

Staff Briefing Papers – Volume I (TCR Rider)

Meeting Date May 4, 2023

Agenda Item 2**

Company Northern States Power Company, d/b/a Xcel Energy

Docket No. E-002/M-21-814

In the Matter of Northern States Power Company d/b/a Xcel Energy's Petition for Approval of the Transmission Cost Recovery Rider Revenue Requirements for 2021-2022, and the Resulting Adjustment Factors by Customer Class

Issues Should the Commission approve or modify Xcel Energy's 2021-2022 Transmission Cost Recovery (TCR) Rider revenue requirement for transmission-related, AGIS-related components and the resulting adjustment factors by customer class? (Volume I)

What, if any, other action should the Commission take related to AGIS-related performance metrics, cost recovery, reporting, and future filings? (Volume II)

Staff	Ganesh Krishnan (Volume I)	Ganesh.krishnan@state.mn.us	651-201-2198
	Tera Dornfeld (Volume II)	Tera.dornfeld@state.mn.us	651-201-2195
	Jacob Strauss (Volume I/II)	Jacob.strauss@state.mn.us	651-201-2237



Relevant Documents

Date

Xcel Initial Filing (Public and Trade Secret)

November 24, 2021

Xcel Advanced Distribution Management System Annual Report (2021)

January 25, 2022

To request this document in another format such as large print or audio, call 651.296.0406 (voice). Persons with a hearing or speech impairment may call using their preferred Telecommunications Relay Service or email consumer.puc@state.mn.us for assistance.

The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

**Relevant Documents****Date**

Department of Commerce (Department) Letter (Guidance Document)	February 9, 2022
Department Comments	March 30, 2022
Xcel Comments	March 30, 2022
Citizen's Utility Board (CUB) comments	March 30, 2022
Department Reply Comments	May 2, 2022
Xcel Reply Comments	May 2, 2022
Order, Settlement Agreement	June 2, 2022
Xcel – Workshops 1 and 2 Recordings and Presentations	August 4, 2022
Xcel Supplemental Filing	August 17, 2022
PUC Notice of Comment Period	August 22, 2022
Xcel Letter, Workshop Materials	September 14, 2022
Xcel Cost/Benefit Analysis (CBA) (Public and Trade Secret)	October 14, 2022
Citizen's Utility Board (CUB) comments	October 17, 2022
Department Comments	October 17, 2022
Office of the Attorney General (OAG) Comments	October 17, 2022
Department, OAG, and CUB, Joint Comments	November 16, 2022
Xcel Reply Comments	November 16, 2022
Xcel Advanced Distribution Management System Annual Report	January 25, 2023

Referenced Documents Docket No. E-999/DI-20-627

Center for Energy and the Environment (CEE) comments	September 18, 2020
Xcel comments	September 25, 2020
Fresh Energy comments	September 25, 2020
Citizen's Utility Board (CUB) comments	October 16, 2020
Office of the Attorney General (OAG) comments	October 16, 2020
Xcel reply comments in Docket Nos. E-999/DI-20- 627, E-002/M-19-666, E-002/M-20-680	October 30, 2020
Department of Commerce Report "Methods for AMI and FAN Performance Evaluations, Metrics, and Customer Protections" docket nos. E-002/M-19-666 and E-999/DI-20-627.	December 1, 2020
Department Appendices to Report	March 15, 2022



Relevant Documents

Date

Referenced Documents, Additional Dockets

2015 Biennial Report- Distribution Grid Modernization filed in Docket Nos. E-999/M-15-439 and E-002/M-15-962.	October 30, 2015
Order Certifying Advanced Distribution Management System (ADMS) project Under MN. Stat. § 216B.2425 and Requiring Distribution Study in Docket No. E-002/M-15-962	June 28, 2016
Docket No. E,G-999/CI-12-1344, Order Governing Disclosure of Customer Energy Use Data to Third Parties, Requiring Filing of Privacy Policies and Cost Data, and Soliciting Comment	January 19, 2017
Xcel Petition Transmission Cost Recovery Rider for 2017-2018 in Docket No, E-002/M-17-797	November 8, 2017
Order authorizing rider recovery, Setting Return on Equity, and Setting Filing Requirements in Docket no. E-002/M-17-797	September 27, 2019
Xcel 2019 initial IDP Filing in docket no. E-002/M-19-666	November 1, 2019
Xcel Petition for approval of 2019-2020 TCR revenue requirements filed in Docket no. E-002/M-19-721	November 15, 2019
Xcel Advanced Distribution Management System Annual Report Docket Nos. 19-666 and 17-797	Jan 24, 2020
<i>Commission Order Approving True-Ups and Requiring Xcel to Withdraw its Notice of Change in Rates and Interim Rate Petition</i> in Docket No. 19-688	March 13, 2020
Order Accepting Integrated Distribution Plan, Modifying Reporting Requirements, and Certifying Certain Grid Modernization Projects in Docket no. E-002/M-19-666	July 23, 2020
Xcel Compliance Filing in Docket 19-666	October 1, 2020
Order Adopting Open Data Access Standards and Establishing Further Proceedings in Docket Nos. E,G-999/M-19-505 and E,G-999/CI-12-1344	November 20, 2020
Xcel Advanced Distribution Management System Annual Report Docket Nos. 19-666, 19-721, and 20-680	January 25, 2021
Xcel's IDP 2021 initial filing in docket no. E-002/M-21-694	November 1, 2021
Commission Order Authoring Rider Recovery in Docket No. 19-721	December 10, 2021
Order Accepting Reports and Setting 2021 Reliability Standards issued in Docket No. E-002/M-21-237	March 2, 2022
CUB Comments in Docket Nos. E,G-999/M-19-505 and E,G-999/CI-12-1344 p5	May 23, 2022



Relevant Documents

Date

Commission Order Approving Tracker and Setting Additional Requirements, Otter Tail Power's Petition to Implement Electric Utility Infrastructure Cost Recovery Rider for Advanced Metering / Outage Management System / Demand Response System, Rate Schedule 13.11, Docket No. E-017/M-21-382.	August 4, 2022
Commission <i>Order Declining to Adopt Guidance Document</i> in Docket Nos, 21-694, 21-390, 21-612, 21-728	October 14, 2022
Order Refining Open Data Access Standards in docket nos. E,G-999/M-19-505 and E,G-999/CI-12-1344	March 13, 2023

AMI Evaluation in Other States

HI PUC Decision and Order no. 37507 filed in Docket no. 2018-0088 2018-0088.PBR_Phase-2-DO.Final.mk.12-22-2020.E-FILED.pdf (hawaii.gov)	December 23, 2020
HI PUC Decision and Order no. 37787 issued in Docket no. 2018-0088 DocumentViewer (hawaii.gov)	May 17, 2021
Ameren IL AMI Annual Update 2021 accessed Ameren Illinois Company Advanced Metering Infrastructure and Commonwealth Edison Smart Grid Advanced Metering Annual Implementation Progress Report April 2021 accessed Commonwealth Edison Advanced Metering Infrastructure (illinois.gov)	April 2021

