MINNESOTA
PUBLIC UTILITIES COMMISSION

Staff Briefing Papers

Meeting Date	**February 26, 2026**		**Agenda Item 5****
Company	Northern States Power Co. d/b/a Xcel Energy; Minnesota Power; and Otter Tail Power Co.		
Docket No.	E002, E015, E017/CI-24-288		
	In the Matter of Establishing Tariffs for Distribution System Costs Sharing for Interconnection in Constrained Areas		
Issues	What generic standards should the Commission adopt for the Distribution System Reactive Upgrades Process (DSRUP)?		
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✓ **Relevant Documents**	**Date**
Notice of Comment Period – PUC	September 26, 2025
Initial Comments – Department of Commerce	November 7, 2025
Initial Comments – Office of Attorney General	November 7, 2025
Initial Comments – Xcel Energy	November 7, 2025
Initial Comments – Otter Tail Power Company	November 7, 2025
Initial Comments – Minnesota Power	November 7, 2025
Initial Comments – Joint Solar Coalition	November 7, 2025
Initial Comments – MnSEIA	November 7, 2025
Initial Comments – Cooperative Energy Futures	November 7, 2025
Reply Comment – Coalition for Community Solar (CCSA)	November 19, 2025
Reply Comment – Office of Attorney General	November 19, 2025
Reply Comment – Xcel Energy	November 19, 2025

✓ **Relevant Documents**	**Date**
Reply Comment – Department of Commerce	November 19, 2025
Reply Comment – Minnesota Power	November 19, 2025
Ex Parte Communication – PUC	February 9, 2026

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I. Introduction and Background

The Minnesota Legislature passed Minnesota Session Laws – 2024, Regular Session, Chapter 126, Article 6, Section 53 which contains provisions related to distribution upgrades and cost allocation that required the Commission to initiate a proceeding to establish, by order, generic standards (referred to as the "Standards" throughout these papers) for "for the sharing of utility costs necessary to upgrade a utility's distribution system by increasing hosting capacity or applying other necessary distribution system upgrades at a congested or constrained location in order to allow for the interconnection of distributed generation facilities."

On September 26, 2024, the Commission solicited stakeholder members to join the Reactive Upgrade Workgroup whose aim was to contribute to the process of developing generic standards.

Commission Staff convened the Reactive Upgrade Workgroup starting in November of 2024 and continuing through September of 2025. Members of the workgroup collaboratively drafted the draft Standards (Attachment A) over a series of 11 meetings. Though the Briefing Papers will focus primarily on where parties disagree on the Standards, Staff commends the Reactive Upgrade Workgroup for the civil and productive collaboration, discussions, and work they have put into this document.

The group finalized draft standards in September (Attachment A and B). The workgroup's goal was to arrive at a consensus on several sections of the Standards and where there was no consensus, to provide clear alternatives for the Commission to choose from.

On November 7, 2025, the Department, the Office of Attorney General (OAG), Xcel Energy, Minnesota Power, a division of ALLETE, Inc., Otter Tail Power (OTP), Joint Solar Coalition (JSC), Cooperative Energy Futures (CEF), Minnesota Solar Energy Industries Association (MnSEIA) filed initial comments.

On November 19, 2025, the Department, the OAG, Xcel Energy, Minnesota Power, and JSC filed reply comments.

On January 21st and 22nd of 2026 Staff reached out to clarify consensus among commenters using permissible ex parte communications. Commenters' responses will be reflected in decision options."

1. Key Acronyms and Abbreviations

Other DSRUP terms and definitions can be found in Section B of Attachment A.

ARCC	Annual Ratepayer Cost Cap
CEF	Cooperative Energy Futures
DSRUP or Process	Distribution System Reactive Upgrade Process

DER	Distributed Energy Resources
IDP	Integrated Distribution Plan
HCA	Hosting Capacity Analysis
JSC	Joint Solar Coalition
MT	Mobilizing Threshold
Participant(s)	Reactive Cost Share Participant(s)
O&M	Operations and Maintenance
TPS	Technical Planning Standard

2. The Authorizing Legislation

The 2024 Minnesota legislative session discussed in the instant docket was signed by Governor Walz on May 24, 2024.

Upon ratification of the authorizing legislation, the Commission opened the instant docket and solicited stakeholder members to join the Reactive Upgrade Workgroup. Staff convened several stakeholder workgroup meetings to work through the legislation and draft a list of standards and a new interconnection process (that works with the Distributed Energy Resources Interconnection Process, the MN DIP). This process is the Distribution System Reactive Upgrade Process (DSRUP), and the Commission will review a version of the Standards that make up this Process. The authorizing legislation is below.

Minnesota Session Laws - 2024, Regular Session, CHAPTER 126—S.F.No. 4292, Article 6, Section 53.

a) No later than September 1, 2024, the commission must initiate a proceeding to establish by order generic standards for the sharing of utility costs necessary to upgrade a utility's distribution system by increasing hosting capacity or applying other necessary distribution system upgrades at a congested or constrained location in order to allow for the interconnection of distributed generation facilities at the congested or constrained location and to advance the achievement of the state's renewable and carbon-free energy goals in Minnesota Statutes, section 216B.1691 and greenhouse gas emissions reduction goals in Minnesota Statutes, section 216H.02. The tariff standards must reflect an interconnection process designed to, at a minimum:

    1. accelerate the expansion of hosting capacity at multiple points on a utility's distribution system by ensuring that the cost of upgrades is shared fairly among owners of distributed generation projects seeking interconnection on a pro rata basis according to the amount of the expanded capacity utilized by each interconnected distributed generation facility;
    2. reduce the capital burden on owners of trigger projects seeking interconnection;

3. establish a minimum level of upgrade costs an expansion of hosting capacity must reach in order to be eligible to participate in the cost-share process and below which a trigger project must bear the full cost of the upgrade;
4. establish a distributed generation facility's pro rata cost-share amount as the utility's total cost of the upgrade divided by the incremental capacity resulting from the upgrade, and multiplying the result by the capacity of the distributed generation facility seeking interconnection;
5. establish a minimum proportion of the total upgrade cost that a utility must receive from one or more distributed generation facilities before initiating constructing an upgrade;
6. allow trigger projects and any other distributed generation facilities to pay a utility more than the trigger project's or distributed generation facility's pro rata cost-share amount only if needed to meet the minimum threshold established in clause (5) and to receive refunds for amounts paid beyond the trigger project's or distributed generation facility's pro rata share of expansion costs from distributed generation projects that subsequently interconnect at the applicable location, after which pro rata payments are paid to the utility for distribution to ratepayers;
7. prohibit owners of distributed generation facilities from using any unsubscribed capacity at an interconnection that has undergone an upgrade without the distributed generation owners paying the distributed generation owner's pro rata cost of the upgrade; and
8. establish an annual limit or a formula for determining an annual limit for the total cost of upgrades that are not allocated to owners of participating generation facilities and may be recovered from ratepayers under section 216B.16, subdivision 7b, clause (6).

(b) For the purposes of this section, the following terms have the meanings given:

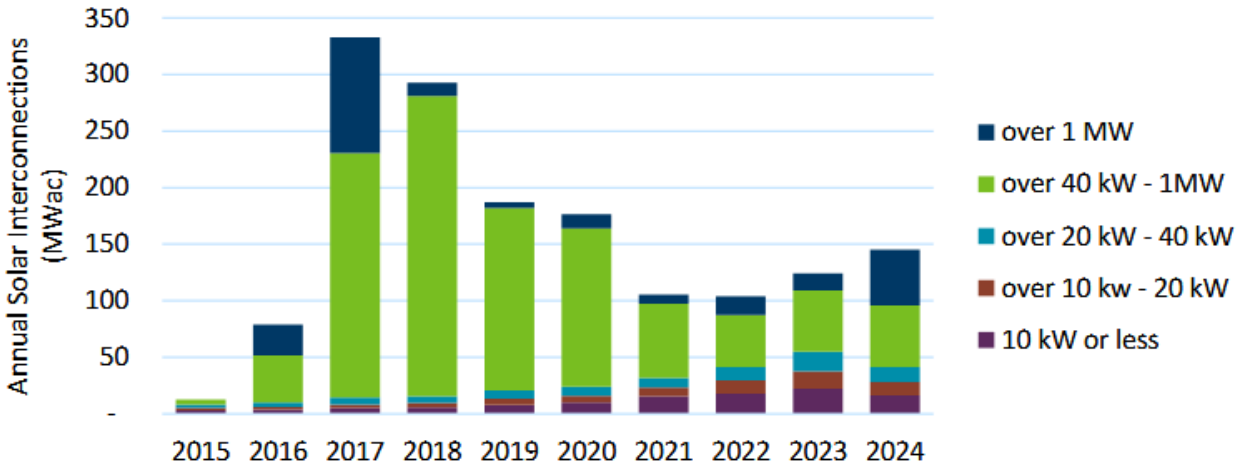
1. "distributed generation project" means an energy generating system with a capacity no greater than ten megawatts;
2. "hosting capacity" means the maximum capacity of a utility distribution system to transport electricity at a specific location without compromising the safety or reliability of the distribution system;
3. "trigger project" means the initial distributed generation project whose application for interconnection of a distributed generation project alerts a utility that an upgrade is needed in order to accommodate the trigger project and any future interconnections at the applicable location;
4. "upgrade" means a modification of a utility's distribution system at a specific location that is necessary to allow the interconnection of distributed generation projects by increasing hosting capacity at the applicable location, including but not limited to installing or modifying equipment at a substation or along a distribution line. Upgrade does not mean an expansion of hosting capacity dedicated solely to the interconnection of a single distributed generation project; and

5. "utility" means a public utility, as defined in Minnesota Statutes, section 216B.02, subdivision 4, that provides electric service.

3. Interconnection Background and Capacity Constraints

In the last decade Minnesota has interconnected over 1.6 GW of solar of Distributed Energy Resources (DERs), of which, the vast majority is distributed solar in the form of rooftop solar as well Community Solar Gardens (CSGs) under Xcel's CSG program. Figure 1 details the annual addition of solar DER in Minnesota.

Figure 1: Annual Distributed Solar Additions in Minnesota (MWac)[1]



The demand for DER interconnection in the state has increased due to the rise of the CSG program in the late 2010s and new state policies such as the Low-to-Moderate (LMI) CSG program. DER demand remains high. As of January 1, 2026, there are currently over 1.2 GW of DERs in Xcel's queue.[2]

As interconnections increase some areas of the distribution grid, DER applications can come across "capacity constraints" where an addition of a DER generation system would have the potential to cause reliability or safety issues on the distribution grid. In some cases, there are too many DERs in one area which can cause voltage irregularities and in others, there is too much generation relative to the equipment managing it which can cause thermal-related damage or other issues. In either case, the utility has a reliability and safety obligation and won't allow for a project to interconnect until those potential issues are resolved.

These constraints are usually resolved by the DER developer paying for a distribution system upgrade, creating enough "hosting capacity" for the project to safely interconnect onto the distribution system. As Minnesota's DER interconnection process matured, the amount of

[1] Annual Distributed Energy Resource Reports, Docket 25-10. "ac" is alternate current.
[2] Xcel Energy, Public Distributed Energy Resources (DER) Queue – Report Date 1-01-2026. https://mn.my.xcelenergy.com/s/renewable/developers/interconnection. Retrieved January 31, 2026.

available no-cost and low-cost upgrades has declined. Many lower-cost capacity upgrades have already been paid for and constructed, leaving only large and expensive upgrades for projects seeking subsequent DER interconnection.

Another barrier to factor is that the economics of the DER systems includes the cost of land for their solar farms and large front-of-the meter projects like CSGs. Typically, where land is lower cost to lease or purchase, there is less load and less readily available capacity on the existing infrastructure leading to increased upgrade costs.

Both factors combined, along with some external, have led to a slowdown in DER interconnection in recent years due to capacity constrained systems with remaining upgrades available only at high cost.

The Legislature recognized that contemplating *how* upgrades are paid for could be a way to overcome capacity constraints and high costs. Currently, paying for distribution interconnection upgrades involves the cost-causer pays principle where an individual DER developer must pay for the full cost of an upgrade that is necessary for them to safely interconnect onto the distribution system. They do so because they "caused" the need for the upgrade by trying to get their project onto the system. This ensures that those that benefit from upgrades are also the ones that pay for them.

However, this is not the only way to pay for these upgrades. Fresh Energy placed different strategies for who pays for upgrades and whether upgrades occur before there is a demonstrated need, proactive, or after, reactive, into a matrix.[3]

The proactive column attempts to use forecasting and modeling beyond the traditional five-year grid planning process that Minnesota's utilities file in their Integrated Distribution Plans (IDPs). Under this format, a utility can right-size equipment or upgrades relative to predicted future load or DER adoption. The Commission has already established a framework for the Proactive Upgrade Program via Order in Docket No. E-002/CI-24-318. Phase II for this program is currently underway.

The key difference between reactive and proactive upgrades are that reactive upgrades are only done in response to a stimulus or need. Typically, this need arises from a DER developer needing to pay for an upgrade in order to create capacity for their project. Thus, the DSRUP, is "reactive" in nature. It is a market-driven process – upgrades will only be constructed when the demand for them is realized by developers paying into their costs.

The lower right square is how Minnesota currently allocates costs for upgrades, using the cost-causer pays principle. Retooling how reactive upgrades/individually allocated costs are done in practice (allowing individuals to pool money toward an upgrade), shown in the bottom right, is the focus of the instant matter before the Commission and the Legislature's direction.

[3] Docket E002/M-23-452, June 20, 2024 Staff Briefing Papers, Xcel Energy's 2023 IDP, Table 9, p. 48: Fresh Energy, Initial Comments, March 1, 2024, Table 3, p. 17-18.

Table 1: Cost Allocation and Proactive Upgrade Matrix

	Proactive Upgrades	Reactive Upgrades
Shared Costs	• Build distribution budgets around DER and electrification forecasts. • Assign incremental infrastructure costs via typical class cost allocation methods, e.g., in next rate case. • Benefits customers adopting DER and electrification by reducing or eliminating wait time and cost of interconnection. • Risks include deploying assets that are not used and useful if forecasts are not accurate, the potential for shifting costs of upgrades onto non-benefitting customers, and risk of inequitable investments.	• Grid upgrades are made in response to individual customer requests. • Costs assigned via typical class cost allocation methods, e.g., in the next rate case • Benefits customers adopting DER and electrification by eliminating the cost of interconnection; benefits ratepayers by ensuring upgrades are used and useful. • Risks include continued wait-times in the interconnection process, the potential for shifting costs of upgrades onto non-benefitting customers, and risk of inequitable investments.
Individually Allocated Costs	• Build distribution budgets around DER and electrification forecasts. • Individual customers, where appropriate, pay a fee to cover their share of the upgrade at time of interconnection. • Benefits customers adopting DER and electrification by reducing or eliminating wait times for interconnection; benefits ratepayers by reducing the costs of upgrades via reimbursement over time. • Risks include deploying assets that are not used and useful if forecasts are not accurate, and the potential for shifting costs of upgrades onto non-benefitting customers if forecasts or reimbursement fees are not accurate.	• Grid upgrades are made in response to individual customer requests. • Individual customers where appropriate, pay a fee to cover their share of the upgrade at time of interconnection. • Benefit is ensuring upgrades are used and useful. • Risks include wait time and interconnection costs for DER and electrification customers.

4. Moving to Reactive Upgrade/Shared Costs

The authorizing Legislation has several goals and requirements regarding how large distribution system upgrades are paid for but two of them are significant changes to the status quo. One of those is moving from individual payments for upgrade costs to a shared responsibility for costs. The other was starting the construction of Upgrades earlier in the interconnection process but with an allowable but limited risk/responsibility to ratepayers.

The Legislature sought to remedy limitations of the current cost-causer pays model (which in practice means that one developer pays) including cases where an upgrade frees up much more

capacity than the developer that paid for it needs. This allows the following developers interconnecting in that area to do so without needing to pay for any upgrades, thus creating a free-rider effect.

These upgrades are often uneconomical for individual developers to pay for and are also most at risk of the free-rider effect due to how much capacity they would free up in that area of the grid. Under these circumstances, interconnection is effectively stalled, even for small rooftop solar projects. Yet, as Xcel's interconnection queue details, there is still strong demand for hosting capacity on the distribution system.

The authorizing legislation and the DSRUP work to take advantage of that demand by having developers collectively pay for high-cost upgrades. The DSRUP will change the current process where onus of paying for these large upgrades is placed on a single developer and instead choose to place the onus upon multiple developers who are trying to interconnect and require hosting capacity from the upgrade. In this way the DSRUP will still utilize the cost-causer pays principle but also aims to make the process more economical and efficient by enabling "cost-sharing" for upgrades amongst multiple developers where each developer pays for their portion of the upgrade on a pro-rata basis, only paying for what they use.

High Level Example

Developer 1 wants to interconnect a 5 MW CSG and is willing to spend $300,000 per MW of capacity in required distribution system upgrades. After reviewing and studying Developer 1's application, the Utility states that the project requires an upgrade that would cost $6 million but would free up 20 MW of capacity. While this technically meets Developer 1's economic limit of $300,000 per MW, under the status quo, they would be tasked with paying for the entire upgrade and would not have any rights to the capacity beyond their project's needs. This would effectively increase the $/MW for their project to $1,200,000/MW which is beyond their project's economic viability. The developer chooses to withdraw their application, and the upgrade is not constructed.

Under DSRUP, Developer 1 may be able pay for this upgrade with other developers. In this scenario, perhaps five other developers may join Developer 1 to pay for this upgrade and split the cost based on how much capacity their projects respectively need. Let's say each developer's projects need the following amount of capacity:

- Developers 1, 2, and 3: Need 5 MW each
- Developers 4 and 5: Need 2 MW each
- Developer 6: Needs 1 MW

In this case, the "pro rata cost", the total cost of the Upgrade ($6 million) divided by the total capacity freed up (20 MW), is $300,000 per MW. Each of the developers would thus be required to pay the following amounts for their fair share of the upgrade cost:

- Developers 1, 2, and 3: $1,500,000
- Developers 4 and 5: $600,000
- Developer 6: Needs $300,000

In this case, the Upgrade did not lower in price and the cost per MW of capacity did not decrease, but the new mechanism under the DSRUP allowed Developer 1 to pay for their share of the Upgrade and to interconnect along with five other developers. Whereas before, no upgrade was constructed and no DERs were interconnected, the DSRUP allowed for 20 MWs worth of DER to be interconnected onto the grid and paid for by DER developers.

5. Earlier Construction of Upgrades at Allowable Ratepayer Responsibility/Risk

Additionally, the authorizing language supports these larger upgrades being constructed more quickly and has a provision that could allow construction to begin once a certain percentage of the upgrade has been paid for by DER developers. This is called the Mobilizing Threshold (MT) and will be determined by the Commission. However, by allowing an upgrade to begin construction before it is fully paid for by developers introduces risk to ratepayers that was not present under the original interconnection model. Clause 8 of the authorizing language appears to allow for the Commission to determine, if desired, an acceptable amount of risk to ratepayers under the DSRUP. The extent of that risk (Section J) and how it is managed (Section K) is to be determined by the Commission. These sections are the foundation upon which the rest of DSRUP can be built. To that extent, the remaining sections include important details regarding the logistics, functioning, reporting, and evaluation of the DSRUP.

II. The DSRUP Standards

1. Briefing Paper Overview

The briefing paper describes the draft DSRUP Standards, a document with several sections and subparts that the Commission will consider. Staff separately filed Attachment A, which is the complete draft Standards with all party modifications and alternatives. Staff also filed attachment B which details the proposed DSRUP dispute resolution process. Rather than replicate individual portions in the briefing paper, Staff elected to have two individual documents for easier side-by-side comparison while reviewing the briefing papers.

Staff strongly recommends all readers begin with the DSRUP Standards in Attachment A, including the definitions, before continuing with Section II of the Briefing Papers, below. Readers may want to refer to Attachment A while throughout the Briefing Papers. Staff recommends Attachment B be read before Section II.7 and II.15 of the Briefing Papers.

The DSRUP draft Standards is divided into 16 sections that outline how the Process will function and facilitate the cost-sharing of upgrades on the distribution system amongst DER developers. Staff outlines at a high level what the sections cover here, with more details about individual components in Section 2 of the briefing papers.

A. **Legislative Language**: refers to the authorizing legislation.
B. **Definitions**: defines key terms for the purposes of the DSRUP.
C. **Upgrade Cost Thresholds**: determines the minimum and maximum costs thresholds for eligible Upgrades.
D. **Pro Rata Cost Calculation:** determines how each the costs of an Upgrade are allocated to Interconnection Customers.
E. **Interconnection Process:** details how exactly DSRUP projects will proceed through the interconnection process.
F. **Mobilization Threshold and Window:** determines how much a given Upgrade must be paid for before construction on the Upgrade can begin.
G. **Upgrade Prioritization:** provides the criteria for how Upgrades will be prioritizes when multiple projects meet the Mobilization Threshold.
H. **Payment Details:** details the payment logistics of the DSRUP.
I. **Payback Period:** defines the length of time that an Upgrade will require Interconnection Customers to pay a Cost Share Contribution in order to interconnect and pay down the full cost of an Upgrade.
J. **Annual Ratepayer Cost Cap:** this determines what the acceptable risk to ratepayers is on an annual rolling basis.
K. **Cost Recovery:** this section has the Commission determine if there should be grace period on cost recovery to allow for the Upgrade to be further paid down by Interconnection Customers. It also has the Commission choose whether payments towards an Upgrade during the Payback Period will go towards offsetting the revenue requirement of the Upgrade or offsetting the rate base amount of the Upgrade.

L. **Cost Allocation:** has the Commission choose a cost allocation method consistent with the most recent rate case or through a different method.
M. **Publication of DSRUP Information and Data:** determines the metrics Utilities will track and where they must be filed or posted.
N. **Reporting and Process Evaluation:** outlines the required reporting and evaluation plan for the DSRUP.
O. **Dispute Resolution:** outlines how disputes will be handled through the DSRUP.
P. **Tariff Implementation:** details the tariff filing requirement for Utilities.

Staff highlights Sections F, J, and K as foundational for Commissioners as explained above.

Staff took some liberties with the briefing papers and Attachment A when the changes were helpful and or de minimus in nature.[4]

2. Sections F.1, J.1, and J.2: Mobilization Threshold and the ARCC

Sections F.1, Sections J.1, and Section J.2 are very intertwined with one another and should therefore be considered holistically rather than individually. The Commission must decide values for these terms:

- The Annual Ratepayer Cost Cap (ARCC):
    - Definition: The total rolling annual cost of Upgrades that are not paid for by Reactive Cost Share Participants and that may be recovered from ratepayers under Commission-approved cost recovery methods.
    - The Commission may choose to determine the exact ARCC in a future tariff proceeding or may set it as part of the standards in the current docket.
    - This is the variable that most directly influences how much risk or responsibility is placed on ratepayers.
- Mobilization Threshold (MT)
    - Definition: The percentage of the estimated total Upgrade cost that must be committed in order for construction of the Upgrade to move forward.
    - Example: a $5 million Upgrade with a MT of 60% means DER developers must pay for $3 million to the Utility before the construction of the Upgrade can commence. Interconnection customers following construction will pay for the

[4] In multiple sections commenters or Staff caught small technical errors, such as numbering or reference inaccuracies. Staff incorporated these changes into the draft Standards. Staff also updated terminology throughout the draft Standards to align with the definitions in Section B. Staff did not redline these changes in the draft Standards as it believes they should all be de minimis in nature. Additionally, Staff removed and replaced original Standards options in Attachment A when there was consensus amongst parties, confirmed via permissible ex parte communication. Staff also notes that the Joint Solar Coalition (JSC) includes Cooperative Energy Futures (CEF) and MnSEIA, however, CEF and MnSEIA filed their own comments on specific sections. Throughout these briefing papers, readers should assume JSC includes both of these parties unless it is specified these two groups have separate positions.

remaining 40% during the payback period.

