



414 Nicollet Mall  
Minneapolis, MN 55401

June 17, 2020

—Via Electronic Filing—

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

RE: REPORT  
COVID-19 RELIEF & RECOVERY  
DOCKET NO. E,G999/CI-20-492

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy, submits the enclosed Report in response to the Minnesota Public Utilities Commission May 20, 2020 Notice of Reporting Required by Utilities.

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 me at [greg.p.chamberlain@xcelenergy.com](mailto:greg.p.chamberlain@xcelenergy.com) or Bria Shea at [bria.e.shea@xcelenergy.com](mailto:bria.e.shea@xcelenergy.com) if you have any questions regarding this filing.

Sincerely,

/s/

GREG P. CHAMBERLAIN  
REGIONAL VICE PRESIDENT, REGULATORY & GOVERNMENT AFFAIRS

Enclosures  
c: Service List

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

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

IN THE MATTER OF AN INQUIRY INTO  
UTILITY INVESTMENTS THAT MAY ASSIST  
IN MINNESOTA'S ECONOMIC RECOVERY  
FROM THE COVID-19 PANDEMIC

DOCKET NO. E,G999/CI-20-492

**REPORT**

### INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits this Report in response to the Minnesota Public Utilities Commission May 20, 2020 Notice of Reporting Required by Utilities.

This is a challenging time for our state and country. Both the State of Minnesota and the federal government have taken extraordinary steps to address the COVID-19 Pandemic. These necessary actions are having an immediate impact on our communities and customers. Since states began shutting down in the middle of March, over 40 million Americans—and over 400,000 Minnesotans—have filed unemployment claims. A recent report from the Minneapolis Federal Reserve Bank stated that, in a survey of 500 construction companies in Minnesota and North Dakota, two-thirds indicated they had canceled projects.<sup>1</sup> Across the U.S., the construction unemployment rate was 16.6% in April—up from 6.9% in March—the largest drop ever in the industry.<sup>2</sup> Although state restrictions have begun to be lifted, the long-term impacts of the Pandemic and economic shutdown likely will be severe.

We appreciate the Commission's leadership in opening this docket to investigate investments utilities could make that would assist in Minnesota's economic recovery from the COVID-19 Pandemic.

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<sup>1</sup> <https://finance-commerce.com/2020/05/survey-two-thirds-have-seen-projects-canceled/>

<sup>2</sup> <https://www.constructiondive.com/news/construction-loses-record-breaking-975k-jobs-in-april-amid-pandemic/577628/>

Xcel Energy is an engine for economic growth in the 8 states that we own and operate utility infrastructure. We power and fuel the local and national businesses that provide millions of jobs nationwide. Across the country Xcel Energy directly employs approximately 12,000 full-time employees and 6,500 contractors. We spend approximately \$4-5 billion in annual infrastructure projects across the upper-Midwest and the southwestern portions of the United States which has a multiplier effect on the local economies in which we operate.

Accordingly, we believe we have a role to play in the recovery of the economy, through both immediate relief for customers who are facing hardships as a result of COVID-19 and stimulating economic development, recovery, and job creation over the coming years. The work we are doing today and the projects we lay out in this Report have the potential to be a multi-year pipeline of job creation and needed infrastructure investment to support what is likely to be an extended recovery period.

In this Report, we discuss the following:

1. Actions we already have taken, or are actively pursuing, to provide relief to our customers and to foster economic recovery; and
2. Additional investments we are proposing to make or accelerate to further support economic recovery.

We also include an appendix containing details about the specific investments we are proposing, including the scope of the projects, the benefits they would provide to our system and customers, and the jobs they would create.

The proposed investments broadly fall into three categories:

- 1) Resiliency Projects,
- 2) Clean Energy Projects, and
- 3) Projects to Keep Customer Bills Low.

In total, between the approximately 2,000 jobs created by the renewable, transmission, and advanced grid projects that are currently underway or will be soon, and the approximately 3,000 jobs that could be created by the proposals in this report, Xcel Energy can bring over 5,000 jobs to the state of Minnesota in the next five years—on top of the nearly \$3 billion of investments that will spur other economic investments and the approximately 8,200 jobs that could be created indirectly by these investments. Additionally, we estimate our proposed projects could result in, on average, nearly 500,000 tons of annual CO<sub>2</sub> reduction which equates to approximately 98,000 typical gasoline cars taken off the road or 50,000 homes' energy use for a year.

All of the proposed projects are investments we would have made or proposed at some point in the future; this proposal merely advances these investments to a time when they will benefit the state and community even more through needed job creation and economic activity. Some of these proposals will require additional filings as well as a certain level of flexibility as we move to implement them in a timely fashion, but we will work with various state agencies, including the Department of Commerce, to provide adequate protections for customers and ensure consistency with the Commission's overall goals.

In order to implement these proposals over the next few years without significant increases in customers' bills over the same time period, we are also exploring various rate mitigation tools. Our goal is to match up the rate mitigation measures with the accelerated investment to hold bills relatively flat. However, cost recovery will need to be a part of the regulatory process, and we believe this docket is an appropriate place to begin the discussion of regulatory tools that can be used to move these proposals forward earlier than originally planned.

We look forward to discussing these investments and the ways we can do our part to support Minnesota's economic recovery through the coming years.

## **REPORT**

### **I. THE COMPANY ALREADY HAS TAKEN ACTION TO PROVIDE RELIEF TO OUR CUSTOMERS AND CREATE JOBS.**

Prior to the Commission opening this docket, we already had taken and planned action to provide immediate relief for our customers, to keep bills low, and foster job creation. We discussed some of these efforts in the March 26, 2020 Letter the Company submitted in Docket No. E,G999/CI-20-375. In this Section, we provide additional details on these actions, as well as the projects we currently have underway that are creating jobs throughout Minnesota.

#### **A. Immediate Relief for Customers**

We are focused on providing immediate relief for all of our customer classes, with specific efforts targeted at supporting residential and small business customers, medium and large customers, and low-income customers.

As noted in our March 26, 2020 Letter in Docket No. E,G999/CI-20-375, we have suspended disconnections for residential customers. We also are reconnecting

previously disconnected customers and working to arrange payment plans for those requesting assistance during this time. Further, we are extending these policies to small business customers who have been forced to close to slow the spread of COVID-19. We are also doing a small pilot on billing analytics for customers with interval data who currently use our Infowise product. We are proactively identifying non-essential businesses that are likely impacted by closures to assess usage patterns and then reaching out to customers who are using more energy than would be expected with solutions to lower their bills.

For our medium and large customers, we are working on solutions for those needing help with payment plans, and we have taken proactive steps to help identify conservation measures. We also filed a Petition on April 23, 2020 in Docket No. E002/M-20-436 to temporarily expand our Business Incentive and Sustainability Rider to provide demand and energy discounts to customers who need such relief to continue operations and employing their staff. The program would provide discounts on base rates through the end of the year to eligible commercial customers who have experienced material declines in energy use as a result of the COVID-19 Pandemic. If approved, the program would be available to commercial customers with average load between 100 kW and 2 MW.

We also made a filing on May 21, 2020 in Docket No. E002/M-20-503, proposing three temporary changes to help interruptible service customers manage Pandemic related load changes through the end of the year. First, we proposed that interruptible service customers be able to increase their firm service load levels without the charge that normally accompanies this resulting reduction of controllable load. Second, we proposed waiving the 50 kW minimum controllable load requirement to continue on the interruptible tariff. This change will help customers who have had to reduce their available controllable demand below this threshold because they have had reduced total load levels as a result of the Pandemic. Third, we proposed waiving the charge that applies when interruptible service is cancelled without the required advance notice that allows an adjustment of power supply resources. This cancellation charge waiver is available for customers that transfer to a new alternative interruptible service program (Peak Partner Rewards) that offers greater customer flexibility for responding to interruption events.

As discussed further below, for our low-income customers, we are committing to double our energy efficiency expenditures over the thresholds set in Minn. Stat. § 216B.241, subd. 7. This increased funding will help our partners providing services to low-income customers, increase staff to reach even more of our customers and address (among other things) health and safety issues like asbestos removal. The

funding also could be used to broaden offerings to other non-profit organizations providing critical assistance during this crisis.

