then the Company will refund to customers the value of the difference through the Infrastructure Rider, net of any positive balances in the tracker mechanism. Per the stipulation, the first evaluation will occur in 2024 and is based on actual PTC performance that is tracked and considered on a cumulative three-year basis. Thereafter, the tracker balance will be compared to the 90% floor on an annual basis. In EL23-025, the estimated amount in the tracker at the end of 2023 to be returned to customers in 2024 is $427,434. This docket updates that estimate to a credit of $621,999. This amount is associated with crediting customers for not meeting the PTC floor on a cumulative basis for 2021-2023. Xcel provides the PTC Floor Tracker calculations on Attachment 11. Staff summarizes the tracker for 2021-2023 below[2].

	2021	2022	2023
Actual PTCs	$ 2,262,209	$ 5,326,178	$ 7,247,206
Baseline PTCs	$ 2,510,106	$ 5,086,461	$ 7,730,405
Yearly Balance	$ (247,897)	$ 239,717	$ (483,199)
Yearly Balance Grossed Up	$ (313,794)	$ 303,439	$ (611,644)
Cumulative Balance	$ (313,794)	$ (10,355)	$ (621,999)

The estimated amount in the tracker at the end of 2024 to be returned to customers as a credit in 2025 is $225,683.

SHERCO LAND SALE

As part of the EL22-017 settlement, the Infrastructure Rider would also include the return to customers of the gains on sale (net of expenses) of a pending sale of a parcel of land in Sherburne County (Sherco). The Sherco land sale closed on April 24, 2024.

[2] SD Allocated amounts

Attachment 2 includes a credit to ratepayers of $440,643 for the sale of the land.

NEW 2024 PROJECTS

New projects to be included with in-service dates in 2024 or later are subject to the $250,000 threshold outlined in the EL22-017 settlement. Beginning on page 4 of Xcel's Attachment 12, the Company discusses new proposed 2024 projects: Border Winds Repower, Pleasant Valley Wind Repower, Black Start Conversion, St. Cloud New Service Center, and Monticello Nuclear Generating Plant Ground Water Mitigation projects.

Description	2025 Revenue Requirement
Border Winds Repower	$410,415
Pleasant Valley Wind Repower	$372,146
Black Start Conversion	$65,668
St. Cloud New Service Center	$128,026
Monticello Nuclear Generating Plant Ground Water Mitigation	$400,890
Total	**$1,377,145**

Border Winds Repower and Pleasant Valley Wind Repower

Border Winds is a 150 MW wind facility in Rolette County, North Dakota. This facility was originally placed into service in 2015 and consisted of 75 Vestas V100 2.0 MW turbines. This project will repower the facility by replacing the internal nacelle components, hub, and blades and will continue to use the existing interconnection. The repowering will result in 2.2 MW turbines for a total installed nameplate capacity of 165 MW. With this increased installed nameplate capacity and an increase in the capacity factor from the current 48.6 percent, the repowering will result in an increase in wind power production. Along with the increase in production, the repowering will extend the lives of the turbines by 25 years, reduce long-term costs, and requalify the project for PTCs at the 60% level. With this repower, the capacity factor will increase to 53.4%.

Pleasant Valley Wind is a 200 MW wind facility in Mower County, Minnesota. This facility was originally placed into service in 2015 and consisted of 100 Vestas V100 2.0 MW turbines. This project will repower the facility by replacing the internal nacelle components, hub, and blades and will continue to use the existing interconnection. The repowering will result in 2.2 MW turbines for a total installed nameplate capacity of 220 MW. With this increased installed nameplate capacity and an increase in the capacity factor from the current 47.2 percent, the repowering will result in an increase in wind power production. Along with the increase in production, the repowering will extend the lives of the turbines by 25 years, reduce long-term costs, and requalify the project for PTCs at the 60% level. With this repower, the capacity factor will increase to 52.1%.

Staff data request 2-1 requested an analysis similar to what was done in EL21-028 Attachments 10a and 10B. Within this analysis, Xcel shows a lifetime customer benefit of the combined Border Winds and Pleasant Valley Wind Repower of approximately **[Begin Confidential]** **[End Confidential]**.

Black Start Conversion

This project will convert **[Begin Confidential]** **[End Confidential]** to become Black Start units for the Northern States Power – Minnesota (NSPM) system. This project will install backup power generation, switchgear, controls upgrades, and other equipment required to operate the units as Black Start units. Xcel will install 28 MW of new reciprocating internal combustion engines (RICE) designed to start the plant with no external power supply in the event the grid goes completely down. These units will be dual fuel and have 48 hours of onsite fuel oil in storage. Medium voltage switchgear will be installed or modified as necessary to provide controls allowing for complete automation of emergency power. There will also be a redundant CT starting system installed. Existing infrastructure such as the natural gas supply line and the 115 kV interconnecting facilities will remain in place. Provisions for future remote operation will also be included.

St. Cloud New Service Center

This project will replace an existing service center with a new upgraded service center. The new facility is being built on a 19-acre parcel and will include a 63,960 square foot service center, 30,000 square foot fleet building, and 34,000 square foot vehicle storage building.

Monticello Nuclear Generating Plant Ground Water Mitigation

This project will increase the storage capacity of stored ground water. The increased volume creates more availability of water for use in emergent situations, which gives Monticello Nuclear Generating Plant greater plant resiliency. In response to Staff Data Request 1-4, Xcel stated, “the additional water storage will improve margin and will be available for the fire protection system, FLEX strategies (Diverse and Flexible Coping Strategies, NRC Order EA-12-029), and emergency water for cooling. This additional resiliency ensures the continued safe operations of the station.” Response to Staff Data Request 1-3 provides further detail into each portion of the project and is attached to this memo.