- The Operational Budget of the DSRUP
    - The Operational Budget is the budget allocated to the DSRUP under an annual rolling period, assuming the ARCC has been met. These are the maximum potential funds Utilities will be using to budget for DSRUP Upgrades.
    - The Commission will not be directly choosing the Operational Budget but instead the two variables it is dependent on, the ARCC and the Mobilization Threshold

The Operational Budget is dependent upon the ARCC and the MT in the following way:

Formula 1: $Operational\ Budget = \frac{ARCC}{1 - Mobilization\ Threshold}$

Staff adds to the table Xcel provided in their initial comments to showcase how these variables impact one another. The MT and ARCC values shown are supported by at least one party. In particular the ARCC values provided are 2% and 11% (J.2.a vs J.2.b) of Xcel's annual average of the forecasted 5-year distribution capital budget from its 2025 integrated Distribution Plan (IDP).

Table 2: Relationships Between the Operational Budget, Mobilization Threshold and the ARCC

Mobilization Threshold	80%	50%	25%	80%	50%	25%
ARCC (millions)	$95	$95	$95	$17.9	$17.9	$17.9
Operational Budget (millions)	$475	$190	$126.67	$91.5	35.8	$24.4

Staff notes that the Operational Budget, assuming the ARCC stays constant, increases as the MT is raised and likewise lowers as the MT is lowered. If the MT remains constant, the Operational Budget increases as ARCC increases and decreases as ARCC decreases.

The full options the Commission has to choose from regarding the MT and the ARCC are the following:

Section F.1: The Mobilization Threshold

The Commission must choose one option (a-d) under F.1.

F.1 The Mobilization Threshold for an individual Upgrade is set at:

a. 25 percent of total Upgrade costs. (JSC)
b. 80 percent of total Upgrade costs. (Xcel, OAG, Dept.)

c. The Mobilization Thresholds shall be tiered based on cost per MW of capacity added by the Upgrade as follows: (CEF)
   - $1/MW - $149,999/MW: 30%
   - $150,000/MW - $249,999/MW: 45%
   - $250,000/MW - $349,999/MW: 60%
   - $350,000/MW - $449,999/MW: 75%
   - $450,000/MW - $600,000/MW: 80%

d. 50 percent of total Upgrade costs. (JSC-CEF alternative)[5]

Section J.1 and J.2: The Annual Ratepayer Cost Cap (ARCC)

The Commission must choose either 1 or 2. If it chooses two, it must select either 2.a or 2.b.

J.1: The Commission shall decide the Annual Ratepayer Cost Cap for Utility in a tariff filing upon approval of that Utility's DSRUP.

OR

J.2: The Annual Ratepayer Cost Cap shall not exceed _____ % of the annual average of the Utility's forecasted 5-year distribution capital budget from its most recent Integrated Distribution Plan.

a. 2 Percent
b. 11 Percent; or a percent that will equal $95 million for Xcel

Party Positions

JSC

In initial comments JSC advocated for J.2.b or an equivalent of $95 million for Xcel.[6] JSC says it used Xcel's plans of spending $190 million on proactive upgrades from 2025 to 2030 in the Company's 2023 IDP as a reference and chose roughly half the amount for the ARCC. JSC states that they believe the ARCC will effectively not be necessary to worry about for the first several years of the DSRUP operation until the pent up demand for Upgrades will lead to Upgrades being fully paid for. JSC adds that if a low ARCC is chosen it "will hinder the ability for multiple Upgrades to be performed simultaneously."[7] In their reply comments, JSC states they support J.1 after other parties pointed out that the same flat percentage may not be appropriate for all Utilities but that they will advocate for an equivalent of J.2.b if the Commission does not choose it now.[8]

[5] Alternative added during reply comments
[6] Joint Solar Coalition; Initial Comments, P. 11, November 7, 2025
[7] Joint Solar Coalition; Initial Comments, P. 11, November 7, 2025
[8] Joint Solar Coalition; Reply Comments, P. 5, November 19, 2025

JSC initially advocated for a Mobilization Threshold of 25% stating that "will allow grid upgrades to occur more quickly and capacity to be created at a greater scale" but notes that "in the initial roll out of this new DSRUP process, it is likely that nearly all Upgrades will be fully subscribed due to the significant existing backlog in the interconnection queue and ever increasing demand for clean energy on the distribution grid."[9] In reply comments, JSC states it is willing to compromise to a 50% Mobilization Threshold (F.1.d).[10] Staff notes that JSC's compromise package includes this 50% MT as well an minimum upgrade threshold of $250,000 (Section C), and the equivalent of J.2.b for the ARCC as mentioned above.[11]

CEF

CEF supports F.1.c – the tiered-based Mobilization Threshold. CEF utilized internal economic data to determine how expensive these differently priced Upgrade costs would likely be relative to the full interconnection project of a developer. CEF reasoned that if the Upgrade costs are relatively low compared to the total cost of the interconnection project, it is much more likely that other Interconnection Customers will participate in that given Upgrade. Using the estimated likelihood that an Interconnection Customer would participate, and the relative cost of the Upgrade compared to a given project, CEF set the tiers of Mobilization Thresholds. Upgrades with low overall costs per MW of freed capacity should have a lower MT and vice versa. CEF reasons that this would allow for more economical projects to have lower barriers to start Upgrade construction and shorten interconnection timelines while mitigating against socializing the costs of the Upgrades to ratepayers.[12]

The OAG, Department, OTP, and Xcel

The OAG, Department, Xcel, and OTP all support a Mobilization Threshold of 80%. The Department, OAG, and Xcel recommend deciding the ARCC in each Utility's respective tariff filing, while OTP recommended including it in DSRUP.

The OAG states "a low 25 percent Mobilization Threshold is unnecessary for the success of the program, insufficiently protective of ratepayers, and could potentially *create* delays."[13] In response to JSC claiming that Upgrades will be fully funded due to pent up demand, the OAG states that there would not be harm to growth if the MT was set even higher and points out that if the MT were set lower the DSRUP "applications could end up dispersed across a utility's system, both potentially reducing the number of upgrades that become fully subscribed and potentially slowing the entire process by increasing the number of applications the utility has to process and studies the utility has to perform."[14] The OAG adds that a lower MT would be a greater risk when the pent up demands has been met and if the Payback Period (the time for

[9] Joint Solar Coalition; Initial Comments, P. 7, November 7, 2025
[10] Joint Solar Coalition; Reply Comments, P. 5, November 19, 2025
[11] Joint Solar Coalition; Reply Comments, P. 5-5, November 19, 2025
[12] Cooperative Energy Futures, Initial Comments, November 7, 2025
[13] The Office of Attorney General, Reply Comments, P. 8, November 19, 2025
[14] The Office of Attorney General, Reply Comments, P. 8, November 19, 2025

interconnecting customers to pay back the cost of the upgrade to ratepayers) is set to a shorter period. The "OAG supports a Mobilization Threshold of 80 percent because it provides greater ratepayer protection than the other options and allows the DSRUP to ultimately build more upgrades before hitting the Annual Ratepayer Cost Cap."[15]

The OAG supports J.1 as while J.2 "seems proportional because it uses percentages, these percentages would result in vastly different amounts depending on the utility." The OAG notes that 2% of OTP's, MP's, and Xcel's distribution budgets, the ARCC would be $467,726, $1,578,400, and $15,600,000, respectively.[16] The OAG adds that the Commission may want to consider more factors than listed under J.2 it will be able to do so in each Utility's tariff filing under J.1.

The Department emphasizes the relationship between the MT and the Operational Budget and states that "a high Mobilization Threshold means that many more projects will get built compared to a low Mobilization Threshold" because the Operational Budget will be higher under a higher MT.[17] The Department also recognizes that a lower MT will lead to "projects reaching construction quicker compared to a high Mobilization Threshold" but the overall amount of projects being constructed will be lower due to the decreased Operational Budget caused by the lower MT. Regarding the ARCC, the Department emphasizes that J.1 makes more sense due to the differences between the Utilities involved.[18]

OTP believes that an 80% MT would protect their customers when there are fewer following interconnection applications upon an Upgrade meeting a lower MT which "is a particular concern for Otter Tail Power given the characteristics of our service area."[19] OTP adds that a tiered approach would be complex and likely lead to more complaints. Regarding the ARCC, OTP supports J.2.a as reasonable for their Utility.

As with other parties, Xcel believes that a 25% MT would have the "risk of stranded or underutilized assets that increase costs for non-participating customers" and that "up to 75% of the cost of each Upgrade would contribute to the Annual Ratepayer Cost Cap, which would lead to the cap being reached more quickly, thus reducing the number of Upgrades that could be covered under DSRUP."[20] Xcel adds that an 80% MT ensures "Upgrades are nearly fully utilized and funded through Reactive Cost Sharing Contributions", "the risk of stranded or underutilized assets would be reduced", and "more Upgrades could be funded under the same Annual Ratepayer Cost Cap."[21] Regarding the tiered approach, Xcel believes it would be overly complex to administer and that it may "create complications, necessitating additional requirements and processes to clarify" if projects go in and out of different tiers during varying initial cost estimates, construction, and final cost phases.

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[15] The Office of Attorney General; Initial Comments, P. 13, November 7, 2025
[16] The Office of Attorney General; Initial Comments, P. 23, November 7, 2025
[17] The Department of Commerce, Initial Comments, P. 8, November 7, 2025
[18] Department of Commerce, Initial Comments, P. 8, November 14, 2025
[19] Otter Tail Power, Initial Comments, P. 3, November 7, 2025
[20] Xcel Energy; Reply Comments, PDF. P. 38, November 19, 2025
[21] Xcel Energy; Reply Comments, PDF. P. 38, November 19, 2025

Xcel prefers J.1 to J.2 as it would grant important flexibility to Utilities but notes that it will likely choose an amount that is close to what is represented in J.2.a which currently represents around $17.9 million.[22] Xcel opposes J.2.b as a high ratepayer risk that would require "a significant amount of the Company's finite design and construction resources that would be dedicated to building these Upgrades" and "pull resources away from other important investments we have budgeted, as shown in our 2025 IDP."[23]

Staff Analysis

Staff believes that the main innovation the DSRUP brings to the interconnection process is the ability for Interconnection Customers to share the costs of expensive Upgrades on a proportional basis within a clearly defined process. Even if the MT were set at 100%, this ability to share costs would still transform how Upgrades are paid for and will lead to much greater Hosting Capacity for DERs to interconnect.

However, by allowing the Commission to determine a MT that is below 100% as well as allowing for unpaid for portions of Upgrades to be recovered by Utilities, Staff believes that the authorizing legislation may be signaling two things. First, that these Upgrades be able to begin construction earlier than it would in the standard interconnection process. Second, that the legislature wanted the Commission to have the ability to allow, if desired, some amount of ratepayer funds to facilitate an increased amount of DER interconnections at greater speeds. The legislation emphasizes the standardized procedures "advance the achievement of the state's renewable and carbon-free energy goals in Minnesota Statutes, section 216B.1691 and greenhouse gas emissions reduction goals in Minnesota Statutes, section 216H.02."[24]

Staff believes that the Legislature's goals may be best accomplished by increasing the Operational Budget of DSRUP as that leads to a higher likelihood that the pent up demand for Upgrades will be more timely addressed and not delayed due to logistics/funding constraints on the side of the Utility. Some parties mentioned ratepayer risk as it pertains to the MT and while there is an element to that as discussed where a lower MT leads to the ARCC being more likely to be met, the ratepayer risk is still ultimately capped by the ARCC. Staff believes the greatest risk that the MT poses is that it is not so low that the ARCC is met too quickly or immediately and that it not be set so high that there is only very marginal benefit compared to the status quo.

Due to the relationship between the Operational Budget and the MT, in which with a constant ARCC, the operating budget increases as MT increases, Staff supports an 80% MT (Decision Option 22.b). Staff believes that a higher MT will lead to a higher likelihood that the ARCC will not be reached, which protects ratepayers from the stranded asset risk and also results in more projects ultimately getting constructed as also laid out by the Department. A lower MT may lead to a higher likelihood that ratepayers take on greater risk as well as a version of the

[22] Xcel Energy; Reply Comments, PDF. P. 43, November 19, 2025
[23] Xcel Energy; Reply Comments, PDF. P. 43, November 19, 2025
[24] https://www.revisor.mn.gov/laws/2024/0/126/laws.6.53.0#laws.6.53.0

tragedy of the commons where the ARCC is quickly portioned out into small pieces and eaten up, without the market coordination that a higher MT might require.

Staff supports J.1 – that the ARCC be determined by the Commission as part of each Utility's required tariff filing (Decision Option 44). This is an important piece to the DSRUP and Staff believes that some extra consideration in the tariff filing could be beneficial even if Xcel and Otter Tail are roughly aligned with the 2% figure. These considerations could include how the different ARCCs may operate under each Utility's specific tariff as well as each utility's ability to allocate resources toward Upgrade construction generally. If the Commission wants to make a decision in this proceeding Staff recommends J.2.a (roughly $17.8 million) as none of the Utilities were directly opposed and the Operational Budget would be over $91 million for Xcel which Staff believes would be an adequate starting budget for the DSRUP.

Staff also notes that that the Operational Budget is the theoretical maximum a Utility will be permitted to spend on the DSRUP only assuming the ARCC has been reached. Under this scenario, assuming J.5 is accepted, the MT changes to 100%. However, this doesn't mean construction of Upgrades ceases; it will just have to be paid for fully by Interconnection Customers before commencing. In other words, the DSRUP keeps the benefits of cost sharing if the ARCC is met but loses the quicker construction process benefit until Outstanding Costs are reduced below the ARCC.

3. Section B: Definitions

The base DSRUP Standards in Attachment A of the notice includes 20 definitions. All of these terms were deliberated amongst working group and settled upon before the Notice of Comment was filed on September 26, 2025. In ex parte communication, Staff confirmed all parties accepted all definitions except B.16, Reactive Cost Share Distribution Upgrade (Upgrade).[25]

Xcel, while not opposing the original definition but made amendments in both their initial and reply comments. The amendment exclude "new substation for the sole purpose of allowing the interconnection of Distributed Generation Projects or other upgrades that do not align with MN DIP."[26]

Xcel claims that "new substations typically serve multiple purposes – improving reliability and resilience, serving new or increasing load, and enabling DER – it is possible that DG interconnection alone could necessitate construction of a new substation"[27] and subsequently advocates they be excluded from the DSRUP. The Company states that "substation costs would have an outsize adverse impact on non-participating customers" and "ratepayers should not pay for decades of O&M for a substation that exists solely to serve DG interconnections and

[25] Xcel Energy; Reply Comments, PDF P. 34, November 19, 2025
[26] Xcel Energy; Reply Comments, PDF P. 34, November 19, 2025
[27] Xcel Energy; Initial Comments, P. 7, November 7, 2025

from which they are not necessarily benefiting."[28] Additionally, Xcel claims that construction would "take up a considerable amount of the Company's limited design and construction resources that would otherwise be used on projects and initiatives identified through the Company's robust planning process."[29]

The OAG opposes this change, claiming that it may not comport with the authorizing legislation which defines "Upgrade" almost exactly as the DSRUP defines "Upgrade" and "makes no reference to the exclusion of substations from the DSRUP standards."[30] The OAG also does not believe there appear to be any intent in the law to exclude construction of new substations. The legislative language for "upgrade" is as follows:

> a modification of a utility's distribution system at a specific location that is necessary to allow the interconnection of distributed generation projects by increasing hosting capacity at the applicable location, including but not limited to installing or modifying equipment at a substation or along a distribution line. Upgrade does not mean an expansion of hosting capacity dedicated solely to the interconnection of a single distributed generation project.[31]

The OAG also cautions that this exclusion has policy implications and its placement in the definitions section of the DSRUP may risk "incoherent outcomes, which in turn increases the risk that a party chooses to bring a legal challenge to the overall policy" and recommends the Commission place it somewhere else in the DSRUP.[32]

JSC states that while they "appreciate Xcel's desire to exclude any whole substation upgrades that seem destined to almost entirely serve generation customers vs load" they believe the restriction to be premature.[33] They advocate that the Standards be permissive and flexible until "after early learning during program implementation – that a given Upgrade type needs to be firmly excluded."[34]

The other parties in the docket broadly supported all of the definitions or did not make any comment on them.

Staff Analysis

Xcel's modification to Reactive Cost Share Distribution Upgrade (Upgrade) is meaningful as it would exclude an entire category of distribution upgrade, new substations.

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[28] Xcel Energy; Reply Comments, PDF P. 34, November 19, 2025
[29] Xcel Energy; Reply Comments, PDF P. 34, November 19, 2025
[30] The Office of Attorney General; Reply Comments, P. 3, November 19, 2025
[31] Minnesota Session Laws - 2024, Regular Session, CHAPTER 126—S.F.No. 4292, Article 6, Section 53. Specifically, clause (b), subsection (4). https://www.revisor.mn.gov/laws/2024/0/126/laws.6.53.0#laws.6.53.0
[32] The Office of Attorney General; Reply Comments, P. 3, November 19, 2025
[33] Joint Solar Coalition; Reply Comments, P. 8, November 19, 2025
[34] Joint Solar Coalition; Reply Comments, P. 8, November 19, 2025

Staff does not believe this topic was adequately contemplated in the Reactive Upgrade Workgroup or in record to go against what was originally put forward. Additionally, Xcel does not currently oppose the original definition. Staff believes this would be a good topic to track in the ongoing workgroup and during the first round of evaluations.

4. Section C: Upgrade Cost Thresholds

Section C has the Commission determine the minimum cost an Upgrade must be in order for it to qualify under the DSRUP as required under clause (a) subsection (3) of the authorizing language.[35] The language specifically states:

> establish a minimum level of upgrade costs an expansion of hosting capacity must reach in order to be eligible to participate in the cost-share process and below which a trigger project must bear the full cost of the upgrade

1. Section C.1

The draft Standards provide the following options from which the Commission may choose:

> C.1: To qualify for the DSRUP, an Upgrade must have total project costs of:
>
> a. at least $250,000
> b. at least $1
> c. at least $2,500,000
> d. $100,000

Xcel, OTP, and the OAG oppose C.1.b, which essentially sets no limit for how expensive an Upgrade must be to qualify for cost sharing under the MN DIP. Xcel, who also opposed C.1.a for the same reasons, states that the market has shown that developers are willing to pay up to $250,000 for an upgrade in order to interconnect and that these "small Upgrades generally do not create additional capacity that could benefit many different projects, limiting the benefits of cost-sharing".[36] Instead, Xcel supports C.1.c as it "would serve as an important customer protection, ensuring that customers contribute only to larger upgrades that create additional capacity on the system for future projects (e.g., transformer upgrades, new feeders)."[37]

OTP adds that "any system upgrade less than $250,000 will likely not free up enough additional hosting capacity beyond the Trigger Project for a cost share program to be worthwhile for any follow-on applicants."[38]

With similar reasoning to OTP, the OAG states that less expensive DSRUP Upgrades would allow

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[35] Minnesota Session Laws - 2024, Regular Session, CHAPTER 126—S.F.No. 4292, Article 6, Section 53. Specifically, clause (a), subsection (3). https://www.revisor.mn.gov/laws/2024/0/126/laws.6.53.0#laws.6.53.0
[36] Xcel Energy; Initial Comments, P. 9, November 7, 2025
[37] Xcel Energy; Initial Comments, P. 9, November 7, 2025
[38] Otter Tail Power, Initial Comments, P. 2, November 7, 2025

individual developers to reach the Mobilization Threshold on their own, but not pay for the full Upgrade, and then have ratepayers pay for the excess capacity since a smaller Upgrade would not create enough capacity for a larger developer to consider interconnecting. This would essentially allow the original developer to have a discount on their Upgrade at the ratepayer's expense. The OAG adds that this unpaid portion of the Upgrade would still add to the ARCC and would have a lower chance of being removed.[39]

JSC, and CEF support C.1.b with JSC stating it "best aligns with legislative intent to expand hosting capacity and reduce barriers to interconnection."[40] However, in reply comments, JSC and CEF state they are willing to compromise and support C.1.a of $250,000 but still believe there is little risk in setting a low threshold as the Upgrades "will simply be completed by individual project applicants themselves vs choosing to undergo a multi-party study and process."[41;42]

2. C.2: Maximum cost for DSRUP Upgrade eligibility

The Commission is not required by the legislation to choose one of the following but the draft Standards include the following for consideration:

> C.2: To qualify as an eligible Reactive Cost Share Distribution Upgrade, an Upgrade must cost no more than:
>
> a. $300,000/$MW_{AC}$
> b. $600,000/MW
> c. No maximum

The OAG, Department, and CEF support a maximum cost. The OAG and Department state that a maximum threshold "could help prevent the DSRUP from enabling upgrades that are not economically reasonable."[43] The OAG adds with larger Upgrades, the ARCC could be met earlier and lead to fewer Upgrades overall. CEF believes that Upgrades with a cost of $600,000/MWac is too high to attract other projects to meet the Mobilization Threshold.[44] The Department and OAG support C.2.a while CEF supports C.2.b.

JSC believes that a maximum cost limit could be necessary in the future."[45] JSC adds that in "the early years of the program, prioritization guidelines will already prioritize the lowest cost per megawatt Upgrades (G1b)" and setting a limit would be premature.[46]

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[39] The Office of Attorney General; Initial Comments, P. 10, November 7, 2025
[40] Joint Solar Coalition; Initial Comments, P. 2, November 7, 2025
[41] Joint Solar Coalition; Reply Comments, P. 4, November 19, 2025
[42] Staff notes that JSC's compromise package includes this 50% MT as well a minimum upgrade threshold of $250,000 (Section C), and the equivalent of J.2.b ($95 million) for the ARCC. Joint Solar Coalition; Reply Comments, P. 5-5, November 19, 2025
[43] The Office of Attorney General; Initial Comments, P. 10, November 7, 2025; The Department, Initial Comments, P. 5, November 7, 2025
[44] Cooperative Energy Futures, Initial Comments, November 7, 2025
[45] Joint Solar Coalition; Initial Comments, P. 2, November 7, 2025
[46] int Solar Coalition; Reply Comments, P. 5, November 19, 2025

Xcel agrees that the prioritization criteria set up in Section G will "prevent the most costly, lower-benefit Upgrades from moving forward with ratepayer funds" and that "a maximum limit would preclude larger projects from accessing cost sharing at all, even if 100% of the costs are covered by Reactive Cost Share Participants."[47]

Staff Analysis

Staff believes this is more of a question of how best to use the amount of available funds under the DSRUP's Operational Budget. Staff agrees with Xcel that a larger minimum threshold would ensure that expensive Upgrades that free up the capacity constrained distribution grid are more likely to occur. Staff also heeds the warning of small "stranded capacity" projects that ratepayers will ultimately pay for as OTP and the OAG point out. Staff ultimately agrees that if the threshold is set too low, the ARCC is much more likely to be hit as the number of eligible Upgrades would be much higher with resources spread more thinly.