As part of our commitment to helping neighborhoods and businesses repair and rebuild following the widespread acts of property damage in the Twin Cities, we are offering special help for impacted businesses. That includes special recovery rebates, that are up to double the usual amount, to help replace equipment that was damaged or destroyed, as well as free energy consulting services.<sup>3</sup> Our Executive Vice President and Chief Customer and Innovation Officer, Brett Carter, recently said:

“Our neighborhoods count on their local businesses, and we’re committed to providing the help to build the community back up to be even stronger than it was before. The Twin Cities has been our home for more than a century, and we are standing side-by-side with our communities as they work to rebuild. Whether a business requires a complete remodel or the replacement of certain equipment, we can help.”

Finally, for all of our customers, we lowered our approved 2020 Fuel Forecast by a total of \$25 million in June, July and August to provide immediate relief to our Minnesota customers. Our projections indicate that we are likely to over-recover this amount due to changes in fuel costs and operations that have occurred since we submitted the forecast in May 2019. Although this amount does not rise to the five percent threshold for a “significant unforeseen event” under Fuel Clause Adjustment reforms, on June 4, the Commission voted to approve our proposed rate reduction in order to provide immediate rate relief to our customers during this time of need.

## **B. Keeping Bills Low Over Time**

In addition to the immediate relief we are providing to customers, we are looking at measures that can be used to help stabilize bills as we move forward with the significant investments outlined below over the coming months and into the coming year. We are prepared to bring a number of new investments forward to both benefit customers and assist in the economic recovery. Our initial proposal includes nearly \$3 billion in utility investments, of which approximately half would be incremental to our current five-year plans for the utility helping drive economic and job growth in our state during this period

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<sup>3</sup> Relief can be sought here:

[https://www.xcelenergy.com/programs\\_and\\_rebates/business\\_programs\\_and\\_rebates/special\\_recovery\\_rebates](https://www.xcelenergy.com/programs_and_rebates/business_programs_and_rebates/special_recovery_rebates)

In order to implement this program over the next few years without significant increases in customers' bills over the same time period, we need to develop solutions to create off-setting medium-term rate relief. We are exploring rate mitigation tools that can effectively facilitate increased investment, while maintaining financial stability for the Company. Examples of these tools may include adjustments to remaining plant lives, where justified, accelerated return of tax benefits such as excess Accumulated Deferred Income Tax (ADIT), and possibly other targeted approaches that will benefit our customers.

We also are working to pair these investment proposals with a plan to facilitate a stay-out from an electric general rate case. We intend to engage with stakeholders to discuss our plans to stabilize rates, including continued avoidance of a rate case in 2021. We will work through our potential options to find tools that can be prudently implemented to lessen the rate impact of the added investments proposed in this filing but also at the same time ensure that we maintain the financial integrity of the utility.

### **C. Facilitating Economic Investment and Job Growth**

Before discussing specific investments we could make or accelerate to create jobs in the wake of the COVID-19 Pandemic, we believe it is important to take stock of our normal business operations that are continuing to provide economic activity and create jobs in Minnesota. For decades, Xcel Energy has reliably provided thousands of good-paying utility and construction jobs to the state's workforce, and we intend to continue in this tradition despite the broad-ranging impacts of COVID-19.

Last year, Xcel Energy proposed industry-leading carbon-reduction goals that will involve continuing to transition our energy supply to renewable resources. This transition—combined with our commitment to our bargaining-unit workforce—will provide for growth in the skilled trades in the months and years ahead and continue to create a pipeline of Minnesota jobs.

As detailed in our latest Integrated Distribution Plan (IDP) (Docket No. E002/M-19-666), the work we are about to begin in transforming our electric metering infrastructure will provide important job creation in a variety of sectors over the next five years. This work is part of the Company's Advanced Grid Infrastructure and Security (AGIS) initiative, our long-term strategic plan to transform our electric distribution system to update system technology and capabilities, meet changing customer demands, enhance transparency into the distribution system and to system data, to promote efficiency, and reliability, and to safely integrate more distributed resources.

Overall, the AGIS initiative consists of multiple elements that work together to create a more modern and advanced distribution grid. On May 29, 2020 the Commission voted to certify two of the fundamental components of our AGIS initiative: Advanced Meter Infrastructure (AMI) and the Field Area Network (FAN).

These infrastructure projects will result in significant capital investment and incremental job creation in Minnesota's economy over the next several years. In addition to materials and software license contracts with vendors, the 1.3 million AMI meter installations will be completed by approximately 100 incremental contract union field technicians operating under IBEW bargaining agreements. Implementation of the FAN technology will also rely on qualified union linemen and field technicians, most of whom will be Company resources, but that will be supplemented with some incremental contracted union personnel under our current IBEW bargaining agreements. We also estimate the project will require 20-30 incremental positions for project management, data architects, engineers, analysts, and siting and land rights professionals. This is in addition to the state and local revenues associated with permitting and taxes on the new infrastructure.

We also have a significant transmission project underway, Huntley-Wilmarth (Docket No. E002, ET-6675/CN 17-184) which will employ approximately 122 union workers and 15 miscellaneous workers (e.g., truck drivers, drain tile repair, dump truck drivers, etc.) over the next 18 months. In addition, material suppliers and their truck drivers will support the project.

At the same time, we have made significant investments in renewable generation in the past few years that are currently being implemented, creating numerous jobs in and around Minnesota. For instance, we are in the process of building (or contracting for) approximately 1,450 MW of renewable generation approved by the Commission in the last several years.<sup>4</sup> These projects include the Blazing Star, Crowned Ridge I and II, Dakota Range I, II, and III and Freeborn wind facilities. In total, these projects create approximately 1,450 jobs.

Additionally, we are pursuing several wind repowering projects, including Community Wind North, Jeffers Wind, and the Mower County wind project, which is currently pending before the Commission. These projects total approximately 170 MW and will create approximately 170 jobs. Further, we have also recently sought approval of renewable purchased power agreements (PPA) that will also create jobs over the next

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<sup>4</sup> Docket Nos. E002/M-16-777, E002/M-17-694, E002/M-18-765, E002/PA-18-777, E002/M-19-268, E002/PA-19-553, and E002/M-19-568.



several years including the Deuel Harvest and Elk Creek projects which, collectively, add another 260 MW and approximately 230 jobs.

In addition to these projects, below, we propose a number of additional renewable resource additions and repowerings we believe are appropriate to accelerate, which would continue this pipeline of job creation by adding thousands of additional good paying construction jobs in Minnesota in the next few years. As the state's largest utility and a national leader in carbon reduction and renewable energy, we believe Xcel Energy is uniquely situated to capture benefits for our customers while doing our part to drive economic growth in our community.

In the next Section, we present an extensive list of additional investments we could make or accelerate in the next few years to create jobs in our communities. The investments we present would also provide meaningful benefits for our customers, making them prudent for the Company pursue at this time.

## **II. THE COMPANY HAS PREPARED A SLATE OF INVESTMENTS WE COULD PURSUE TO ASSIST ECONOMIC RECOVERY.**

In this section we briefly describe each category of proposed investments, providing a project description, potential benefits, timelines, job creation, and cost estimates. Attachment A provides a more thorough description of each proposal as well as a discussion of how each meets the conditions identified in the Commission's Notice for Comments.

We note that, with regard to the Commission's condition that the proposed investments use woman, veteran, or minority owned businesses as much as possible, Xcel Energy has a strong commitment to supplier diversity. Using diverse suppliers contributes to the economic growth and expansion of the communities we serve. We develop and strengthen business relationships with diverse suppliers by:

- Conducting outreach efforts to seek, identify and encourage supplier diversity in our procurement processes,
- Facilitating alliances and partnerships,
- Educating businesses about our procurement and business processes, and
- Identifying and encouraging subcontracting opportunities with major suppliers when direct participation is not possible.

As a company, in 2019 Xcel Energy (all operating companies) spent \$480 million with businesses owned by women, minorities or veterans. This spend supported 3,625 jobs and \$179 million in wages. As a company, Xcel Energy expects to spend \$599 million

in 2020, directly and indirectly with businesses owned by women, minorities or veterans, further increasing our overall beneficial economic impact. In our attached project descriptions, we include a discussion about how this consideration fits into each proposed investment.

Below we provide a brief description of our investments. Although there is some crossover because many of these investments support several of the Company’s strategic goals, they generally fall into the following categories: Resiliency Projects, Clean Energy Projects, and Efforts to Keep Bills Low, and we have organized them accordingly below. Attachment B provides a snapshot view of all our proposed projects as well as the financial impact, jobs created, and carbon reduction associated with each. Table 1 below identifies each proposal and its alignment with the conditions identified by the Commission.

