

Rivoli Bluff Community Solar Garden

Dayton's Bluff Neighborhood Housing Services (DBNHS) respectfully requests the HRA of the City of St. Paul works with us and the Railroad Island Task Force, to repurchase the Rivoli Bluff street sweeping dump. DBNHS will pay Ramsey County's asking price of 53,606 along with any associated closing costs.

In 2008, in partnership with the HRA and the St. Paul Department of Public Works, DBNHS remediated the street sweeping dump, when we completed the remediation of the rest of the Village on Rivoli site, by placing 4 feet of clean engineered fill over the street sweepings. At the time the site was owned by the Department of Public Works through a use deed from the State of Minnesota (it was tax forfeit property). The intent all along was to incorporate this site into the Village on Rivoli as greenspace, because it is unbuildable due to the depth of the street sweepings.

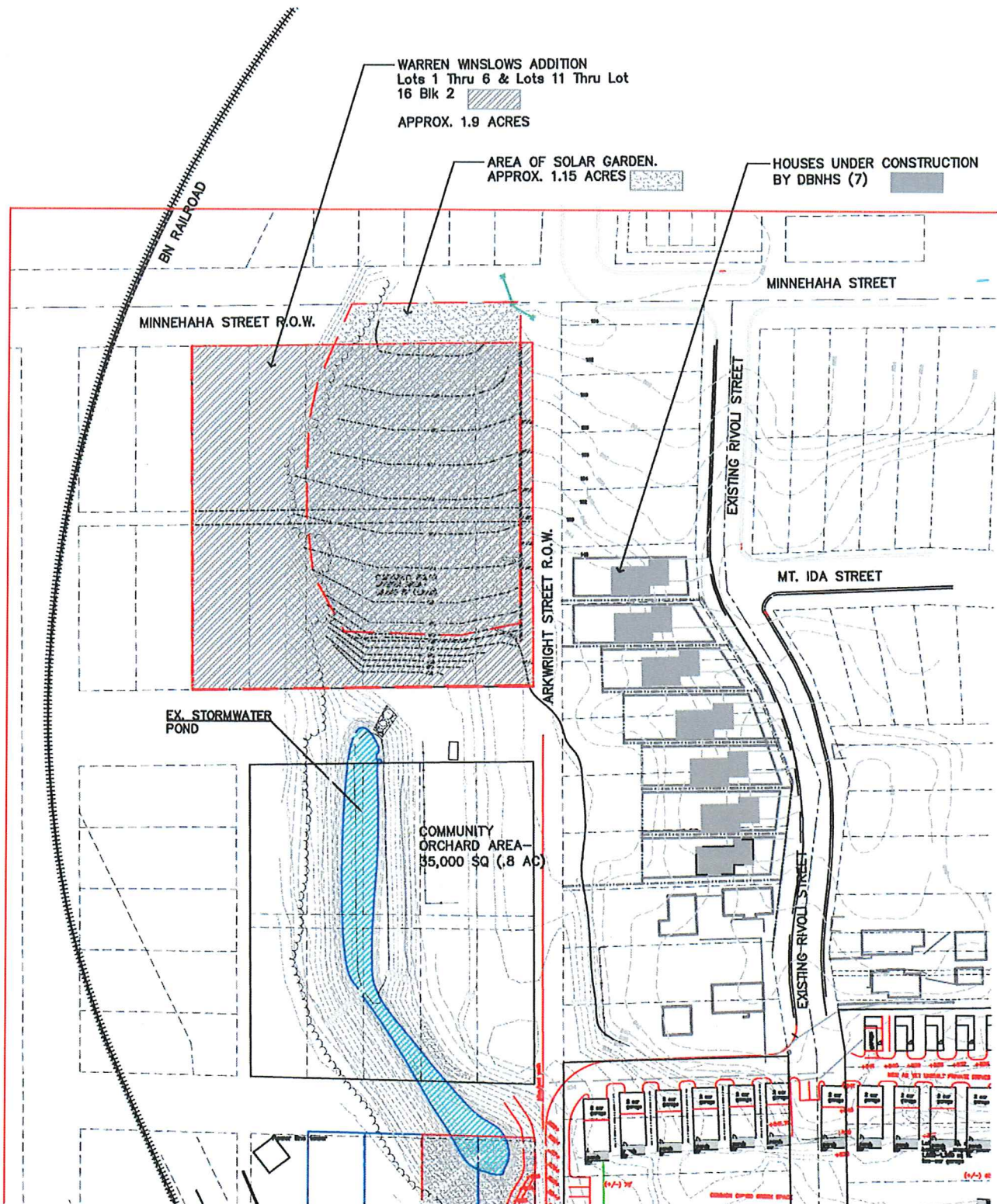
Shortly after the remediation work was completed, Ramsey County took the City to court demanding the site be returned to the County/State of Minnesota. The court determined, because the City was no longer using the site as a street sweeping dump, the City had to forfeit the property back to the County. DBNHS is uncertain if it was ever discussed, in court, that DBNHS and the City had remediated the site at considerable cost and that the Railroad Island task Force, working in conjunction with the City and DBNHS, had a plan for the site's reuse.