However, while Staff understands Xcel's desire to focus solely on the largest Upgrades, Staff believes that Xcel's preferred option of $2.5 million to be too high of a threshold, especially if it were permanently set at this level. Xcel points out that the Low-to-Moderate-Income CSG program allows for projects to be up to 5 MWac in size which allow them to pay for more expensive Upgrades. However, not every developer will be pursuing 5 MWac DERs and Staff believes the DSRUP should be accessible to developers pursuing smaller DERs as well. For example, if the threshold was set at $2.5 million, consider a developer that wants to interconnect a 1 MW of DER but needs an Upgrade that would free up 3 MWs worth of Hosting Capacity and cost $700,000. The developer would be unable to take advantage of the DSRUP and may not be able to afford the cost of the upgrade on their own even if the Upgrade would free up more Hosting Capacity than their project requires.

Staff believes the threshold should be sufficiently large to avoid developers getting a potential "discount" on their Upgrades and to prevent small-scale Upgrades from using too much of the operational budget of the DSRUP but not too large that only the largest of Upgrades are eligible. Staff offers an alternative C.1.e as a starting point: (Decision Option 4.e)

Staff Alternative C.1:

To qualify for the DSRUP, an Upgrade must have total project costs of:

a. at least $250,000
b. at least $1
c. at least $2,500,000
d. $100,000
e. at least $750,000 (Staff new)

[47] Xcel Energy; Reply Comments, PDF P. 35, November 19, 2025

In terms of maximum cost, Staff recommends no maximum be set at this time (C.2c). The Commission could conceive of the DSRUP as a market-driven process – the customers at play, in this case the DER developers, will determine what is economical for themselves. If an Upgrade is too expensive relative to their opportunity cost, they will refrain from pursuing the Upgrade. Ratepayer protections will be capped at whatever the ARCC is determined to be, and the Mobilization Threshold will ensure potentially expensive Upgrades are paid for by developers. Staff also agrees with Xcel and JSC that Section G.1.b already prioritizes more economical Upgrades. Staff does not believe C.2 to be necessary and supports either not choosing an option or C.2.c. (Decision Option 5.c)

5. Section D: Pro Rata Cost Calculation

Section D determines how a "pro rata cost" for a Reactive Cost Share Participant is determined. The Pro Rata Cost is the total estimated costs of the eligible Upgrade divided by the total kilowatts of Hosting Capacity created by the Upgrade. D.2 details how a Utility will refund or require costs depending on the difference between the estimated and actual costs as well as the respective timing. All parties support D.1 and D.2 and so does Staff. (Decision Option 6)

The following decision options are contested.

The Department, JSC, and the OAG support D.3 and D.4 while Xcel, Minnesota Power, and OTP are opposed.

> D.3 Final Reactive Cost Share Contributions shall not exceed 125% of the estimated Reactive Cost Share Contribution assigned to a Reactive Cost Share Customer in an executed interconnection agreement.
>
> D.4 Final total costs of an Upgrade in excess of 125% of the estimated total Upgrade cost shall be borne by Utility shareholders rather than recovered through rates.

JSC supports D.3 because it ensures interconnection customers would be protected from Utility cost overruns and that a 25% buffer above the estimated costs "accounts for reasonable utility cost overruns caused by inflation and other factors."[48] JSC adds that this is especially important due to "the length of time between the issuance of a cost estimate and the procurement of equipment and completion of upgrades" which can lead to uncertainty and cost increases above the original estimate.[49] JSC also supports D.4 as a ratepayer protection measure and incentive for the utilities to keep costs reasonable.

The OAG supports D.3 and D.4 as a "cost envelope" that would limit risk, uncertainty, and costs for both developers and ratepayers by incentivizing the Utility to be prudent and exact with its cost estimates.[50] The OAG adds that a lack of this envelope "presents a significant moral

[48] Joint Solar Coalition; Initial Comments, P. 3, November 7, 2025
[49] Joint Solar Coalition; Initial Comments, P. 3, November 7, 2025
[50] The Office of Attorney General; Initial Comments, P. 11, November 7, 2025

hazard to the utility that it simply does not need to contain its costs because developers or ratepayers will ultimately foot the bill" and that D.3 and D.4 would protect against this hazard.[51] The OAG adds that it does not support D.3 if D.4 is not also chosen.

Xcel states that it provides a good faith best cost estimate regarding their upgrades which includes a "detailed design process, during which the Company talks to local Authorities Having Jurisdiction (AHJs) and completes other design details that affect cost." The Company adds that D.3 and D.4 would cause them to be more conservative in the indicative estimate stage. Additionally, Xcel states that D.3 and D.4 would be "unnecessarily punitive and counter to the DSRUP law, which allows recovery of utility's *total* cost of upgrades" and violates standard cost-causation principles.[52]

The OAG disagrees that the authorizing legislation requires Xcel to charge the total cost of an Upgrade, including costs above the original estimate to ratepayers. The OAG states that the overruns may be allowed to be charged towards developers but that has "bearing on whether the utility can charge cost overruns to ratepayers per Item D.4 in the standards" and that "cost containment mechanisms are standard tools that regulators use to create cost discipline that otherwise does not exist given a utility's monopoly status and capital bias."[53] The OAG also states that "the Commission should make clear to Xcel that public utilities *always* have a legal and ethical responsibility to 'provide indicative estimates as accurately as possible'" in response to Xcel saying they may be more conservative with their indicative cost estimate.[54] Lastly, the OAG states that these measures do not violate cost-causing principles because once construction begins, "for costs beyond a certain threshold, the *utility* is very likely the cost causer."[55]

Staff Analysis

Staff understands the desire from developers to acquire more certainty regarding cost estimates so that they can better plan and operate their respective businesses. However, this method of determining costs has been in place since the conception of the MN DIP and it allows for some flexibility for increases in costs between the indicative cost estimate and the actual costs.

Staff also understands that the OAG would like to see some ratepayer protections in D.4 so that foreseen or unforeseen cost increases would not affect ratepayers. The Commission will need to decide if and how much the language below anticipates some amount of ratepayer risk:[56]

> 8. establish an annual limit or a formula for determining an annual limit for the total cost of upgrades that are not allocated to owners of participating generation

[51] The Office of Attorney General; Initial Comments, P. 12, November 7, 2025
[52] Xcel Energy; Reply Comments, P.5, November 7, 2025
[53] The Office of Attorney General; Reply Comments, P. 5, November 19, 2025
[54] The Office of Attorney General; Reply Comments, P. 5, November 19, 2025
[55] The Office of Attorney General; Reply Comments, P. 7, November 19, 2025
[56] https://www.revisor.mn.gov/laws/2024/0/126/laws.6.53.0#laws.6.53.0

facilities and may be recovered from ratepayers under section 216B.16, subdivision 7b, clause (6).

In these DSRUP Standards total ratepayer risk and clause 8 are determined in Section J, the Annual Ratepayer Cost Cap, which is heavily impacted by Section F, the Mobilization Threshold, as well as Section K, Cost Recovery. Staff suggests ratepayer protection discussions be prioritized in those sections rather than deviate from the scope and intent of the authorizing legislation as D.4 appears to do. Staff does not recommend D.3 or D.4.

6. Section E: Interconnection Process

Section E attempts to determine how the DSRUP will, in a stepwise basis, progress through that actual process of interconnection. Parties were largely in agreement, apart from a few modifications offered by the JSC and Xcel.

1. Section E.1, E.2, E.8.a

JSC believes that "while the framework elsewhere allows any individual project to pay up to the mobilization threshold in order to move an Upgrade forward (F3, H8), such language was somehow omitted from Section E" and makes edits to E.1, E.2, E.8.a. JSC refers to clause (a) subsection (6) of the authorizing language which allows for triggering projects to pay more than their pro rata cost-share amount in order to hit the Mobilization Threshold.[57]

Xcel states that they are in support of the concept of Participants paying more than their Reactive Cost Share Contributions and support it in the payment details in Section H.8 but that in this section the language is confusing and unnecessary.[58] Additionally, Xcel states that the edits may inadvertently imply that Reactive Cost Share Participants won't have to sign an DSRUP Agreement and administrative fees.

Staff Analysis

Staff does not support JSC's modifications. All parties are indifferent to or agree to section H.8 which states that "any reactive cost share participant may pay more than their project's Reactive Cost Share Contribution" which should resolve JSC's concerns.

2. Section E.3

Xcel modified E.3 to make explicit when interconnection applicants will be informed of the DSRUP. The modification is reflected in Attachment A and was agreed to and confirmed by all commenters via permissible ex parte communication.

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[57] Minnesota Session Laws - 2024, Regular Session, CHAPTER 126—S.F.No. 4292, Article 6, Section 53. Specifically, clause (a), subsection (6). https://www.revisor.mn.gov/laws/2024/0/126/laws.6.53.0#laws.6.53.0

[58] Xcel; Reply Comments, PDF P. 36, November 19, 2025

3. Section E.4.c

E.4 establishes when in the interconnection process a project may participate in an active DSRUP. The Commission may choose:

4. An Interconnection Application with a nameplate rating more than 40 kWac is eligible to participate in an active Mobilization Window:

    a. Once its Interconnection Application has completed a System Impact Study and, if necessary, a Facilities Study as required by MN DIP.

OR

    b. After all applicable MN DIP studies have been completed.

OR

    c. After it is deemed complete. (JSC-CEF new)

Xcel, OTP, and MP all supported E.4.b as it, as Xcel states, creates consistency with the MN DIP and does not preclude additional studies like MISO transmission studies or those created in the future.

JSC offered E.4.c to have a "more streamlined study process, which may allow utilities and developers to save both time and resources."[59] JSC states that this would allow for "follow on" projects to not have to first "go through system and facility study, only to be again studied later as a cluster" and instead would just undergo a single cluster study once the mobilization threshold is met.[60]

Xcel opposed E.4.c as some projects may require upgrades that are outside of the scope of the DSRUP and thus would not provide a full accounting of the total upgrades a Reactive Cost Share Participant may require for their individual project. Additionally, the Company cautions that if these studies are completed after the Mobilization Threshold is met and the Participant now must pay for additional, unaccounted for upgrades, they may want to withdraw from the DSRUP and lower the funds below the Mobilization Threshold causing "administrative burden and [increased] risk."[61]

Staff Analysis

Staff understands the logic behind JSC as it pertains to the benefits of avoiding duplicative work. However, interconnection studies do more than just indicate a larger upgrade is necessary to create more capacity, and can include, as Xcel suggests, line extensions or transmission upgrades that are specific to that individual DER project and not included in the scope of the DSRUP Upgrade. Additionally, E.5 includes language that states "Utilities shall streamline System Impact Studies for Interconnection Applications in queue behind a Trigger

[59] Joint Solar Coalition; Initial Comments, P. 3, November 7, .2025
[60] Joint Solar Coalition; Initial Comments, P. 3, November 7, .2025
[61] Xcel; Reply Comments, PDF P. 37, November 19, 2025

Project in Upgrades with an active Mobilization Window to the extent practicable" which addresses some of the intent of removing duplicative work. Staff is also in favor of keeping the DSRUP in line with the MN DIP as it pertains to these interconnection studies. For these reasons, Staff recommends E.4.b. (Decision Option 13.b)

4. Section E.8.d

JSC's modification to E.8.d strikes "through a capacity reservation" in order "to avoid any potential conflict with future Commission decisions and process changes, because the implementation of a capacity reservation is still under review in a number of Commission dockets."[62] MnSEIA is in favor of keeping the original language citing that removing it would run "contrary to the goals of this legislation to reduce cost burden, and Minnesota's clean energy goals" and that DSRUP fees may place "potentially insurmountable capital burden" on under 40kWac applications.[63]

Xcel does not oppose the modification citing that if a capacity reservation is not implemented then the scenario described would not happen. Xcel acknowledges that a "capacity reservation" is not currently in effect but that conversation about that topic is happening, in relation to the Company's Technical Planning Standard (TPS) in Phase 2 of the Proactive Upgrade Workgroup in Docket No. E002/CI-24-318. However, Xcel believes that keeping the language in would not prejudge the outcome of that proceeding since it would not be relevant if a capacity reservation does not get implemented.[64]

Staff Analysis

Staff has a different read to E.8.d than the rest of the parties. It appears to Staff, that this provision mostly comports with the practice of how the Priority Queue[65] works and how "parallel processing" of DERs 40kWac and under works where smaller DER systems can continue through their respective interconnection applications when there is hosting capacity available while larger DERs undergo studies.

Similarly, Staff views E.8.d as allowing these projects to continue through to interconnection process "if no upgrades are required and Hosting Capacity is available." Staff believes that the key phrase here is "[where] Hosting Capacity is available" and that the language could work whether a Utility has a capacity reservation or not. Hosting Capacity, as defined in the proposed DSRUP and the relevant legislation, is "the maximum capacity of a utility distribution system to transport electricity at a specific location without compromising the safety or reliability of the distribution system."

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[62] Joint Solar Coalition; Initial Comments, P. 3, November 7, .2025
[63] MnSEIA; Initial, P. 3, November 7, 2025
[64] Xcel; Reply Comments, PDF P. 36, November 19, 2025
[65] The Priority Queue is an administrative queue in Xcel's interconnection process that allows for projects 40 kw_{AC} and lower as well Solar on Schools and Solar on Public Buildings to be processed ahead of other DER projects when there is hosting capacity available.

Under the status quo and current planning limits a Utility may determine that specific area of the grid does not have enough available Hosting Capacity to interconnect a system 40kWac and under "without compromising the safety or reliability of the distribution system." However, under a different planning limit, or a potential capacity reservation, a Utility may determine there is enough Hosting Capacity available safely interconnect the system in parallel to studying an Upgrade.

Staff offers a modification to E.8.d: (Decision Option 14)

> Interconnection Applications that are processed as a next-in-queue project and have a capacity no greater than 40 kWac may proceed with interconnection if no upgrades are required and where Hosting Capacity is available. ~~for applications with a capacity no greater than 40 kWac through a capacity reservation.~~

Staff clarifies that small systems interconnecting in this situation would be using capacity already available on the distribution system, not capacity freed up by a DSRUP Upgrade. That conversation is relevant to Section H.11.

5. Section E.10

E.10 includes information on how interconnection applications will be handled before the Payback Period has closed (capacity available but not yet fully paid for by Reactive Cost Share Participants). JSC offered modifications to E.10[66]:

> Before the Payback Period has closed, the queue will be processed following MN DIP. Interconnection Applications in queue following an Upgrade ~~that are Deemed Complete during this time~~ will have the estimated Reactive Cost Share Contribution, or the final Reactive Cost Share Contribution if available, included as an interconnection upgrade cost in the Interconnection Agreement. The Interconnection Agreement must be signed and timely paid consistent with MN DIP timelines.

JSC states that their modification is a clarification and doesn't offer much more explanation.[67] Xcel believes that the original language is correct as a "project could be in a long queue such that it would not be interconnecting after the Payback Period closes; therefore, the project should be in the Deemed Complete stage to be required to pay the Reactive Cost Share Contribution."[68]

Staff Analysis

[66] Staff notes that Xcel's modification to E.10 was determined to be a friendly clarification and is in the language cited here without redline.
[67] Joint Solar Coalition; Initial Comments, P. 3, November 7, .2025
[68] Xcel; Reply Comments, PDF P. 38, November 19, 2025

Staff is supportive of Xcel's reasoning to not adopt JSC's modifications. Regarding JSC's modification, Staff notes that there is a scenario where there are no "applications in queue" immediately following an Upgrade but that there may be projects later on that apply for interconnection and receive the "Deemed Complete" designation where they will have the estimated Reactive Cost Share Contribution, or the final Reactive Cost Share Contribution if available, included as an interconnection upgrade cost in the Interconnection Agreement, as laid out in the rest of E.10. (Decision Option 16)

7. Sections F: Mobilization Threshold and Window

Staff notes that Section F.1 is discussed in Section II.2 but the rest of the section will be discussed here. F.2 through F.8 discusses the logistics of how the Mobilization Window will work relative to the rest of the DSRUP and interconnection process. There was not consensus on F.4.b. or F.6.

1. Section F.4.b

Under F.4.b, an Upgrade that has already been prioritized for an Upgrade under Section G would be reprioritized in the next prioritization review if:

> F.4.b: The final cluster study cost estimate varies from the previous estimate by more than 20%.

JSC opposes this provision as potentially sweeping in nature and "could unintentionally cause numerous Upgrades to be stalled in a cycle of study and restudy due to basic accounting or estimation errors."[69]

Xcel notes that "an Upgrade should always be prioritized based on the most accurate information available and it is appropriate to re-prioritize if a cost estimate changes."[70] Xcel adds that this is especially important in the context of Section G.5 regarding a rebuttable presumption of prudence for Upgrades selected via the prioritization process and that not choosing 4.b could lead to Upgrades no longer being prudent.

2. Section F.6

JSC supported F6, allowing consideration of projects in an open mobilization window for greater than two years as proactive upgrades, stating that F.6 would send a cost signal that a barrier to interconnection could be addressed by the proactive upgrade framework."[71]

The OAG does not support F.6 but offered a modification to capture the fact that an Upgrade not meeting the MT "means that there is insufficient developer demand for that upgrade" and that having the Proactive Upgrade Process pay for the Upgrade "effectively neutralizes the

[69] Joint Solar Coalition; Initial Comments, P. 7, November 7, 2025
[70] Xcel Energy; Reply Comments, PDF. P. 39, November 19, 2025
[71] Joint Solar Coalition; Initial Comments, P. 7, November 7, 2025

mobilization threshold and the market-driven nature of the DSRUP."[72]

OAG Modified F.6:

> ~~If~~ Once a Mobilization Window has remained open for ~~more than~~ two years, the Utility may consider that Upgrade as a potential Proactive Upgrade in its next Proactive Upgrade Proposal under the framework established in Docket E002/CI-24-318. The Utility shall describe in its Proactive Upgrade Proposal how close to the Mobilization Threshold the Upgrade came and explain why it believes there will be greater demand for the Upgrade in the future.

Xcel opposes F.6 stating that potential relationship or overlap between Proactive and Reactive Upgrades should be considered in the next phase of the Proactive Upgrades docket (Docket No. E002/CI-24-318).[73]

Xcel also provided two new provisions F.7 and F.8 about when a Mobilization Window will close that were agreed to by all parties in Staff's permissible ex parte communication all parties came to consensus on supporting F.7 and F.8.

Staff Analysis

Regarding F.4.b, Staff understands JSC's opposition and the risk that some projects may be delayed. However, the prioritization process under Section G (how Upgrades are ultimately prioritized via selected criteria) must still be followed and accurate. Up-to-date, information is necessary to accomplish that. If a project doubles in cost for an unforeseen reason, it very likely would not be prioritized relative to other Upgrades in the queue. To Xcel's point, if final costs increase significantly and the prioritization of the Upgrades are changed to reflect that information, these Upgrades may no longer be seen as prudent.

Staff also agrees with Xcel that discussion about how the Proactive Upgrade Process will operate should be addressed in that docket.

8. Section G: Upgrade Prioritization

Section G details how DSRUP Upgrades will be prioritized in a given time period (the length of which the Commission will determine). This is especially important in the beginning of DSRUP implementation when the existing distribution system congestion results in multiple fully funded upgrades at the same time.

1. Section G.2 and G.3

All parties agree to the DSRUP's prioritization criteria and its order in G.1. Staff supports G.1 as

[72] The Office of Attorney General, Reply Comments, November 19, 2025
[73] Xcel Energy; Reply Comments, PDF. P. 39, November 19, 2025

well. The criteria used to evaluate the upgrades shall adhere to the following order:

a. The Upgrade with the highest percentage of developer-funded Upgrade cost
b. Lowest cost per megawatt of capacity added by the Upgrade
c. Most capacity constraints
d. Clear optimization benefits for the grid

G.2 allows and explains how the Utility may remove an Upgrade from consideration if delayed by supply chain, permitting, or other issues, until the next Upgrade prioritization review and instead select the next highest priority Upgrade.

Xcel believes that this provision gives them operational flexibility to "limit delays for other Upgrades and projects; if one Upgrade is delayed for issues outside the Company's control."[74]

JSC states that while they understand Xcel's intent and desire to not delay other Upgrades for more than a year, they are concerned with the vagueness of the language and believe Utilities should "define what 'supply chain issues' and 'permitting issues' are in practice and that "'other issue's is far too vague and could be used as a "catch-all" justification for a utility to stop any Upgrade for any reason whatsoever."[75] JSC adds that if the Commission were to accept this provision it should require transparency best practices "such as providing a narrative explanation including all information relevant to the utility determination."[76]

2. Section G.3

G.3 would set the interval at which Utilities would review all of the Upgrades that have met the Mobilization Threshold and prioritize them against the criteria in G.1.

Xcel prefers the six months interval as it would provide "flexibility and ensures sufficient time to complete needed studies" and that a shorter interval some studies from the previous interval may still be in progress. The Company adds that six months would "provide further assurance that the most beneficial and cost-effective Upgrades move forward first" as more Upgrades would have time to reach that step in the DSRUP.[77] OTP adds that on the practical side "most large-scale construction efforts take longer than three months" and six months is more reasonable.[78]

JSC disagreed and found six months too long as only two sets of upgrades would be realized per year. JSC believes that due to how much pent up demand and congestion there is on the distribution system "there will be more than enough projects in line to make Upgrades available during a three month review period."[79] But as a compromise, JSC offers that the

[74] Xcel; Reply Comments, PDF P. 40, November 19, 2025
[75] JSC; Initial Comments, P. 7-8, November 7, 2025
[76] JSC; Initial Comments, P. 8, November 7, 2025
[77] Xcel; Reply Comments, PDF P. 40, November 19, 2025
[78] OTP; Initial Comments, P. 4, November 7, 2025
[79] JSC; Reply Comments, P. 6, November 19, 2025

Commission could choose an Upgrade review interval of four months rather than three or six months.

Staff Analysis G.2 and G.3

Staff believes that G.2 provides some operational flexibility for Utilities to ensure that their resources are being used efficiently and not stalled by unforeseen circumstances. However, Staff believes JSC's request for transparency in these cases is reasonable although they did not provide a formal modification to G.2. Staff offers the modified G.2 in response (Attachment A), requiring a narrative explanation when upgrades are removed from consideration. Commenters supported the modified G.2.

Staff sees merit in both JSC's and Xcel's recommendations. Staff's main concern is that Xcel's Operational Budget and construction resources are not stymied by the interval length chosen, especially during the first few years of DSRUP operation when there will likely not be any shortage of Upgrades ready to construct.

3. Section G.4 Prioritization vs First Come; First Served

All parties, except Xcel, either had no comment or passively supported G.4. G.4 states the following:

> G.4: An initial prioritization shall occur utilizing the criteria in G1 within six months of tariffed DSRUP approval. Following initial prioritization governed by G1, Upgrades shall move forward on a first come, first serve basis. Prioritization shall only be used when Upgrades meet the Mobilization Threshold during the same period as set in Section G3.