**Table 1: Xcel Energy’s Proposed Investments Alignment with Commission’s Conditions**

Investment Category	Proposed Investments	System Benefits	Consistent with MPUC Direction	Reduces Emission	Increases conservation and clean energy access	Creates Jobs	Uses women, veteran, and minority owned business
Resiliency	Transmission Investments	X	X	X	X	X	X
	Distribution Investments	X	X	X	X	X	X
	City of Minneapolis Non-Wires Alternative Pilot	X	X	X	X	X	X
	Gas Investments	X	X			X	X
Clean Energy	Sherco Solar	X	X	X	X	X	X
	Rooftop Solar	X	X	X	X	X	X
	EV Investments	X	X	X	X	X	X
	Accelerated Asset Removal		X			X	X
Lowering Bills	Wind Solicitation	X	X	X	X	X	X
	Energy Efficiency	X	X	X	X	X	X

## A. Resiliency Projects

Across our businesses, we have identified investments that can make the grid more resilient and allow us to more reliably and safely deliver electricity and natural gas to our customers. In our electric system, we have identified a wide array of transmission and distribution projects that could be accelerated to increase near-term job creation. We also have been working with the City of Minneapolis to develop a non-wires alternative (NWA) pilot that could be used to develop learnings for similar investments elsewhere in our service territory in the future. Finally, we have identified a number of investments in our gas system that would improve safety and reliability.

### 1. *Transmission Investments*

We propose a portfolio of transmission projects related to Asset Renewal, Reliability Requirements, and Physical Security and Resiliency, with construction start dates we are able to accelerate in order to both benefit the overall transmission system and create job opportunities in Minnesota. We have identified projects that could be completed within 6 months, 12 months and 24 months of Commission approval.

In total we estimate that these transmission projects would cost approximately \$181.3 million and create approximately 346 union jobs and 86 non-union jobs.

Attachment A, pages 1-3, provides a more thorough description of the proposed projects and how they meet the various conditions in the Commission's memo, and Attachment A1 provides a spreadsheet of all of the projects with cost estimates and details about project need. All the projects are located within the state of Minnesota and were documented in the 2020-2022 multi-year rate plan filing (though that case has now been withdrawn). Each project is needed to maintain safe, reliable service to our customers.

### 2. *Distribution Investments*

We propose a number of distribution investments to increase system resilience, including preparing the system for increased electrification and Distributed Energy Resources. The investments will also increase public and worker safety and address reliability inequities. Some of these projects were discussed in the Company's 2019 IDP in what was at the time, a largely conceptual initiative (the Incremental System Investment (ISI)) in the latter portion of the Company's five-year budget cycle.

We propose a total of 13 discrete and scalable distribution projects that we are prepared to execute in the 2020 to 2025 timeframe. These projects would result in increased system resilience and significant investment and incremental jobs for Minnesota's economy. Specifically, we are prepared to invest up to \$612.8 million of capital and up to \$30.9 million of O&M – resulting in materials procurement with vendors, and an incremental 1,134 resources to execute line construction, substation construction, design and engineering. The line and substation crews make up the majority of the incremental resources and would operate under the IBEW bargaining agreements.

Attachment A, pages 4-5, provides a more thorough description of the proposed projects and how they meet the various conditions in the Commission's memo, and Attachment A2 provides a spreadsheet of all of the projects with cost estimates and timing.

### 3. *City of Minneapolis Non-Wires Alternative Pilot*

In response to conversations within the Company's 2019 IDP (Docket No. E002/M-19-666), the Company has been working with the City of Minneapolis to fulfill their desire for non-wires alternative located within the city. While conversations are still ongoing, we wanted to take this opportunity to propose a preliminary project along the planned METRO Blue Line Extension (Bottineau) light rail transit.

The Blue Line Extension project affords an opportunity to develop a non-wires alternative pilot in a planned development corridor. The partnership between the City of Minneapolis and Xcel Energy can assist in sponsoring a community with lower environmental impact via electrification and reduction of greenhouse emissions and provide data for future non-wires alternative projects. We have done preliminary analysis around the feeders surrounding the Blue Line Extension and have concluded that a primarily residential project would provide the most opportunities.

While the proposed feeders do not necessarily have significant capacity risks to be mitigated, the customer class makeup and location of the feeders allow for a variety of non-wires alternative technologies to potentially be utilized including rooftop solar, electric vehicle (EV) charging, battery storage, demand response, and energy efficiency. This proposed pilot would be flexible, scalable, and adaptable. It also would combine load reduction technologies like energy efficiency and renewable energy sources.

Additional conversations need to occur to further pilot details and scope (thus there is not a supporting attachment to discuss further details on this project); however, initial

projections suggest an investment in the \$4 to \$8 million range would allow for a mix of technologies and opportunity for learning.

#### 4. *Gas Investments*

We propose a portfolio of gas projects that provide system benefits by improving public safety and/or increasing system reliability. These projects would move gas meters outside from houses, install additional isolation valves, replace copper services and risers, and install new pipe in St. Cloud to increase capacity of the gas system.

The total estimated cost for the proposed gas portfolio is \$51 million and we anticipate that it will create 63-70 union contractor jobs. Approximately \$38 million is work that was initially budgeted for later years but is now being accelerated, and approximately \$13 million is incremental spend not currently budgeted.

Attachment A, pages 6-7, provides a more detailed description of the proposed gas projects, including discussion on how they meet the various components of the Commission's May 20, 2020 Notice, and Attachment A3 provides a spreadsheet of all of the projects with cost estimates and timing.

### **B. Clean Energy Projects**

As we strive to achieve a zero-carbon generation mix, we will need to make significant investments in renewable energy. This is reflected in the Integrated Resource Plan we filed last July (Docket No. E002/RP-19-368), as well as the Supplement we will be filing later this month. Consistent with the overall direction of those plans, we have identified targeted investments in solar resources we can make using the existing interconnection rights at our Sherco plant, as well as a pilot program for providing rooftop solar to low-income households. We also are proposing investments to decarbonize the transportation sector through additional support for EVs. Finally, we propose accelerated removal of assets at a number of our generating plants, which will assist us in utilizing existing distribution and transmission infrastructure designed around those sites, and eliminate potential pollutants from the community.

#### 1. *Sherco Solar*

We propose to accelerate our plan to develop up to 460 MW of solar photovoltaic (PV) capacity at the Sherco site. This project will provide significant system benefits by using existing interconnection and transmission rights, reduce carbon emissions, and add approximately 920,000 MWh/year of clean energy generation to our system. We also propose a 10MW/40MWh integrated battery energy storage unit which

allows renewable energy to be shifted on to the grid during peak energy demand periods. More precise (and potentially accelerated) timing of the proposed phases depends on various permitting, regulatory and supply chain factors. We are also considering using a portion of the output from solar capacity developed at the Sherco site to provide a clean energy option for schools.

The preliminary total cost estimate for the solar project is up to \$650 million and \$19 million for the storage component. The project will provide significant economic stimulus and jobs for the state of Minnesota. We anticipate that it will create approximately 230-350 union labor jobs during construction in 2022-2025 and during its lifetime provide significant state and local benefits as well as significant landowner payments.

Attachment A, pages 8-9, provides a more detailed description of the proposed project, including discussion on how it meets the various components of the Commission's May 20, 2020 Notice.

## 2. *Rooftop Solar*

We propose a residential rooftop solar pilot program specifically for low-income customers, where the Company will own the solar installations, retain the resulting Solar Renewable Energy Credits associated with the generation, and provide participants a monthly incentive for use of their roof space. We will work with several local solar installers to construct approximately 94 front-of-meter solar installations on low-income residences in our Minnesota service territory. This pilot would add approximately 0.5 MW of local, small solar resources to the NSP system.

Program participants would receive a \$30-per-month bill credit as compensation for use of their roof to install solar, contributing to lower household energy bills. We estimate participants can see an average bill reduction of 30% for 20-years by enrolling in this program.

Besides lowering bills for participants, the pilot would assist in Minnesota's economic recovery by engaging around 20-30 individuals to install the rooftop systems on a part-time or as-needed basis. The estimated cost for the pilot is \$3 million, which includes \$2 million in capital costs for rooftop systems and \$34,000 in annual participant credits. We anticipate that it would take about seven months to design the pilot, solicit installers, and file for program approval with the Commission. We believe this pilot can be an important part of a solution to address the Commission's

concerns about accessibility of the community solar garden program and other solar generation resources to low-income customers.

We recognize there are costs associated with this proposal—as proposed, the Company would spend \$34,000 on rent payments, in exchange for which the Company would gain 820 MWh of production to produce \$18,000 of fuel savings. We believe these are appropriate costs should the Commission want the Company to provide rooftop solar opportunities to customers who otherwise could not afford it. We note, however, that we are open to working with our partner on various low-income programs, Energy CENTS Coalition, to identify alternatives to this proposal that could provide even greater benefits.