ACRONYMS

ADMS – Advanced Distribution Management System
AGIS – Advanced Grid Intelligence and Security
AMI – Advanced Metering Infrastructure
APT – Advanced Planning Tool or LoadSEER
CEUD - Customer Energy Use Data
DI – Distributed Intelligence
FAN – Field Area Network
FLISR – Fault Location, Isolation, and Service Restoration
IDP – Integrated Distribution Plan
IVVO – Integrated Volt Var Optimization
MTEP - MISO Transmission Expansion Plan
PBR – Performance-based Ratemaking
PIMs – Performance Incentive Mechanisms
QSP—Quality of Service Plan
RECB - Regional Expansion Criteria and Benefits
SRSQ – Safety, Reliability, and Service Quality
TCR—Transmission Cost Recovery Rider
TOU – Time of Use

Table of Contents

background	1
I. Statement of the Issues	1
II. Executive Summary	1
discussion	4
I. Should the Commission approve Xcel’s Transmission Cost Recovery Rider Revenue Requirements for 2021-2022 for transmission-related components?	4
A. Xcel Energy	4
B. Department of Commerce	5
C. Office of the Attorney General.....	6
II. Should the Commission approve Xcel’s Transmission Cost Recovery Rider Revenue Requirements for 2021-2022 for AGIS-related components?	6
A. Xcel Energy	6
B. Department of Commerce	9
C. Office of the Attorney General.....	10
D. Citizens Utility Board	12
E. Department of Commerce, Office of the Attorney General, and Citizens Utility Board – Joint Comments	13
F. Xcel Energy – Reply Comments	13
III. Should the Commission approve the TCR adjustment factors proposed by Xcel?.....	14
A. Xcel Energy	14
B. Department of Commerce	14
IV. Staff Analysis	16
A. Transmission Projects	16
B. AMI and FAN Cost Recovery	16
C. Adjustment Factors	18
DECISION OPTIONS	19
Decision Options.....	18

BACKGROUND

I. Statement of the Issues

Should the Commission approve or modify Xcel Energy's 2021-2022 Transmission Cost Recovery (TCR) Rider revenue requirement for transmission-related, AGIS-related components and the resulting adjustment factors by customer class?

What, if any, other action should the Commission take related to AGIS-related performance metrics, cost recovery, reporting, and future filings?

Staff notes that the Commission has been asked to consider potential cost caps and a true-up for Advanced Metering Infrastructure and Field Area Network costs, program tracking and performance incentive mechanisms, and whether to establish additional standardized procedures for future grid modernization proposals.

II. Executive Summary

On November 24, 2021, Northern States Power Company, doing business as Xcel Energy, filed a petition (Petition) for approval of 2021-2022 Transmission Cost Recovery Rider (TCR) revenue requirements and the resulting adjustment factors.

The 2021-2022 revenue requirement consists of two distinct components: (1) costs associated with transmission projects previously approved for TCR Rider recovery; and (2) costs associated with distribution-grid modernization projects, collectively called Advanced Grid Intelligence & Security (AGIS) and comprised of Advanced Distribution Management System (ADMS), Advanced Metering Infrastructure (AMI), Field Area Network (FAN), Residential Time of Use (TOU) Pilot, and Advanced Planning Tool (APT, also known as LoadSEER), previously certified by the Commission and eligible for TCR cost recovery.

The Petition solicited approval of TCR Rider revenue requirement of approximately \$104.5 million and the corresponding TCR adjustment factors.¹ Xcel noted that the 2021-2022 revenue requirement incorporated an increase of \$22.6 million over the 2020 revenue requirement of

¹ The revenue requirement estimates, and the corresponding adjustment factors need to be updated. Xcel indicated that the proposed adjustment factors were calculated with an assumed implementation date of June 1, 2022 and calculated to recover the revenue requirement over 12 months. If the timing of a decision in this proceeding does not allow for a June implementation date, Xcel requests that adjustment factors be recalculated to recover the 2021-2022 revenue requirements over the 12 months after the issue of Commission Order. This would more closely match cost recovery with the eligible 2021-2022 costs – similar to the treatment authorized in past TCR Rider orders. Xcel has proposed to provide the updated adjustment factor calculations as part of a compliance filing after the Commission issues the Order.

roughly \$81.9 million.² Xcel indicated that grid modernization projects and the in-servicing of the Huntley–Wilmarth project at the end of 2021 accounted for the increased costs and added that the increased costs are offset somewhat by an increase in MISO Regional Expansion Criteria and Benefits (RECB) credits in 2021-2022. Out of the \$104.5 million total revenue requirement, grid modernization projects account for \$24.9 million.

Table 1 provides a breakdown of the 2021-2022 revenue requirement:

Table 1 - 2022 Forecast Revenue Requirement³	
New Distribution-Grid Modernization Projects	
AGIS – ADMS	\$5,895,245
AGIS – AMI	\$15,708,542
AGIS – FAN	\$1,925,235
AGIS – LOADSEER	\$672,353
AGIS – TOU Pilot	\$699,701
Sub-Total	\$24,901,076
Transmission Projects	
Big Stone – Brookings	\$3,752,627
CAPX2020 – Brookings	\$30,662,824
CAPX2020 – Fargo	\$13,589,185
CAPX2020 – La Crosse Local	\$3,957,322
CAPX2020 – La Crosse MISO	\$5,015,570
CAPX2020 – La Crosse MISO - WI	\$9,229,727
Huntley – Wilmarth	\$4,843,143
La Crosse – Madison	\$13,845,072
Sub-Total	\$84,895,470
Projects - Total	\$109,796,546
Adjustments⁴	-\$5,260,276
Revenue Requirement	\$104,536,270

The Department of Commerce (DOC), Citizens Utility Board (CUB)⁵ and the Attorney General’s

² Staff Note: Attachment 8 of Xcel’s petition states the 2020 revenue requirement to be \$81,197,254 million. However, in Docket No. E-002/M-19-721, Xcel’s November 15, 2019 petition proposed to recover Transmission Cost Recovery (TCR) Rider revenue requirements for 2020 of approximately \$81.9 million

³ See Xcel Petition (November 24, 2021), Attachment 8. Attachment 15 shows the revenue requirement calculations by project.

⁴ The adjustments refer to the MISO RECB revenue of (\$9,607,189) plus TCR True-up Carryover from 2021 of \$4,346,913 for a total of (\$5,260,276).

⁵ March 30, 2022 Comments.