Xcel states that "the prioritization process outlined in G.1 should be used continuously" and that a "first-serve approach to upgrades may lead to a higher number of less effective Upgrades being constructed and funded in part by customers."[80]

Staff Analysis

Staff believes that this provision may be an artifact from how a previous version of the DSRUP, without G.3 and where the need to prioritize Upgrades via G.1 was deemed temporary or did not envision a prioritization review as indicated in G.3. As written, G.4 does not quite work with the understanding that G.1 and G.3 are to remain long-standing, which to Staff's knowledge, they are. In the ten plus years it may be the case that most of the congestion on the grid is less present and the usefulness of the G.1 and G.3 is also less but that doesn't mean they aren't still necessary. Since there is not "closing" of the prioritization process, rather than a first-come-first-serve process, Upgrades that have met their MT will simply begin construction after they

[80] Xcel; Reply Comments, PDF P. 40, November 19, 2025

have been prioritized under G.3 even if there aren't many other Upgrades to be prioritized against. Staff does not support G.4.

4. Section G.5 Presumption of Prudency

All parties support the idea that Upgrades made through using the DSRUP Prioritization (Section G) will give Utilities a reasonable certainty for cost recovery but disagree on the wording.[81]

> G.5 – *Xcel Modification*: ~~Approval~~ Selection through the prioritization process chosen in Section G shall create a rebuttable presumption of prudence in any cost recovery proceeding.
>
> G.5 – *OAG Modification*: ~~Approval~~ Selection through the prioritization process chosen in Section G shall create a rebuttable presumption ~~of prudence~~ that pursuing construction of an approved Upgrade was prudent in any cost recovery proceeding. The utility retains the burden of proof.

Xcel remarks that as they have "limited opportunity to control what Upgrades we build through the market-driven program, the Company needs to have a reasonable certainty for cost recovery" and that the presumption of prudence "is consistent with the Proactive Grid Upgrades framework approved by the Commission in Docket No. E002/CI-24-318."[82] Xcel adds that a key difference between a Reactive Upgrade and Proactive Upgrade is that the Commission will not be approving individual Reactive Upgrades (as occurs with Proactive Upgrades). Instead, as clarified by the edit to G.5, the Upgrades are "selected" by the utility based on the prioritization criteria rather than "approved" by the Commission. Xcel believes this lack of control over what Upgrades are pursued means that a "presumption of prudency" is necessary and important to the Company.

The OAG believes that the original language in G.5 lacks "clarity regarding the utility's statutory burden of proof and ongoing duty of prudence' citing Minn. Stat. § 216B.16, subd. 4.[83;84] The OAG states that a Utility could use this ambiguity regarding a presumption of prudence and apply it to "everything that occurs with the upgrade after it has gone through the prioritization process" and would "effectively remove the Commission's ability to ensure that upgrades remain prudent through the end of construction because of the asymmetry of information."[85]

The OAG states that the original G.5 language "*does not* require the utilities to provide any of this information that JSC and CEF agree is necessary for the program to work well" and that the OAG redlines are "necessary to ensure there is no confusion about the utilities' ongoing statutory burden of proof and responsibility to provide the Commission and stakeholders with

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[81] This was determined through permissible ex parte communication.
[82] Xcel; Reply Comments, PDF P. 40, November 19, 2025
[83] Minn. Stat. § 216B.16, subd. 4: **Burden of proof.** The burden of proof to show that the rate change is just and reasonable shall be upon the public utility seeking the change.
[84] The Office of Attorney General; Initial Comments, P. 15, November 19, 2025
[85] The Office of Attorney General; Initial Comments, P. 15, November 19, 2025

accurate cost information."[86] The OAG adds that their version of G.5 still give "assurance that projects selected through the DSRUP standards will be deemed prudent."[87]

Xcel disagrees with the OAG's interpretation of "rebuttable presumption of prudence" that would not require them to provide any information about upgrades when seeking cost recovery and that the "language in G.5 is not an advance determination of prudence."[88]

Staff Analysis

The competing versions of G.5 reflect a shared goal of providing utilities with reasonable certainty of cost recovery for upgrades selected through the DSRUP prioritization process, while preserving the Commission's oversight. Xcel's proposed language emphasizes that, because the program is market-driven and the Utility has limited control over which upgrades must be pursued, a rebuttable presumption of prudence is necessary to ensure predictable recovery and is consistent with the Commission's Proactive Upgrade framework. The OAG's modification narrows the presumption to the decision to pursue construction and explicitly reaffirms the Utility's statutory burden of proof under Minn. Stat. § 216B.16, subd. 4, to avoid inadvertently extending the presumption to all subsequent project management and cost-control activities.

The policy question for the Commission is whether the presumption should apply broadly, as Xcel proposes, or be explicitly limited to the selection decision to maintain clarity around the utility's ongoing duty of prudence. Staff recommends adopting the OAG's version of G.5, as it preserves the intended presumption for upgrades selected through the prioritization process while maintaining the Commission's ability to review the prudence of construction, cost management, and execution throughout the life of the project. (Decision Option 27)

5. Section G.6 Prioritization Complaints

G.6 requires complaints specific to the prioritization results to be subject to Minn. Rules 7829.1700-.1900 rather than the specific dispute resolution process in Attachment B.[89]

Xcel opposes this provision stating that it would "function as a *prohibition* on any other avenue for resolving disputes regarding prioritization" and that Minn. Stat. 216B.172, subd. 2 requires a complainant first attempt to resolve a dispute with a public utility. Xcel adds that the formal complaint process will still be available to parties and that the Commission "should not preclude parties from being able to work through the dispute resolution process in the case of a complaint regarding the prioritization process."[90]

JSC argues that Xcel is conflating the "prioritization process" with the "prioritization results"

[86] The Office of Attorney General; Reply, P. 11, November 19, 2025
[87] The Office of Attorney General; Reply, P. 11, November 19, 2025
[88] Xcel Energy; Reply, PDF P. 40, November 19, 2025
[89] The Commission's Utility Proceeding, Practice, Procedure rules are electronically available at: https://www.revisor.mn.gov/rules/7829/
[90] Xcel Energy; Reply, PDF P. 41, November 19, 2025

and that it is important that the results only be challengeable through the formal complaint process. JSC believes that without this provision individual developers "that may be unhappy that their Upgrade was not chosen during any particular set of Upgrade prioritization results could hold up the entire DSRUP program" because the DSRUP dispute resolution process may place impacted Interconnection Applications on hold.[91]

Staff Analysis

Staff sees JSC's main intent behind this provision is to not have potential individual developer companies cause significant and cascading delays on other, otherwise united developers or Upgrades. Xcel's main priority is that they have the flexibility to work with any individual complainant before it be deemed a formal complaint with a required following procedural process.

Staff agrees with Xcel that complaints or disputes should ideally be resolved through joint agreement and communication between the two parties and that this provision may prevent that even if that is unintended. Additionally, this provision may prevent what could be inquiries or misunderstandings from being easily resolved. Staff adds that requiring complaints to use the Minn. Rules 7829.1700-.1900 does not necessarily mean applications won't be placed on hold.

However, Staff does understand how easily projects could be placed on hold if individual Interconnection Customers started disputing the prioritization process results and go through Section 5.3.4 of the Dispute Resolution Process for the DSRUP which states the following (highlighted section is language in addition to the MN DIP dispute resolution process):

> 5.3.4 The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
>
> For Disputes relating to the DSRUP, if resolution of the Dispute might have a material impact on any other Interconnection Application, then that impacted Interconnection Application may be placed on hold until the Dispute is resolved.

Perhaps exempting disputes regarding the prioritization results from paragraph two of 5.3.4 of the Dispute Resolution Process for the DSRUP could accomplish the goal of retaining flexibility in handling complaints while also preventing bottlenecks from arising from the calculations and results of the prioritization process.

To this extent, Staff offers Staff Alternative G.6. (Decision Option 29)

[91] Joint Solar Coalition; Reply Comments, P. 7, November 19, 2025

> Disputes regarding the prioritization results shall be exempt from the DSRUP disputes referred to in paragraph two of Section 5.3.4 of the Dispute Resolution Process for the DSRUP.

Staff welcomes discussion on this subject to determine if there might be a better path forward that the Commission may choose.

9. Section H: Payment Details

Section H details the logistics and requirements of how payments would be transferred, tracked, and refunded under varying interconnection scenarios of the DSRUP. Most of the subsections are consensus items but there are varying opinions on H.4 through H.8 and H.11 and H.12.

H.1 and H.2. speaks to a DSRUP Agreement and the "administrative fee" that Participants will have to pay. All parties agree to this but MP states that the fee needs to be given a value.[92] H.3 just states that A DSRUP Agreement shall not be contingent upon any other DSRUP Agreement for another Upgrade and all parties agree to this as well as Staff. H.4 reached consensus over H.5 which allowed Participants to withdraw projects but would not receive a refund. H.9 and H.10 deal with the logistics of Participants paying more than their Cost Share Contributions and how they may get refunded. These were consensus items and Staff supports them as well.

1. H.6 – Surety Bonds

H.6 would require Utilities to accept surety bonds or letters of credit from Participants as a way to finance their respective Cost Share Contributions.

H.6 writes:

> H.6: Reactive Cost Share Participants may choose to use surety bonds and/or letters of credit to pay for their cost share contribution with cash payments becoming due in alignment with utilities' actual spending/costs incurred.

H.6 is supported by JSC and opposed by Xcel. MP states that it needs clarifying language regarding credit score minimums but did not provide any language. The Department and the OAG do not state an opinion on the matter.

JSC states that interconnection customers that trigger these complex upgrades "are required to make interconnection deposits prior to receiving project specific information on an uncertain timeline" which they claim in many circumstances, "means that deposits are required years in advance of high-level substation commissioning timelines."[93] Additionally, JSC claims that many developers "sell the projects they develop, which means that they finance their deposits

[92] Minnesota Power; Initial, P. 2. November 7, 2025
[93] Joint Solar Coalition; Initial Comments, P. 9, November 7, 2025.

at considerable expense" giving an example that cash financing at 13% for a one million dollar project over four years would incur $520,000 in interest.[94] They compare this to bonds which lower carrying costs of around 1 percent compared to 13 percent.

JSC adds that requiring Utilities to accept letters of credit and bonds as described in H.6 facilitates the goals of the statute which is to reduce the capital burden on owners of trigger project seeking interconnection and still provides "the utilities with the security that an interconnection customer will fulfill its contractual obligations to pay its interconnection costs."[95]

Xcel responds stating that Cost Share Contributions for the Upgrades are already due relatively late in the Process, after Mobilization Threshold has been met, the Upgrade has been prioritized, and the final cluster study complete.[96] Xcel adds that MN DIP 5.6.4 provides the Utility with the option to use "Traditional Security" or "Modified Security" methods to pay and that the option should be that the utility's discretion in the DSRUP as well. Lastly, Xcel states that the MN DIP does not currently have any provisions regarding using a "surety bond as a method of security for payment of any amount due" and that requiring the Company do so here would "increase risk to customers and is not reasonable, particularly for a market-driven program."[97] Minnesota Power also adds that clarifying language would need to be added regarding credit score minimums.[98]

Staff Analysis

Staff believes further record development is warranted on this topic; currently there may not be adequate support for requiring Utilities to accept a specific form of a payment, especially when it deviates from the MN DIP which allows more flexibility on the Utility's end.

2. H.7 Tracking

This appeared to be a consensus item, but Xcel commented that it lacked clarity and that its intent appears to be captured in H.8 which parties also agree to. H.7 is as follows:

> The Utility shall track the funds via the initial invoice deposit and issue refunds to those that overpay.

Staff agrees that it lacks clarity and appears to be incorporated in H.8.

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[94] Joint Solar Coalition; Initial Comments, P. 9, November 7, 2025.
[95] Joint Solar Coalition; Initial Comments, P. 9, November 7, 2025.
[96] Xcel; Reply Comments, PDF P. 41, November 19, 2025
[97] Xcel; Reply Comments, PDF P. 41, November 19, 2025
[98] Minnesota Power; Iniitial Comments, P. 2, November 7, 2025

3. H.11 Capacity Reservation

H.11 speaks to a potential capacity reservation, should one be implemented, that would "exempt" applications from paying for a Reactive Cost Share Contribution in the DSRUP. The exact language is as follows:

> H.11: Interconnection Applications under 40 kWac are exempt from paying a Reactive Cost Share Contribution if Hosting Capacity is available for Interconnection Applications under 40 kWac through a capacity reservation.

CCSA, CEF, and Nokomis oppose this measure while MnSEIA and the Utilities support this measure.

Xcel states that a capacity reservation in this context "refers to allowing small DER to exceed the Company's planning limit" and is being discussed in Phase 2 of the Proactive Upgrade Workgroup. Xcel claims H.11 would not prejudge the outcome of that proceeding as the measure would be moot if there is no applicable capacity reservation.[99]

MnSEIA expands on how one of the intents of the legislation was to "reduce the capital burden on owners of trigger projects seeking interconnection" and that while a sharing of expenses under the DSRUP is better than the status quo, "for under 40kWac projects, the expense of the pro-rata fee and the administrative fees for participating in a DSRUP may still place a potentially insurmountable capital burden on owners of those small interconnection applications."[100]

Additionally, MnSEIA acknowledges that Clause 7 of the Sessions Law states the following:

> "prohibit owners of distributed generation facilities from using any unsubscribed capacity at an interconnection that has undergone an upgrade without the distributed generation owners paying the distributed generation owner's pro rata cost of the upgrade"

However, MnSEIA claims that a "capacity reservation for under 40 kWac systems in the priority queue would exempt small interconnections from this process while remaining compliant with Clause 7."[101]

MnSEIA provides an example that uses a modified planning limit formula where the amount of Hosting Capacity available is 80% of the thermal rating of existing equipment to DERs greater than 40kWac but is up to 100% for DERs under 40kWac. MnSEIA says that a "reactive upgrade would be triggered once the 80% limit is reached, but under 40 kWac Priority Queue interconnections would still be allowed to interconnect without paying DSRUP pro-rata fees because capacity would remain available for them" and would therefore "exempt smaller DG

[99] Xcel; Reply Comments, PDF P. 41, November 19, 2025
[100] MnSEIA; Initial Comments, P. 2, November 7, 2025
[101] MnSEIA; Initial Comments, P. 2, November 7, 2025

interconnections from having to pay a pro rata fee and the administrative fees."[102]

Staff Analysis

Staff adds for context, using $250,000/MW to $600,000/MW (an upper range in F.1.c) as example $/MW pro-rata costs, a Reactive Cost Share Participant with a standard 8kWac rooftop solar system would have a Reactive Cost Share Contribution between $2,000 and $4,800.

Staff understands the desires of parties to reduce the costs of interconnection for Small DERs. However, the statute states that DG facilities owners must pay their "pro rata cost" of an Upgrade in order to interconnect in an area that had capacity freed up by an Upgrade. That statute did not distinguish between the size of DG facilities. A blanket exemption of Reactive Cost Share Contributions for Small DER applicants may conflict with the statute.

Staff does not support H.11 as it appears to go against the language of the statute.

H.12 – Using other Cost Sharing Programs

This provision was made to allow other potential cost sharing programs that utilities may have to be compatible with the DSRUP as long as there is subsequent approval in those applicable cost sharing program. Currently only Xcel has a cost sharing program for small DERs. All commenters apart from MnSEIA support.

All parties expressed support for this provision, however, in their initial comments MnSEIA expressed both support and opposition to the measure.[103] It is unclear where they fully stand but Staff believes it is in opposition based on the totality of their comments.

There are no cost sharing programs in effect other than Xcel's program aimed at Small DER applications. Xcel is in favor of this provision as it "is designed to account for programs like the small DER cost sharing program" and "leaves open options to ease the burden on small projects."[104] Xcel also adds that H.12 could potentially allow for the $10 million DER System Upgrades program funded through the Renewable Development Account passed by legislature in 2023 to be used for the Cost Share Contributions required by small DER Interconnection Customers.[105]

MnSEIA states that the purpose of Xcel's Small DER Cost Sharing Program is "to socialize the cost of interconnection costs at the secondary level of the grid, including requirements for transformer upgrades, reconducting, line extensions, supplemental review fees, and other types of local upgrades necessary for small DER interconnection" and believes that including

[102] MnSEIA; Initial Comments, P. 3, November 7, 2025
[103] MnSEIA; Initial Comments, P. 2 & 3-4, November 7, 2025
[104] Xcel; Reply Comments, PDF P. 42, November 19, 2025
[105] See Minnesota House File 2310, 93rd Legislature (2023), version 4, article 11, § 2, subd. 10. Available at https://www.revisor.mn.gov/bills/93/2023/0/HF/2310/versions/4/

DSRUP costs "may result in an increase to the Small DER cost share fee, currently $200 per interconnection."[106]

Staff Analysis

Staff believes that MnSEIA's worries may be alleviated with provision's wording "…and with subsequent approval in those relevant Utility-specific cost sharing program docket proceedings" which would require Xcel's Small DER Cost Sharing Program would have to first be modified to allow DSRUP costs to be an eligible cost for the program. The provision as written allows for these docket proceedings to consider whether to make these costs eligible before being used to pay for DSRUP costs. H.12 would also allow for any future cost sharing programs to become eligible should any arise. On this note, Xcel filed into Docket No. E002/M-23-458 (the DER System Upgrade Program with a budget of $10 million) on January 30, 2026 officially proposing that the funds allocated to that program be eligible to pay for the Cost Share Contributions of DER customers with projects less than 40kW in size. If this request is approved, H.12 would allow for this arrangement. Staff supports H.12.

10. Section I: Pay Back Period

Section I expands on the "payback period" which is the period of time, after the Mobilization Threshold has been met, allotted for the full value of the Upgrade to be paid for by Reactive Cost Share Participants. For example, if an Upgrade is constructed with a Mobilization Threshold of 70%, the Payback Period is the amount of time future Interconnection Customers will have to pay for the remaining 30% of the Upgrade before the asset is fully paid for by ratepayers.

1. Section I.1

I.1 uses the following language, including modifications made by parties in the record:

1. The Payback Period shall remain open once the Mobilization Threshold is reached and remains open for:

    a. A minimum of five years from the Upgrade's in-service date.
        i. If at least 75% of the costs of the Reactive Distribution Upgrade have not been recovered after five years, the Payback Period is automatically extended by an additional three years.
        i. Alt: OAG Modification: If at least ~~75%~~ 90% of the costs of the Reactive Distribution Upgrade have not been recovered after five years, the Payback Period is automatically extended by an additional three years.
    b. A minimum of ten years from the Upgrade's in-service date.

[106] MnSEIA; Initial Comments, P. 2 & 3-4, November 7, 2025

b. OAG Modification: ~~A minimum of~~ Ten years from the Upgrade's in-service date.
c. Until 100% of Upgrade costs are recovered from Interconnection Customers.
d. No more than ten years from the Upgrade's in-service date

JSC supports 1.a.i because the "extended period ensures that interconnection customers are paying for the relevant upgrades and minimizes impacts to ratepayers."[107] The OAG does not support 1.a.i but if the Commission choose this provision, it requests that the Commission choose their modification as it would further protect ratepayers by allowing more time for the Upgrade to be paid for by developers and to a greater degree. The OAG states that this is especially important if the Commission choose a low Mobilization Threshold and shorter Payback Period.[108] Minnesota Power supports 1.a,[109] as does OTP describing the other options as too long of a duration.[110]

The OAG, Xcel, and the Department agree that the Payback Period should be open to be paid down for ten years as this would give future Interconnection Customers to participate, reduce ratepayer risk, and reduce potential gaming of the system from developers. However, the three disagree on the exact wording – i.e. the difference between 1.b and 1.d.

Xcel believes that setting a "minimum" duration "is unnecessary and counterproductive; there is no need to keep the Payback Period open if the Upgrade costs have been fully recovered from Reactive Cost Share Participants. In their reply comments, the OAG states that 1.d allows the option for Utilities to choose a shorter duration due to the ambiguity of the language. The OAG also modified 1.b to remove Xcel's concern of a minimum duration.[111]

2. Section I.2

I.2 refers to the closing criteria for the Payback Period and is written as the following:

I.2 The Payback Period shall end if:

a. The Hosting Capacity created by the Upgrade is fully utilized by Reactive Cost Share Participants and all over-payers have been fully refunded the amounts above their Reactive Cost Share Contribution.
b. The duration of the Payback Period defined in I.1 has elapsed.

All parties except the OAG support I.2.a and I.2.b. The OAG does not support I.2.a as they believe that I.2.b "would accomplish without complicating things or introducing unintended consequences" and opposes 1.2.a because "it is more complicated and could create a conflict

[107] Joint Solar Coalition; Initial Comments, P. 10, November 7, 2025
[108] The Office of Attorney General; Reply Comments, P. 8, November 19, 2025
[109] Minnesota Power, Initial Comments, P. 3, November 7, 2025
[110] Otter Tail Power, Initial Comments, P. 4, November 7, 2025
[111] The Office of Attorney General; Reply Comments, P. 12, November 19, 2025

with Item H.10."[112] Xcel disagrees with OAG's position that this provision would create a conflict with H.10 and other requirements. Xcel believes that "both parts of I.2 are necessary to enable the Payback Period to function logically and ensure space in the Annual Ratepayer Cost Cap can open up per Requirement J.4."[113]

3. Section I.3

Section I.3 has general consensus, but JSC and the OAG advocated for some clarifications. The OAG stated "deemed complete" was not properly defined.[114] JSC stated that "there may be many interconnection applications that are deemed complete that don't choose to opt-in to a given mobilization window and would not, therefore, be subject to the respective cost share contribution" and that just having an application deemed complete doesn't mean they have opted into a mobilization window.[115]

Xcel offered a modified I.3 to address these clarifications:

> Xcel modified I.3: All Interconnection Applications that are in the Deemed Complete state, as defined in MN DIP, within the Payback Period shall be subject to paying their Reactive Cost Share Contribution, unless otherwise exempted under Section [H].

Xcel uses the MN DIP's definition of Deemed Complete and also disputes JSC's claim that Interconnection Customers that are Deemed Complete must either participate and pay a Cost Share Contribution or withdraw their application with only caveat being a potential exemption as detailed in Section H.11 (a capacity reservation).[116]

Staff Analysis

Staff supports a 10 year Payback Period as it would give time for future Interconnection Customer to buy into the Upgrade and make it more likely that less responsibility is placed on ratepayers.

Regarding I.2, Staff offered a modification supported by all apart from the OAG and OTP. OAG offered its own modification (reflected in blue underline in Attach. A). Other parties have not yet weighed in on OAG's modification. Staff offers an alternative I.1 in a permissible ex parte communication that includes I.2.a to simplify the language. In that communication all parties, supported this option with the exception of the OAG and Otter Tail Power. The OAG stated that it would be support the provision of the following was added (OAG addition in Blue Underline:

> Staff Alternative I.1: The Payback Period shall remain open once the Mobilization

[112] The Office of Attorney General; Initial, P. 21, November 7, 2025
[113] Xcel Energy; Reply, PDF P. 42, November 19, 2025
[114] The Office of Attorney General; Initial, P. 22, November 7, 2025
[115] Joint Solar Coalition; Initial, P. 10, November 7, 2025
[116] Xcel Energy; Reply, PDF P. 43, November 19, 2025

> Threshold is reached and remains open for ten years starting from the Upgrade's in-service date. The Payback Period may be closed before then if the Hosting Capacity created by the Upgrade is fully utilized by Reactive Cost Share Participants and all over-payers have been fully refunded the amounts above their Reactive Cost Share Contribution and any cost share fees collected in excess of the cost of the Upgrade have been returned to ratepayers.