See Attachment A, pages 10-13 for a more detailed description of the proposed pilot, including discussion on how it meets the various components of the Commission’s May 20, 2020 Notice.

### *3. Electric Vehicle Infrastructure and Investments*

We propose a number of investments to build upon the work we have done in the past few years to support EV adoption in Minnesota. These projects include a public charging program, a fleet EV service program, rebates for transit buses and private light-duty vehicles, and an acceleration of the Company’s own fleet electrification. Additionally, the Company is looking for potential strategic partnership opportunities to leverage third-party expertise and funding to accelerate adoption of EVs and associated programs in Minnesota, while optimizing the benefits of EVs for all customers and the broader economy. This partnership approach, where appropriate, could also apply to other efforts outlined in this filing.

For public charging, the Company proposes to work with communities and auto dealers to site publicly available fast charging that the utility will own and operate in areas not currently being served by private charging companies. This program would involve approximately \$5 million in capital expenditures and would indirectly support approximately 60 jobs.

For fleet charging, the Company proposes to expand the current, Commission approved, Fleet EV Service Pilot to allow participation by more than one commercial and non-profit organization. This would not involve any incremental spend or incremental job creation beyond that already approved by the Commission, but would facilitate full participation in the pilot and, therefore, ensure that the full value of the budget approved by the Commission is realized.

For rebates, the Company proposes to provide rebates to transit operators for the purchase of buses and residential customers for the purchase of private light-duty vehicles, tied to participation in a managed charging program tariff. We estimate that the addition of each light-duty vehicle could provide more than \$1,000 of benefit to all other customers, and each bus added, based on studies from other states, can add roughly \$100,000 in benefit. This program would involve approximately \$100-150 million in capital expenditures, which would indirectly support approximately 5,500-7,500 jobs.

For the Company's fleet, we would accelerate electrification by purchasing electric vehicles and installing needed charging infrastructure at Company facilities ahead of our current planned schedule. The program would involve approximately \$1.5 million in capital expenditures, which would indirectly support approximately 20 jobs.

Attachment A, pages 14-16, provides a more thorough description of the proposed projects and how they meet the various conditions in the Commission's memo, and Attachment A4 provides a spreadsheet of all of the projects with cost estimates and timing.

#### 4. *Accelerated Asset Removal*

We propose to accelerate the removal of structures, boilers, and other equipment at the site of several retired electric generating units, including Blue Lake Units 1 through 4, Granite City, Key City, Minnesota Valley, and Riverside Units 6 through 8. The proposed work also includes asbestos abatement at the Riverside plant and the closure of Ash Pond 1 at Sherco. Most of this accelerated work had originally been scheduled for 2024 or later but, if accelerated, could begin in 2021.

If the planning process for this work is started in 2020, we estimate an additional 36 union labor jobs and 5 professional, non-union jobs will be created for work in 2021. If the planning process starts in 2021, we estimate an additional 19 union labor jobs and 3 professional, non-union jobs will be created for work in 2022.

Attachment A, pages 17-19, provides a more thorough description of the proposed accelerated removal projects and how they meet the various conditions in the Commission's memo, and Attachment A5 provides a spreadsheet of all of the projects with cost estimates and timing.



## C. Efforts to Keep Bills Low

In Section I, above, we laid out a number of actions we already have taken to provide immediate relief for our customers and to keep their bills low in the wake of the Pandemic. We also noted a number of actions we are considering—to keep bills low as we create a pipeline of jobs through the investments discussed in this Report. In addition to these actions, we have identified a number of potential investments that could themselves help lower customers' bills. These include a request for proposals for repowering wind projects and replacing more expensive resources with lower cost alternatives; and increased investments in energy efficiency programs that allow our customers to reduce their electricity and natural gas usage, and thereby lower their bills.

### 1. *Wind Solicitation*

The Company plans to issue a solicitation for repowering owned and existing PPA wind resources, in order to spur construction employment while reducing the long-term cost of providing clean energy to our customers. Our solicitation will include preferences for union labor as well as for women, veteran and minority owned businesses. As we plan to bid our own projects into the solicitation, we are ensuring fair treatment by working with an independent evaluator to ensure transparent and objective bid evaluations.

Job creation across the next several years depends on the magnitude of approved projects, but as an initial estimate, we expect an 800-1,000 MW total project portfolio between our company-proposed projects and proposals from current facilities under PPA, which could create between 800-1,000 temporary construction jobs and approximately \$1,000-1,400 million in direct investment. We note that construction projects also often spur other direct and indirect employment and other benefits in the proximate communities and for the state. Further, we anticipate repowering projects would extend existing long-term O&M jobs at each plant for years into the future.

We expect that identifying and pursuing repowering opportunities on our system will result in significant benefits to customers. Some of our existing wind assets (either owned or PPA) are aging, and wind technologies and costs have improved significantly since they were first approved and built. As a result, repowering older projects could be economically beneficial compared to continued operation of existing aging assets. For example, our Mower County Wind repowering and acquisition proposal – currently pending before the Commission in Docket No.

E002/PA-19-553 – will result in a nearly \$11/MWh decline in the levelized cost of the project, as compared to continuing the current PPA and replacing with generic wind thereafter.

We expect other repowering opportunities could provide similar benefits, particularly because – although wind resources themselves are very competitive when compared with other potential new resources – many greenfield wind projects face significant cost barriers as a result of transmission interconnection queue congestion in our region. By avoiding substantial incremental transmission upgrade costs, repowering allows us to extend the lives of existing resources, maintaining high levels of – and even increasing – clean energy on our system. For example, the Mower County repowering will result in a facility that is the same size (in MW) as the current facility but is expected to generate additional energy as a result of new, more efficient technology. We would expect that repowering other facilities could yield similar increases. All wind projects selected through the solicitation would, therefore, contribute toward our goal to achieve 80 percent carbon reduction from 2005 levels by 2030 by maintaining or increasing the amount of wind generation on our system.

Attachment A, pages 20-22, provides a more thorough description of our planned solicitation proposal and how it meets the various conditions of the Commission’s memo.

## 2. *Energy Efficiency*

In addition to expanding conservation improvement program (CIP) initiatives already underway and those we are currently evaluating – including home energy efficiency kits, rebate bonuses across several high impact products, virtual audits and inspections, and the easing of participation requirements in some products – we propose to spend twice the minimum statutory requirement on our electric and natural gas low-income programs. This funding could allow our partners who provide low-income services to increase staff to reach even more of our customers and help address health and safety issues in the home like vermiculite (asbestos) removal. It could also allow us to potentially broaden our offerings to focus more on non-profit agencies. Increasing energy efficiency activity during the economic slowdown will contribute to lower bills for all customers and create opportunities for customers to replace inoperative or inefficient equipment.

We are proposing approximately \$6 million incremental spend for electric programs and \$3 million for gas programs. Based on estimates from the Midwest Energy Efficiency Alliance, these investments could indirectly support over 2,700 jobs.

In addition, the Company is working with the Center for Energy and Environment (CEE) on a proposal to specifically target the Areas of Concentrated Poverty (ACP 50) zones of St. Paul, the designated green zones in Minneapolis, and the areas directly impacted by the recent civil unrest (parts of South and North Minneapolis, and the St. Paul Midway). In addition to targeted energy efficiency and pre-weatherization work, the proposal would integrate workforce development activities, by partnering with community workforce organizations, creating apprenticeship programs for residents in those areas to train for direct installations of efficient equipment, insulation and HVAC equipment, and developing employer pipelines for post-apprenticeship hiring. We expect to bring forward additional details on that potential initiative in the coming weeks.

Attachment A, pages 23-24, provides a more detailed description of the proposed expansion, including discussion on how it meets the various components of the Commission's May 20, 2020 Notice, and Attachment A6 provides a spreadsheet of all the energy efficiency programs.

## **CONCLUSION**

We appreciate the Commission's leadership in this time by opening the conversation to discuss investments utilities could make that would assist in Minnesota's economic recovery from the COVID-19 Pandemic. At Xcel Energy, we believe we have a role to play in the recovery of the economy, through both immediate relief for customers who are facing hardships as a result of COVID-19 and stimulating economic development, recovery, and job creation over the coming years. We look forward to discussing these investments and the ways we can do our part to support Minnesota's economic recovery through the coming years.

