



414 Nicollet Mall
Minneapolis, MN 55401

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August 23, 2021

—Via Electronic Filing—

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: IN THE MATTER OF A FORMAL COMPLAINT AND REQUEST FOR EXPEDITED
RELIEF BY SUNSHARE, LLC AGAINST NORTHERN STATES POWER
COMPANY D/B/A XCEL ENERGY (REGARDING THE SUNSHARE CLEODSUN
PROJECT)
DOCKET NO. E002/C-21-126

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy (Company), submits the attached Answer of the issue of estimated interconnection costs in the Interconnection Agreement raised in SunShare LLC's Amended Complaint consistent with the vote of the Commissioners at the August 12, 2021 Hearing on the CleodSun Project.

Certain information in this filing has been marked as Not Public Protected Data. Some of this is information that Sunrise may consider to be its Not Public Protected Data. Other information has been designated as Not Public Protected Data of Xcel Energy because this data is classified as trade secret pursuant to Minn. Stat. §13.37, subd. 1(b). This information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Certain information marked as Not Public Protected Data is also classified as security information under Minn. Stat. §13.37, subd. 1(a) as the disclosure of this information would be likely to substantially jeopardize the security of information or property against tampering, improper use, illegal disclosure, trespass or physical injury.

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list. Please contact Brandon Stamp at Brandon.J.Stamp@xcelenergy.com or (612)337-2076 if you have any questions regarding this filing.

Sincerely,

/s/

JAMES DENNISTON
ASSISTANT GENERAL COUNSEL

Enclosures
c: Service List

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STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
Joseph Sullivan	Commissioner
John A. Tuma	Commissioner

IN THE MATTER OF A FORMAL
COMPLAINT AND REQUEST FOR
EXPEDITED RELIEF BY SUNSHARE, LLC
AGAINST NORTHERN STATES POWER
COMPANY D/B/A XCEL ENERGY
(REGARDING THE SUNSHARE CLEODSUN
PROJECT)

DOCKET NO. E002/C-21-126

ANSWER

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy (Company), submits this Answer on the issue of estimated interconnection costs in the Interconnection Agreement raised in SunShare LLC's Amended Complaint consistent with the vote of the Commissioners at the August 12, 2021 Hearing on the CleodSun project. We incorporate into this Answer all of our responses and arguments on this issue as set forth in our June 23, 2021 Comments. It is assumed that the reader has fully reviewed these previously filed Comments. In taking this approach, we also provide supplemental information below, guided to a large extent by the discussions and deliberations at the Commission's August 12 Hearing.

ANSWER

The issue before the Commission is whether the Company has (1) provided sufficient information to SunShare for purposes of providing the estimated costs in the Interconnection Agreement; and (2) utilized the discretion of engineering judgement to appropriately determine equipment replacement. The Company believes that it has provided sufficient information to SunShare to decide whether or not to move forward with the CleodSun project. SunShare, however, is asking for an investigation to determine whether the equipment at issue can be modified instead of being replaced. The SunShare request is unsupported and goes beyond the type of

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information we provide to other distributed energy resource (DER) customers interconnecting to our system. In fact, SunShare is seeking to have us install non-standard equipment configurations into our network that does not resolve the technical requirements for interconnection of the CleodSun project. The Company has correctly studied and reviewed this interconnection based on standards required for interconnection, therefore, we request the Commission dismiss this Complaint.

The Company provided an indicative cost estimate for the CleodSun Interconnection Agreement (February 2020) that identified necessary upgrades, including the installation of voltage supervisory reclosing (VSR) and associated recloser replacement with a breaker and a full replacement of the voltage regulator and controls. Sunshare believes that the recloser, voltage regulator and controls should be modified rather than replaced. This is not an option for the interconnection of CleodSun. The existing equipment cannot be modified and must be replaced as detailed below.

A. Recloser Replacement

The Lester Prairie Substation’s LSP022 feeder currently has a hydraulic recloser. The existing recloser is a [PROTECTED DATA BEGINS PROTECTED DATA ENDS] which is a hydraulic operated, oil-fill recloser. Additionally, the recloser was installed in [PROTECTED DATA BEGINS PROTECTED DATA ENDS].