The OAG states that this captures the rare scenario that can arise in H.10 where more than 100% of the costs of an Upgrade can be collected. Staff is agreeable to this addition and H.10 is also a consensus item and so Staff believes this would be accepted by the other parties as well. (Decision Option 38)

Otter Tail Power did not support the new Staff I.1.

Regarding I.3, Staff agrees with Xcel's modification using the MN DIP's definition of Deemed Complete and logic behind Interconnection Customers not having an opportunity to opt out of paying a Cost Share Contribution while the Payback Period is open as that would go against the statute. Staff does not support Xcel's edits regarding exemptions for reasons detailed in Section H. To further clarify the intent of the provision, Staff offers a modification to I.3. (Decision Option 42)

> Staff modified I.3: All Interconnection Applications within the Payback Period of a given Upgrade shall be subject to paying their Reactive Cost Share Contribution if the interconnecting Project uses Hosting Capacity freed up by the Upgrade.

Staff's modification addresses clause (a) subsection (7) of the authorizing language which prohibits interconnection customers from paying for the pro rata cost of the upgrade.[117]

11. Section J: Annual Ratepayer Cost Cap

Staff notes that Section J.1 and J.2 were discussed in Section II.2 but the rest of the section, J.3 - J.5 will be discussed here. First, staff modified J.3 for clarity. All parties except Minnesota Power support J.3.[118]

Second, All parties supported J.4 which indicates that once the Payback Period ends on a given Upgrade, any remaining unpaid for costs shall be removed from the ARCC. Last, only Xcel commented on J.5, which discusses what happens when the ARCC is reached. Xcel offered a modification shown in Attach. A which is supported by all parties.

Staff Analysis

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[117] Minnesota Session Laws - 2024, Regular Session, CHAPTER 126—S.F.No. 4292, Article 6, Section 53. Specifically, clause (a), subsection (7). https://www.revisor.mn.gov/laws/2024/0/126/laws.6.53.0#laws.6.53.0

[118] Minnesota Power; Initial Comments, P. 2, November 7, 2025

Staff was unable to determine what concern Minnesota Power may have with J.3 and so Staff supports Staff-modified J.3, J.4, and Xcel's modified J.5.

12. Section K: Cost Recovery

Depending on the Mobilization Threshold chosen by the Commission, some portion of the costs of an Upgrade may not be recovered through Cost Share Contributions when the Utility starts incurring costs, thus there may be "Outstanding Costs". Outstanding Costs are the portions of Upgrades not paid for by Interconnection Customers once the Mobilization Threshold has been met. While these costs could be paid for by via future Cost Share Contributions during the Payback Period the Commission will need to determine what accounting and cost recovery treatment the Utility may perform during the Payback Period for Outstanding Costs. This section largely has ratepayer protection considerations for the Commission to make that are weighed against a Utility's ability to recover costs.

1. K.6 – Paying Down Revenue Requirements or Assets of Upgrade

For ease of understanding Section K as a whole, Staff will begin with K.6. K.6 requires the Commission to determine how Reactive Cost Share Contributions are applied to Outstanding Costs; i.e., if Contributions are to be applied toward an Upgrades' revenue requirements (decision option K.6a) or if Contributions will be pay down the rate base amount of the Upgrade (decision option K.6b).

The options for K.6 are the following:

> K.6 All Reactive Cost Share Contributions collected from Reactive Cost Share Participants shall be collected during the Payback Period and shall be:
>
> a) Returned to ratepayers as an offset to the revenue requirements of Reactive Cost Share Distribution Upgrade.
>
> OR
>
> b) Used to offset the rate base amount of the Upgrade until the upgraded assets are fully paid down, or the Payback Window closes.

Xcel and OTP support K.6.a while all other parties support K.6.b.

Xcel states that K.6.a is consistent with the Proactive Upgrade Framework from Docket No. E002/CI-24-318 and "provides needed clarity on the mechanism under which costs would be returned to ratepayers" while K.6.b "would require the Company to establish new accounting procedures."[119] Similarly, OTP states it would be administratively easier to track and manage.[120]

[119] Xcel Energy; Reply Comments, PDF P. 52, November 19, 2025
[120] Otter Tail Power; Initial Comments, P. 6, November 7, 2025

Xcel adds that given the demand for DG Upgrades "immediate capital is likely to be required to facilitate those Upgrades" and K.6.b would "impair the Company's ability to earn on those investments [which] may pose hardship and financial risk because the Company would be required to raise capital through normal business processes to fulfill the upfront obligations of serving this program, without the ability to earn a fair and reasonable return on these capital investments."[121]

In contrast to the utilities, The OAG believes that K.6.a would allow "utilities to extract from ratepayers a return on asset costs that have already been paid down by Cost Share Contributions, resulting in double recovery", analogizing that it is "like allowing a bank to continue charging interest on a loan that was already paid off."[122] The OAG states that K.6.b, like Contributions in Aid of Construction (CIAC) fees, would ensure "that utilities do not charge ratepayers and reap extra profit from upgrades already paid for by developers, paying down the rate base results in fewer costs of the DSRUP program being borne by ratepayers over the life of the asset by reducing rate base, return on rate base, and long-run depreciation costs."[123]

The OAG adds that this is similar to how Contributions in Aid of Construction (CIAC) fees work where utilities "reduce asset rate base when they collect CIAC fees" or in this case when they collect Reactive Cost Share Contributions. Since the OAG believes this is similar to how the Company handles CIAC, they believe the administrative burden regarding creating new accounting procedures would be limited.

Xcel rejected the notion of "double recovery" and states that it "would flowback all Reactive Cost Share Contributions as a credit to ratepayers through its TCR Rider."[124] Xcel states that under the OAG's example, the Company would be returning the principal balance of the loan back to ratepayers and would only recover on the interest balance of the loan over the life of the asset, which they claim is not double recovery.

Xcel acknowledges that the DSRUP's "market-driven reactive framework is more closely aligned with current CIAC procedures it currently uses for its load customers" but states that due the pent up "demand for DG interconnection and associated upgrades on the Company's system, significant, immediate capital is likely to be required to facilitate those Upgrades."[125] Xcel claims that impairing "the Company's ability to earn on those investments may pose hardship and financial risk because the Company would be required to raise capital through normal business processes to fulfill the upfront obligations of serving this program, without the ability to earn a fair and reasonable return on these capital investments," reiterating their support for K.6.a.[126]

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[121] Xcel Energy; Reply Comments, P. 7, November 19, 2025
[122] The Office of Attorney General; Initial, P. 25, November 7, 2025
[123] Otter Tail Power; Initial Comments, P. 6, November 7, 2025
[124] Xcel Energy; Reply Comments, P. 6, November 19, 2025
[125] Xcel Energy; Reply Comments, P. 6, November 19, 2025
[126] Xcel Energy; Reply Comments, P. 6, November 19, 2025

The OAG concluded that it ultimately prefers the option to pay down rate base, as doing so would be less expensive for ratepayers in the long run.[127]The OAG adds that their ultimate preference is that the Commission choose K.6.b and that if it does so, it supports rejecting K.1 through K.3 as it would be simpler, and they believe selecting K.6.b to be the most important option in Section K.

2. K.1 – K.3 – Delayed Recovery and Carrying Costs

These subsections ask the Commission to choose whether or not Outstanding Costs should be recovered after a delay and whether or not there should be any carrying costs during that delay.

The Commission must first determine if Outstanding Costs should be eligible for rate recovery immediately or if there should be a five-year period where these costs are not eligible for recovery as described in K.1.

If the Commission chooses K.1 it must then decide if Utilities are able to accrue carrying costs during this five year period (K.2). If the Commission decides the Utility can do so, it must decide which rate the accrual will be based upon, the Weighted Average Cost of Capital from the most recently approved rate case or the Utility's long-term cost of debt (K.3.a vs. K.3.b). Lastly, K.3.c would allow for carrying costs to be recoverable through a Utility's TCR rider petition and disallow carrying costs to be capitalized.

If the Commission chooses 1, it must also choose 2 or 3. If the Commission chooses 3, it must choose 3a or 3b. 3c is optional.

1. Outstanding costs will not be eligible for rate recovery for the first five years of the Payback Period. After five years, the remainder of the outstanding costs shall be eligible for cost recovery.

AND

2. The Utility will not accrue carrying costs during the first five years of the Payback Period.

OR

3. The Utility will accrue carrying costs during the first five years of the Payback Period. The percentage rate for calculating carrying costs shall be the _____.
    a. Utility's authorized Weighted Average Cost of Capital from the most recently approved rate case

    OR

    b. Utility's long-term cost of debt

    1. Carrying costs shall not be capitalized. Carrying costs may be recovered through the Utility's Transmission Cost Recovery rider petition.

[127] Joint Solar Coalition, Initial Comments, P. 13, December 7, 2025

Xcel is strongly opposed to K.1 claiming that it goes against the statutory language citing Minn. Stat. 216B.16, subd. 7b(b)(6) which states "allows the utility to recover on a timely basis the costs of upgrades that are not allocated to participating distributed generation facilities under the commission order issued in docket No. E002, E015, or E017/CI-24-288."[128;129] The Company states that it should therefore "be able to recover costs without delay or deferral" and likens K.1 to deferred accounting which "should be applied in limited, extenuating circumstances, as the Commission has done in the past."[130] Xcel adds that the ARCC, Mobilization Threshold, and Upgrade Cost Threshold are all sections more appropriate and statute-aligned ways to mitigate ratepayer impacts.

Xcel adds that if the Commission does choose K.1, then K.2 (no accruing carrying costs for five years) would not be aligned with Minnesota law. If K.1 is chosen, then Xcel prefers K.3a over K.3.b as K.3.b "is not representative of the entire capital mix that the Company deploys to raise capital for its utility investments."[131] Xcel is not opposed to K.3.c but believes it unnecessary as Minnesota law allows recovery through the Transmission Cost Recovery Rider and carrying costs are not capitalized.

The OAG is fine if the Commission rejects K.1 through K.3 if the Commission also chooses K.6.b. However, the OAG disagrees with Xcel that K.1 through K.3 goes against the statutory language and that the Commission would have the legal authority to do so.[132] The OAG states that ordering delayed recovery falls under the Commission's authority under Minn. Stat. § 216B.03 which grants the Commission "broad regulatory authority to ensure that rates are just and reasonable."[133] Additionally, the OAG claims that the legislature did not further define what "timely basis" means when it could have specified and therefore the discretion to do so was given to the Commission. The OAG adds that the "authorizing legislation and Subdivision 7b(b)(6) are permissive, not mandatory" and that the language dictates that the costs of the Upgrades "may be recovered from ratepayers" as opposed to compelling recovery.[134]

The OAG supports K.1, K.2 and K.3b (should the Commission not choose K.2) because it "enables the possibility that the cost of a DSRUP upgrade never goes into rates at all" since it would give a period of time where developers can continue to pay into the Upgrade after the Mobilization Threshold has been met.[135] Ideally, the OAG would support K.1 and K.2 so that ratepayers aren't "essentially be providing an interest-free loan to the DSRUP program" and if there are carrying costs, the OAG supports the lower rate of the two, K.3.b over K.3.a as well as K.3.c.

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128 Xcel Energy; Reply Comments, PDF P. 44, November 19, 2025
129 Minn. Stat. 216B.16, subd. 7b(b)(6)
130 Xcel Energy; Reply Comments, PDF P. 44, November 19, 2025
131 Xcel Energy; Reply Comments, PDF P. 44, November 19, 2025
132 The Office of Attorney General; Reply Comments, P. 16, November 19, 2025
133 The Office of Attorney General; Reply Comments, P. 16, November 19, 2025
134 The Office of Attorney General; Reply Comments, P. 16, November 19, 2025
135 The Office of Attorney General; Initial Comments, P. 26, November 7, 2025

The Department and JSC are largely in agreement with the OAG in their preferences regarding Section K.1 through K.4 except JSC does not support K.2.[136]

Parties did not address K.4 except for Xcel. Xcel claims that it is "duplicative and unnecessary" as well as unclear and mostly covered under Section I and K.6.[137]

Staff Analysis

Staff agrees with the OAG that program design is best when it can be made simple. Staff also agrees that K.6.b where the rate base amount of an Upgrade is paid down rather than the revenue requirement will have the greatest long-term benefits to ratepayers within this section. While the Proactive Upgrade process ultimately chose to go with its version of K.6.a, Staff believes that the circumstances under the DSRUP and how the Proactive Upgrade process works are different enough to be able to support the two processes having two different cost recovery requirements. The OAG points out how similarly to CIAC the DSRUP will operate which should lower the capital cost requirements of the Utility. This is even more the case if a higher Mobilization Threshold is chosen as more up-front capital will be provided by Interconnection Customers. Staff therefore supports the OAG's first package deal of choosing K.6.b and not choosing K.1 through K.3. (Decision Option 53.b)

However, if the Commission prefers K.6.a to K.6.b., Staff believes the OAG's alternative package is viable option. This includes K.1, K.3.a, and K.3.c. which would limit carrying costs of Outstanding Costs during the first five years of an Upgrade's Payback Period to the Utility's long-term cost of debt. This would reduce ratepayer impacts while also allowing Utilities to recover costs. (Decision Options 48, 50.a, 50.c, and 53.a)

Staff specifically does not recommend K.2. Prohibiting carrying costs during the five-year delay would require utilities to finance developer-driven upgrades without any compensation for the time value of money, even though the timing and scale of these upgrades are largely outside the utility's control. This approach could create unnecessary financial strain and weaken the utility's ability to support a market-driven program. Allowing reasonable carrying costs under K.3 maintains utility financial neutrality during the delay while still giving the Commission discretion to moderate ratepayer impacts through the choice of rate.

On K.4, Staff agrees with Xcel and think that this may be an artifact that made it into the Draft Standards language as its points are better articulated elsewhere in the Standards.

3. Section K.5 Cost Recovery Mechanisms

Lastly, K.5 has the Commission choose which mechanisms Utilities may use to recover Outstanding Costs.

[136] Joint Solar Coalition; Initial Comments, P. 10, November 13, 2025; The Department; Initial, P. 17, November 7, 2025
[137] Xcel Energy; Initial Comments, PDF P. 52, November 7, 2025

The Commission must choose 5.b and may choose 5a, 5c, or 5d.

5. A Utility may petition to recover outstanding costs through any or all of the following (but without any double recovery):

    a. Through a general rate case.
    b. Through its Transmission Cost Recovery Rider pursuant to Minn. Stat. 216B.16, Subd. 7b, paragraph (b), clause 6.
    c. Through deferred accounting.
    d. Through invoices for DER projects.

All parties supported K.5.b as it was statutorily allowed.[138] All parties supported or expressed no opinion on K.5.a except OTP since rate cases are infrequent for the utility.[139] OTP was also the only utility to support K.5.c.

Since there seems to be general consensus on K.5.b and K.5.a, and OTP would have the option of 5.b if the rate case proceeding does not work for them, Staff supports K.5.a and K.5.b. (Decision Option 52.a and 52.b)

13. Section L: Cost Allocation

1. Section L.1 and L.2

Here, the Commission may choose between allowing Utilities to recover costs from ratepayers under the most recent rate case allocators and established revenue requirement procedures and tracking and recovering costs more specifically from large commercial and/or industrial customers when Upgrades are primarily serving that type of customer class.
Xcel and OTP support[140] L.1 with Xcel saying it is "consistent with standard practice and procedures and thus would be straightforward to administer" and that the rate case proceeding itself would be the appropriate place to make any changes.[141]

The OAG and the Department support L.2 over L.1 for similar reasons to each other, mainly that L2 will keep the "cost causation" methodology in place where practicable.[142] For example, allocating costs that belong to and will benefit larger customers to those customers, rather than ratepayers who may not benefit from the DSRUP. JSC also supports L.2 for similar reasons.[143]

In response, Xcel states that L.2 is "unclear and would create policy uncertainty" and give an example of that uncertainty by there being no definition for "primarily serving" as well as the fact that "the Upgrade would include multiple projects likely serving multiple customers or

[138] Minn. Stat. 216B.16, Subd. 7b, paragraph (b), clause 6.
[139] Otter Tail Power; Initial Comments, P. 5, November 7, 2025
[140] Otter Tail Power; Initial Comments, P. 5, November 7, 2025
[141] Xcel; Initial Comments, PDF P. 53, November 7, 2025
[142] The Department; Initial Comments, P. 19, November 7, 2025; The OAG; Initial, P. 29, November 7, 2025
[143] Joint Solar Coalition; Initial Comments, P. 13, November 7, 2025

purposes."[144] Xcel adds that tracking Upgrades separately in this manner would raise several questions regarding "project-specific cost allocation procedure would be administered at the Commission and if each Upgrade project's cost allocation would require Commission approval." Lastly, Xcel submits that L.2 "would add another layer of new process and administration that may further delay and complicate the DSRUP program administration process."[145]

2. Section L.3

L.3 requires Utilities to identify and mitigate adverse bill impacts on under-resourced customers and/or small businesses.

Xcel and OTP state that this provision is unnecessary as they already support mitigating adverse bill impacts on under-resourced customers and small businesses.[146] Xcel adds that it's unclear what mitigating in this case would require of the Company.

The OAG believes that L.3 "confers on utilities an affirmative obligation to mitigate the impacts of this new program on the most vulnerable ratepayers" and "further protect ratepayers in this time of ever-increasing costs" and the Department agrees to these sentiments.[147] JSC believes L.3 allows advocates to address impacts to customers in the future."[148]

Staff Analysis

Staff supports L.1 as it is consistent with how the Commission ruled in the Proactive Upgrade proceeding.[149] (Decision Option 54)

Staff agrees with Xcel that L.3 is unclear on how exactly a Utility is meant to mitigate these impacts. Staff believes that the DSRUP process is too indirect of way to mitigate adverse bill impact and suggest that focus on that area be applied through more direct proceedings This also aligns with the Commission's decision in the Proactive proceeding.

14. Section M: Publication of DSRUP Information and Data

This section relates how utilities will make DSRUP information and data publicly available. M.1 in Attachment A details all of the metrics that were agreed upon by the group to require utilities to post monthly on a spreadsheet.

Provision M.2 is the following: The information in M1 shall be included in Hosting Capacity maps.

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144 Xcel; Initial Comments, PDF P. 53, November 7, 2025
145 Xcel; Initial Comments, PDF P. 53, November 7, 2025
146 Xcel; Initial Comments, PDF P. 53, November 7, 2025; Otter Tail Power; Initial, P. 5, November 7, 2025
147 The Office of Attorney General; Initial Comments, P. 30, November 7, 2025; The Department; Initial, P. 19, November 7, 2025
148 Joint Solar Coalition; Initial Comments, P. 14, November 7, 2025
149 Docket NO. E-002/CI-24-318; Commission Order Point. J.6; September 2, 2025

Xcel opposed posting this data on their Hosting Capacity Map (M.2) because they believe that it is currently "difficult to navigate and locate the most relevant data" and that "putting this data into the hosting capacity map would require investment of time and money that we believe is unnecessary because the information can be provided in a spreadsheet."[150] Xcel also states that excluding this provision from the Standards does not preclude them from including the data in their hosting capacity maps in the future. Otter Tail Power also opposes M.2 because they do not have hosting capacity maps.

Staff Analysis

Staff supports this section in its entirety. Regarding Xcel's opposition to including this information in their hosting capacity maps, Staff believes that this information could make the hosting capacity maps more useful. Significant time and resources from several different parties have gone into HCA and its maps over the years and increasing its usefulness should be a priority. Staff understands that the maps already include a lot of information and navigation can be tricky for those unfamiliar with the technology and Staff is also aware of Xcel's efforts to bridge that knowledge and user-experience gap. However, Staff believes including which areas of the grid have an active DSRUP process going at a glance can be quite useful for prospective developers.

Regarding OTP's opposition, Staff suggests that it can be incorporated into a revised M.2 as outlined below. Staff also includes modifications regarding Xcel's concerns.[151] (Decision Option 59)

Staff Modified M.2

> If a utility is required to produce a Hosting Capacity map, it shall indicate on the map which areas of the grid have an open DSRUP project and provide a link to the spreadsheet required in M.1 on its hosting capacity map webpage.

15. Section N: Reporting and Process Evaluation

Section N of the DSRUP, Reporting and Process Evaluation. Guidance in this section included providing DSRUP summary information in IDP filings, annual reporting requirements, and a retrospective filing after four years of implementation.

The one area of non-consensus regards that fourth bullet point (N.3). Xcel states that the information would be duplicative to its annual filings in N.1 and N.2 and may also be in its Transmission Cost Recovery Rider filing.[152] No other parties commented on Xcel's objection but OTP, MP, and JSC were actively in support of the provision.

[150] Xcel Energy; Reply Comments, PDF P. 46, November 19, 2025
[151] This includes a response from Xcel in the filed permissible ex parte communication.
[152] Xcel Energy; Reply Comments, PDF P. 47, November 19, 2025

Staff Analysis

Staff supports this section in its entirety. Staff believes the reporting requirements are robust and informative and that four years is an adequate amount of time for the DSRUP to be implemented and examined for any changes that may be necessary to improve its function.

Regarding Xcel's objection to N.3, Staff believes the information could be helpful context in the IDP and could help the IDP proceeding be well-informed, even if the information may be duplicative. Staff supports N.3 as well as the rest of Section N. (Decision Option 61)

16. Section O: Dispute Resolution

The DSRUP dispute resolution process is described in Attachment B and is largely based on the MN DIP dispute resolution process. All parties supported most or all of it or did not comment on the attachment requirements, apart from Xcel's modification to Section 5.3.3 part 2.

Xcel argues that DSRUP complaints should not count toward their Quality of Service Plan (QSP) complaint threshold since the DSRUP is "a new process, required by law", "was not considered when the Company's complaint threshold or penalties were set, based on record development in a dedicated proceeding" and should therefore be viewed holistically in the Quality of Service Plan tariff docket.[153];[154]

Staff Analysis

Staff understands Xcel's opposition to having the complaints derived from the DSRUP to not count toward their complaint threshold as it will be a new program to operate, and there may be some implementation issues in the beginning. Conversely, since the DSRUP is operating in and around the MN DIP that interconnection complaints for the DSRUP could be treated the same as MN DIP complaints as a default regarding their Quality of Service Plan. Staff also notes that in the 2024 QSP proceedings, Xcel requested to increase its complaint threshold. The request was denied by the Commission.[155] A full exemption request is more appropriately made in the QSP docket rather than in the DSRUP docket.