Because the Village on Rivoli will now have adequate greenspace below the bluff, we now believe the dump site can be better used as a community solar garden. DBNHS is partnering directly with Xcel Energy to execute this plan, along with Thor construction, who will construct the 500,000-1,000,000 watt photovoltaic array and the Energy Cents Coalition, who will manage the project's member/customer subscriptions. The solar garden will power approximately 100-150 houses.

This project is very unique, in addition to being the first community solar garden in St. Paul, the eligible subscribers will be households on the East Side, starting with Railroad Island residents, who are eligible for the Low Income Home Energy assistance Program ((LIHEAP). It also will serve as a training site to training local disadvantaged youth in solar panel maintenance and repair.

The solar garden is part of a large special energy conservation effort targeted to residents, property owners and businesses in Railroad Island. We like to call it "On track to Net Zero". The solar garden, which is currently estimated to cost \$998,000 will be owned and paid for by Xcel Energy. DBNHS plans to retain ownership of the site and lease it to them. The lease proceeds will be used to maintain the Village on Rivoli greenspace. Our special energy conservation effort will be funded through Xcel's Conservation Improvement Program. The initial filing, with the Minnesota Public Utilities Commission, requesting permission to undertake these projects, was filed on March 1, 2017.





VILLAGE ON RIVOLI - SOLAR GARDEN PROPERTY
Dayton's Bluff Neighborhood Housing Services

April 25, 2017

Thor Construction Inc.

5400 Main St NE Suite 203
Minneapolis, MN 55421-1132

Project : **Daytons Bluff Solar Garden**
Location: **MN**
Proposal Date: **5/1/17**

Total WATTS

500,000

TOTAL BUDGET \$ 998,315 \$ 1.997 WT

Spec. Sec.	Description	Cost		
1	General Conditions THOR GC's Design Fees Permit Fees Testing/QA/QC	\$ 35,197 \$ 35,197 Excluded Excluded Excluded	\$ 0.07	SF
2	Division 2 - Demolition and Abatement	\$ 21,950	\$ 0.04	SF
	Demo / Site prep	Thor Construction \$ 20,100		
	Dumpsters	Thor Construction \$ 350		
	Daily clean	Thor Construction \$ 1,500		
3	Division 3 - Concrete	\$ 134,865	\$ 0.27	SF
	Concrete	Ground mount \$ 134,865		
5	Division 5 - Metals / Steel Fabrication	\$ 66,851	\$ 0.13	SF
	Structural steel - Bollards	Thor Construction \$ 66,851		
	Division 26 - Electrical	\$ 669,510	\$ 1.34	SF
26	Electrical	Solar System \$ 669,510		
	Division 31 - Earthwork	\$ 10,050	\$ 0.02	SF
	Landscape	Ground cover only \$ 10,050 \$ -		
	Division 32 - Exterior Improvements	\$ 5,825	\$ 0.01	SF
	Asphalt Paving	Access road \$ 5,825 \$ -		
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	Total General Conditions	\$ 35,197		
	Total Subcontract	\$ 909,051		
	General Liability Insurance 1.0% on sub	1.10% \$ 10,387		
	General Contractors Bond	1% \$ 15,352		
	Contingency	0.00% \$ -		
	Overtime Allowance	0.00% \$ -		
	Fee	3.00% \$ 28,327		
	Total	\$ 998,315		



414 Nicollet Mall
Minneapolis, MN 55401

March 1, 2017

—Via Electronic Filing—

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

RE: CUSTOMER ACCESS JOINT PILOT CONCEPT
COMMUNITY SOLAR GARDENS PROGRAM
DOCKET NO. E002/M-13-867

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits the enclosed Proposal in compliance with the Minnesota Public Utilities Commission's September 6, 2016 Order.

We have electronically filed this document with the Commission, and copies have been served on the parties on the attached service list. Please contact me or Holly Hinman at holly.r.hinman@xcelenergy.com or (612) 330-5941 if you have any questions regarding this filing.