Hydraulic reclosers have been a mainstay piece of equipment within the power industry and are still used and maintained today on our distribution system. Oil-filled hydraulic reclosers operate by sensing an overcurrent through a trip coil that is connected in series within the distribution line. A plunger is drawn into the coil to trip and open the recloser’s contacts in the event of current beyond the given threshold flowing through the coil. Proper timing and sequencing are achieved by pumping oil through separate hydraulic ducts. Hydraulic reclosers use mechanical principles to operate and provide adequate overcurrent protection for a distribution system.

The introduction of DER on the distribution system presents the risk of islanding events and requires equipment that offers greater protection capabilities in the event of an islanded system. If a protective device operates to isolate a portion of the system and DER remains online, solely energizing the isolated system, an unintentional island can occur. The islanded system is likely to drift out of synchronism with the Company. If a protective device were to reclose when the distribution system and the islanded system are out of phase, potentially damaging transients can occur. Transients can cause varying levels of damage that range from damage to the reclosing device, to widespread damage affecting all equipment connected to the feeder. This

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includes damage to distribution equipment (transformers, reclosers, arrestors, insulators, etc.), customer assets (motors, lighting, computers, etc.), and even to the DER itself. This risk can be mitigated using VSR to ensure the distribution system is completely deenergized prior to the reclose of protective devices. The Company requires VSR on protective reclosing devices when the applicable minimum load is less than 125 percent of the aggregate generation AC nameplate rating downstream from the device, as the aggregate generation could be capable of sustaining an island under such conditions.

Protective equipment that has VSR functionality checks for a hot bus (upstream of the device) and a dead line (downstream of the device) prior to reclosing. This ensures the device does not reclose into an island system, or close when the upstream bus is deenergized, which could hide downstream faults when trying to restore power.

Microprocessor-based relays provide the capabilities of voltage supervision. Furthermore, microprocessor-based relays offer greater operational flexibility because they are programmable and can accept and analyze multiple inputs for more advanced protection, metering, and automation functionality.

Generally, oil-filled hydraulic reclosers are not capable of being upgraded to provide VSR and therefore a replacement with a breaker is needed for the CleodSun project to interconnect. We note that for maintenance purposes, the Company has an extensive review process to determine whether equipment is necessary to be replaced. The last record of maintenance on this recloser [**PROTECTED DATA BEGINS PROTECTED DATA ENDS**] and as a result of our analysis, the existing hydraulic recloser is not currently scheduled for replacement. This equipment only needs replacement because of additional DER added to the system – and in this case, electronic controls are the necessary, standard control type Xcel Energy employs for voltage supervisory reclosing, thus causing the need for equipment replacement. SunShare is the cost-causer for this work.

At the Commission's August 12 Hearing, there was discussion on the age of the current hydraulic recloser, perhaps calling into question whether the hydraulic recloser has already been fully depreciated. This could imply that the interconnection customer should only be responsible for the net cost after depreciation. The City of Minneapolis raised this issue in February 2019 in Docket No. E002/M-18-714, *In The Matter of Xcel Energy's Tariff Revisions Updating Interconnection Standards for Distributed Generation Facilities Established Under Minn. Stat. §216B.1611*. We provide as Attachment A to this Answer our February 22, 2019 Reply Comments in that docket, addressing this issue. As explained there, such a proposal is inconsistent with the requirement that the interconnection customer pay for the actual costs of distribution upgrades; we

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also described in detail the accounting treatment for the costs of distribution upgrades. The Commission did not adopt the proposal from the City of Minneapolis in that docket and should not contemplate such an approach here either.

B. Regulator Replacement

The engineering review found the CleodSun project to cause reverse power flow across the voltage regulator on feeder LSP022. The voltage regulator must have CoGen mode to ensure it responds correctly under reverse flow conditions. If CoGen mode is not enabled, voltage regulators are prone to voltage runaway under reverse flow conditions. This happens when the regulator changes step to correct voltage, but due to the reverse flow the system does not respond as expected. The regulator continues to operate as programmed until it has reached max raise or lower tap position, which negatively impacts system voltage. CoGen mode allows the regulator to identify reverse flow conditions and unexpected system responses to a change in tap step. When these conditions are detected, CoGen mode controls block additional regulator operation to prevent runaway. The controller on the existing voltage regulator does not have CoGen mode. This requires a new controller which is not compatible with the existing voltage regulator, therefore the voltage regulator needs to be replaced with a voltage regulator that is compatible with the new controller.