Additionally, Staff believes that an exemption of three years, despite potentially being a compromise between parties, may also be a matter best solely addressed in the QSP tariff Docket.[4] Staff notes that recently The Commission authorized the Executive Secretary to open a docket, no. 26-85, to establish a performance-based regulatory framework to examine the metrics in Xcel's QSP.[156] Treatment of DSRUP complaints could possibly be addressed in those

[153] Xcel Energy; Reply Comment, PDF P. 49, November 19, 2025;
[154] Docket E, G-002/M-12-383
[155] Docket E, G-002/M-12-383 Commission January 9, 2026 ORDER DISTRIBUTING UNDERPERFORMANCE PAYMENTS AND OPENING NEW DOCKET, pp. 4-7.
[156] Order issued January 9, 2026 DOCKET NO. E,G-002/CI-02-2034 DOCKET NO. E,G-002/M-12-383 ORDER DISTRIBUTING UNDERPERFORMANCE PAYMENTS AND OPENING NEW DOCKET at ordering paragraph 8

proceedings. Staff modifies the Attachment B language to not allow for any exemption, temporary or not. (Decision Option 61)

17. Section P: Tariff Implementation

This section only included two provisions – that the DSRUP Standards and DSRUP Agreement be filed in a Utility's tariff. There were no disagreements on for these provisions and Staff therefore recommends adoption.

On when the Utilities will be required to file their tariffs.[157] Xcel does not recommend a specific filing date but does request that the Commission "set a follow-on procedural schedule such that a Commission hearing on the Company's tariffs can be scheduled no earlier than the third quarter of 2026."[158] JSC was less concerned with a later filing date IF Xcel conducted prioritization analysis and tariff filing development in tandem.[159]

Staff Analysis

Staff notes that it is not typical to order a full procedural schedule that includes deadlines of when a docket item will be heard at a Commission agenda meeting. However, Staff understands Xcel's comments as laying out expectations for stakeholder, rather than requesting the Commission enshrine the entire procedural schedule in an Order. JSC seems to recognize this as well but appears to mistake a tariff filing deadline with a Commission agenda meeting deadline as Xcel suggested, meaning the two are likely in alignment about the tariff filing date.

In permissible ex parte communications, Staff reached out to Xcel, MP, and Otter Tail Power to gauge whether they could agree to a 60-day tariff filing upon the filing of a Commission Order as the contents of the DSRUP Standards and its overall scope has been contemplated since the Notice of Comment Period was filed on September 26, 2025. Additionally, this timeline would likely still be aligned with Xcel's request not to have an agenda meeting on the tariff filing before Q3 of 2026. Otter Tail Power and MP replied requesting 90-120 days and Xcel requested 120 days. In their response, Xcel expanded that the additional time could allow for stakeholder discussions before the filing.

Staff notes that once the tariffs are filed, Staff will issue a notice of comments, followed by record development, a Commission hearing, and an Order. Depending on the length of the comment period and complexity of the record, Staff estimates the time from tariff filing to a Commission approval to take anywhere from three to six months.

Additionally, the tariff filing deadline does not need to be the same for each Utility and may choose different timelines.

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[157] Xcel; Initial Comments, P. 22, November 7, 2025
[158] Xcel; Initial Comments, P. 22, November 7, 2025
[159] Joint Solar Coalition; Reply Comments, P. 8, November 19, 2025

18. Miscellaneous

JSC introduced three additional issues of note that all relate to transparency regarding system impact study cost estimate, filings of itemized actual costs, as well as explanations of for variances exceeding 125% of original estimates.[160]

- **Increase Detail in Impact Study Cost Estimates:** Require utilities to provide itemized, equipment-level cost breakdowns (including labor, materials, and allowable contingency) in their cost estimates for distribution upgrades.
    - This increased granularity will provide interconnection customers with a transparent understanding of what utility infrastructure they are paying for and what factors are driving costs.

- **Establish Annual Cost Matrix Filings:** Direct Minnesota's utilities to publish and update matrices with itemized actual costs for common distribution upgrades.
    - This process will provide the Commission and DER stakeholders with greater transparency into utility costs and ensure that changes to cost estimation are informed by the utilities' true costs of distribution upgrades.

- **Require Itemization on Reconciliation Statements:** Direct Minnesota's utilities to provide interconnection customers with a detailed, itemized, clear statement of final costs for all distribution upgrades, including explanations for variances exceeding 125% of the original estimate.
    - This is a much-needed improvement to the current reconciliation process, whereby utilities either provide minimal detail or inscrutable invoices/receipts that cannot be reviewed or analyzed in a reasonable manner.

The OAG support these measures as "reasonable and appropriately scoped to the issue of cost containment for the DSRUP program", reduce the information asymmetry between utilities and other stakeholders, and could result in "more accurate estimates and lower final prices."[161]

Xcel is opposed to these provisions, stating that they are burdensome, out of scope, and that providing such details "would violate our contractual obligations with vendors."[162]

Staff Analysis

Staff does not believe the record was sufficiently developed on these provisions for the Commission to make a decision at this time. The Commission may choose to take up such matters at a later time, for example, after receiving the first annual reports.

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[160] Joint Solar Coalition; Initial Comments, P. 15, November 7, 2025
[161] The Office of Attorney General; Reply Comments, P.6, November 19, 2025
[162] Xcel Energy; Reply Comments, PDF P. 47-48, November 19, 2025

III. Decision Options

The Decision Options will go through the Draft DSRUP Standards section by section. Each section will start with the consensus items and then proceed to the non-consensus items.

Staff notes that the section numbering between the decision options and DSRUP section numbers can be confusing. Staff provide an example of how to identify the decision option and what it is referring to in Attachment A.

Example:

30. (H.7): The Utility shall track the funds via the initial invoice deposit and issue refunds to those that overpay.

In this example, this is Decision Option 30, and it refers to Section H.7 in the DSRUP Draft Standards in Attachment A.

Section B: Definitions

1. Accept definitions 1-15 and 17-20 of the draft DSRUP Standards. (consensus)

2. (B.16): Reactive Cost Share Distribution Upgrade (Upgrade): A distribution Upgrade made under the DSRUP. This type of Upgrade must be a modification of a Utility's distribution system at a specific location that is necessary to allow the interconnection of Distributed Generation Projects by increasing Hosting Capacity at the applicable location, including but not limited to installing or modifying equipment at a substation or along a distribution line. Upgrade does not mean an expansion of hosting capacity dedicated solely to the interconnection of a single Distributed Generation Project.

OR

Xcel Alternative B.16

3. (B.16): Reactive Cost Share Distribution Upgrade (Upgrade): A distribution Upgrade made under the DSRUP. This type of Upgrade must be a modification of a Utility's distribution system at a specific location that is necessary to allow the interconnection of Distributed Generation Projects by increasing Hosting Capacity at the applicable location, including but not limited to installing or modifying equipment at a substation or along a distribution line. Upgrade does not mean an expansion of hosting capacity dedicated solely to the interconnection of a single Distributed Generation Project. Upgrade does not mean construction of a new substation for the sole purpose of allowing the interconnection of Distributed Generation Projects.

Section C: Upgrade Cost Thresholds

4 must be adopted, and the Commission must choose one subpart.
5 may be adopted with one subpart. If the Commission does not wish to set a maximum limit, it may simply not adopt 5.

4. (C.1): To qualify for the DSRUP, an Upgrade must have total project costs of:

    a. at least $250,000
    b. at least $1
    c. at least $2,500,000
    d. $100,000
    e. at least $750,000 (Staff new)

5. (C.2): To qualify as an eligible Reactive Cost Share Distribution Upgrade, an Upgrade must cost no more than:

    a. $300,000/$MW_{AC}$
    b. $600,000/MW
    c. No maximum

Section D: Pro Rata Cost Calculation

6. Accept Section D.1 and D.2 of the draft DSRUP Standards. (consensus)

7. (D.3): Final Reactive Cost Share Contributions shall not exceed 125% of the estimated Reactive Cost Share Contribution assigned to a Reactive Cost Share Customer in an executed interconnection agreement.

8. (D.4): Final total costs of an Upgrade in excess of 125% of the estimated total Upgrade cost shall be borne by Utility shareholders rather than recovered through rates.

Section E: Interconnection Process

9. Accept Section E.1a,b,c, E.3, E.5-7, E.8b, E.8c, and E.9 of the draft DSRUP Standards. (consensus)

E.1.a-E.1.c are consensus – the Commission may also choose E.1.d

10. (E.1): The DSRUP can only be initiated when a Distributed Energy Project completes a Facilities Study, and the results of the study indicate an eligible Upgrade is required. The Interconnection Customer will be given 20 Business Days after a signature-ready MN DIA and signature-ready DSRUP Agreement are provided to the

Interconnection Customer to choose one of the following options:

a. Participate in the DSRUP and act as a Trigger Project by signing and funding the DSRUP Agreement; or
b. Pay the full cost of the Upgrade as described in Section F2 by signing and funding the DSRUP Agreement; or
c. Withdraw its application; or
d. Pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold. (JSC-CEF New)

11. (E.2): An Interconnection Application that triggers an Upgrade shall have the option to pay for the full Upgrade, foregoing the cost sharing process and thus paying in full for the additional capacity beyond their project's need. Should the Interconnection Customer choose to fund the full Upgrade cost and forgo the cost sharing process they shall not be entitled to use excess capacity created by the Upgrade or receive any compensation from future Interconnection Customers utilizing the capacity created by the Upgrade.

OR

JSC-CEF Alternative 2:

12. (E.2): An Interconnection Application that triggers an Upgrade shall have the option to pay for the full Upgrade, foregoing the cost sharing process and thus paying in full for the additional capacity beyond their project's need. Should the Interconnection Customer choose to fund the full Upgrade cost and forgo the cost sharing process they shall not be entitled to use excess capacity created by the Upgrade or receive any compensation from future Interconnection Customers utilizing the capacity created by the Upgrade. However, within 20 Business days from the issuance of the notice by the Utility, the Reactive Cost Share Participants may elect to pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold.

The Commission must choose either subpart E.4a, E.4b, or E.4c.

13. (E.4): An Interconnection Application with a nameplate rating more than 40 kWac is eligible to participate in an active Mobilization Window:

a. Once its Interconnection Application has completed a System Impact Study and, if necessary, a Facilities Study as required by MN DIP.

OR

b. After all applicable MN DIP studies have been completed.

OR

c. After it is deemed complete (JSC-CEF new E.4.c)

14. (E.8.a): Interconnection customers that elect to be a Reactive Cost Share Participant shall have their queue status updated to "Awaiting Cost Share Upgrade Selection" until the Interconnection Agreements for all Reactive Cost Share Participants that are participating in the Upgrade have been signed and countersigned by the Utility.

    a. Interconnection Applications in the "Awaiting Cost Share Upgrade Selection" status will maintain their queue position, and the next-in-queue project will be processed and studied through MN DIP. After completion of the System Impact Study and, if necessary, Facilities Study, next-in-queue projects will be notified by the Utility with a signature-ready DSRUP agreement. Next-in-queue projects must sign the DSRUP Agreement and pay the administrative fee within 10 Business Days of receiving notification from the Utility, or withdraw.

OR

JSC-CEF Alternative E.8.a:

15. (E.8.a):
    a. Interconnection Applications in the "Awaiting Cost Share Upgrade Selection" status will maintain their queue position, and the next-in-queue project will be processed and studied through MN DIP. After completion of the System Impact Study and, if necessary, Facilities Study, next-in-queue projects will be notified by the Utility with a signature-ready DSRUP agreement. Next-in-queue projects must sign the DSRUP Agreement and pay the administrative fee within 10 Business Days of receiving notification from the Utility, elect to pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold, or withdraw.

16. (E.8.d): Interconnection customers that elect to be a Reactive Cost Share Participant shall have their queue status updated to "Awaiting Cost Share Upgrade Selection" until the Interconnection Agreements for all Reactive Cost Share Participants that are participating in the Upgrade have been signed and countersigned by the Utility.

    d. Interconnection Applications that are processed as a next-in-queue project and have a capacity no greater than 40 kWac may proceed with interconnection if no upgrades are required and Hosting Capacity is available for applications with a capacity no greater than 40 kWac through a capacity reservation.

OR

JSC-CEF Modified E.8.d:

17. (E.8.d):

d. Interconnection Applications that are processed as a next-in-queue project and have a capacity no greater than 40 kWac may proceed with interconnection if no upgrades are required and Hosting Capacity is available for applications with a capacity no greater than 40 kWac ~~through a capacity reservation~~.

OR

Staff Modified E.8.d:

18. (E.8.d):
    d. Interconnection Applications that are processed as a next-in-queue project and have a capacity no greater than 40 kWac may proceed with interconnection if no upgrades are required and where Hosting Capacity is available. ~~for applications with a capacity no greater than 40 kWac through a capacity reservation.~~

19. (E.10): Before the Payback Period has closed, the queue will be processed following MN DIP. Interconnection Applications that are Deemed Complete during this time will have the estimated Reactive Cost Share Contribution, or the final Reactive Cost Share Contribution if available, included as an interconnection upgrade cost in the Interconnection Agreement. The Interconnection Agreement must be signed and timely paid consistent with MN DIP timelines.

OR

JSC-CEF Modified E.10:

20. (E.10): After an Upgrade has been placed in-service and before the Payback Period has closed, the queue will be processed following MN DIP. Interconnection Applications in queue following an Upgrade ~~that are Deemed Complete during this time~~ will have the estimated Reactive Cost Share Contribution, or the final Reactive Cost Share Contribution if available, included as an interconnection upgrade cost in the Interconnection Agreement. The Interconnection agreement must be signed and timely paid consistent with MN DIP timelines.

Section F: Mobilization Threshold and Window

21. Accept Section F.2, F.3, F.4a, F.5, F.7, and F.8 of the draft DSRUP Standards. (consensus)

22. (F.1): The Mobilization Threshold for an individual Upgrade is set at:

    a. 25 percent of total Upgrade costs.
    b. 80 percent of total Upgrade costs.
    c. The Mobilization Thresholds shall be tiered based on cost per MW of

capacity added by the Upgrade as follows:
   i. $1/MW - $149,999/MW: 30%
   ii. $150,000/MW - $249,999/MW: 45%
   iii. $250,000/MW - $349,999/MW: 60%
   iv. $350,000/MW - $449,999/MW: 75%
   v. $450,000/MW - $600,000/MW: 80%
d. 50 percent of total Upgrade costs.

23. (F.4.b): If either of the scenarios described in 4a or 4b occurs in the steps following an Upgrade being selected in the Upgrade prioritization process, the Upgrade will be reprioritized against the criteria in G.1 of the Standards. If the reprioritization results in the Upgrade no longer maintaining its priority, it will be reconsidered in the next prioritization process as described in G.4 of the Standards before proceeding.

    a. A Reactive Cost Share Participant withdraws.
    b. The final cluster study cost estimate varies from the previous estimate by more than 20%.

24. (F.6): If a Mobilization Window remains open for more than two years, the Utility may consider Upgrade as a potential Proactive Upgrade in its next Proactive Upgrade Proposal under the framework established in Docket E002/CI-24-318.

OAG Alternative F.6:

25. (F.6): ~~If~~ Once a Mobilization Window has remained open for ~~more than~~ two years, the Utility may consider that Upgrade as a potential Proactive Upgrade in its next Proactive Upgrade Proposal under the framework established in Docket E002/CI-24-318. The Utility shall describe in its Proactive Upgrade Proposal how close to the Mobilization Threshold the Upgrade came and explain why it believes there will be greater demand for the Upgrade in the future.

Section G: Upgrade Prioritization

26. Accept Section G.1 and G.2 of the draft DSRUP Standards. (consensus)

27. (G.3): Following tariffed process initiation, every ____ the Utility shall review Upgrades that have met the Mobilization Threshold during the previous ____ months and prioritize them based on criteria in G1.

    a. Three months

OR

    b. Six Months

OR

c. Four Months

28. (G.4): An initial prioritization shall occur utilizing the criteria in G1 within six months of tariffed DSRUP approval. Following initial prioritization governed by G1, Upgrades shall move forward on a first come, first serve basis. Prioritization shall only be used when Upgrades meet the Mobilization Threshold during the same period as set in Section G3.

Xcel Modification of G.5

29. (G.5): ~~Approval~~ Selection through the prioritization process chosen in Section G shall create a rebuttable presumption of prudence in any cost recovery proceeding.

OR

OAG Alternative of G.5

30. (G.5): ~~Approval~~ Selection through the prioritization process chosen in Section G shall create a rebuttable presumption ~~of prudence~~ that pursuing construction of an approved Upgrade was prudent in any cost recovery proceeding. The utility retains the burden of proof.

31. (G.6): Complaints regarding the prioritization results shall be addressed through the Formal Complaint process as subject to Minn. Rules 7829.1700-.1900 rather than the DSRUP dispute resolution process.[163]

OR

Staff Alternative to G.6

32. (G.6): Disputes regarding the prioritization results shall be exempt from the DSRUP disputes referred to in paragraph two of Section 5.3.4 of the Dispute Resolution Process for the DSRUP.

Section H: Payment Details

33. Accept Section H.1, H.2, H.3, H.4, H.8, H.9, H.10, H12 of the draft DSRUP Standards. (consensus)

34. (H.6): Reactive Cost Share Participants may choose to use surety bonds and/or letters of credit to pay for their cost share contribution with cash payments

[163] The Commission's Utility Proceeding, Practice, Procedure rules are electronically available at: https://www.revisor.mn.gov/rules/7829/

becoming due in alignment with utilities' actual spending/costs incurred.

35. (H.7): The Utility shall track the funds via the initial invoice deposit and issue refunds to those that overpay.

36. (H.11): Interconnection Applications under 40 kWac are exempt from paying a Reactive Cost Share Contribution if Hosting Capacity is available for Interconnection Applications under 40 kWac through a capacity reservation.

Section I: Payback Period

37. (I.1): The Payback Period shall remain open once the Mobilization Threshold is reached and remains open for:

    a. A minimum of five years from the Upgrade's in-service date.

OR

Staff Alternative I.1 with OAG addition.[164] If the Commission chooses Staff Alternative I.1 it does not have to choose from I.2

38. (I.1): The Payback Period shall remain open once the Mobilization Threshold is reached and remains open for ten years starting from the Upgrade's in-service date. The Payback Period may be closed before then if the Hosting Capacity created by the Upgrade is fully utilized by Reactive Cost Share Participants and all over-payers have been fully refunded the amounts above their Reactive Cost Share Contribution and any cost share fees collected in excess of the cost of the Upgrade have been returned to ratepayers.

39. (I.2): The Payback Period shall end if:

    a. The Hosting Capacity created by the Upgrade is fully utilized by Reactive Cost Share Participants and all over-payers have been fully refunded the amounts above their Reactive Cost Share Contribution; or

    b. The duration of the Payback Period defined in I.1 has elapsed.

40. (I.3): All Interconnection Applications that are in the Deemed Complete state within the Payback Period shall be subject to paying their Reactive Cost Share Contribution.

OR

[164] In permissible ex parte Staff confirmed that Staff alternative I.1 should replace the original I.1

Xcel Modification of I.3:

41. (I.3): All Interconnection Applications that are in the Deemed Complete state, as defined in MN DIP, within the Payback Period shall be subject to paying their Reactive Cost Share Contribution, unless otherwise exempted under Section [H].

OR

Staff Modification of I.3:

42. (I.3): All Interconnection Applications within the Payback Period of a given Upgrade shall be subject to paying their Reactive Cost Share Contribution if the interconnection Project uses Hosting Capacity freed up by the Upgrade.

Section J: Annual Ratepayer Cost Cap

43. Accept Section J.4, J.4.a, J.5 of the draft DSRUP Standards. (consensus)

The Commission must choose either J.1 or J.2. If it chooses J.2, it must select either J.2.a or J.2.b.

44. (J.1): The Commission shall decide the Annual Ratepayer Cost Cap for Utility in a tariff filing upon approval of that Utility's DSRUP.

OR

45. (J.2): The Annual Ratepayer Cost Cap shall not exceed ____ % of the annual average of the Utility's forecasted 5-year distribution capital budget from its most recent Integrated Distribution Plan.

    a. 2 Percent

OR

    b. 11 Percent; or a percent that will equal $95 million for Xcel

46. (J.3): The Commission intends that the Annual Ratepayer Cost Cap will remain in place for at least 24 months since the most recent change to the cost cap went into effect before the Commission considers modifications. A Utility, prospective Trigger Projects, and ratepayer advocates may request a modification to the Annual Ratepayer Cost Cap. In determining whether to change the Annual Ratepayer Cost Cap, the Commission shall consider, at a minimum, previous and future ratepayer costs and risks arising from the Utility's DSRUP, total pending cost share contributions, and the demand for new Upgrades.

OR

Staff Alternative J.3

47. (J.3): ~~The Commission intends that t~~ The Annual Ratepayer Cost Cap will remain in place for at least 24 months since the most recent change to the cost cap went into effect before the Commission considers modifications. A Utility, prospective Trigger Projects, and ratepayer advocates may request a modification to the Annual Ratepayer Cost Cap. In determining whether to change the Annual Ratepayer Cost Cap, the Commission ~~shall~~ may consider, at a minimum, previous and future ratepayer costs and risks arising from the Utility's DSRUP, total pending cost share contributions, and the demand for new Upgrades.

Section K: Cost Recovery

If the Commission chooses 1, it must also choose 2 or 3 while 4 is optional. If the Commission chooses 3, it must choose 3a or 3b. 3c is optional.

48. (K.1): Outstanding costs will not be eligible for rate recovery for the first five years of the Payback Period. After five years, the remainder of the outstanding costs shall be eligible for cost recovery.

AND

49. (K.2): The Utility will not accrue carrying costs during the first five years of the Payback Period.

OR

50. (K.3): The Utility will accrue carrying costs during the first five years of the Payback Period. The percentage rate for calculating carrying costs shall be the _____.

    a. Utility's authorized Weighted Average Cost of Capital from the most recently approved rate case

OR

    b. Utility's long-term cost of debt

AND

    c. Carrying costs shall not be capitalized. Carrying costs may be recovered through the Utility's Transmission Cost Recovery rider petition.

51. (K.4): Projects enabled by Upgrades that interconnect after the initial five years of the Payback Period has closed shall still be required to pay a Reactive Cost Share Contribution until the close of the Payback Period. Reactive Cost Share Contributions paid after the initial five years of the Payback Period shall be returned to ratepayers by paying down the remaining rate base of the Upgrade.

The Commission must choose at least one of the options under 5.

52. (K.5): A Utility may petition to recover outstanding costs through any or all of the following (but without any double recovery):

    a. Through a general rate case.
    b. Through its Transmission Cost Recovery Rider pursuant to Minn. Stat. 216B.16, Subd. 7b, paragraph (b), clause 6.
    c. Through deferred accounting.
    d. Through invoices for DER projects.

The Commission must choose 6a or 6b

53. (K.6): All Reactive Cost Share Contributions collected from Reactive Cost Share Participants shall be collected during the Payback Period and shall be:

    a) Returned to ratepayers as an offset to the revenue requirements of Reactive Cost Share Distribution Upgrade.

OR

    b) Used to offset the rate base amount of the Upgrade until the upgraded assets are fully paid down, or the Payback Window closes.

Section L: Cost Allocation

1 and 2 are alternatives. 3 can be adopted with either combination

54. (L.1): Costs recovered from ratepayers shall be treated consistent with the most recently approved rate case allocators and established revenue requirement procedures. Parties to a Utility's rate case or other cost recovery proceeding may request that the Commission establish a different cost allocation and procedures for DSRUP Upgrades.