Office – Residential Utilities Division (OAG-RUD or OAG) expressed strong reservations about the recovery of grid modernization investments, but not with the recovery of transmission project investments.

Initially, the Department and CUB argued for a bifurcation of the 2021-2022 revenue requirement between transmission projects and grid modernization projects. The Department recommended that recovery of costs relating to grid modernization projects be referred to a contested case proceeding, while recovery of transmission projects be addressed through the routine comments and reply comments procedure. CUB asserted a contested case was most appropriate for the consideration of Xcel's AMI and FAN projects.

The parties' main concern with respect to recovery of grid modernization projects is the potential for cost overruns against which, they argue, ratepayers should be protected against, and the potential for these projects to generate revenue or additional savings which, they argue, should also be realized by ratepayers. Xcel argued that the grid modernization projects as well as the transmission projects have been previously certified by the Commission and that cost recovery of grid modernization projects are required by Commission orders to be supported by assessment of qualitative and quantitative benefit to ratepayers.

Instead of bifurcating the issues and pursuing a contested case, the Department and Xcel agreed to an alternative approach that relied on the Commission's comment and reply comment process in conjunction with ongoing dialogue regarding the Department's views on conditions attached to grid modernization projects, technical workshops for stakeholders, and a supplemental filing by Xcel intended to provide additional information necessary to understand and evaluate the Company's investments (Procedural Agreement). The Commission adopted the Procedural Agreement in its June 2, 2022 Order. The Department and Xcel agreed to not bifurcate cost recovery or pursue a contested case and instead to continue to develop the record on cost recovery for AMI and FAN. Per the Procedural Agreement, Xcel met with the Department and Synapse on July 20, 2022.

These developments culminated in the final round of comments (October 17, 2022 and November 16, 2022). In the final round of comments, the Joint Parties (Department, OAG, CUB) recommended approval of Xcel's proposed estimates of revenue requirement and the ensuing rates to be billed to customers, but they recommended that Xcel's AMI and FAN recovery be subject to certain conditions. The recommendations include a true-up for potential revenues earned by Xcel to be returned to ratepayers, four separate caps for AMI and FAN capital and operation and maintenance (O&M) cost recovery, a requirement for Xcel to submit performance incentive mechanisms with associated penalties, and additional reporting requirements. Xcel has registered its initial impression of these recommendations, described in more detail in the Discussion section for issue 2, but has not weighed in any substantive manner.

Volume II of the Staff briefing papers contains a discussion of the record, Staff Analysis, and Decision Options for metrics and performance evaluations for AMI and FAN.

DISCUSSION

I. Should the Commission approve Xcel's Transmission Cost Recovery Rider Revenue Requirements for 2021-2022 for transmission-related components?

A. Xcel Energy

As can be seen from the above Table 1, AGIS projects account for approximately 24-percent of the overall revenue requirement, while the transmission projects constitute the bulk (84-percent) of the TCR revenue requirement.

Xcel indicated that it has not proposed any new transmission projects in the Rider recovery petition. The Company noted that the transmission projects included in the instant petition were previously deemed eligible for recovery by the Commission.

Xcel pointed out that, in Docket No. E-002/M-09-1048,⁶ the Commission approved TCR Rider cost recovery for the following eligible projects under Minn. Stat. § 216B.16, Subd. 7b:

- CapX2020 Fargo–Twin Cities
- CapX2020 La Crosse-Local
- CapX2020 La Crosse-MISO
- CapX2020 La Crosse-WI

Further, in Docket No. E-002/M-12-50,⁷ the Commission approved TCR Rider cost recovery for the CapX2020 Brookings–Twin Cities project.

Xcel also pointed out that in its preceding rate case,⁸ the Commission approved a settlement in which parties agreed that, in lieu of rolling the projects into base rates, the three CapX2020 transmission projects included in the TCR Rider at that time – Fargo–Twin Cities, the three La Crosse segments, and Brookings–Twin Cities – should remain in the rider through the multi-year rate plan (MYRP). Xcel noted that no costs associated with these projects are currently recovered through base rates.

Xcel noted that in Docket No. E-002/M-15-891,⁹ the Commission approved TCR Rider cost recovery for the Badger–Coulee (also known as La Crosse–Madison) and the CapX2020 Big Stone–Brookings projects.

Finally, in Docket No. E-002/M-19-721, the Commission approved TCR Rider cost recovery for the Huntley-Wilmarth project.

⁶ April 27, 2010 Order.

⁷ February 7, 2014 Order.

⁸ Docket No. E-002/GR-15-826.

⁹ January 17, 2017 Order.

In Attachment 15 (25 pages) of its Petition, Xcel has provided a detailed 2021-2022 revenue requirements, by project.

Xcel indicated that, in compliance with the Commission's September 27, 2019 Order in Docket No. E-002/M-17-797 and Commission's September 30, 2019 Order in Docket No. E-002/M-17-818, it calculated the TCR Rider revenue requirements using an ROE of 9.06 percent.¹⁰

Xcel noted that the costs of projects are somewhat offset by an increase in MISO Regional Expansion Criteria and Benefits (RECB) in 2021 and 2022 compared to the year 2020. Minn. Stat. 216B.16, Subd. 7(b) (2), as amended in 2008, allows utilities providing transmission service to recover, upon Commission approval, "the charges incurred by a utility that accrue from other transmission owners' regionally planned transmission projects that have been determined by MISO to benefit the utility, as provided for under a federally approved tariff". This statute further requires any recovery to "be reduced or offset by revenues received by the utility and by amounts the utility charges to other regional transmission owners, to the extent those revenues and charges have not been otherwise offset." Attachment 14 of the Petition details, for the years 2019 through 2023, sources of revenue and expense of MISO RECB, or the MISO Transmission Expansion Plan (MTEP) and shows that, for 2022, expenses total \$134,568,263 with expected offsetting revenues of \$147,701,794. This reduces the TCR revenue requirement by \$13,133,531, to which the application of the demand allocator of 73.15 percent, leaves a net reduction of \$9,607,189 for the Minnesota jurisdiction.

B. Department of Commerce

The Department's October 17, 2022 Comments focused extensively on the transmission-related components of TCR revenue requirement. The Department agreed that the transmission projects included in Xcel's petition are eligible for cost recovery under the TCR statute.

The Department reviewed the level of the revenue requirement for reasonableness. They noted that the recovery amount should be limited "to the amounts of the initial estimates at the time the projects are approved as eligible projects, with the opportunity for the Company to seek recovery of excluded costs on a prospective basis in a subsequent rate case." The Department added that a "request to allow cost recovery for project costs above the amount of the initial estimate may be brought forward for Commission review only if unforeseen and extraordinary circumstances arise on the project."¹¹

The Department thoroughly reviewed Xcel's initial transmission project cost estimates, escalated cost estimates, current investments, and estimated investments through 2024. Table 2 shows Xcel's actual and forecasted capital expenditures for each transmission project included in Xcel's instant TCR Rider.