Dated: June 17, 2020

Northern States Power Company

## **Proposed Project Name and Description: Transmission Investments**

### **CATEGORY: *Resiliency***

We propose a portfolio of Asset Renewal, Reliability Requirements, and Physical Security and Resiliency transmission projects with accelerated construction start dates in order to both benefit the overall transmission system and create job opportunities in Minnesota. We have identified six projects that could be completed within 6 months of Commission approval (Tier 1), four projects that could be completed within 12 months of Commission approval (Tier 2), and six projects that could be completed within 24 months of Commission approval (Tier 3). As with all construction projects, these timeline estimates could vary depending on outage constraints, resource constraints, and weather, but we still expect most of these projects would be placed in-service earlier than originally planned. The Tier 1 projects will yield the following results:

- rebuild of large segments of transmission lines on the NSP System that have a concentrated number of defects that contribute to poor line performance;
- mitigation of line galloping on circuits identified on the NSP System that have shown vulnerability to line galloping;
- improvement of substation site security where ongoing theft issues have been identified, in compliance with NERC standards; and
- replacement of parts identified as performing poorly or without available replacement parts.

See Attachment A1 (Transmission Investment Spreadsheet) for a full list of projects in the portfolio by tier, brief project descriptions, and details about project need. Each project is composed of sub-projects at specific substations or line segments, all located in the state of Minnesota. All the projects identified for this portfolio were also documented in our 2020-2022 multi-year rate plan filing, though that case has now been withdrawn. Each project is needed to maintain safe, reliable service to our customers.

#### **How the Project Meets the Conditions Listed in the Commission’s May 20, 2020 Notice:**

- **Provide significant utility system benefits**

Many of the proposed projects are Asset Renewal projects, which are necessary for managing the health and performance of transmission assets. The main goal is to ensure that critical assets – including transmission lines, substations, and other related assets – meet reliability and capacity requirements while minimizing life-cycle costs. This includes planned replacement of aging transmission lines and substation equipment; unplanned replacement of lines or equipment damaged by storms; additions to, or replacement of, aging fleet vehicles and tools that support capital additions; and line relocations due to road projects.

Several of the proposed projects are Reliability Requirement projects, constructed to ensure that the transmission system is compliant with all NERC reliability standards. Compliance with NERC reliability standards is mandatory for all users, owners, and operators of the Bulk Electric System. FERC, NERC, and regional reliability entities monitor and enforce compliance. Any entity found non-compliant may be subject to fines of up to \$1.2 million per day per violation. The Company conducts regular studies to

analyze the impacts of forecasted load growth, existing and anticipated generation needs, and new generation interconnections to determine whether transmission upgrades are necessary.

A few proposed projects are Physical Security and Resiliency projects, which address physical threats to utility infrastructure, such as transmission lines and substation equipment, as well as NERC standards related to physical security and grid resiliency.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

Projects in this portfolio that are subject to the Midcontinent Independent Transmission System Operator (MISO) Transmission Expansion Plan (MTEP) process are consistent with information provided in the Biennial Transmission Report submitted jointly by the Minnesota Transmission Owners (MTO). The most recent Biennial Transmission Report was recently approved by the Commission in Docket No. E999/M-19-205. Many Asset Renewal projects are not subject to the MTEP process, but they are a normal part of a transmission owner’s responsibility for maintenance of a safe and reliable system. We regularly provide a discussion of this type of project for the Commission’s review in electric rate case testimony. The projects identified in this portfolio were previewed in the Company’s recently withdrawn rate case in Docket No. E002/GR-19-564.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

These transmission projects do not directly reduce carbon emissions, but the transmission grid enables renewable solar and wind energy to move from its generation location to a substation for customer use.

- **Increase access to conservation and clean energy resources for Minnesotans**

The transmission grid provides access to clean energy resources by transferring wind and solar energy from generation location to customer load centers.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

In total, we estimate that this portfolio of projects will require 721,440 labor hours. If the entire portfolio proceeds, it will create approximately 346 union jobs and 86 non-union jobs. These jobs are contract positions for the duration of a project, and some individuals may work on several different projects. Based on our experience, we estimate the following number of jobs by tier:

Tier 1: 54 union labor jobs; 13 non-union jobs

Tier 2: 50 union labor jobs; 13 non-union jobs

Tier 3: 242 union labor jobs; 60 non-union jobs

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

As noted in the filing, Xcel Energy has a strong commitment to supplier diversity. To the extent these proposed investments have any bidding involved, we will consider including additional points toward bidders who include the use of woman, veteran, or minority owned businesses.

## Summaries of Proposed Projects

Transmission Investments

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### Estimated Timeline to Initiate and Complete Project:

We assembled a portfolio of transmission projects that can be accelerated in order to be completed in 6 months from the date of a Commission Order (6 projects), 12 months from the date of a Commission Order (4 projects), or 24 months from the date of a Commission Order (6 projects), based on current projections. The time from construction start to in-servicing for each project remains as originally scoped – although the exact construction schedule could vary depending on outage constraints, resource constraints, or construction season weather. This portfolio stimulates Minnesota’s economy by accelerating the construction start date to promote faster job growth.

### Estimated Costs:

In total, we estimate that this portfolio of projects will cost approximately \$181.3 million. We estimate the following costs per tier:

Tier 1: \$29.2 million

Tier 2: \$26.4 million

Tier 3: \$125.7 million

Total: \$181.3 million

## **Proposed Project Name and Description: Distribution Investments**

### **CATEGORY: *Resiliency***

In its 2019 Integrated Distribution Plan (IDP), the Company discussed a set of necessary and, what were at the time, largely conceptual initiatives in the latter portion of the Company's 5-year budget cycle that were collectively referred to as Incremental System Investment (ISI). The driver for these investments is primarily to increase system resilience, including preparing the system for increased electrification and Distributed Energy Resources. The investments will also increase public and worker safety and address reliability inequities.

Since filing the IDP, we have further defined the once-conceptual portfolio of ISI investments and distributed the funding into new and existing programs throughout our portfolio. We have scoped a total of 13 discrete and scalable projects that we are prepared to execute in the 2020 to 2025 timeframe. These projects would result in increased system resilience and significant investment and incremental jobs for Minnesota's economy. Specifically, we are prepared to invest up to \$612.8 million of capital and up to \$30.9 million of O&M – resulting in materials procurement with vendors, and an incremental 1,134 jobs to execute line construction, substation construction, design and engineering. The line and substation crews make up the majority of the incremental resources and would operate under the IBEW bargaining agreements.

See Attachment A2 (Distribution Investment Spreadsheet) for a full list of projects in the portfolio.

### **How the Project Meets the Conditions Listed in the Commission's May 20, 2020 Notice:**

- **Provide significant utility system benefits**

While the benefits associated with each project or program are unique, in general they will increase system resilience by:

- Replacing aging infrastructure and equipment with known premature failure rates –significantly extending assets' lives, resulting in reduced failures and thus improved public and worker safety and an improved customer experience, and
- Accelerating high-consequence capacity needs and contingency concerns – proactively increasing capacity in targeted areas with legacy infrastructure, including areas expected to experience higher rates of outages and voltage concerns as electric vehicle adoption and other beneficial electrification increases.
- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

The sub-projects and programs that are part of this overall project are consistent with the guiding principles and planning practices outlined in the Company's Integrated Distribution Plan.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

The components of this proposal that will upgrade legacy equipment to more readily allow for adequate support of electric vehicles and other beneficial electrification will help to reduce carbon and other pollutant emissions by supporting switching away from fossil fuel sources.

- **Increase access to conservation and clean energy resources for Minnesotans**

The components of this proposal that will upgrade legacy equipment to more readily allow for adequate support of electric vehicles and other beneficial electrification will remove a potential barrier to switching away from fossil fuel sources.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

Based on our review of historical projects, we are estimating this proposal will generate approximately 2,359,172 hours of work and create approximately 1,134 jobs (this estimate is based on an assumption that 2,080 hours represent one FTE).

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

As noted in the filing, Xcel Energy has a strong commitment to supplier diversity. To the extent these proposed investments have any bidding involved, we will consider including additional points toward bidders who include the use of woman, veteran, or minority owned businesses.

**Estimated Timeline to Initiate and Complete Project:**

Once approval is received, we will begin preconstruction activities including engineering, designing, permitting, procuring materials and securing resources. It can take up to 90 days to complete the preconstruction activities and for construction to begin. Once construction has started, spend will fluctuate based on weather conditions or other emergent circumstances. The timing of approval will particularly impact work completed in 2020; we will need approximately 4-6 months to complete the work we have proposed, and will ramp up to a total of approximately \$7 million per month. Assuming approval is obtained in 2020, we will ramp up to approximately \$15 million per month in 2021 and beyond until the work approved in those years is completed.