OR

55. (L.2): For Reactive Cost Share Distribution Upgrades primarily serving large commercial and/or industrial customers, Upgrades shall be tracked separately from other rate-base assets and costs not paid for by Cost Share Contributions shall be allocated to the large commercial and industrial classes contributing to the need for or benefiting from the Upgrade. For all Upgrades that do not primarily serve large commercial and/or industrial customers, costs will be allocated according to the most recently approved rate case allocators and revenue requirement procedures. Parties to a Utility's rate case may request that the Commission establish a different cost allocation and procedures for DSRUP Upgrades.

56. (L.3): To the extent that DSRUP Upgrade costs are allocated to ratepayers, the Utility

shall identify and mitigate adverse bill impacts on under-resourced customers and/or small businesses.

Section M: Publication of DSRUP Information and Data

57. Accept Section M.1 of the draft DSRUP Standards. (consensus)

58. (M.2): The information in M1 shall be included in Hosting Capacity maps.

OR

Staff Alterative M.2

59. (M.2): If a utility is required to produce a Hosting Capacity map, it shall indicate on the map which areas of the grid have an open DSRUP project and provide a link to the spreadsheet required in The information in M1 shall be listed on a spreadsheet.

Section N: Reporting and Process Evaluation

60. Accept Section N.1, N.2, N.4, N.5, N.6 of the draft DSRUP Standards. (consensus)

61. (N.3): The Utility shall also include a summary of the DSRUP information in its Integrated Distribution Plan, including total projects triggered, total projects constructed, what portion of the Annual Ratepayer Cost Cap has been used, and other key metrics.

Section O: Dispute Resolution

62. (O.1): Dispute resolution shall be consistent with the highlighted portions of Attachment B.

OR

Xcel Alternative to O.1:

63. (O.1): Dispute resolution shall be consistent with the highlighted portions of Attachment B including Xcel's modification to Section 5.3.3 paragraph 2.

OR

Staff Alterative to O.1:

64. (O.1): Dispute resolution shall be consistent with the highlighted portions of

Attachment B including Staff's modification to Section 5.3.3 paragraph 2.

Section P: Tariff Implementation

65. Accept Section P.1 and P.2 of the draft DSRUP Standards. (consensus)

66. (P.3): ____ shall file their tariffs amendments ___ days following the Commission Order filing.

    a. Xcel Energy
        i. 60
        ii. 90
        iii. 120

    b. Minnesota Power
        i. 60
        ii. 90
        iii. 120

    c. Otter Tail Power
        i. 60
        ii. 90
        iii. 120

Miscellaneous

67. JSC/CEF 1: Increase Detail in Impact Study Cost Estimates: Require utilities to provide itemized, equipment level cost breakdowns (including labor, materials, and allowable contingency) in their cost estimates for distribution upgrades.

68. JSC/CEF 2: Establish Annual Cost Matrix Filings: Direct Minnesota's utilities to publish and update matrices with itemized actual costs for common distribution upgrades.

69. JSC/CEF 3: Require Itemization on Reconciliation Statements: Direct Minnesota's utilities to provide interconnection customers with a detailed, itemized, clear statement of final costs for all distribution upgrades, including explanations for variances exceeding 125% of the original estimate.

Attachment A: Reactive DER Upgrade Cost Sharing Standards

Contents

A. Introduction

The 2024 Minnesota Legislature tasked the Public Utilities Commission with establishing generic standards to create a cost-sharing process to lower the cost barriers of upgrades in capacity constrained areas of the distribution system in order to allow for increased DER interconnection. These Standards aim to provide rules and guidance for the implementation and operation of this Distribution System Reactive Upgrade Cost Sharing Process.

Legislative Language

Sec. 53. Interconnection Docket; Public Utilities Commission[1]

a) No later than September 1, 2024, the commission must initiate a proceeding to establish by order generic standards for the sharing of utility costs necessary to upgrade a utility's distribution system by increasing hosting capacity or applying other necessary distribution system upgrades at a congested or constrained location in order to allow for the interconnection of distributed generation facilities at the congested or constrained location and to advance the achievement of the state's renewable and carbon-free energy goals in Minnesota Statutes, section 216B.1691 and greenhouse gas emissions reduction goals in Minnesota Statutes, section 216H.02. The tariff standards must reflect an interconnection process designed to, at a minimum:

1. accelerate the expansion of hosting capacity at multiple points on a utility's distribution system by ensuring that the cost of upgrades is shared fairly among owners of distributed generation projects seeking interconnection on a pro rata basis according to the amount of the expanded capacity utilized by each interconnected distributed generation facility;
2. reduce the capital burden on owners of trigger projects seeking interconnection;
3. establish a minimum level of upgrade costs an expansion of hosting capacity must reach in order to be eligible to participate in the cost-share process and below which a trigger project must bear the full cost of the upgrade;
4. establish a distributed generation facility's pro rata cost-share amount as the utility's total cost of the upgrade divided by the incremental capacity resulting from the upgrade, and multiplying the result by the capacity of the distributed generation facility seeking interconnection;
5. establish a minimum proportion of the total upgrade cost that a utility must receive from one or more distributed generation facilities before initiating constructing an upgrade;
6. allow trigger projects and any other distributed generation facilities to pay a utility more than the trigger project's or distributed generation facility's pro rata cost-share amount only if needed to meet the minimum threshold established in clause (5) and to receive refunds for amounts paid beyond the trigger project's or distributed generation facility's pro rata share of expansion costs from distributed generation projects that subsequently interconnect at the applicable location, after which pro rata payments are paid to the utility for distribution to ratepayers;
7. prohibit owners of distributed generation facilities from using any unsubscribed capacity

[1] https://www.revisor.mn.gov/laws/2024/0/126/laws.6.53.0#laws.6.53.0

at an interconnection that has undergone an upgrade without the distributed generation owners paying the distributed generation owner's pro rata cost of the upgrade; and

8. establish an annual limit or a formula for determining an annual limit for the total cost of upgrades that are not allocated to owners of participating generation facilities and may be recovered from ratepayers under section 216B.16, subdivision 7b, clause (6).

(b) For the purposes of this section, the following terms have the meanings given:

1. "distributed generation project" means an energy generating system with a capacity no greater than ten megawatts;
2. "hosting capacity" means the maximum capacity of a utility distribution system to transport electricity at a specific location without compromising the safety or reliability of the distribution system;
3. "trigger project" means the initial distributed generation project whose application for interconnection of a distributed generation project alerts a utility that an upgrade is needed in order to accommodate the trigger project and any future interconnections at the applicable location;
4. "upgrade" means a modification of a utility's distribution system at a specific location that is necessary to allow the interconnection of distributed generation projects by increasing hosting capacity at the applicable location, including but not limited to installing or modifying equipment at a substation or along a distribution line. Upgrade does not mean an expansion of hosting capacity dedicated solely to the interconnection of a single distributed generation project; and
5. "utility" means a public utility, as defined in Minnesota Statutes, section 216B.02, subdivision 4, that provides electric service.

B. Definitions

Defined terms from the MN DIP have the same meanings here and are capitalized throughout the Standards below. Additionally, the Commission adopts the following definitions for the purposes of this proceeding:

1. Annual Ratepayer Cost Cap: The total rolling annual cost of Upgrades that are not paid for by Reactive Cost Share Participants and that may be recovered from ratepayers under Commission-approved cost recovery methods.

2. Distributed Generation Project (Project): An energy generating system connected to the distribution system with a capacity no greater than ten megawatts.[2]

3. Distribution System Reactive Upgrade Process (DSRUP or Process): The process and operation of the "generic standards" envisioned by Section 53 of the 2024 Minnesota Session Laws, Regular Session, Chapter 126, Article 6 and approved by the Minnesota Public Utilities Commission.

[2] New consensus language in the record development process.

4. Distribution System Reactive Upgrade Process Cost Share Agreement (DSRUP Agreement): The agreement between an Interconnection Customer and the Utility providing the Interconnection Customer's intention to participate in an Upgrade and to provide a Reactive Cost Share Contribution for an Upgrade with an open Mobilization Window.

5. Hosting Capacity: The maximum capacity of a utility distribution system to transport electricity at a specific location without compromising the safety or reliability of the distribution system.

6. Interconnection Application: An application that has been submitted to a utility for interconnection under MNDIP.

7. Interconnection Customer: A Distributed Generation Project owner that has submitted an Interconnection Application.

8. Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA): The Agreement intended to provide for the Interconnection Customer to interconnect at the Point of Common Coupling and operate a Distributed Energy Resource with a Nameplate Rating of 10 Megawatts (MW) or less in parallel with the Area EPS at the location identified above and in the Interconnection Application. MN DIP Section 1.1.5 details when the Uniform Statewide Contract may replace the need for the MN DIA.

9. Minnesota Distributed Energy Resource Interconnection Process (MN DIP): The generic, statewide standards for the interconnection and parallel operation of distributed energy resources of no more than 10 MW. All regulated Area Electrical Power System (EPS) Operators are subject to the MN DIP.

10. Mobilization Threshold: The percentage of the estimated total Upgrade cost that must be committed in order for construction of the Upgrade to move forward.

11. Mobilization Window: When the Trigger Project by itself does not meet the Mobilization Threshold, the time period during which additional projects can commit to pay for Upgrade costs and those commitments will count towards the Upgrade's Mobilization Threshold.

12. Outstanding Costs: Any Reactive Cost Share Distribution Upgrade costs that are unrecovered from Reactive Cost Share Participants at any given time, after a Mobilization Threshold has been met and before the Payback Period has been closed.

13. Payback Period: The period of time, after the Mobilization Threshold has been met, allotted for the full value of the Upgrade to be paid for by Reactive Cost Share

Participants.

14. Pro Rata Cost: The $/kWac rate calculated by dividing the total costs of the eligible Upgrade by the total kilowatts of Hosting Capacity created by the Upgrade.

15. Reactive Cost Share Contribution: The contribution made by an Interconnection Customer toward an Upgrade. The amount is determined by multiplying the Pro Rata Cost by the kWac capacity of the facility seeking interconnection.

16. Reactive Cost Share Distribution Upgrade (Upgrade): A distribution Upgrade made under the DSRUP. This type of Upgrade must be a modification of a Utility's distribution system at a specific location that is necessary to allow the interconnection of Distributed Generation Projects by increasing Hosting Capacity at the applicable location, including but not limited to installing or modifying equipment at a substation or along a distribution line. Upgrade does not mean an expansion of hosting capacity dedicated solely to the interconnection of a single Distributed Generation Project.

Xcel Alternative B.16

16. Reactive Cost Share Distribution Upgrade (Upgrade): A distribution Upgrade made under the DSRUP. This type of Upgrade must be a modification of a Utility's distribution system at a specific location that is necessary to allow the interconnection of Distributed Generation Projects by increasing Hosting Capacity at the applicable location, including but not limited to installing or modifying equipment at a substation or along a distribution line. Upgrade does not mean an expansion of hosting capacity dedicated solely to the interconnection of a single Distributed Generation Project. Upgrade does not mean construction of a new substation for the sole purpose of allowing the interconnection of Distributed Generation Projects.

17. Reactive Cost Share Participant: An Interconnection Customer who elects to participate in a Reactive Cost Share Distribution Upgrade with an open cost-share window and is responsible for paying a cost-share contribution.

18. Reactive Upgrade Workgroup: The workgroup created in Docket 24-288 to create the draft standards of the DSRUP.

19. Trigger Project: The initial Interconnection Application for interconnection for a Distributed Generation Project that alerted a Utility that an Upgrade is needed in order to accommodate the Trigger Project and any future interconnections at the applicable location.

20. Utility: A public utility, as defined in Minnesota Statutes, section 216B.02, subdivision 4, that provides electric service.

C. Upgrade Cost Thresholds

1 must be adopted, and the Commission must choose one subpart.
2 may be adopted with one subpart. If the Commission does not wish to set a maximum limit, it may simply not adopt 2.

1. To qualify for the DSRUP, an Upgrade must have total project costs of:

    a. at least $250,000
    b. at least $1
    c. at least $2,500,000
    d. $100,000
    e. at least $750,000 (Staff new)

2. To qualify as an eligible Reactive Cost Share Distribution Upgrade, an Upgrade must cost no more than:

    a. $300,000/$MW_{AC}$
    b. $600,000/MW
    c. No maximum

D. Pro Rata Cost Calculation

1. When a Trigger Project elects to initiate the DSRUP, and become a Reactive Cost Share Participant, the Utility shall calculate the estimated Pro Rata Cost defined as the total estimated costs of the eligible Upgrade divided by the total kilowatts of Hosting Capacity created by the Upgrade.

2. The estimated Pro Rata Cost shall be considered an estimate in the calculation of a particular Reactive Cost Share Customer's Reactive Cost Share Contribution until a final Pro Rata Cost is determined after the final bill of actual costs for the Upgrade is issued consistent with MN DIP 5.6.4.1. The Utility shall either refund any excess fees paid or assess each Reactive Cost Share Participant the remaining amount, based on the final Pro Rata Cost of the Upgrade. Refunded amounts shall be issued by the Utility within 30 Business Days after the issuance of the final bill of actual costs. Additional assessments shall be paid by Reactive Cost Share Participants within 30 Business Days after the issuance of the final bill of actual costs. Interconnection Customers that elect to become a Reactive Cost Share Participant following construction of the Upgrade will be assessed a Reactive Cost Share Contribution based on the final Pro Rata Costs.

3. Final Reactive Cost Share Contributions shall not exceed 125% of the estimated Reactive Cost Share Contribution assigned to a Reactive Cost Share Customer in an executed interconnection agreement.

4. Final total costs of an Upgrade in excess of 125% of the estimated total Upgrade cost shall be borne by Utility shareholders rather than recovered through rates.

E. Interconnection Process

1. The DSRUP can only be initiated when a Distributed Energy Project completes a Facilities Study, and the results of the study indicate an eligible Upgrade is required. The Interconnection Customer will be given 20 Business Days after a signature-ready MN DIA and signature-ready DSRUP Agreement are provided to the Interconnection Customer to choose one of the following options:

    a. Participate in the DSRUP and act as a Trigger Project by signing and funding the DSRUP Agreement; or
    b. Pay the full cost of the Upgrade as described in Section F2 by signing and funding the DSRUP Agreement; or
    c. Withdraw its application; or
    d. Pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold. (JSC-CEF New)

2. An Interconnection Application that triggers an Upgrade shall have the option to pay for the full Upgrade, foregoing the cost sharing process and thus paying in full for the additional capacity beyond their project's need. Should the Interconnection Customer choose to fund the full Upgrade cost and forgo the cost sharing process they shall not be entitled to use excess capacity created by the Upgrade or receive any compensation from future Interconnection Customers utilizing the capacity created by the Upgrade.

JSC-CEF Alternative E.2:

2. An Interconnection Application that triggers an Upgrade shall have the option to pay for the full Upgrade, foregoing the cost sharing process and thus paying in full for the additional capacity beyond their project's need. Should the Interconnection Customer choose to fund the full Upgrade cost and forgo the cost sharing process they shall not be entitled to use excess capacity created by the Upgrade or receive any compensation from future Interconnection Customers utilizing the capacity created by the Upgrade. However, within 20 Business days from the issuance of the notice by the Utility, the Reactive Cost Share Participants may elect to pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold.

Xcel Alternative E.3:[3]

3. Interconnection Applications with capacity no greater than 40 kWac and do not have available Hosting Capacity to interconnect shall be informed prior to Initial Review of the likely need ~~offered the opportunity~~ to participate in the DSRUP ~~prior to Initial Review~~. These projects are still subject to the MN DIP process for reviewing, studying, and processing their Interconnection Application.

[3] Original E.3 was removed as Xcel alternative version was agreed to with consensus in permissible ex parte communication.

The Commission must choose either subpart 4a or 4b.

4. An Interconnection Application with a nameplate rating more than 40 kWac is eligible to participate in an active Mobilization Window:

    a. Once its Interconnection Application has completed a System Impact Study and, if necessary, a Facilities Study as required by MN DIP.

    OR

    b. After all applicable MN DIP studies have been completed.

    OR

    c. After it is deemed complete (JSC-CEF new E.4.c)

5. Utilities shall streamline System Impact Studies for Interconnection Applications in queue behind a Trigger Project in Upgrades with an active Mobilization Window to the extent practicable. For Interconnection Applications starting a System Impact Study after a Mobilization Threshold has been met, the Utility shall utilize the Trigger Project's System Impact Study to the extent practicable.

6. Interconnection Agreements for Reactive Cost Share Participants shall not be tendered for signature until after the Mobilization Threshold has been met and any applicable cluster studies have been completed.

7. Utility shall countersign all Interconnection Agreements within 5 business days after receiving all signed Interconnection Agreements from all Reactive Cost Share Participants that are participating in the Upgrade.

8. Interconnection customers that elect to be a Reactive Cost Share Participant shall have their queue status updated to "Awaiting Cost Share Upgrade Selection" until the Interconnection Agreements for all Reactive Cost Share Participants that are participating in the Upgrade have been signed and countersigned by the Utility.

    a. Interconnection Applications in the "Awaiting Cost Share Upgrade Selection" status will maintain their queue position, and the next-in-queue project will be processed and studied through MN DIP. After completion of the System Impact Study and, if necessary, Facilities Study, next-in-queue projects will be notified by the Utility with a signature-ready DSRUP agreement. Next-in-queue projects must sign the DSRUP Agreement and pay the administrative fee within 10 Business Days of receiving notification from the Utility, or withdraw.

JSC-CEF Alternative E.8.a:

    a. Interconnection Applications in the "Awaiting Cost Share Upgrade Selection" status will maintain their queue position, and the next-in-queue project will be processed and studied through MN DIP. After completion of the System Impact Study and, if necessary, Facilities Study, next-in-queue projects will be notified by

the Utility with a signature-ready DSRUP agreement. Next-in-queue projects must sign the DSRUP Agreement and pay the administrative fee within 10 Business Days of receiving notification from the Utility, elect to pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold, or withdraw.

b. Next-in-queue projects will not be allowed to pay the entire cost of the upgrade under section E.2.
c. If the System Impact Study and Facilities Study for a next-in-queue project determines that a new eligible Upgrade is required that does not fit within the scope of the existing Upgrade, then that next-in-queue project may choose to become a Trigger Project for the new upgrade following E.1 of the Standards.
d. Interconnection Applications that are processed as a next-in-queue project and have a capacity no greater than 40 kWac may proceed with interconnection if no upgrades are required and Hosting Capacity is available for applications with a capacity no greater than 40 kWac through a capacity reservation.

JSC-CEF Modified E.8.d:

d. Interconnection Applications that are processed as a next-in-queue project and have a capacity no greater than 40 kWac may proceed with interconnection if no upgrades are required and Hosting Capacity is available for applications with a capacity no greater than 40 kWac ~~through a capacity reservation~~.

Staff Modified E.8.d:

d. Interconnection Applications that are processed as a next-in-queue project and have a capacity no greater than 40 kWac may proceed with interconnection if no upgrades are required and where Hosting Capacity is available. ~~for applications with a capacity no greater than 40 kWac through a capacity reservation.~~

9. After all Interconnection Agreements for all Reactive Cost Share Participants that are participating in an Upgrade are countersigned by the Utility, the Upgrade will proceed to detailed design and construction. Reactive Cost Share Participants will have their queue status updated to "Cost Share Upgrade In Progress." Until the Upgrade has been placed in-service. Interconnection Applications will have the estimated Reactive Cost Share Contribution included as an interconnection upgrade cost in the Interconnection Agreement. The Interconnection Agreement must be signed and timely paid consistent with MN DIP timelines.

JSC-CEF Alternative E.10:

10. After an Upgrade has been placed in-service and before the Payback Period has closed, the queue will be processed following MN DIP. Interconnection Applications in queue following an Upgrade ~~that are Deemed Complete during this time~~ will have the estimated Reactive Cost Share Contribution, or the final Reactive Cost Share

Contribution if available, included as an interconnection upgrade cost in the Interconnection Agreement. The Interconnection agreement must be signed and timely paid consistent with MN DIP timelines.

Xcel Alternative E.10:[4]

10. Before the Payback Period has closed, the queue will be processed following MN DIP. Interconnection Applications that are Deemed Complete during this time will have the estimated Reactive Cost Share Contribution, or the final Reactive Cost Share Contribution if available, included as an interconnection upgrade cost in the Interconnection Agreement. The Interconnection Agreement must be signed and timely paid consistent with MN DIP timelines.

F. Mobilization Threshold and Window

The Commission must choose one subpart of 1.

1. The Mobilization Threshold for an individual Upgrade is set at:

   a. 25 percent of total Upgrade costs.
   b. 80 percent of total Upgrade costs.
   c. The Mobilization Thresholds shall be tiered based on cost per MW of capacity added by the Upgrade as follows:
      - $1/MW - $149,999/MW: 30%
      - $150,000/MW - $249,999/MW: 45%
      - $250,000/MW - $349,999/MW: 60%
      - $350,000/MW - $449,999/MW: 75%
      - $450,000/MW - $600,000/MW: 80%
   d. 50 percent of total Upgrade costs. (JSC-CEF New)

2. The Mobilization Window for an Upgrade shall remain open until an alteration in the electric distribution system requires a new distribution System Impact Study to confirm the accuracy or necessity of the previously identified Upgrade. When the Mobilization Threshold is met the Utility may conduct a new mandatory cluster study with the costs assigned to the relevant Cost Share Participants consistent with a Utility's Cluster Study guidelines and timelines. Refusal by a Reactive Cost Share Participant to pay for its share of the study cost will constitute withdrawal.

3. If either of the scenarios described in 3a or 3b occurs in the steps following an Upgrade being selected in the Upgrade prioritization process, the Utility will issue notice to the Reactive Cost Share Participants participating in the Upgrade that the Upgrade will be moved back to an open Mobilization Window. Within 20 Business days from the issuance of the notice by the Utility, the Reactive Cost Share Participants may elect to pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold, or the Upgrade will be moved back to an open Mobilization

[4] Original E.10 was deleted as no parties supported it as confirmed by permissible ex parte communication.

Window. After an Upgrade is moved back to an open Mobilization Window, when the Mobilization Threshold has been met again, the Upgrade will advance to the prioritization selection process.

   a. A Reactive Cost Share Participant withdraws such that the mobilization threshold is no longer reached.
   b. The final cluster study cost estimate varies from the previous estimate such that the mobilization threshold is no longer reached.

4. If either of the scenarios described in 4a or 4b occurs in the steps following an Upgrade being selected in the Upgrade prioritization process, the Upgrade will be reprioritized against the criteria in G.1 of the Standards. If the reprioritization results in the Upgrade no longer maintaining its priority, it will be reconsidered in the next prioritization process as described in G.4 of the Standards before proceeding.

   a. A Reactive Cost Share Participant withdraws.
   b. The final cluster study cost estimate varies from the previous estimate by more than 20%.

5. If an Upgrade is moved back to an open Mobilization Window after estimated Reactive Cost Share Contributions have been paid by a Reactive Cost Share Participant, the Utility shall issue refunds of the estimated Reactive Cost Share Contributions within 30 Business Days from the date the Utility notifies the Reactive Cost Share Participants that the Mobilization Window is being reopened.

6. If a Mobilization Window remains open for more than two years, the Utility may consider Upgrade as a potential Proactive Upgrade in its next Proactive Upgrade Proposal under the framework established in Docket E002/CI-24-318.