Sincerely,

/s/

AAKASH H. CHANDARANA
REGIONAL VICE PRESIDENT, RATES AND REGULATORY AFFAIRS

Enclosure
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Nancy Lange	Chair
Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
Katie Sieben	Commissioner
John Tuma	Commissioner

IN THE MATTER OF THE PETITION OF
NORTHERN STATES POWER COMPANY
FOR APPROVAL OF ITS PROPOSED
COMMUNITY SOLAR GARDENS PROGRAM

DOCKET No. E002/M-13-867

**CUSTOMER ACCESS
JOINT PILOT CONCEPT**

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits this concept proposal in compliance with the Minnesota Public Utilities Commission's September 6, 2016 Order in this docket. The Order requires that the Company develop and file a community solar garden proposal for low income customers, applying LIHEAP eligibility standards.¹ In addition, the Commission ordered the filing of any other proposals by parties to enhance access to community solar gardens for low income customers.

Since the Commission's Order, we have engaged in a series of discussions with community partners and advocates about program designs which arise directly out of the communities to be served. A few creative models have surfaced, including one identified by the Energy Cents Coalition (ECC) which pairs significant energy efficiency investments with community solar in a first-of-its-kind neighborhood-based project to benefit the residents of the St. Paul community of Railroad Island. The

¹ Minn. Stat. § 216B.1641 provides for the direct participation of public utilities in the community solar program by owning or contracting for gardens. It states, "The owner of the community solar garden may be a public utility or any other entity or organization that contracts to sell the output from the community solar garden to the utility under section 216B.164." The statute further provides that the community solar garden program offered by the utility and approved by the Commission may not apply different requirements to utility and non-utility owned community solar gardens. In its April 7, 2014 Order in this docket, the Commission directed the Company to submit a filing for Commission approval "of any proposal to offer utility-owned solar gardens. The filing shall include a detailed explanation of all processes and procedures to ensure that solar-garden operators are treated on a nondiscriminatory basis with Xcel-owned solar gardens."

Company supports this innovative concept and seeks to partner with ECC to develop the concept into a pilot project.

As discussed in this filing, the pilot concept is in an early stage of development and conversations with community partners continue. The Company intends to continue work on the concept, developing a project scope, a budget, and an implementation plan. We intend to provide the Commission with a supplement within 90 days of this filing that includes a pilot project proposal. We anticipate the Commission may at that time wish to open a comment period for additional input on the proposal. With direction provided to the Company, we would then work directly with the Department to identify any requisite filings in our Conservation Improvement Program (CIP) proceeding or other related dockets.

In this concept proposal, we provide a brief background on how this concept came to be, we provide an overview of the project as originally brought forward by ECC, and we describe next steps in driving this project forward. Acknowledging that there are aspects of project feasibility which have not yet been closely reviewed, we also introduce the potential for an alternate project, should the Railroad Island joint proposal prove unworkable.

I. BACKGROUND

In bringing forward a proposal that is responsive to the Commission's Order, the Company has reflected on the developments of this proceeding to date. Discussions relating to the participation of low income customers in the program have implied that the program is an effective means of helping low income customers achieve energy bill savings. To the contrary, our community solar program is not an efficient driver of bill savings for any customer because community solar gardens are among our most expensive system resources.

By contrast, we have highly efficient tools available today to drive bill reduction for low income customers. The Company works with low income advocates, legislators, and regulators in the development of programs to serve our most at-risk customers. Minnesota has a robust LIHEAP program, which provides nearly 55,000 qualifying customers with federal energy assistance support on their utility bills. In addition, our Company-managed programs consist of the Seniors/Disabled Electric Discount, PowerON, and Gas Affordability Programs. These programs provide nearly \$14

million of additional annual bill payment assistance benefits – over and above LIHEAP– to customers receiving energy assistance.²

We believe there is an important policy distinction to be made in considering the purpose of Commission's Order. It is possible that the Commission intended that the Company participate in the program directly in order to *generate discounts for relatively few customers*. We do not believe that this was the Commission's intent. We believe the Commission instead directed the Company's participation in order to *create access to renewables* for those with barriers to solar.

We interpret the Commission's Order as requiring the Company to create a point of access for low income customers for three primary reasons. First, community solar is not intended to be a discount service. As the Company has highlighted in this record, participants in community solar elsewhere in Minnesota and across the country access similar programs at a *premium* price compared to retail service. In this way, community solar is still more accessible to customers than rooftop solar for those wishing to invest in renewables, but is not offered or intended as a utility bill discount program.