**Estimated Cost:**

The total cost for the proposed distribution investments is \$612.8 million in capital costs and \$30.9 million in O&M costs.



## **Proposed Project Name and Description: Gas Infrastructure Investments**

### **CATEGORY: *Resiliency***

The Company proposes a portfolio of new or accelerated gas infrastructure projects that will provide system benefits by improving system reliability and public safety. These infrastructure projects include moving gas meters currently located within customers' premises to the outside, replacing copper risers and services, installing additional isolation valves, and installing new pipe in St. Cloud to increase capacity of the gas system.

Attachment A3 (Gas Infrastructure Spreadsheet) provides more details on each project, including description, cost, timing, and jobs created.

#### **How the Project Meets the Conditions Listed in the Commission's May 20, 2020 Notice:**

- **Provide significant utility system benefits**

The proposed portfolio of projects will improve public safety and system reliability. Moving gas meters outside from within houses reduces risk of gas leaks to occupants and also makes meter maintenance and responding to potential gas emergencies easier and more efficient. Replacing copper risers and services improves public safety by completing needed aged infrastructure replacements. Isolation valves can be used to cut the flow of gas in the event of a pipeline emergency, which ensures public safety and speeds up required repair work. Finally, installing a new 8-inch high-pressure pipeline in St. Cloud will increase system capacity and enhance system reliability.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

The spirit of this work is consistent with our Gas Utility Infrastructure Cost (GUIC) program authorized by the Commission. The GUIC is focused on gas infrastructure work that improves public safety and/or responds to specific requirements from government entities. These projects are not eligible for recovery through the GUIC rider, however, because there is not a government requirement to complete them currently.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

The proposed projects will increase reliability and reduce the risk of gas leaks. Fewer gas leaks, in turn, reduce harmful environmental impacts and potential damages.

- **Increase access to conservation and clean energy resources for Minnesotans**

While the proposed projects do not directly increase access to conservation and clean energy resources, they can prevent the release of gas from our system, which benefits the environment.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

We estimate that this gas investment portfolio will create approximately 63-70 union contractor jobs. Isolation valves will be installed by Company union employees, who will be backfilled by temporary union contractor work. Estimates are based on our past experience with similar type and scope of work.

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

All sourcing and bidding options will include criteria to consider businesses owned by women, veterans, or minorities.

**Estimated Timeline to Initiate and Complete Project:**

The project to move gas meters outside is a five-year project that will begin in 2021, all other work in the portfolio is estimated to be completed in 2020 and 2021.

**Estimated Costs:**

The total estimated cost for the gas infrastructure portfolio is about \$51 million. Approximately \$38 million is work that was initially budgeted for later years but is now being accelerated, and approximately \$13 million is incremental spend not currently budgeted.

## **Proposed Project Name and Description: Solar at Sherco**

### **CATEGORY: *Clean Energy***

The Company proposes to accelerate our plans to construct solar photovoltaic (PV) generation that will interconnect at the Sherco substation when Sherco Unit 2 retires. Sherco 2 is scheduled for retirement in 2023. In order to increase the share of renewables on our system and make efficient use of our interconnection availability at the Sherco site, we have plans to develop up to 460 megawatts (MW) of solar PV capacity as well as a 10MW/40MWh integrated battery energy storage unit which allows renewable energy to be shifted on to the grid during peak energy demand periods.

#### **How the Project Meets the Conditions Listed in the Commission’s May 20, 2020 Notice:**

- **Provide significant utility system benefits**

Adding solar to the Sherco site, using available interconnection rights, will support achievement of our carbon reduction goals. As discussed below, increasing solar capacity on our system is consistent with the Company’s 2020-2034 Integrated Resource Plan currently pending before the Commission (Docket No. E002/RP-19-368). Accelerating solar development at Sherco would add clean energy to our system and provide jobs on an earlier time frame than previously planned. The pilot-sized energy storage integration will allow renewable energy to be shifted on to the grid during peak energy demand periods.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

The Commission approved acquisition of substantial solar resources in our most recently approved Resource Plan (Docket No. E002/RP-15-21) and notes that the Company may pursue additional cost-effective solar resources if in the best interest of customers.<sup>1</sup> Further, as noted above, large-scale solar is a key component of our currently pending Resource Plan’s Preferred Plan. Supplemental modeling filed on June 30, 2020 will continue to reflect solar energy’s role in achieving our carbon reduction goals. The solar project provides opportunities to accelerate solar deployment and utilize existing transmission rights to begin in-servicing capacity in 2023-2024. We provide estimated timing possible below, but more precise estimates depend on various permitting, regulatory and supply chain factors.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

We anticipate this project – which would add up to 460 MW of large-scale solar on our system at the Sherco site – would provide nearly 920,000 MWh per year of additional clean energy to our system.

- **Increase access to conservation and clean energy resources for Minnesotans**

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<sup>1</sup> See Docket No. E002/RP-15-21. ORDER APPROVING PLAN WITH MODIFICATIONS AND ESTABLISHING REQUIREMENTS FOR FUTURE RESOURCE PLAN FILINGS (January 11, 2017) at Order Point 4a.

As noted above, building solar at the Sherco site will increase clean energy on our system, accelerating procurement indicated in our pending Resource Plan. We are also considering using a portion of the output from solar capacity developed at the Sherco site to provide a clean energy option for schools.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

The Company commits to using union labor for construction and operation of solar capacity developed on the Sherco site. These jobs include laborers, electricians, ironworkers, carpenters and operators. Based on information from industry-leading installers, we anticipate that we could provide between 230-350 construction positions during the 2023-2025 timeframe, depending on schedules and crew sizes. In total, we anticipate the project would result in significant state and local benefits and significant landowner benefits as well.

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

The Company has a strong commitment to supplier diversity. The bidding process for this project will award additional points toward bidders who will use woman, veteran, or minority owned businesses.

**Estimated Timeline to Initiate and Complete Project:**

Portions of the work required to complete the proposed project – such as land acquisition – are already in development. Other tasks, including permit applications, could be started as early as late 2020. We note the capacity proposed will likely not come online prior to 2023, due to the time required for engineering design and solar array equipment procurement.

**Estimated Costs:**

The preliminary total cost estimate for the solar project is up to \$650 million and approximately \$19 million for the storage component.

## **Proposed Project Name and Description: Low-Income Rooftop Solar Pilot**

### **CATEGORY: *Clean Energy***

The Company proposes a targeted residential rooftop solar pilot program for low-income customers. The pilot will also engage the local solar industry for system installation while the Company will own the solar installations. This pilot is incremental to the Solar\*Rewards incentive program currently available for residential and low-income customers and does not draw from those program funds. This effort explores new ways to bring solar opportunities and revenue streams to low-income residential customers though the program would not meet traditional cost effectiveness tests.

The Company proposes to work with several local solar installers to construct approximately 94 front-of-meter solar installations on low-income residences in its Minnesota service territory. The Company would own the solar installations, retain the resulting Solar Renewable Energy Credits (SRECs) associated with the generation, and provide participants a monthly incentive for use of their roof space. Potential benefits of this program include:

- Lower energy bills for participating low-income customers
- Further growth of the local solar industry, by engaging directly for system construction
- Creation of new opportunities and options for residential solar development

Under the program, the Company would provide participants a bill credit of \$30 per month for the 20-year life of the installation. There is no upfront cost or fees to participate in the program. The Company would finance and own the installation, while the partner installers would provide services typical of residential solar construction, including, but not limited to, site assessment, system design, construction, and permitting.

We will likely work with a local housing developer focused on new construction dedicated to low-income residents, though we may also seek participants directly through marketing platforms or through solar installers' existing marketing channels. Working with a housing developer focused on this market can alleviate two key program challenges: Customer acquisition and insufficient roof conditions or electrical systems that can exist with existing properties.

Objectives for this pilot program include:

- Assess feasibility of Company-owned rooftop solar;
- Assess customer interest in this type of offering;
- Identify program implementation challenges, including roof quality issues, customer upgrade costs, ongoing O&M needs, and customer acquisition and attrition; and
- Quantify and compare customer benefits compared to other low-income programs

**How the Project Meets the Conditions Listed in the Commission's May 20, 2020 Notice:**

- **Provide significant utility system benefits**

This pilot would add approximately 0.5 MW of local solar resources to the NSP system. While this initial tranche is small compared to other system resources, it will allow us to assess the feasibility and costs of Company-owned rooftop solar while providing a known and consistent financial benefit to participating low income customers.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

This pilot is in line with previous resource plans approved by the Commission in which the Company has signaled an intent to construct and own solar resources in the future.