OAG Alternative F.6:

6. ~~If~~ Once a Mobilization Window has remained open for ~~more than~~ two years, the Utility may consider that Upgrade as a potential Proactive Upgrade in its next Proactive Upgrade Proposal under the framework established in Docket E002/CI-24-318. The Utility shall describe in its Proactive Upgrade Proposal how close to the Mobilization Threshold the Upgrade came and explain why it believes there will be greater demand for the Upgrade in the future.

Xcel New F.7 and F.8

7. The Mobilization Window shall close if the Mobilization Threshold is not reached within two years.

8. The Mobilization Window shall close if all Reactive Cost Share Participants withdraw.

G. Upgrade Prioritization

Some areas of the distribution system have long queues of interconnection projects trying to interconnect into systems that are capacity constrained. Utilities have a finite number of resources that can be allocated towards Upgrade construction. Since there will likely be several areas of the distribution system that will meet the mobilization threshold around the same time and there are limited construction resources, prioritization can help parse which upgrades should be constructed first.

1. When there are multiple eligible Upgrades that have reached the Mobilization Threshold, their construction shall be prioritized based on the below-listed criteria. In the case different upgrades are tied or equal in a given criterion, the upgrade will be prioritized by the next following criterion. The criteria used to evaluate the upgrades shall adhere to the following order:
    a. The Upgrade with the highest percentage of developer-funded Upgrade cost
    b. Lowest cost per megawatt of capacity added by the Upgrade
    c. Most capacity constraints
    d. Clear optimization benefits for the grid

Staff Modified G.2[5]

2. Notwithstanding the criteria listed in G1, where supply chain issues, permitting issues, or other issues that may delay an Upgrade by one year or longer are encountered, the Utility may remove the Upgrade from consideration until the next Upgrade prioritization review, and instead select the next highest priority Upgrade using the prioritization criteria. In such cases where an Upgrade is removed from consideration the Utility shall provide a narrative explanation describing why that determination was made. This explanation shall include whether the changes were internal or external in nature and how those factors changed the prioritization calculus determination.

3. Following tariffed process initiation, every ____ the Utility shall review Upgrades that have met the Mobilization Threshold during the previous ____ months and prioritize them based on criteria in G1.
    a. Three months

    OR

    b. Six Months

    OR

JSC-CEF Alternative

    c. Four Months

4. An initial prioritization shall occur utilizing the criteria in G1 within six months of tariffed DSRUP approval. Following initial prioritization governed by G1, Upgrades shall move

[5] Permissible ex parte communication confirmed that Staff modified G.2 had consensus agreement and so the original G.2 was removed.

forward on a first come, first serve basis. Prioritization shall only be used when Upgrades meet the Mobilization Threshold during the same period as set in Section G3.

Xcel Modification of G.5[6]

5. ~~Approval~~ Selection through the prioritization process chosen in Section G shall create a rebuttable presumption of prudence in any cost recovery proceeding.

OAG Alternative of G.5

5. ~~Approval~~ Selection through the prioritization process chosen in Section G shall create a rebuttable presumption ~~of prudence~~ that pursuing construction of an approved Upgrade was prudent in any cost recovery proceeding. The utility retains the burden of proof.

6. Complaints regarding the prioritization results shall be addressed through the Formal Complaint process as subject to Minn. Rules 7829.1700-.1900 rather than the DSRUP dispute resolution process.[7]

Staff Alternative to G.6

6. Complaints regarding the prioritization results shall be exempt from the DSRUP disputes referred to in paragraph two of Section 5.3.4 of the Dispute Resolution Process for the DSRUP.

H. Payment Details

The Commission must select 4 or 5.

1. Interconnection Customers that have elected to participate in an Upgrade during an open Mobilization Window shall have an executed DSRUP Agreement to pay their Reactive Cost Share Contribution at the time the Interconnection Agreement is signed and paid consistent with MN DIP timelines.

2. Interconnection Customers shall pay a non-refundable administrative fee with each executed DSRUP Agreement to participate in an Upgrade during an open Mobilization Window. The Interconnection Customer may exit the DSRUP Agreement at any time but will not be refunded the administrative fee.

3. A DSRUP Agreement shall not be contingent upon any other DSRUP Agreement for another Upgrade.

[6] Permissible ex parte communication confirmed consensus review that no party agreed to the original G.5 leaving just Xcel's and the OAG's version.
[7] The Commission's Utility Proceeding, Practice, Procedure rules are electronically available at: https://www.revisor.mn.gov/rules/7829/

4. Reactive Cost Share Participants may withdraw after all Interconnection Agreements for all Reactive Cost Share Participants that are participating in an Upgrade are countersigned by the Utility but shall not receive a refund of their Reactive Cost Share Contribution.

OR

5. Reactive Cost Share Participants are not allowed to withdraw after all Interconnection Agreements for all Reactive Cost Share Participants that are participating in an Upgrade are countersigned by the Utility and shall be assessed a penalty by the Utility if they do.

6. Reactive Cost Share Participants may choose to use surety bonds and/or letters of credit to pay for their cost share contribution with cash payments becoming due in alignment with utilities' actual spending/costs incurred.

7. The Utility shall track the funds via the initial invoice deposit and issue refunds to those that overpay.

OAG Modification of H.8:[8]

8. Any Reactive Cost Share Participant may pay more than their project's Reactive Cost Share Contribution in order to reach the Mobilization Threshold of an Upgrade. This payment beyond their project's calculated Reactive Cost Share Contribution shall be refunded if additional Reactive Cost Share Contributions are received prior to the Payback Period closing. A refund shall be issued to the overpaying Reactive Cost Share Participant within 30 business days from the date a new Reactive Cost Share Contribution is collected by the Utility. The amount refunded to overpaying Reactive Cost Share Participant is determined by the Reactive Cost Share Contribution collected from the new Reactive Cost Share Participant, not exceeding the amount of excess payment remaining to be refunded. Any remaining excess payment is not refundable once the Payback Period closes. Once ~~the Payback Period closes or~~ the over-payer has been fully refunded the excess payment, all funds from subsequent Reactive Cost Share Participants shall be credited to ratepayers.

9. If two or more Reactive Cost Share Participants pay more than their projects' Reactive Cost Share Contribution obligations for a single Upgrade, the Utility shall refund such excess amounts in the order in which the excess payments were received. The reactive cost Share Participant whose excess payment was received first shall be refunded in full prior to the issuance of any refund to the Participant whose excess payment was received subsequently, and this sequence shall continue accordingly until all excess payments have been refunded.

[8] Permissible ex parte communication confirmed that the OAG's modification had consensus agreement and so the original was removed.

10. There may be cases where a Utility collects greater than 100% of the final Upgrade costs and over-paying Reactive Cost Share Participants have already been refunded. If this occurs the excess will be returned to ratepayers by reducing the Utility's total recovery of distribution capital costs of the DSRUP the next time it seeks recovery for Process's costs.

11. Interconnection Applications under 40 kWac are exempt from paying a Reactive Cost Share Contribution if Hosting Capacity is available for Interconnection Applications under 40 kWac through a capacity reservation.

12. Reactive Cost Share Participants may use other, Utility-specific, cost sharing programs to fund their Reactive Cost Share Contribution where applicable and with subsequent approval in those relevant Utility-specific cost sharing program docket proceedings.

I. Payback Period

1. The Payback Period shall remain open once the Mobilization Threshold is reached and remains open for:

    a. A minimum of five years from the Upgrade's in-service date.

OR

Staff Alternative I.1 with OAG addition:[9]

1. The Payback Period shall remain open once the Mobilization Threshold is reached and remains open for ten years starting from the Upgrade's in-service date. The Payback Period may be closed before then if the Hosting Capacity created by the Upgrade is fully utilized by Reactive Cost Share Participants and all over-payers have been fully refunded the amounts above their Reactive Cost Share Contribution and any cost share fees collected in excess of the cost of the Upgrade have been returned to ratepayers.

2. The Payback Period shall end if:[10]

    a. The Hosting Capacity created by the Upgrade is fully utilized by Reactive Cost Share Participants and all over-payers have been fully refunded the amounts above their Reactive Cost Share Contribution; or

    b. The duration of the Payback Period defined in I.1 has elapsed.

[9] In permissible ex parte Staff confirmed that Staff alternative I.1 should replace the original I.1
[10] In permissible ex parte communication Staff confirmed with parties that Xcel's clarifying edits were friendly and so Staff added them to the provision.

3. All Interconnection Applications that are in the Deemed Complete state within the Payback Period shall be subject to paying their Reactive Cost Share Contribution.

Xcel Modification of I.3:

3. All Interconnection Applications that are in the Deemed Complete state, as defined in MN DIP, within the Payback Period shall be subject to paying their Reactive Cost Share Contribution, unless otherwise exempted under Section [H].

Staff Modification of I.3:

3. All Interconnection Applications within the Payback Period of a given Upgrade shall be subject to paying their Reactive Cost Share Contribution if the interconnection Project uses Hosting Capacity freed up by the Upgrade.

J. Annual Ratepayer Cost Cap

The Annual Ratepayer Cost Cap is only referring to the total annual amount of potential Upgrade costs that may be allocated to ratepayers. It is not the "operational budget" of the DSRUP as a whole. The "Operational Budget" is theoretically how much money, on an annual rolling basis, is being spent on reactive distribution upgrades assuming the Annual Ratepayer Cost Cap is met.

The Commission must choose either 1 or 2. If it chooses two, it must select either 2.a or 2.b.

1. The Commission shall decide the Annual Ratepayer Cost Cap for Utility in a tariff filing upon approval of that Utility's DSRUP.

OR

2. The Annual Ratepayer Cost Cap shall not exceed _____ % of the annual average of the Utility's forecasted 5-year distribution capital budget from its most recent Integrated Distribution Plan.

    a. 2 Percent

    OR

    b. 11 Percent; or a percent that will equal $95 million for Xcel

3. The Commission intends that the Annual Ratepayer Cost Cap will remain in place for at least 24 months since the most recent change to the cost cap went into effect before the Commission considers modifications. A Utility, prospective Trigger Projects, and ratepayer advocates may request a modification to the Annual Ratepayer Cost Cap. In determining whether to change the Annual Ratepayer Cost Cap, the Commission shall consider, at a minimum, previous and future ratepayer costs and risks arising from the Utility's DSRUP, total pending cost share contributions, and the demand for new

Upgrades.

Staff Alternative of J.3:

3. ~~The Commission intends that t~~ The Annual Ratepayer Cost Cap will remain in place for at least 24 months since the most recent change to the cost cap went into effect before the Commission considers modifications. A Utility, prospective Trigger Projects, and ratepayer advocates may request a modification to the Annual Ratepayer Cost Cap. In determining whether to change the Annual Ratepayer Cost Cap, the Commission ~~shall~~ may consider, at a minimum, previous and future ratepayer costs and risks arising from the Utility's DSRUP, total pending cost share contributions, and the demand for new Upgrades.

4. The Outstanding Costs of constructed Upgrades that have not been paid for by Reactive Cost Share Contributions shall count towards the Annual Ratepayer Cost Cap.

    a. Costs of Upgrades that have not been paid for by Reactive Cost Share Participants upon the Payback Period closing shall be removed from the Annual Ratepayer Cost Cap.

Xcel Modification of J.5:[11]

5. Once the Annual Ratepayer Cost Cap is reached, the Mobilization Threshold for all pending Upgrades is set to 100 percent until the total amount recoverable from ratepayers drops below the cap. ~~As available space opens up within the cost cap, projects transitioning back to the standard Mobilization Threshold shall follow existing prioritization processes.~~

K. Cost Recovery

If the Commission chooses 1, it must also choose 2 or 3 while 4 is optional. If the Commission chooses 3, it must choose 3a or 3b. 3c is optional.

1. Outstanding costs will not be eligible for rate recovery for the first five years of the Payback Period. After five years, the remainder of the outstanding costs shall be eligible for cost recovery.

AND

2. The Utility will not accrue carrying costs during the first five years of the Payback Period.

OR

[11] In permissible ex parte communication Staff confirmed with parties that Xcel's clarifying edits were friendly and so Staff added them to the provision.

3. The Utility will accrue carrying costs during the first five years of the Payback Period. The percentage rate for calculating carrying costs shall be the _____.

    a. Utility's authorized Weighted Average Cost of Capital from the most recently approved rate case

    OR

    b. Utility's long-term cost of debt

    c. Carrying costs shall not be capitalized. Carrying costs may be recovered through the Utility's Transmission Cost Recovery rider petition.

4. Projects enabled by Upgrades that interconnect after the initial five years of the Payback Period has closed shall still be required to pay a Reactive Cost Share Contribution until the close of the Payback Period. Reactive Cost Share Contributions paid after the initial five years of the Payback Period shall be returned to ratepayers by paying down the remaining rate base of the Upgrade.

The Commission must choose at least one of the options under 5.

5. A Utility may petition to recover outstanding costs through any or all of the following (but without any double recovery):

    a. Through a general rate case.
    b. Through its Transmission Cost Recovery Rider pursuant to Minn. Stat. 216B.16, Subd. 7b, paragraph (b), clause 6.
    c. Through deferred accounting.
    d. Through invoices for DER projects.

The Commission must choose 6a or 6b

6. All Reactive Cost Share Contributions collected from Reactive Cost Share Participants shall be collected during the Payback Period and shall be:

    a) Returned to ratepayers as an offset to the revenue requirements of Reactive Cost Share Distribution Upgrade.

    OR

    b) Used to offset the rate base amount of the Upgrade until the upgraded assets are fully paid down, or the Payback Window closes.

L. Cost Allocation

1 and 2 are alternatives. 3 can be adopted with either combination

1. Costs recovered from ratepayers shall be treated consistent with the most recently approved rate case allocators and established revenue requirement procedures. Parties

to a Utility's rate case or other cost recovery proceeding may request that the Commission establish a different cost allocation and procedures for DSRUP Upgrades.

OR

2. For Reactive Cost Share Distribution Upgrades primarily serving large commercial and/or industrial customers, Upgrades shall be tracked separately from other rate-base assets and costs not paid for by Cost Share Contributions shall be allocated to the large commercial and industrial classes contributing to the need for or benefiting from the Upgrade. For all Upgrades that do not primarily serve large commercial and/or industrial customers, costs will be allocated according to the most recently approved rate case allocators and revenue requirement procedures. Parties to a Utility's rate case may request that the Commission establish a different cost allocation and procedures for DSRUP Upgrades.

3. To the extent that DSRUP Upgrade costs are allocated to ratepayers, the Utility shall identify and mitigate adverse bill impacts on under-resourced customers and/or small businesses.

M. Publication of DSRUP Information and Data

1. Utilities shall make all reasonable efforts to publish the feeders and/or substations that have an open Mobilization Window and the availability of potential Upgrades where there is an open Mobilization Window as well as where there is an Upgrade already constructed that still has available hosting capacity remaining. Utilities shall publish the following information on a monthly basis for each active Upgrade location:

    a. The $/kW Pro Rata Cost to participate in the Upgrade[12]
    b. Start and end dates of the Mobilization Window
    c. Start and end dates of the Payback Period
    d. The feeders and/or substations that have an open Mobilization Window
    e. The maximum amount of distribution capacity that could be created by the Upgrade
    f. Status of the Mobilization Threshold
        i. How many projects have opted in
        ii. The capacity they have taken up
        iii. The progress, in percentage, towards the Mobilization Threshold

2. The information in M1 shall be included in Hosting Capacity maps.

Staff Alternative to M.2

2. If a utility is required to produce a Hosting Capacity map, it shall indicate on the map which areas of the grid have an open DSRUP project and provide a link to the spreadsheet required in The information in M1 shall be listed on a spreadsheet.

[12] This does not include any upgrades in addition to the DSRUP Upgrade an individual DER project may require

N. Reporting and Process Evaluation

1. Utilities shall file an annual compliance filing in Docket 24-288 the following reporting requirements:
    a. List of ongoing projects by feeder and status (waiting for Mobilization Threshold to be reached, Upgrades in progress, post-construction Mobilization Window)
    b. Status of the Annual Ratepayer Cost Cap (how much $ space is available)
    c. Revenue requirements
    d. Impact to the Annual Ratepayer Cost Cap from each project including a forecast of cap space (assuming no new cost share customers interconnect)
    e. Total costs allocated to ratepayers by the DSRUP
    f. Total capacity (kWac) added by the DSRUP
    g. Total cumulative capacity (kWac) added by DSRUP
    h. Total amount funded by Reactive Cost Share Contributions
    i. Details about each individual Upgrade made, including
        i. Capacity added
        ii. Total Cost (estimated, final), Pro Rata Cost (estimated, final)
        iii. Trigger date, construction date, etc. (length to Mobilization Threshold)
        iv. How many projects were involved, their sizes
    j. The monetary benefit to ratepayers as a result of Upgrades that were more than 100% funded.
    k. The results of upgrade prioritization process for each Upgrade.

Xcel Modification of N.2:[13]

2. Utilities must file reports that include the preceding information and data to the greatest extent practicable. Where a Utility is not able to provide the required information, the Company shall explain why it is unable to do so. Such reports must be filed annually on March 1st in the current docket, 24-288. Where applicable, Utilities must include data in spreadsheet (.xlsx) format as well as in tabulated form. If a Utility also files a PDF version of spreadsheet data, it must be filed as an attachment in a separate document instead of being merged with the main report.

3. The Utility shall also include a summary of the DSRUP information in its Integrated Distribution Plan, including total projects triggered, total projects constructed, what portion of the Annual Ratepayer Cost Cap has been used, and other key metrics.
4. After four years of DSRUP tariffed operation, each Utility shall file an evaluation of the Standards and any recommended changes with its annual report in Docket 24-288.

5. In addition to Utility evaluations, the DSRUP Standards are subject to refinement through Commission Order or through the Reactive Upgrade Workgroup with subsequent Commission approval. The Reactive Upgrade Workgroup shall be convened

[13] In permissible ex parte communication Staff confirmed with parties that Xcel's clarifying edits were friendly and so Staff added them to the provision.

by Commission Staff and shall meet as necessary to refine and improve the Standards. Workgroup participants may reach out to Commission Staff to raise issues or concerns that may require the workgroup to reconvene.

6. The DSRUP shall be evaluated based on the proposed reporting requirements.

O. Dispute Resolution

1. Dispute resolution shall be consistent with the highlighted portions of Attachment B.

Xcel Alternative to O.1:

1. Dispute resolution shall be consistent with the highlighted portions of Attachment B including Xcel's modification to Section 5.3.3 paragraph 2.

Staff Alterative to O.1:

1. Dispute resolution shall be consistent with the highlighted portions of Attachment B including Staff's modification to Section 5.3.3 paragraph 2.

P. Tariff Implementation

1. These standards shall be implemented with each Utility through tariffs filed by each Utility.
2. The tariff filing shall include a Utility's DSRUP Agreement.
3. Utilities shall file their tariffs amendments 90 days following the Commission Order filing.

Attachment B: Dispute Resolution Process for the Distribution System Reactive Upgrade Process (DSRUP)

Dispute Resolution Process for the Distribution System Reactive Upgrade Process (DSRUP)[1]

For Disputes Between Interconnection Customers (and Developers) and the Public Utility

Generally, follow the MN DIP process, except where shown in highlight below:

5.3 Disputes

5.3.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process (and the DSRUP) and associated study and Interconnection Agreements according to the provisions of this article and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website: https://mn.gov/puc/consumers/help/complaint/

5.3.2 Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.

5.3.3 In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the Interconnection Agreement or Interconnection Application, if there is no Interconnection Agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affair Office dispute resolution process, the Interconnection Customer shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at consumer.puc@state.mn.us.

[1] The process and standards approved by the Commission and outlined in Docket 24-288

For Disputes relating to the DSRUP, it is mandatory to either complete the Commission's Consumer Affairs Office complaint/inquiry form or provide an informational copy to the CAO and this will provide notice to the Ombudsperson of the Dispute. For the first three years of DSRUP implementation, any Dispute regarding the DSRUP will not be logged as a complaint so that the Dispute will not count towards triggering service quality payments. Also, any Dispute relating to the DSRUP must be timely brought ("Timely Brought") in such a way so as to not further adversely impact other Interconnection Applications compared to if the Dispute had been brought in a timelier manner.

OR

Xcel's modification to the above paragraph:

For Disputes relating to the DSRUP, it is mandatory to either complete the Commission's Consumer Affairs Office complaint/inquiry form or provide an informational copy to the CAO and this will provide notice to the Ombudsperson of the Dispute. ~~For the first three years of DSRUP implementation,~~ ~~a~~Any Dispute regarding the DSRUP will not be logged as a complaint so that the Dispute will not count towards triggering service quality payments. Also, any Dispute relating to the DSRUP must be timely brought ("Timely Brought") in such a way so as to not further adversely impact other Interconnection Applications compared to if the Dispute had been brought in a timelier manner.

OR

Staff's modification to the above paragraph:

For Disputes relating to the DSRUP, it is mandatory to either complete the Commission's Consumer Affairs Office complaint/inquiry form or provide an informational copy to the CAO and this will provide notice to the Ombudsperson of the Dispute. ~~For the first three years of DSRUP implementation, Dispute regarding the DSRUP will not be logged as a complaint so that the Dispute will not count towards triggering service quality payments. Also,~~ Any Dispute relating to the DSRUP must be timely brought ("Timely Brought") in such a way so as to not further adversely impact other Interconnection Applications compared to if the Dispute had been brought in a timelier manner.

5.3.4 The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.

For Disputes relating to the DSRUP, if resolution of the Dispute might have a material impact on any other Interconnection Application, then that impacted Interconnection Application may be placed on hold until the Dispute is resolved.

5.3.5 The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute.

If the Area EPS Operator believes that one or more other Interconnection Customers would be materially impacted by the resolution of a Dispute relating DSRUP, then the Area EPS Operator may as part of the 10 Business Day response above make any such Interconnection Customer a Party to the Dispute, and may provide pertinent details about the dispute to any Party to the Dispute including but not limited to as to any Party's position in the queue, name of any Party to the Dispute, and any such Party's assigned feeder and substation, date application was Deemed Complete, nameplate capacity of the Interconnection Application, etc. and an explanation of how each Party may be materially impacted by the resolution of the Dispute.

Within twenty (20) Business Days of the date of the Notice of Dispute, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.

5.3.6 If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 5.3.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.
In the case of a Dispute relating to the DSRUP, any Party may bring dispute relating to Reactive Cost Sharing to the Ombudsperson at the Commission's CAO office for mediation.

5.3.7 If the results of the mediation are not accepted by one or more Parties (or by any Party for a Dispute in the case of a and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.

5.3.8 At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.

Additional steps for Disputes relating to the DSRUP:

If the Dispute is not resolved following the above steps 5.3.1 to 5.3.6, then any Party may bring any Timely Brought Dispute relating to the DSRUP to the Commission for Expedited Dispute Resolution in the following way: File in a new Docket a Petition for Resolution of Dispute Relating to the DSRUP, include in that Petition all Parties to the Dispute as set forth above, and include in that Petition all pertinent facts. All Parties that are not Petitioners may be allowed 20 Business Days to submit their positions on the issue to the Commission, including where applicable a discussion on whether the Dispute has been Timely Brought. The Executive Secretary will determine if further rounds of comments are appropriate and will then set the matter for hearing. At hearing, the Commission may use its judgment on how the Dispute should be resolved, or whether further investigation is necessary. The Commission may determine whether the Dispute has not been Timely Brought and therefore is time barred.