C. Technical Details Already Provided

Contrary to SunShare's allegation, the Company did provide SunShare technical details regarding the necessary regulator and substation breaker replacement as detailed in the call on March 4, 2020, as summarized in the email to SunShare attached to our June 23 Comments. Additionally, we have provided SunShare information on what portion of the total cost is related to the VSR and the substation breaker replacement but cannot give any more specific cost details due to contractual obligations, including competitively sensitive pricing information from our suppliers. Finally, we have also informed SunShare that two other projects ahead of CleodSun in queue withdrew their applications because similar substation upgrades would have been required to interconnect those projects, too.

SunShare maintains that the Company is not looking at the least cost option but only the solution that meets our internal standards and therefore would like to obtain more cost details. The Company emphasizes the importance of consistent and well-vetted equipment, design and engineering standards. For example, it is important to look at performance and reliability of equipment, including testing standards, manufacturing data and other areas. It may be necessary to test and demonstrate various pieces of

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equipment, especially if it is new to us or if there are new or emerging capabilities. When selecting equipment, we also take into consideration various user and construction aspects which may also influence equipment selection. Finally, once a particular standard or piece of equipment is selected, we educate, train and gain feedback from engineering, design, construction and other operations personnel. Likewise, we emphasize the importance of standards in the total cost of ownership model of a particular piece of equipment or other standards development area. Also, with a company of our size, creating one-off exception for a piece of equipment has a potential to introduce safety concerns, additional cost, and errors or inefficiencies in maintenance, training and education.

We have provided an appropriate indicative cost estimate as well as additional information on what portion of the total cost is related to the VSR and the substation breaker replacement. This equipment to be installed is the least cost standard Xcel Energy equipment required to achieve the needed functionality. This equipment will provide CleodSun with the safe, reliable interconnection requested as part of their interconnection application and is consistent with the interconnection of other CSGs. Other options, such as recloser control modifications, as suggested by SunShare, are unavailable for this site based on the need for compatibility and standardization.

D. Comparison to Other Costs

CleodSun's application site is on the same parcel of land as a previously withdrawn application – Sunshare's Schiller project. The SunShare Schiller project was the subject of a prior complaint in Docket No. E002/C-19-203, *In the Matter of a Formal Complaint Against Xcel Energy by SunShare, LLC, Pursuant to Minn. Stat. § 216B.17*. SunShare never signed or funded the IA for the Schiller project. The Schiller project complaint questioned whether the Company properly cancelled the application and asserted that cost estimates provided in the Schiller IA were "unreasonably high." The Commission's June 18, 2019 Order dismissed the Schiller case. We are discussing the Schiller project here because SunShare's current complaint was comparing the cost estimates for these two projects.

The Schiller (3 MW) project received an interconnection cost estimate in 2017, a full three years prior to the CleodSun (1 MW) project receiving an IA. In the meantime, three additional projects were applied for on the Lester Prairie Substation and LSP022 feeder. One of the projects moved forward, while two were withdrawn as a result, in part, due to high interconnection costs in this area. Equipment costs and knowledge of the engineering work required to complete this type of work also have evolved since the Schiller project was reviewed, leading to what we anticipate being a more accurate indicative cost estimate provided in February 2020. Therefore, neither the

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Schiller and CleodSun projects nor their studies or indicative costs are comparable. It seems that SunShare expected that by reducing the size of the project the interconnection costs would be reduced, although the site had not been altered and upgrades were still necessary.

E. Compliance with Applicable Tariffs and Orders

The Complaint essentially challenges our engineering judgment on what equipment needs to be replaced, a determination that is based on our engineering review. We do not believe this is an appropriate issue for a Complaint as we should be allowed to use our engineering judgment, based on acceptable industry standards and practice and extensive experience in operating the distribution system. Otherwise, the Commission would be limiting our ability to determine how to best manage our distribution network.