¹⁰ Petition, Attachment 12.

¹¹ Department Comments filed October 17, 2022 in Docket No. 21-814, at 14

Table 2. Transmission Project Costs and Cost Caps (in millions)¹²

Project	Initial Cost Estimate		Initial Cost Estimate Escalated		Project Investment Through 2022		Estimated Project Investment Through 2024	
	(a)		(b)		(c)		(d)	
<u>In-State Projects</u>								
CAPX2020 Brookings	523.9	[1]	625.6	[2]	484.1	[3]	484.1	[4]
CAPX2020 La Crosse Local					80.1	[3]	80.1	[4]
CAPX2020 La Crosse MISO					81.4	[3]	81.4	[4]
CAPX2020 La Crosse MISO – WI					147.5	[3]	147.5	[4]
CAPX2020 La Crosse	276.5	[1]	330.3	[2]	309	[3]	309	[4]
CAPX2020 Fargo	231.0	[1]	275.9	[2]	225.2	[3]	225.2	[4]
Huntley-Wilmarth HVTL	70.1	[5]	77.9	[6]	56.2	[7]	56.2	[7]
<u>Out of State Projects</u>								
Big Stone – Brookings	92.2	[1]			63.9	[3]	63.9	[4]
La Crosse – Madison	179.1	[1]			175.6	[3]	176.3	[4]

Sources:

[1] Department’s October 16, 2020 Comments in the 2019-2020 TCR Rider.

[2] Department’s October 16, 2020 Comments in the 2019-2020 TCR Rider, escalated through 2015.

[3] Petition, Attachment 7B, sum of costs through 2022.

[4] Petition, Attachment 7B.

[5] \$140.1 million / 2 = \$70.1 million.

[6] \$155.8 million / 2 = \$77.9 million.

[7] Xcel revised response to Department IR No. 73. October 5, 2022. Department Attachment 2.

The Department stated that it reviewed Xcel’s actual and forecasted capital expenditures for each transmission and recommended recovery approval of the transmission capital costs in this proceeding.¹³

C. Office of the Attorney General

The OAG did not take an identifiable position regarding the traditional transmission revenue requirements.

II. Should the Commission approve Xcel’s Transmission Cost Recovery Rider Revenue Requirements for 2021-2022 for AGIS-related components?

A. Xcel Energy

The 2022 TCR Rider revenue requirement relating to the grid modernization projects is shown in Table 3:

¹² Department Comments filed October 17, 2022 in Docket No. 21-814, at 15.

¹³ *Id.*, at 15

Table 3 - 2022 Forecast Revenue Requirement¹⁴

New Distribution-Grid Modernization Projects		
AGIS-ADMS		\$5,895,245
AGIS--AMI		\$15,708,542
AGIS-FAN		\$1,925,235
AGIS-LOADSEER		\$672,353
AGIS- TOU Pilot		\$699,701
	Sub-Total	\$24,901,076

Xcel noted that:

- In Docket No. E-002/M-15-962, the Commission described ADMS as “a collection of software applications designed to monitor and control the entire electric distribution network efficiently and reliably.”¹⁵ The Commission ruled that it agreed with Xcel that “the ADMS project is consistent with Minn. Stat. § 216B.2425 and should be certified.”
- In Docket No. E-002/M-17-797, the Commission approved TCR Rider cost recovery for the ADMS Distribution-Grid Modernization project.¹⁶
- The Commission subsequently certified additional Distribution-Grid Modernization projects:

TOU Pilot in in Docket No. E-002/M-17-775 (August 7, 2018 Order);
AMI, FAN, and LoadSEER in Docket No. E-002/M-19-666 (July 23, 2020 Order)

- In Docket No. E-002/M-19-666, the Commission certified the Advanced Metering Infrastructure (AMI) and Field Area Network (FAN) components of Xcel’s Advanced Grid Intelligence and Security (AGIS) Initiative.¹⁷ Xcel has requested TCR Rider recovery of the certified AMI and FAN projects.

AMI is an integrated system of advanced meters, communication networks, and data processing and management systems that is capable of secure two-way communication between Xcel Energy’s business and operational data systems and customer meters.

FAN is a secure two-way communication network that provides wireless communications across Xcel’s service area – to, from, and among, field devices and our information systems.

¹⁴ See Xcel Petition (November 24, 2021), Attachment 8. Attachment 15 shows the revenue requirement calculations by project.

¹⁵ June 28, 2016 Order.

¹⁶ September 27, 2019 Order.

¹⁷ July 23, 2020 Order.

Xcel acknowledged that, in Docket No. E-002/M-17-797¹⁸ and in Docket No. E-002/M-19-666,¹⁹ the Commission established new requirements for future AGIS project cost recovery. Xcel indicated that Attachment 4 of the Petition contains full project information in support of rider eligibility, including information in compliance with the Commission's Orders in those two dockets.

In Attachment 4A of the Petition, Xcel included a cost–benefit analysis of AMI and FAN that compares the projects' costs of the projects to their quantifiable benefits.

Xcel noted that, although the Commission certified the Residential Time of Use (TOU) Pilot Distribution Grid Modernization project in Docket Nos. E-002/M-17-775 and E-002/M-17-776,²⁰ it did not include costs related to the TOU Pilot prior to 2022 in this TCR Rider request because a portion of those costs were included in its previous MYRP.²¹ Xcel noted that, consistent with the removal of the other Distribution-Grid Modernization projects, it removed TOU Distribution and Business Systems costs from its current MYRP.²² TOU project cost and implementation detail are contained in Attachment 3 of the Petition.

The TOU Pilot is intended to provide certain residential customers with pricing specific to the time-of-day energy is used. Specifically, the pilot provides participants with increased energy usage information, education, and support to encourage shifting energy usage to daily periods where the system is experiencing low load conditions.

The Commission certified the Advanced Planning Tool (APT) – LoadSEER in Docket No. E-002/M-19-666.²³ In that Order, the Commission recognized that APT would “evaluate hourly load data on a more granular level, enabling the Company to better assess potential NWAs.” The Order also noted that “the APT would allow the Company to evaluate scenarios with various levels of DER [distributed energy resources] adoption and forecast potential system overload conditions and upgrade needs.” Finally, Xcel explained that a key aspect of the APT is its ability to integrate different sources of data and communicate with other planning tools, allowing for more efficient and effective distribution planning overall and reducing the need for manual calculations.” While the Commission certified APT in that Order, it limited cost recovery to a cap of \$4 million unless Xcel could show by clear and convincing evidence that the costs were reasonable, prudent, and beyond its control.

Xcel indicated that while it was authorized to recover certain costs related to (1) Renewable facilities as authorized by the Renewable Statute and (2) Greenhouse gas infrastructure

¹⁸ September 27, 2019 Order.