Second, the structure of Solar*Rewards Community is a relatively poor fit for efficiently reducing customer bills. This is because all customers fund the bill credit for participating subscribers – including Residential class customers with low incomes. All customers pay more for the participation of a few, and this cost burden grows as the program grows.

Third, the Commission's requirement that the Company participate directly in the program arose based on an expectation that community solar providers would include those customers historically foreclosed from rooftop solar. The vast majority of participating solar developers have fallen short of this expectation, however, and are not voluntarily serving residential customers, let alone customers with low incomes or low credit scores. Developers have cited higher customer acquisition and service costs, as well as financing obstacles, as reasons for excluding low income customers from their projects.

We believe the joint concept we put forward achieves the requirement to deliver program access, but it does not stop there. With this joint concept, the Company and its community partners have identified a means of also delivering a locally-supported

² In 2016, approximately 30,000 customers per month received benefits under the Seniors/Disabled Discount program. 16,000 customers received benefits under PowerON, and 9,200 customers received Gas Affordability benefits.

mechanism to reduce energy costs, improve housing stock, increase comfort, and potentially enhance neighborhood vitality. We believe that the successful pairing of energy efficiency with access to a voluntary renewable program is a recipe for conferring customer benefits consistent with the public interest, and we aim to explore the features of a compelling customer program that deliver on these expectations.

II. ENERGY EFFICIENCY AND RENEWABLE JOINT PILOT PROJECT CONCEPT

Railroad Island, a community located in the Dayton's Bluff neighborhood of St. Paul, has been identified by ECC as a strong candidate for concentrated energy efficiency investments and a potential community solar pilot project. Railroad Island is unique in that the electric usage in this neighborhood peaks in the winter months. Many residents of Railroad Island are LIHEAP eligible customers with aging, inefficient homes. ECC has identified a range of energy efficiency measures that, once deployed, would improve housing stock, reduce customer energy usage, and preserve limited household income for families and individuals in need. ECC, in partnership with peer service providers, would administer the energy efficiency program and manage its outcomes.

In a parallel effort with the energy efficiency initiatives, the Company would partner with a locally-based bank to finance the development of a 0.5 MW solar facility on a tax-forfeited parcel in the Railroad Island community. The Company would engage partners in the development of the facility, and ECC would administer the community solar garden, including managing subscriptions. The subscribers to the garden would be LIHEAP eligible members of the Railroad Island community.

This project offers the opportunity to pair conservation investments with our community solar program in a pilot setting and is intended to explore the achievement of key goals. The goals of the Railroad Island project are three-fold: first, to deliver benefits to customers through energy-efficient investments that reduce customers' electric bills. Second, the project will provide access to Solar*Rewards Community through a community-supported, utility-backed solar garden to customers who would otherwise not have access. The third goal of the pilot is to test customer interest in a locally-driven, grassroots project that pairs energy efficiency with renewable access. The Company intends to pilot the concept to determine how to replicate the common features of a locally-designed pilot and, over time, to compound its public interest benefits through iterative expansion.

ECC and the Company are in discussion to determine an overall level of investment on the energy efficiency portion of the project. The Company wishes to leverage its existing CIP programs, as well as its Partners in Energy service, to provide immediate seed funding and technical assistance to ECC and the Dayton's Bluff Neighborhood Association for the Railroad Island project. Through Partners in Energy, the Company would work cooperatively with community partners in the development of a detailed plan. The resulting plan would be owned by the community, led by local resources, and would target the achievement of the community's energy saving and renewable goals. Once the plan is developed, Partners in Energy could provide further support in the implementation phase such as:

- Communications targeting neighborhood residents through direct mail and social media that promotes energy-efficiency and renewables.
- Local workshops highlighting energy-related opportunities.
- Assistance in identifying and securing funding sources to implement energy-related projects in the neighborhood.
- Volunteer training on best practices for outreach.
- Tracking and reporting of conservation and renewable impacts.

ECC anticipates that all qualifying Residential customers would begin participation through a Home Energy Squad (HES) visit, where on-site experts identify and install low-cost efficiency measures and provide energy conservation education. Non-qualifying customers will also have the opportunity to participate in HES at a discounted rate as program cost savings can be achieved through a targeted neighborhood sweep. Weatherization services will also be provided.

Qualifying commercial or industrial customers would receive an energy audit focusing on lighting solutions, as well as an analysis of non-lighting efficiency opportunities. Customers will have access to other Company rebate programs, as well as third-party low interest financing for larger efficiency investments, such as HVAC installations.

During in-person visits, experts would provide information on both the energy efficiency opportunities as well as the benefits of community solar participation. ECC would either partially or fully administer and manage garden subscriptions.