While we do not offer this pilot program as a targeted replacement for the RENEWs program recently withdrawn by the Commission (Docket No. E002/M-17-527), we acknowledge that this pilot could be part of a solution to address the Commission’s concern about accessibility of the community solar garden program and other solar generation resources to low-income customers. This pilot would allow low income customers to be active participants in a program delivering benefits from solar to Minnesota customers.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

This program would add approximately 0.5 MW of renewable energy into the Company’s generation mix. As a system resource, this program contributes to the Company’s clean energy goal of 80 percent carbon reduction by 2030.

- **Increase access to conservation and clean energy resources for Minnesotans**

Rooftop solar installations constructed for this program would be used as a system resource, similar to other Company-owned renewable resources not supporting a voluntary renewable program. As such, the renewability and sustainability benefits of these solar installations will be shared across the Company’s entire Minnesota customer base.

In addition, this pilot expands access to solar programs, whereas many current solar programs are not accessible to some customers, namely low-income customers. We believe this program complements the Solar\*Rewards options for low-income customers and creates new opportunities that might be preferred by some customers while also creating incremental opportunities and potential jobs for those who install solar.

As a system resource, the additional clean energy added to the grid via this rooftop program will be reflected in the Company’s annual MN Certified Renewable Percentage (CRP), a REC-based tool designed to help all Minnesota residential and commercial Xcel Energy customers meet their personal or corporate clean energy goals. We also believe that these systems could qualify for the Small System Carve-Out of the Solar Energy Standard (SES).

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

This pilot would assist in Minnesota’s economic recovery in two distinct manners. First, program participants would receive a \$30-per-month bill credit as compensation for use of their roof to install solar, contributing to lower household energy bills. We estimate participants can see an average bill reduction of 30% for 20 years by enrolling in this program.

Xcel Energy will also contract with a handful of local Minnesota-based solar installers for the construction of the solar installations, and potentially customer acquisition through these or other organizations. This relationship with local installers is a key component of program implementation and meeting stated Recovery and Relief goals.

The Company currently estimates a program capacity of approximately 0.5 MW, which equates to approximately 100 rooftop systems. Design and construction of a single residential rooftop solar installation typically requires 2 to 3 installers, 1 to 2 electricians, a system designer, a site survey technician, as well as numerous other individuals in local cities and counties, distributors, and manufacturers. By working with 3 to 4 local installers for construction of the rooftop systems, we estimate this program can engage around 20 to 30 individuals who are directly related to system installation (technician, installers, electricians, project manager, and designer), on a part-time or as-needed basis.

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

Because this pilot will entail contracting with multiple local solar installers, the Company will create a system to assess potential installers, which can include prioritization for woman, veteran, and/or minority-owned businesses that exist in or nearby the Company’s Minnesota service territory. The solar industry is a very diverse industry, and this pilot offers us a unique opportunity to engage directly with businesses that meet this criterion.

**Estimated Timeline to Initiate and Complete Project:**

- 1 month from Commission Order: Installer solicitation launch
- 2 months from Commission Order: Solicitation close
- 3 to 4 months from Commission Order: Evaluate installer responses
- 7 months from Commission Order: File petition for approval of program

**Estimated Costs:**

- Capital Cost \$2,000,000
- Total Annual Payments to Participants: \$34,000
- Number of Households in Program: 94
- Average Financial Customer Savings on Electric Bill: 30%

We estimate a budget of approximately \$3 million for this pilot, which includes both capital costs and on-going costs like host payments and system O&M over the 20-year lifespan of the rooftop systems. We are budgeting roughly \$2 million in capital costs for the construction of the systems, which equates

**Summaries of Proposed Projects**

Low Income Rooftop Solar Pilot

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to a total of 94 households within the program and \$34,000 in customer payments annually. Using an average participating household usage of 650 kWh/month, a \$30/month credit for pilot participation is equivalent to roughly 30% bill reduction for each participant.

As proposed, the Company would spend approximately \$34,000 in rent payments, in exchange for which the Company would gain 820 MWh of production to produce \$18,000 of fuel savings.



## **Proposed Project Name and Description: Electric Vehicle Infrastructure and Investments**

### **CATEGORY: *Clean Energy***

The Company proposes a suite of investments to build upon the work we have done in the past few years to support electric vehicle adoption in Minnesota. This portfolio includes: 1) a public fast-charging program, 2) a fleet EV service program, 3) a rebate program for transit buses and associated equipment (up to \$500,000/bus) and private light-duty vehicles (up to \$2,500/vehicle), and 4) an acceleration of the Company's own fleet electrification.

Attachment A4 (EV Spreadsheet) provides more details on each program, including description, cost, timing, and jobs created.

#### **How the Project Meets the Conditions Listed in the Commission's May 20, 2020 Notice:**

- **Provide significant utility system benefits**

The proposed EV program portfolio will provide both utility customer and system benefits. For example, a study by M.J. Bradley & Associates estimates that each light -duty EV added and charged off-peak could provide over \$1,000 in customer benefits through net revenues and about \$50 of societal benefit through a reduction in greenhouse gases if vehicles are charged off-peak.<sup>2</sup> This study also suggests that Minnesota could realize \$10 billion in customer benefits from EVs by 2050. For buses, meanwhile, studies from other states suggest that benefits could be roughly \$100,000 per bus.<sup>3</sup>

High penetration of EVs will also provide utility system benefits if EV charging takes place at night when renewable generation from wind is often high but electricity usage low.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

The Commission has recognized that electric utilities have an important role in facilitating the electrification of Minnesota's transportation sector, and the Commission has encouraged utilities to adopt initiatives and investments to further this goal, such as public and private charging infrastructure, fleet electrification, and time-of-use and EV rate designs (see, for example, February 1, 2019 Order in the Commission's Inquiry into EV Charging and Infrastructure, Docket No. E999/CI-17-879). In addition, the Commission approved a Public Charging and Fleet EV Services Pilot in Docket No. E002/M-18-643 that authorizes the Company to work with public entities (and up to one non-public entity) to build system infrastructure to support the electrification of fleets.

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<sup>2</sup> *Electric Vehicle Cost-Benefit Analyses. Plug-In Electric Vehicle Cost-Benefit Analyses: Minnesota.* July 2018. <https://www.mjbradley.com/sites/default/files/MN%20PEV%20CB%20Analysis%20FINAL%2015aug18.pdf>

<sup>3</sup> *Implications of Electric Vehicle Adoption in Seattle City Light's Service Territory: Technical Appendix.* 2016. ; *Benefit-Cost Analysis of Transportation Electrification in the Xcel Energy Colorado's Service Territory.* 2020.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

The transportation sector is a leading source of greenhouse gases in Minnesota and the adoption of EVs provides a variety of environmental and public health benefits. Increased access to public charging and rebates will make it easier to our customers to own and operate EVs. Rebates lower the initial cost of EVs and public charging especially helps those who do not own homes with private garage access, or those who rent/own dwellings without the ability to add charging access. Adoption of EVs and electric buses will displace use of diesel or gasoline, a significant opportunity for reducing carbon and other pollutants from the transportation sector.

Based on our internal analyses, we estimate that each light-duty EV could reduce CO<sub>2</sub> emissions by approximately 4.1 tons of CO<sub>2</sub> per year and each bus by 45.6 tons of CO<sub>2</sub> per year (based on 2030 emissions).

- **Increase access to conservation and clean energy resources for Minnesotans**

The Commission has recognized that electrification of Minnesota’s transportation sector is in the public interest, provides environmental and public health benefits, and enhances clean energy goals by reducing statewide greenhouse gas and other environmentally harmful emissions. (see Order Point 1.c, Feb. 1, 2019 Order in Docket No E999/D-17-879).

EV usage can improve utilization of renewable generation resources, especially when vehicles are charged on time-varying rate tariffs. Those tariffs encourage users to charge vehicles at night, when system usage is lower, but also when wind generation tends to be the highest in the Midwest.

Our programs also increase access to clean energy options for our low-income customers and people of color. We see the public transit agency rebates supporting low-income communities’ access as it will make transit options in their areas cleaner and will improve the air quality in those neighborhoods. We also see the rebate for light-duty vehicles being an option for non-profits dedicated to serving low-income communities that can increase access to electrified transportation.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

Although we do not anticipate any jobs directly created by our proposed investments in the EV programs, we expect they would indirectly cause job creation. To evaluate job creation for the bus component of the rebate program, we estimate that every \$20,000 in expenditures on public transit infrastructure will indirectly support one new job. This estimate is based on American Public Transportation Association’s “Economic Impact of Public Transportation Investment: 2020 update” report, which suggests that for every \$1 billion in investment will create or support up to 50,000 jobs per year.