¹⁹ July 23, 2020 Order.

²⁰ August 7, 2018 Order.

²¹ Docket No. E-002/GR-15-826

²² Docket No. E-002/GR-21-630.

²³ July 23, 2020 Order.

projects, it has not included any such costs in this Petition.

B. Department of Commerce

In the October 16, 2022 Comments, the Department deferred to the recommendations made by Synapse. Synapse concentrated on whether Xcel's filing complied with the filing requirements for its AGIS cost recovery requests and whether cost recovery for the proposed AGIS investments should be granted. Synapse focused its attention on the proposals for cost recovery for AMI and FAN and concluded that Xcel has only partially satisfied the Commission's filing requirements, but even so, Synapse recommended that the Commission approve the AGIS-related components (AMI, FAN, LoadSEER, ADMS, and TOU Pilot investments and expenditures) of Xcel Energy's 2021–2022 TCR revenue requirement and resulting adjustment factors.

Synapse recommended that the Commission establish robust consumer-protection measures to ensure that the eventual investments yield the greatest benefits at the least cost for Minnesota ratepayers.

Synapse noted that Xcel's filing met the following requirements:

- A benefit-cost analysis;
- Technical and functional information about the proposed investments;
- Cost details about the proposed investments;
- Descriptions of both quantitative and qualitative benefits;
- Details about bids received for alternative meters; and
- Evaluation of sensitivities.

Even though Xcel submitted a benefit-cost analysis, Synapse was critical of Xcel's analysis and found that it did not include a comparison of alternatives, and that "[w]ithout this comparison, there is little insight to be gleaned from benefit-cost analysis for the decision-making process." Synapse concluded that Xcel simply compares its selected combination of AMI meter and FAN against an alternative (Automated Meter Reading (AMR)) case. The Company's failure to compare its chosen AMI solution against alternatives is particularly conspicuous in light of the Commission's specific reference to the need to compare different AMI meters. Synapse noted that, as required by the Commission, Xcel should have considered multiple alternatives to its proposed investments. Merely comparing its selected pairing of AMI and FAN with a reference case does not suffice.

Synapse noted that Xcel had already completed its decision-making, and "assessing the benefits of alternatives not selected had become impracticable" and that "this problem indicates a potential incongruity between the Company's approach to decision-making and the Commission's requirements for benefit-cost analysis." "In other words, Xcel does not appear to have rigorously and quantitatively accounted for the benefits of alternatives to its selected AMI and FAN solutions en route to making its choice."

"While Xcel has reported a benefit-cost ratio for its joint AMI-FAN investments exceeding 1.0,

this result does not signify that this particular set of investments is the optimal use of customer funds. Rather, the result only shows that the proposed AMI and FAN pairing are superior to the alternative of AMR. By considering multiple alternatives, the Company could come closer to justifying that its proposed investments are optimal.”

Notwithstanding the deficiencies, Synapse recommended that the Commission approve the AGIS-related components of Xcel’s 2021–2022 TCR revenue requirement and resulting adjustment factors (AMI, FAN, LoadSEER, ADMS, and the TOU Pilot).

However, Synapse’s approval is contingent upon performance tracking and achievement of performance targets.

C. Office of the Attorney General

In the October 17, 2022 Comments, the OAG did not question or comment on Xcel’s estimation of the revenue requirement. However, OAG expressed concern over the large outlays for grid modernization projects, possible cost over-runs, and the need to ensure that ratepayers receive proportionate benefits from these outlays.

The OAG noted that Xcel was seeking permission to recover costs of several new grid-modernization investments through the TCR Rider, and that these costs could be expected to grow to over \$500 million by 2026.

The OAG also pointed out that Xcel projects that, by 2024, the revenue requirement associated with the grid modernization projects will grow to \$63.6 million, yielding total rider recovery of more than \$200 million for AGIS investments within the 2019–2024 period. In terms of direct capital investment, Xcel projects investing capital of \$464.4 million in AMI and FAN alone in 2020–2026.

The OAG asked that the Commission impose several conditions to protect ratepayers from potential cost overruns and ensure that they receive the benefits that Xcel claims these investments will deliver.

The OAG maintained that Grid-modernization investments like AMI and FAN represent a new regulatory paradigm in that they are not essential to deliver basic utility service, but that the value proposition of AMI and FAN depends on these investments’ ability to deliver operational efficiencies along with new features and applications for customers.

The OAG noted that the Commission certified AMI and FAN projects conditioned on “the recognition, and acceptance from Xcel, that all future cost recovery will be based upon the Company accomplishing Commission-approved metrics and performance evaluations for the certified projects.” Further, the OAG pointed out that the Commission required Xcel to include with any future cost-recovery request “a proposal for specific metrics and evaluation methods, and a detailed plan describing how the company will maximize the benefits of the AGIS investments for ratepayers.”

OAG maintained that unforeseen issues may cause their costs to exceed Xcel’s estimates. The TCR Rider gives a utility the extraordinary ability to charge ratepayers for transmission facilities and certain distribution facilities before they are fully in service. The rider also employs an annual “true-up” process that allows charges to be increased if actual costs during the previous year were higher than projected. A utility thus has less incentive to contain the costs of projects being recovered through the rider since, without a cap on recovery, any overruns can be recovered expeditiously.

OAG noted that not all of the benefits listed by Xcel of its AMI initiative are quantifiable. Xcel describes the quantifiable benefits in some detail at pages 63 to 67 of Attachment 4 to its Petition and Xcel has used the quantifiable benefits as inputs in its cost–benefit analysis to demonstrate the value of AMI and FAN. These quantifiable benefits underpin the business case for AMI and FAN; therefore, the Commission should require Xcel to track and report them annually in its TCR Rider filings. The Commission should also set a performance target for each benefit at the level assumed in the Company’s cost–benefit analysis. The OAG recommended the following targets:

Table 4 – AMI Performance Targets Based on Quantifiable Benefits

Benefit	Metric	Target
Distribution Management Efficiency	Capital and O&M \$ spent on Asset Health and Reliability projects and Capacity projects	1% reduction
Outage Management Efficiency	Capital and O&M \$ spent on storm recovery	10% capital reduction 0.1% O&M reduction
Avoided Meter Purchases	\$ spent on meter replacement due to failure	None specified – requires clarification
Reduced Field and Meter O&M Expenses	Field trips due to customer equipment damage	50% reduction
	Percent of disconnects and reconnects done remotely	70% of disconnects 95% of reconnects
	“Ok on arrival” outage field visits	50% reduction
	Field visits for voltage investigations	50% reduction
Reduced Consumption on Inactive Meters	Usage on unassigned accounts	20% reduction
Reduced Bad Debt Expense	\$ of bad-debt write-offs	8% reduction
Reduced Theft/Meter Tampering	Increase in retail revenue	None specified – requires clarification
Load Flexibility Benefits	Customer energy price savings due to time-of-use (TOU) rates	None specified – requires clarification
	Avoided tons of CO ₂ emissions due to TOU rates	4,500 tons annual reduction
	Customer savings due to critical peak pricing (CPP)	None specified – requires clarification

The Commission should impose three conditions on cost recovery:

- impose cost cap for rider-recovery projects; limit rider recovery to the costs that Xcel has forecasted; the cap should be applied separately each project and should also apply separately to O&M and capital costs based on Xcel’s estimates for each category;
- require Xcel to track the quantifiable benefits of AMI and FAN and to report them annually in its TCR Rider filings; and set a performance target for each benefit at the

- level assumed in the Company's cost-benefit analysis; and
- c. require the Company to implement a mechanism to expeditiously return these benefits to ratepayers.