We have followed our approved process for engineering studies under Pre-MN DIP for the CleodSun project. We conduct so many studies that accommodating a number of special requests or one-off solutions could bring the project pipeline to a halt and jeopardize meeting the required timelines. Additionally, we cannot allow one-off variances because they could lead to allegations of discrimination from other developers if they were not allowed the same one-off variances. Alternatively, implementing the one-off exceptions could then become the rule, and as a result we would not have a standard process for interconnection.

The Commission has recently re-iterated that the Company must be able to exercise engineering judgment when reviewing interconnection applications. The Commission’s August 13, 2021 Order stated, in part:
“As Xcel hosts ever more distributed energy resources on its system – and specifically on a few feeders within its system – interconnection review becomes more complicated. Utilities must exercise judgment to ensure that any interconnection project will not impair the grid’s safety or reliability.” (In the Matter of a Formal Complaint and Petition for Expedited Relief by Sunrise Energy Ventures LLC Against Northern States Power Company d/b/a Xcel Energy, Docket No. E002/C-21-160, page 7).

We have properly exercised our engineering judgment in determining which equipment needs to be replaced or installed in order to accommodate the CleodSun project.

During the August 12 Hearing, Counsel for SunShare quoted a portion of the Commission’s December 15, 2015 Order in the CSG docket (pages 7-8), addressing the provisions on tariff sheet 9-68.11 on the standards an Independent Engineer

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should use, claiming that it is applicable here. The current version of this tariff sheet states, in part:

The safety and reliability of the Company's system should be given paramount consideration in any analysis. The review of the independent engineer must consider industry standards for interconnection, including the current version of the National Electric Safety Code, National Electric Code as adopted in Minnesota, FERC rules, NERC rules, Minnesota rules and Minnesota Interconnection Standards and must consider, on a case-by-case basis, the Company's standards for building, safety, power quality, reliability and long-term stable operations for building facilities even where such standards are more restrictive than the minimum requirements set forth in the codes, standards and rules. *Continuity and consistency of using Company standards is paramount for employee safety. The standards employed by the Company (and as used by the independent engineer) should not vary, where applicable, from the standards which the Company uses when constructing, maintaining, or repairing its distribution network for purposes of providing service to its own retail customers.* However, if the independent engineer determines that a particular piece of equipment or engineering alternative proposed by Xcel is more restrictive than industry standards but does not discourage cogeneration or small power production, the Company may implement that alternative, if the Company pays the incremental cost in excess of the amount necessary to implement the industry standard. The additional incremental costs paid by Xcel cannot be included in the \$1 million material upgrade limit. Xcel would continue to have the burden of proof to show that it is reasonable for its ratepayers to pay for the costs of the more restrictive standards. This engineering review specifically excludes appeals relating to Co-Location Determination addressed in par. 4 above, and excludes disputes not related to the interconnection application such as disputes after interconnection has been achieved. (*emphasis added*)

The standards set forth in this tariff provision further support the Company's position. We are maintaining continuity and consistency in our standards by requiring here the equipment we have specified for interconnection – this is also paramount for employee safety. Further, the breaker, voltage regulator and controls we would be installing are based on the same standards that the Company would use when constructing, maintaining, or repairing its distribution network for purposes of providing service to its own retail customers. The only equipment we are requiring here that we would not use for purposes of providing service to our own retail

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customers are VSR capabilities on the breaker and enabling cogeneration mode on the voltage regulator as these are specifically needed for the interconnection of the CleodSun project.