2024 TRACKER REPORT

The Infrastructure Rider rate approved in Docket EL23-025 was based on the estimated 2024 revenue requirements associated with Continuing Wind in the rider, From Rate Case K&Ms, Additional Projects all included as a result of the Settlement in Docket EL22-017 as well as revenues related to 2 new projects, FCA PTC True-up, Wind PTCs, and PTC Floor Calculation.

In this docket, Staff reviewed the initially filed 2024 project revenue requirement of $17,780,582 to determine if the costs were prudent and at the lowest reasonable cost to ratepayers. As described in the Company’s initial petition, the 2024 forecast for projects in the Infrastructure Rider is $127,228 less at this time compared to the estimate provided in Docket EL23-025. Staff also reviewed the Wind PTCs, PTC Floor Calculation, and Sherco Land Sale credits.

2025 INFRASTRUCTURE RIDER REVENUE REQUIREMENT

Xcel's initial petition proposed a 2025 revenue requirement of $3,036,215, based on the proposed 2024 over-collection of $635,819 and the 2025 revenue requirements associated with 83 projects, with nine of these being new projects not previously approved for recovery in prior dockets, PTCs, PTC Floor Calculation, Sherco 1 Land Sale, and O&M associated with wind projects.

2025 INFRASTRUCTURE RIDER ADJUSTMENT FACTOR

The Infrastructure Rider rate is designed to be implemented effective January 1, 2025. The rate is calculated based on forecasted sales from January 2025 through December 2025. The Infrastructure Rider rate based on the 2025 estimate of overall revenue requirements of $3,036,215 is $0.001366 per kWh, as shown on Attachment 1. The average residential bill impact, using 750 kWh, of the 2025 Infrastructure Rider is $1.02 per month, a decrease of $0.86 per month compared to the average residential bill impact of the 2024 Infrastructure Rider of $1.88 per month.

ANNUAL REPORT ON WIND PROJECTS PERFORMANCE

In past rate case and infrastructure rider dockets, Xcel agreed to report information related to capital costs, operating costs, and plant performance for the Pleasant Valley, Border, Courtenay, Blazing Star I, Crowned Ridge II, Foxtail, Lake Benton II, Blazing Star II, Freeborn, Dakota Range I & II, Jeffers, Community Wind North, Mower, Northern Wind, Nobles Wind Repower, Rock Aetna, and Grand Meadow projects once completed and in-service, so that Staff may assess the actual economics of the projects.

Xcel provided the Wind Project Performance Annual Report information for calendar year 2023 in Attachment 14 for Pleasant Valley, Border, Courtenay, Blazing Star I, Crowned Ridge II, Foxtail, Lake Benton II, Blazing Star II, Freeborn, Dakota Range I & II, Jeffers, Community Wind North, Mower, Northern Wind, Nobles Wind Repower, Rock Aetna, and Grand Meadow, as these were the projects placed in-service by the end of 2023. Xcel agrees to provide this information for repowered Border and Pleasant Valley projects in subsequent infrastructure rider filings. Staff summarizes the 2023 information contained in Xcel's report in the table below.

Project	In-Service Date	Operating Capacity	2023 Total Capital to Date	2023 O&M	2023 Congestion & Loss	2023 Average Capacity Factor
Pleasant Valley	2015	200 MW	$331,791,894	$4,360,687	$4,243,340	42.80%
Border	2015	150 MW	$261,586,803	$2,607,338	($495,177)	44.60%
Courtenay	2016	200 MW	$286,949,324	$4,187,847	($150,453)	39.80%
Foxtail	2019	150 MW	$230,285,739	$903,247	$9,123,459	40.40%
Lake Benton II	2019	100 MW	$158,310,519	$1,692,305	$6,514,333	48.40%
Blazing Star I	2020	200 MW	$315,596,497	$3,729,582	$7,991,321	42.40%
Crowned Ridge II	2020	200 MW	$302,518,867	$3,242,486	$14,247,542	44.60%

Blazing Star II	2021	200 MW	$342,835,842	$4,786,715	$8,145,659	42.90%
Freeborn	2021	200 MW	$318,136,304	$4,974,955	$5,717,988	39.70%
Jeffers	2021	44 MW	$72,029,057	$1,179,159	$1,736,319	50.00%
Community Wind North	2021	26.4 MW	$66,622,809	$748,779	$1,166,784	47.40%
Mower	2021	98.9 MW	$158,385,544	$2,194,431	$1,537,314	36.60%
Dakota Range I & II	2022	302.4 MW	$377,723,568	$3,551,581	$27,841,257	35.70%
Rock Aetna	2022	22.3 MW	$34,203,777	$489,102	$969,820	41.60%
Nobles Repower	2022	201 MW	$212,589,117	$4,009,880	$10,459,934	36.80%
Northern Wind	2023	100 MW	$185,753,220	$1,704,617	$4,205,937	40.70%
Grand Meadow	2023	100.5 MW	$112,259,179	$2,554,446	$1,724,745	37.10%

Some of the wind projects are now included in base rates and only the projects in-service in 2022 and beyond are included in the Infrastructure Rider. However, the PTCs associated with the entire wind portfolio are passed through the customers in the Infrastructure Rider. The PTCs are integral to the economics of the wind projects and are calculated based on the actual generation of each wind facility, and thus are reflective of the wind projects' capacity factors. Staff notes that with the addition of the PTC tracker and floor established in Docket EL22-017, customers are protected from years where the Company's wind portfolio has capacity factors well below what was used to justify cost effectiveness and need for the wind resources.

RECOMMENDATION

Staff recommends the Commission approve the revised Infrastructure Rider Adjustment Factor of $0.001366 per kWh and tariff sheet effective January 1, 2025.