Since AMI and FAN initiatives not only introduce efficiency through cost savings but also source of new revenues, the OAG argued that the benefits should eventually flow through the ratepayers as lower base rates. As an example, the OAG suggested that Xcel may partner with other utilities and municipalities, share use of the FAN, and thereby receive additional revenues to offset its cost. The OAG argued that these benefits should flow to ratepayers in either the form of avoided costs or new revenues. These benefits should eventually flow to ratepayers in the form of lower base rates.

D. Citizens Utility Board

In its October 17, 2022 comments, CUB recommended that a combination of cost recovery caps and benefit assurances be required as part of the Company's AMI and FAN projects. CUB remarked that, when paired with comprehensive reporting requirements for identified metrics, these requirements can help ensure customer benefits are realized and cost overruns avoided.

CUB recommended the following action by the Commission:

1. cost recovery remain contingent upon a showing of prudence and the accomplishment of Commission-approved metrics and performance evaluations, and that the burden of proof remains on the Company;
2. establish cost recovery caps for Xcel's AMI and FAN projects, with separate cost caps being set for capital versus variable O&M and labor costs;
3. pass-through to ratepayers of all revenues or savings generated by or associated with AMI and FAN;
4. comprehensive annual reporting on project metrics and performance as outlined in the Department's Report, with the addition of CUB's recommended requirements, set forth below:
 - a. Narrative description of AMI and FAN developments, including any changes to functionality or potential future uses;
 - b. Description and explanation of any AMI or FAN functionalities that have been disabled, along with a quantitative analysis of the number of impacted meters;
 - c. Revenue-generating opportunities identified or engaged that relate to the use of AMI, FAN, or the use of associated data or distributed intelligence technologies; and
 - d. All entities with whom AMI data is shared.
5. Require additional quarterly or semi-annual reporting for certain metrics, as outlined by CUB, the Department, and Fresh Energy in these and prior comments.
6. Establish a single, consistent regulatory pathway—and associated method of reviewing— future grid modernization investments:

- a. Set clear procedures for reviewing grid modernization proposals and cost recovery petitions;
- b. Develop formal criteria for evaluating certification requests in Integrated Distribution Plan proceedings;
- c. Establish efficient timelines for determining whether proposals are eligible for recovery through the TCR rider.

E. Department of Commerce, Office of the Attorney General, and Citizens Utility Board – Joint Comments

On November 17, 2022, the Department, the OAG, and CUB (Joint Parties) filed joint comments and collectively recommended that the Commission adopt the following ratepayer protections for Xcel’s AMI and FAN investments:

1. The AMI and FAN projects are subject to the following respective cost caps for capital costs and operations and maintenance (O&M) expenses based on the lesser of the estimated amounts included in the Company’s certification request in the 2019 Integrated Distribution Plan (IDP) and AGIS Certification Request Petition or in the Company’s 2021-2022 TCR Rider Petition.
 - a. AMI Cost Caps:
 - i. Capital: \$366.3 million;
 - ii. O&M: \$92.9 million.
 - b. FAN cost caps:
 - i. Capital: \$92.6 million;
 - ii. O&M: \$8.1 million.
 - c. Cost recovery is limited to these cost caps unless the Company can show by clear and convincing evidence that the costs were reasonable, prudent, and beyond the Company’s control.
2. The Company must track and return any incremental cost savings or revenues attributable to the AMI and FAN investments to customers through an annual true-up process in the Company’s TCR Rider, with cost savings or revenues included as a credit or offset in the Company’s true-up filing.

F. Xcel Energy – Reply Comments

Xcel indicated that it does not oppose imposition of cost caps related to AMI and FAN. However, to the extent the Commission adopts any cost caps, the caps should be “applied in an aggregate basis to allow the Company reasonable and appropriate flexibility in managing costs as we install AMI and FAN.” Xcel added that cost caps should be set based on current information provided in this docket, not on outdated budget information that has since been

updated. At a bare minimum, they should not be set by picking and choosing preferred numbers from multiple vintages of budgets as the Department, OAG, and CUB have done in their Joint Recommendation.

Secondly, Xcel noted that it supports returning applicable revenues from AMI and FAN to customers through the TCR Rider, but cost savings reflected in the Company's cost-benefit analyses are compared against a future without AMI and FAN, and as a result are not trackable in a way that would facilitate "return[ing]" them to customers. Instead, such savings will be realized by customers over time through normal rate setting processes.

III. Should the Commission approve the TCR adjustment factors proposed by Xcel?

A. Xcel Energy

Xcel's proposed TCR adjustment factors beginning June 1, 2022 are calculated to recover the revenue requirement over 12 months. Xcel also proposed to true-up the difference between the revenues it will continue to collect under the current TCR Adjustment Factors with the revenue requirements the Commission approves in this TCR proceeding. Xcel explained its methodology of deriving the adjustment factors at pages 13-14 of its Petition and has shown all the calculations in Attachment 11.

Xcel has proposed to recalculate the final TCR adjustment factors to recover the 2021-2022 revenue requirements based on the timing of the Commission's decision if it occurs after June 1, 2022 and proposed to provide the updated adjustment factor calculations as part of a compliance filing after the Commission issues an Order.

Attachments 8 and 9 of the Petition filing provide the supporting revenue requirements based on actual information through June 2021 and projected TCR Tracker activity from July 2021.

Xcel estimated that the monthly bill of an average residential customer using 675 kWh of electricity per month would increase from \$2.43 to \$3.90 under its proposed rates.²⁴

Xcel has proposed to true-up the difference between the revenues it will continue to collect under the current TCR Adjustment Factors with the revenue requirements the Commission approves in this TCR proceeding.

B. Department of Commerce

The Department discussed Xcel's methodology of deriving the adjustment factors and did not dispute any aspect of Xcel's approach.