Our tariff sheet 10-139 provides further authority for the Company to determine how DER will interconnect, including the modifications that are needed to the Company system: *“For some unique interconnections, additional and/or different protective devices, system modifications and/or additions will be required by Xcel Energy. In these cases Xcel Energy will provide the final determination of the required modifications and/or additions. If any special requirements are necessary they will be identified by Xcel Energy during the application review process.”*

We believe that granting the SunShare request would violate our tariff and the following statutes:

- Minn. Stat. §216B.06 - RECEIVING DIFFERENT COMPENSATION. No public utility shall directly or indirectly, by any device whatsoever, or in any manner, charge, demand, collect, or receive from any person a greater or less compensation for any service rendered or to be rendered by the utility than that prescribed in the schedules of rates of the public utility applicable thereto when filed in the manner provided in Laws 1974, chapter 429, nor shall any person knowingly receive or accept any service from a public utility for a compensation greater or less than that prescribed in the schedules, provided that all rates being charged and collected by a public utility upon January 1, 1975, may be continued until schedules are filed.

By this statute, SunShare cannot receive or accept any other service than what is prescribed in the Company tariff. Yet, this is what SunShare is seeking here by requesting an alternative, different process than provided in our tariff.

- Minn. Stat. §216B.07 RATE PREFERENCE PROHIBITED. No public utility shall, as to rates or service, make or grant any unreasonable preference or advantage to any person or subject any person to any unreasonable prejudice or disadvantage.

By this statute, SunShare cannot receive any unreasonable preference or advantage to any other person. Yet, this is what SunShare is seeking here by requesting special treatment different from how our tariff has been applied to other developers.

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*- Minn. Stat. §216B.1611 INTERCONNECTION OF ON-SITE
DISTRIBUTED GENERATION. ...*

Subd. 2. Distributed generation; generic proceeding.

(a) The commission shall initiate a proceeding within 30 days of July 1, 2001, to establish, by order, generic standards for utility tariffs for the interconnection and parallel operation of distributed generation fueled by natural gas or a renewable fuel, or another similarly clean fuel or combination of fuels of no more than ten megawatts of interconnected capacity. At a minimum, these tariff standards must: ...

(2) provide for the low-cost, safe, and standardized interconnection of facilities

By this statute, the Company must provide standardized interconnection of facilities as set forth in our tariff. This is what we have offered, yet SunShare is seeking special treatment here.

We believe that we have been complying with our tariff and with prior Commission directive when analyzing the CleodSun application and developing the indicative cost estimate. We do not want to be in a position where we are giving special treatment or discriminating in favor of one developer. However, we would appreciate clear guidance from the Commission on a going forward basis: either affirming the way we have handled the CleodSun interconnection application or specifically directing us to do something different. This clear direction would either help us change our practices or discourage further developer complaints on similar issues.

CONCLUSION

We ask the Commission to require the CleodSun project to follow the same standard interconnection process so many others have navigated successfully and dismiss this Amended Complaint.

Dated: August 23, 2021

Northern States Power Company



414 Nicollet Mall
Minneapolis, MN 55401

February 22, 2019

—Via Electronic Filing—

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: REPLY COMMENTS
IN THE MATTER OF XCEL ENERGY'S TARIFF REVISIONS UPDATING
INTERCONNECTION STANDARDS FOR DISTRIBUTED GENERATION
FACILITIES ESTABLISHED UNDER MINN. STAT. §216B.1611
DOCKET NO. E002/M-18-714

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission the enclosed Reply Comments in response to the Comments filed by parties on February 4, 2019.

Pursuant to Minn. Stat. § 216.17, subd. 3, we have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list. Please contact Amber Hedlund at amber.r.hedlund@xcelenergy.com or (612) 337-2268 or me at holly.r.hinman@xcelenergy.com. or (612) 330-5941 if you have any questions concerning this filing.

Sincerely,

/s/

HOLLY HINMAN
REGULATORY MANAGER

Enclosures
c: Service Lists

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
Katie J. Sieben	Commissioner
John A. Tuma	Commissioner

IN THE MATTER OF XCEL ENERGY'S
TARIFF REVISIONS UPDATING
INTERCONNECTION STANDARDS FOR
DISTRIBUTED GENERATION FACILITIES
ESTABLISHED UNDER MINN. STAT.
§216B.1611

DOCKET NO. E002/M-18-714

REPLY COMMENTS

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission these Reply Comments in response to the Comments filed by parties on February 4, 2019.