We understand that customers with low incomes may face specific barriers to participation in community solar, even beyond the ability or willingness for community solar garden owners to make subscription offers to them. These barriers may include the requirement to sign a long-term contract, or the unavailability of clearly written materials or materials in relevant languages. Some customers may wish to speak directly with an expert in their own home, rather than parsing offers made

online or by mail. Some customers may be put off by invasive questions about income or credit scores, or by the requirement to re-prove eligibility time and time again. With an eye to minimizing or eliminating these key barriers, the Company believes the Railroad Island project is a straightforward approach to its own community solar model which we believe will efficiently deliver program access to customers with low incomes.

The Company would price its subscriptions with the aim of providing low income customer-subscribers access to an equivalent benefit as we understand other customers in the program are receiving, approximately \$.01/kWh. We would intend to make subscriptions available without a long-term commitment, a minimum credit score requirement, or any up-front payments from subscribers. Through this pilot, the Company hopes to test assumptions about the cost of the service model, the interest of customers in voluntary participation, and other opportunities to efficiently serve customers.

III. NEXT STEPS FOR JOINT PILOT PROJECT

The Company acknowledges that this proposal is today at a nascent stage and requires significantly more development. The Company and ECC will continue work to detail the project goals, finalize the budget, secure third-party funding sources, and develop an implementation plan. We anticipate that this work will include further assessment of overall plan feasibility, and we request the Commission allow for additional time for the Company to come forward with a detailed plan. As noted, we anticipate delivering a scoping and implementation plan within 90 days. We will work with the Department and others to determine any requisite filings that may be required in the CIP proceeding.

Following the filing of an implementation plan, the Commission may wish to open a comment period and to then hear the pilot proposal. If the Commission approves of this concept, the Company will proceed to open negotiations with finance partners and other community supporters on the solar facility plans, and continue work assessing the suitability of the potential solar site and evaluating solar development opportunities, including ownership opportunities.

IV. PUBLIC INTEREST SUPPORT

We believe the public interest supports further development of our Railroad Island joint proposal concept because it expands customer access to those typically excluded from the community solar program, it delivers environmental benefits through increasing solar on the system and reducing customer energy usage, and it provides

for consumer safety through regulated business practices. We believe that by delivering this project jointly with our community partners, the pilot would be positioned for efficient customer uptake and high levels of participation.

The Company anticipates the development of additional project features that would have bearing on the Commission's public interest review, including a proposed budget, cost recovery plan, appropriate consumer protections, Company ownership opportunities, and more. We intend to address these project features when we supplement this request.

V. ALTERNATIVE TO JOINT PILOT PROJECT CONCEPT

As work continues to scope and refine the joint pilot project concept, should the Company encounter unanticipated barriers, the Company may be required to pursue an alternate plan. In that event, the Company would pursue the development of a 1 MW utility-offered community solar garden at a different site. We would likely partner with one of our existing contract service providers to administer the garden and manage subscriptions, initially, for up to 200 LIHEAP recipients.

We would likely issue an RFP for bids on a 1 MW project located in or adjacent to Hennepin or Ramsey Counties. Based on the Company's observations, market activity indicates we could anticipate lower prices than were fielded when we issued our RFP for utility-scale solar in 2014. In our Colorado jurisdiction, developers have once again bid into our community solar program with negative REC prices. The Company may not disclose the bid prices received, but the bids are the subject of a regulatory proceeding in our Colorado jurisdiction. Because the 2017 bill credit in our Colorado program is no higher than \$0.07664/kWh, it is apparent that bids are less than \$76.64/MWh (year 1) for community solar gardens.

CONCLUSION

We, along with ECC, are pleased to bring forward an opportunity to pilot a first-of-its kind joint energy efficiency and renewable program. We aim to partner with advocates and project champions in the Railroad Island neighborhood to drive significant efficiency investments that benefit low income customers. At the same time, we intend to develop a point of access for customers, regardless of income, to participate in the benefits of community solar generation. By making community solar available directly to customers through this model, we aim to eliminate some known barriers to participation, broaden access to the program, and restore the vision for community solar as it was initially introduced. Xcel Energy respectfully requests that the Commission approve the Xcel Energy and ECC proposed concept and allow

the Company to submit a supplement in 90 days detailing more fully the project scope and implementation plan.

Dated: March 1, 2017

Northern States Power Company

CERTIFICATE OF SERVICE

I, Carl Cronin, 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

xx electronic filing

DOCKET NO. E002/M-13-867

Dated this 1st day of March 2017

/s/

Carl Cronin