²⁴ This increases further to \$3.99 per month (675 kWh*\$0.005905) using the Xcel's updated TCR Adjustment Factors provided in its September 12, 2022 response to Department IR No. 76. The Department has indicated that Xcel's calculations presumed an implementation date of June 1, 2022 and that Xcel would recalculate the rates depending upon the actual implementation date. The Department noted that the Commission has authorized similar treatment in past TCR orders.

The Department pointed out that Xcel allocated the revenue requirement within the TCR to Minnesota and its various customer classes is based on the same jurisdictional and demand allocators used in Xcel's last, completed electric rate case in Docket No. E-002/GR-15-826. And, as is customary, Xcel has proposed to charge its residential and commercial non-demand customers using an energy-only rate (per kWh) and its demand billed customers using a demand rate (per kW).

The Department pointed out that, like previous TCR filings, Xcel has proposed to recover the net charges it pays other electric utilities through MISO Schedules 26/26A in its TCR Rider. Under Xcel's proposal, it would recover the estimated amount of payments it makes under MISO Schedules 26/26A net of the estimated amount of revenues it receives from other utilities under MISO Schedules 26/26A. Specifically, Xcel Petition included its estimated 2022 MISO Schedule 26/26A net revenues of (\$9,607,189) in the TCR Rider. However, in response to the Department's IR Nos. 76 and 78, Xcel provided updated actuals through July 31, 2022. Xcel's revenue requirements for MISO Schedules 26/26A increased by \$1,604,732 to (\$8,005,746) for 2022.

The Department showed that updating the MISO net revenues for 2022 from (\$9,607,189) to (\$8,005,746) causes the revenue requirement to change from \$104.5 million to \$105.7 million. Table 5 reproduces the Department's revised adjustment factors.

Table 5. Xcel's Prior and Proposed TCR Rate Adjustment Factors²⁵

Customer Class	2019-2020 Provisionally Implemented		2021-2022 Proposed ²⁶	
	Charge per kWh	Charge per kW	Charge per kWh	Charge per kW
Residential	\$0.003607	N/A	\$0.005905	N/A
Commercial (Non-Demand)	\$0.003185	N/A	\$0.004649	N/A
Demand Billed	N/A	\$0.982	N/A	\$1.11
Total Revenue Requirements	\$81,883,541		105,691,660	

This update causes the "typical" residential bill rate to increase to \$3.99 per month (675 kWh*\$0.005905). Should the Commission elect to institute cost caps based on the 2019 estimates, the adjustment factors would have to be recalculated.

IV. Proposed Tariff Changes and Customer Notice

Xcel's Petition stated that "the proposed adjustment factors have been calculated with an assumed implementation date of June 1, 2022 to allow for the required 60 day notice prior to a rate or tariff change in addition to a six-month procedural schedule consistent with the

²⁵ Department Comments filed October 17, 2022 in Docket No. 21-814, at 10.

proposal made by the Company in Docket No. E002/M-20-680. Should the Commission approve this Petition after June 1, 2022, we propose to recalculate the adjustment factors for implementation in compliance based on the timing of the Commission's decision."²⁶

In the Petition, Xcel proposed to include the following notice on the customers' bills the month the TCR Adjustment Factors are implemented:

This month's Resource Adjustment includes an increase in the Transmission Cost Recovery Adjustment (TCR), which recovers the costs of transmission and distribution investments, including delivery of renewable energy sources to customers. The TCR portion of the Resource Adjustment is \$0.005783 per kWh for Residential Customers; \$0.004545 per kWh for Commercial (Non-Demand) customers; and \$1.081 per kW for Demand billed customers.²⁷

Xcel added that it will work with the Consumer Affairs Office regarding the proposed customer notice in advance of implementation.

Xcel's Petition also included redline and clean revised tariffs.²⁸

No other parties commented on this matter.

V. Staff Analysis

A. Transmission Projects

No party is disputing approval of Xcel's transmission projects. The Commission can approve the 2021-2022 TCR Rider recovery of the transmission projects with Decision Option 1001.

B. AMI and FAN Cost Recovery

The Commission can approve Xcel's AMI and FAN cost recovery as petitioned with Decision Option 1005 or approve it subject to additional requirements with Decision Option 1006 paired with any of the Decision Options 1007-1010. Staff notes that recovery for the other AGIS projects (ADMS Project, APT/LoadSEER project, and TOU Rider Pilot) is not disputed.

In its December 10, 2021 Order implementing a soft cap for 2019 ADMS recovery, the Commission explained that "the less familiar the project, the more reason the Commission has to subject cost recovery to scrutiny [...]," and Staff believes this principle should continue to guide AMI and FAN cost recovery in the instant docket.²⁹ Staff also believes that approving an

²⁶ Petition at 8.

²⁷ *Id.* at 26.

²⁸ *Id.* at 423-426.

²⁹ Commission Order Authoring Rider Recovery issued December 10, 2021 in Docket No. 19-721, at 6.

investment of this scale outside of a rate case entails instituting rigid but reasonable protections for ratepayers. Therefore, Staff recommends choosing Decision Option 1006 and implementing additional requirements via the cost cap and true-up.

Cost Caps and True-up

Xcel and the Joint Parties both agree on instituting a cap but disagree on the values for it and whether it should apply separately to AMI and FAN recovery. Regarding the cap values, in its 2021 TCR petition Xcel updated its 2019 Certification Request estimates, and the Joint Parties, as shown in Table 6, selected the lesser of the AMI and FAN values between the 2019 proposal and 2021 estimates for their recommendation in Decision Option 1007 (parts a and c).

Table 6. AMI and FAN Cost estimates

	2019 Certification Request	2021 TCR Petition
AMI Capital	\$376.2 m	\$366.3 m
AMI O&M	\$94.8 m	\$92.9 m
FAN Capital	\$92.6 m	\$98.1 m
FAN O&M	\$8.1 m	\$6.4 m

[Bold numbers are the recommended caps from the Joint Parties]

While the Joint Parties’ presumably intended their recommendation as an additional protection for ratepayers,³⁰ Staff disagrees with the logic of picking cost cap values from separate analyses and is concerned about establishing precedent where the lowest value from cost projections is chosen regardless of accuracy.

Staff has added Decision Option 1007 (parts b and d) as alternatives and, as the Department and Synapse did in their initial comments, recommends using the 2021 estimates (a and d). The 2021 petition should have the most accurate estimates on record and represents aggregate savings of \$8 million compared to the 2019 estimates but is \$3.8 million higher in aggregate than the Joint Parties’ recommended caps.