REPLY COMMENTS

On December 14, 2018, the Company filed its petition in this docket with proposed tariff revisions in compliance with the Commission's August 13, 2018 *Order Establishing Updated Interconnection Process and Standard Interconnection Agreement* in Docket No. E999/CI-16-521. The August 2018 Order required Xcel Energy to file updated tariffs consistent with the Commission's adoption of the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) and the Distributed Energy Resource Interconnection Agreement (MN DIA) ("interconnection standards"). The Company's proposed tariffs to comply with the MN DIP and MN DIA were presented in its petition in this docket.

On January 4, 2019, the Commission issued its Notice of Comment Period for parties to address the following issue: "*Should the Commission approve Xcel Energy's proposed tariff revisions to implement the Minnesota Distributed Energy Resource Interconnection Process and Agreement?*" On February 4, 2019, the Department of Commerce (Department) and the City of Minneapolis (City) filed comments. The Department recommended approval of the Company's proposed tariff revisions with certain modifications and,

as discussed below, the Company agrees with these modifications. The City of Minneapolis proposed other tariff changes not related to the implementation of the MN DIP and MN DIA that we oppose as discussed below.

I. REPLY TO THE DEPARTMENT

The Department recommended two modifications to our proposed tariffs. First, the Department recommended removal of the Pre-application Report Request Form and related language from our proposed tariff sheets 10-168 and 10-169. Even though this content is directly from the MN DIP, we agree with this suggested change because this exact same content is in MN DIP Attachment 1 (at proposed tariff sheets 10-211 and 10-212). We agree that it would be redundant to include the same provisions at both locations in our tariff and agree that it is appropriate to remove this content from Sheets 10-168 and 10-169.

We agree with the Department's second recommendation that we remove error messages on Sheet 10-206 under the definitions of Interconnection Agreement and Interconnection Amendment. For the definition of Interconnection Agreement, the error message should be replaced with a reference to MN DIP Section 1.1.5. For the definition of Interconnection Amendment, the error message should be replaced with a reference to MN DIP Section 1.6.

II. REPLY TO THE CITY OF MINNEAPOLIS

The comments of the City of Minneapolis raise an issue outside of this proceeding and the scope provided in the Notice of Comment Period. The City takes issue with the concept of cost attribution for cost causers with respect to necessary system changes to accommodate the DER seeking to interconnect. The City stated that the MN DIP process may reduce the need for distribution system upgrades, and further recommended that the party seeking interconnection only be financially responsible for the net cost of distribution system upgrades after depreciation. It recommended specific wording changes in our existing tariffs to reflect their policy position.

The MN DIP and MN DIA each require the Interconnection Customer to pay for the actual costs of the Distribution Upgrades (See, MN DIP 5.6.1, 5.6.5, and MN DIA 4.1.1, 4.2 and 6.1.1). The City has not recommended changes to these provisions of the MN DIP and MN DIA. The City recommends that customers only be financially responsible for the net cost after depreciation of any required distribution system upgrades. We believe that the City is intending to address the cost less depreciation

for the value of facilities that are removed as part of the effort to accommodate the Interconnection Customer, and its statement is referring to crediting the cost to interconnect with the net book value (original cost less accumulated depreciation) of the asset being retired.

Because the City's proposal is inconsistent with the MN DIP and MN DIA, which require the interconnection customer to pay for the actual costs of distribution upgrades, we do not support this proposal. We also believe the City's arguments go beyond the scope of the Commission's Notice to address whether the proposed tariffs have properly implemented the MN DIP and MN DIA. For informational purposes, we provide a description of the accounting treatment for the costs of distribution upgrades in Attachment A.

CONCLUSION

We appreciate the opportunity to provide these Reply Comments. We support the recommended tariff revisions offered by the Department, and oppose those recommended by the City of Minneapolis.

Dated: February 22, 2019

Northern States Power Company

Accounting Treatment for Costs of Distribution Upgrades

In order to ensure that interconnection customers pay for the actual costs of distribution upgrades, it is imperative that the accounting transactions required for distribution upgrades remain rate base neutral. This ensures that all costs are passed on to the customer requiring the upgrade and are not borne by other customers. The four key issues to consider in this regard are:

- 1) Net book value of assets at retirement,
- 2) Actual net salvage of retired asset,
- 3) Impact of new interconnection equipment on rate base, and
- 4) Tax implications of Contributions in Aid of Construction (CIAC).

We will discuss each of these issues below.

1) Net book value of assets at retirement

The Company utilizes the group depreciation method for its distribution assets. Under group depreciation, assets of a similar type (distribution poles, overhead conductor, etc.) are grouped together and depreciated as a whole. Under this method, depreciation is not tracked for each individual asset. Depreciation rates are primarily based on an average service life of all of the assets in the group. It is assumed that some assets will be in operation longer than the average service life, while other assets will be retired before the average service life. It is assumed that the average useful life is sufficient to recover the depreciation for the assets spanning either side of the average. At the time of an asset's retirement, it is assumed that there is no longer any useful life on the asset and that the net book value of the asset is zero. Overall rate base remains unchanged due to the retirement of an existing asset.

The true net plant for the original cost of the asset being replaced is zero at retirement. Therefore, there is no net book value for the original cost to credit the interconnection costs. Further, the rate base at retirement is not changed and customers that are not involved with the distribution upgrades remain unaffected.

2) Actual net salvage of retired assets

Under the Company's normal depreciation process, estimated removal costs less estimate salvage (net salvage) is built into the calculation of depreciation expense. The depreciation rate used to calculate depreciation expense includes a portion to cover future removal costs, in order to collect these costs during the useful life of the

assets.¹ At the time of an asset's retirement, the actual net salvage experienced is booked as a credit to accumulated depreciation, which increases rate base.

However, in the case of interconnection-related upgrades, if the actual net salvage incurred on the assets replaced was allowed to be credited to the general accumulated depreciation account, rate base would increase and general customers would pay a higher return on rate base over time. In order to keep rate base neutral, actual net salvage should be added to the total interconnection costs charged to the requesting customer.

3) Impact of new interconnection equipment on rate base

When the new interconnection equipment is added, the requesting customer is charged the full capital cost of the new equipment. This payment, also known as CIAC, is credited against the capitalized value of the asset and reduces the book value on the Company's books to zero. This zero value asset will not be depreciated and has a net zero impact on the Company's rate base.

4) Tax implications of CIAC

CIAC payments received from customers are considered taxable revenue by the Internal Revenue service. At the time the payment is received the Company pays taxes on the transaction. In conjunction with the taxation of CIAC payments, the Company establishes a deferred tax asset that is included in rate base. This results in an increase to rate base over this period, which will result in a higher cost of service to be paid by the general ratepayer. The deferred tax asset is amortized over 20 years through annual tax deductions.

In the nominal sense, the tax payments upfront and tax deductions, through the amortization of the deferred tax asset, net to zero. However this analysis ignores the time value of money. The net present value of paying taxable income in year one and receiving tax deductions for the next 20 years is a loss to the Company and results in higher costs to customers, through higher return on rate base. The Minnesota jurisdiction generally allows this additional cost to be borne by all customers. In order to shift this cost to the entity generating the additional costs, the customer requesting interconnection, some jurisdictions have been adding this loss in time value to the cost of the interconnection. If the Commission wishes to consider adding this cost to the total interconnection costs, the Company estimates that it would increase the costs by 20 percent.

¹ Reserve for removal costs is included in accumulated depreciation for rate making purposes.

CERTIFICATE OF SERVICE

I, Crystal Syvertsen, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota; or

xx by electronic filing.

Docket Nos.: E002/C-21-126

Dated this 23rd day of August 2021.

/s/

Crystal Syvertsen
Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Jacob	Bobrow	jbobrow@mysunshare.com	SunShare	1724 Gilpin St Denver, CO 80218	Electronic Service	No	OFF_SL_21-126_Official Service List 21-126
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_21-126_Official Service List 21-126
James	Denniston	james.r.denniston@xcelenergy.com	Xcel Energy Services, Inc.	414 Nicollet Mall, 401-8 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_21-126_Official Service List 21-126
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_21-126_Official Service List 21-126
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_21-126_Official Service List 21-126
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_21-126_Official Service List 21-126
Lynnette	Sweet	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_21-126_Official Service List 21-126
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