Regarding Xcel’s proposal that the cap should be soft and allow for recovery in a rate case, Staff highlights that the language in Decision Option 1007 (part e) does not prohibit potential recovery over the cap if the Company can provide adequate justification.³¹ A soft cap is also consistent with Commission precedent in Xcel’s 2019 ADMS recovery and Otter Tail Power’s

³⁰ Staff notes in their earlier filings none of the Joint Parties individually recommended these cap amounts and no further explanation was provided in their joint filing. The OAG recommended using the 2019 estimates. CUB recommended the lesser of the 2019 IDP estimate or actual incurred costs. Synapse recommended an aggregate cap of \$563.7 m, which is a sum of the 2021 petition numbers, but recommended in the future that the Commission use the certification stage numbers for a cost cap.

³¹ However, DO 1007(e) would be a soft cap for each, not an aggregate soft cap as Xcel has requested in DO 1008.

2022 AMI recovery, which has a mechanism to potentially recover overruns in a rate case.³² Regarding aggregation of the cost caps as recommended by Xcel (Decision Option 1008), the Commission's Otter Tail Power decision also implemented separate soft caps for AMI and the Outage Management System, which utilizes AMI, and which were both requested in the same petition. Staff agrees with the Joint Parties that separate caps are a reasonable requirement to protect ratepayers and better track the spending by Xcel, particularly if the Company can justify cost overruns in a rate case.

All parties agree that savings should be returned to ratepayers, but Xcel and the Joint Parties disagree on the mechanism. Staff acknowledges that Xcel is using its ongoing rate case in Docket No. 21-630 to account for avoided meter reading services attributable to deployment of AMI and FAN; however, Staff recommends tracking savings and potential new sources of revenue to be returned via the TCR's true-up mechanism. An annual review may allow greater scrutiny than might occur in the larger context of a rate case and ensure ratepayers are compensated fairly.

C. Adjustment Factors

No party is disputing Xcel's calculation of the TCR adjustment factors. However, they will have to be recalculated in light of the regulatory lag and true-ups. The Commission's decision on the imposition of cost cap will affect the adjustment factors.

If the Commission elects to implement cost caps based on the 2019 certification estimates, then the adjustment factors will have to be recalculated.

D. Customer Notice

Staff notes that, since the June 1, 2022 proposed in Xcel's Petition has passed, revised adjustment factors that reflect decisions at the May 4, 2023 agenda will be necessary. As a result, Xcel's proposed customer notice will also need to be updated. Therefore, the Commission may want to order Xcel to include an updated customer notice within 15 days of the issue of the order in this docket and delegate its approval to the Executive Secretary.

³² Commission Order Authoring Rider Recovery issued December 10, 2021 in Docket No. 19-721, at Order Point 9 [Xcel ADMS Recovery]; Order Approving Tracker and Setting Additional Requirements issued August 4, 2022 in Docket No. 21-382, at Order Point 6 and 7 [Otter Tail Power AMI recovery].

DECISION OPTIONS

Transmission Projects

1001. Approve the 2021-2022 TCR Rider recovery of the transmission projects as proposed in Xcel's November 24, 2021 Petition. (Xcel, Department)

OR

1002. Do not approve the 2021-2022 TCR Rider recovery of the transmission projects.

AND

AGIS Cost Recovery

1003. Approve the 2021-2022 TCR Rider recovery of the ADMS Project, APT/LoadSEER project, and TOU Rider Pilot as proposed in Xcel's November 24, 2021 Petition. (Xcel, Department)

OR

1004. Do not approve the 2021-2022 TCR Rider recovery of the ADMS Project, APT/LoadSEER Project, and TOU Rider Pilot.

AND

1005. Approve the 2021-2022 TCR Rider recovery of the AMI and FAN projects as proposed in Xcel's November 24, 2021 petition. (Xcel)

OR

1006. Approve the 2021-2022 TCR Rider recovery of the AMI and FAN projects as proposed in Xcel's November 24, 2021 petition, subject to any changes adopted in the decision alternatives below. (*Decision Option 1006 can be paired with any 1007-1010*)

AND

Cost Caps

1007. Subject the AMI and FAN projects to the following respective cost caps for capital costs and operations and maintenance (O&M) expenses: (Joint Parties, November 17, 2022 Reply Comments)

a. AMI Cost Caps (2021 estimates):

- i. Capital: \$366.3 million;
- ii. O&M: \$92.9 million.

OR

- b. AMI Cost Caps (Staff Alternative, 2019 Certification Estimates):

- iii. Capital: \$92.6 million;
- iv. O&M: \$8.1 million.

AND

- c. FAN Cost Caps (2019 estimates):

- i. Capital: \$92.6 million;
- ii. O&M: \$8.1 million.

OR

- d. FAN cost caps (Staff Alternative, 2021 Petition Estimates)

- iii. Capital: \$98.1 million;
- iv. O&M: \$6.4 million.

AND

- e. Limit cost recovery to the cost caps above unless the Company can show by clear and convincing evidence that the cost overruns were reasonable, prudent, and beyond the Company's control. (Joint Parties)

OR

1008. Limit Xcel's recovery of costs for the AMI and FAN projects, in aggregate, to the \$563.7 million total cost estimate identified in Attachment 4 to Xcel's November 24, 2021 petition, unless Xcel proves by clear and convincing evidence in its next rate case that any additional investments were prudent. (Staff interpretation of Xcel)

Staff Note: Xcel did not provide a specific soft cap but suggested that it be based on current estimates. Attachment 4 (97 pages) to Xcel's Petition contains the actual costs Xcel has incurred "to-date" (mostly, up to the 2020-2021 period) and the expenditures that are budgeted for the 2022 to 2026 period. Staff summed the total of AMI and FAN costs over the period 2020-2026 – AMI (\$459.2 million) and FAN (\$104.5 million). This amounts to a total of \$563.7 million.

AND



True-up

1009. Require Xcel to track any incremental cost savings or revenues attributable to the AMI and FAN investments and return them to customers through an annual true-up process in the Company's TCR Rider. (Joint Parties)

OR

1010. Require Xcel to track any incremental cost savings or revenues attributable to the AMI and FAN investments and file a proposal for the refund of this amount, if any, to customers in the next rate case. (Xcel)

Proposed TCR Adjustment Factors

1011. Approve Xcel's proposed adjustment factors as found in Xcel's November 24, 2021 petition. *(If adopting a cost cap(s) using the 2021 estimates.)*

OR

1012. Direct Xcel to recalculate adjustment factors in light of the price caps and any other applicable modifications approved by the Commission. Xcel shall file a compliance filing within 15 days of the issue of the order in this docket. Delegate authority to the Executive Secretary to establish comment periods on the compliance filing and approve the filing if no party objects to the compliance filing *(If adopting a cost cap(s) using any of the 2019 estimates).*

Customer Notice

1013. Order Xcel to update the proposed customer notice within 15 days of the issue of the order in this docket. (Staff)

NOTE: Decision option 1013 is only necessary if decision option 1012 is adopted.

1014. Delegate approval of the customer notice to the Executive Secretary. (Staff)