For the light-duty vehicle component of the rebate program and the other EV programs,

we estimate that every \$80,000 in expenditures on EV infrastructure will indirectly support one new job. This estimate is based on National Economic Bureau's estimate for "highway infrastructure projects," which suggests that every \$1 billion in investment will create or support up to 13,000 jobs per year.

Based on our initial estimated total cost for all four EV programs, they together could indirectly support as many as 5,500 to 7,500 jobs.

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

All sourcing and contractor options will include criteria to consider business owned by women, veterans, or minorities. Bus rebates will only be available to transit authorities following prevailing wage rates requirements.

**Estimated Timeline to Initiate and Complete Project:**

Program work and activities will be completed from 2020 through 2025, based on program schedules. Timeframe for each program is shown in Attachment A4 (EV Spreadsheet).

**Estimated Costs:**

We estimate the total cost for the four programs to be approximately \$120-\$170 million. See Attachment A4 (EV Spreadsheet) for cost details for each program.

## **Proposed Project Name and Description: Accelerated Asset Removal**

### **CATEGORY: *Clean Energy***

The Company proposes a project to accelerate the removal of structures, boilers, and other equipment at the site of several retired electric generating units. These include Blue Lake Units 1 through 4, Granite City, Key City, Minnesota Valley, and Riverside Units 6 through 8. Work will also include asbestos abatement at the Riverside plant and the closure of Ash Pond 1 at Sherco. Most of the work proposed under the Accelerated Asset Removal project was originally scheduled for 2024 or later.

Attachment A5 (Accelerated Asset Removal Spreadsheet) provides more details on each project, including description, cost, timing, and jobs created.

#### **How the Project Meets the Conditions Listed in the Commission’s May 20, 2020 Notice:**

- **Provide significant utility system benefits**

The project does not provide utility system benefits as such, but it will remove retired facilities and allows us to redevelop new generation if needed. Adding new generation at existing sites allows us to utilize existing distribution and transmission infrastructure designed around those sites. In addition, the removal of retired facilities eliminates potential pollutants from the community and mitigates potential safety issues resulting from structures that are no longer in operation.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders.**

In our 2015 Remaining Life Depreciation filing (Docket No. E,G002/D-15-46), the Company submitted a production plant dismantling study, which highlighted the required removal activities at these facilities and provided an estimated cost of removal. The Commission approved that removal study in their November 13, 2015 Order. Since that approval, we have been filing annual updates on the removal of Minnesota Valley and Key City.

The closure of ash ponds are regulated by the Coal Combustion Residuals (CCR) rule ([40 CFR 257](#)), effective October 19, 2015. This rule regulates CCRs as a “non-hazardous waste”. After the CCR impoundments are closed, the CCR rule requires 30 years of post-closure monitoring of the ground water near the ponds. Our scheduled closure of the Sherco Ash Pond is ahead of the schedule required by the CCR rule.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

This project will not directly affect carbon or other pollutant emissions as it does not impact operating generating facilities. It will have an effect, however, on potential pollutants in the areas surrounding the facilities. Removing the facilities can mitigate any potential groundwater issues that may remain as the result of previous operations. The project at Sherco will cap and close a bottom ash pond that does not meet new Coal CCR regulations earlier than the required closure date. In addition, abatement work at

Riverside will eliminate asbestos concerns, which makes the facility safer for our employees working onsite at the new Riverside plant.

- **Increase access to conservation and clean energy resources for Minnesotans**

This project will not directly increase access to conservation or clean energy resources.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

If the planning process is started in 2020, we estimate an additional 36 union labor jobs will be created for work in 2021, in addition to 5 professional, non-union jobs. The estimate of jobs is based on previous experience with removal work of the Benson FibroMinn demolition. This estimate assumes one union job is added for each \$667,000 of project spend, with one professional job added for each \$1 million of project spend.

If planning process starts in 2021, we estimate an additional 19 union labor jobs will be created for work in 2022, in addition to 3 professional, non-union jobs.

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

The bid process for the project will include considerations for women, veteran, and/or minority owned businesses. We intend to bid out the work at all sites as one project in order to streamline removal process and receive as favorable pricing as possible.

#### **Estimated Timeline to Initiate and Complete Project:**

For removal projects, we usually plan work during the year before field work begins. We believe that once planning is complete, work can begin at the start of the next year's construction season (usually starts in March). We expect all work can be completed within one 9-month long construction season, although it may be necessary for some additional closure work to extend into a second construction season (i.e., vegetation restoration).

Under this assumption, if we can begin project planning in the summer of 2020, we can begin most removal work in March/April 2021 and complete work in late 2021. Starting planning in 2021 will push the start and finish dates out one year. The exception to this approach is Blue Lake 1-4, which will be completed in 2024 under either scenario because the assets only retire in 2023.

Aside from Minnesota Valley, which was slated to begin field work in 2022, this schedule is accelerated, as most of this work currently is slated to start in 2024 or later. Minnesota Valley work will still take place in 2022 under a 2021 start to this project.

#### **Estimated Costs:**

For a 2021 construction season start, we estimate total incremental spend of about \$24 million for 2021 removal activities, with a total of about \$25 million from 2020 through 2022. For a 2022 construction

season start, we estimate a total incremental spend of about \$13 million. Under each scenario, we estimate incremental spend of about \$1.5 million in 2024.

Removal costs are initially recovered through depreciation during the life of generation assets. All the noted assets have been fully depreciated at this time. The exception is Blue Lake, which will become fully depreciated in 2023 at the time of its retirement and before demolition work begins. At the time of completion of work, the total cost of removal is recorded as a credit (reduction) in existing accumulated depreciation, which consequently results in an increase to rate base.

## **Proposed Project Name and Description: Wind Solicitation**

### **CATEGORY: *Lowering Customer Bills***

The Company plans to issue a solicitation for repowering owned and existing PPA wind resources, in order to spur construction employment while reducing the long-term cost of providing clean energy to our customers. This solicitation process would largely follow the Track 1 procurement process approved in E002/RP-04-1752. We anticipate the repowering proposal will reduce customer costs overall, as new wind technology is more efficient and lower cost than legacy wind assets currently under contract with, or owned by, the Company.

Our solicitation will include preferences for union labor as well as for women, veteran and minority owned businesses. Job creation across the next several years depends on the magnitude of approved projects, but we would expect projects to spur significant incremental construction jobs as well as preserve existing operations and maintenance (O&M) jobs. As we plan to bid our own projects into the solicitation, we are working with an independent evaluator to ensure transparent and objective bid evaluations.

#### **How the Project Meets the Conditions Listed in the Commission’s May 20, 2020 Notice:**

- **Provide significant utility system benefits**

We expect that identifying and pursuing repowering opportunities on our system will result in significant benefits to customers. Some of our existing wind assets (either owned or PPA) are aging, and wind technologies and costs have improved significantly since they were first approved and built. As a result, repowering older projects could be economically beneficial compared to continued operation of existing aging assets. For example, our Mower County Wind repowering and acquisition proposal – currently pending before the Commission in Docket No. E002/PA-19-553 – will result in a nearly \$11/MWh decline in the levelized cost of the project, as compared to continuing the current PPA and replacing with generic wind thereafter.

We expect other repowering opportunities could provide similar benefits, particularly because – although wind resources themselves are very competitive when compared with other potential new resources – many greenfield wind projects face significant cost barriers as a result of transmission interconnection queue congestion in our region. By avoiding substantial incremental transmission upgrade costs, repowering allows us to extend the lives of existing resources, maintaining high levels of – and even increasing – clean energy on our system. For example, the Mower County repowering will result in a facility that is the same size (in MW) as the current facility, but is expected to generate additional energy as a result of new, more efficient technology. We would expect that repowering other facilities could yield similar increases. All wind projects selected through the solicitation would, therefore, contribute toward our goal to achieve 80 percent carbon reduction from 2005 levels by 2030 by maintaining or increasing the amount of wind generation on our system.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

In connection with the Company's last approved Integrated Resource Plan, the Commission authorized "at least 1,000 MW of new wind resources."<sup>4</sup> Although market conditions have changed significantly since that time, we believe renewing our portfolio of wind resources through repowering projects is consistent with that direction. The proposal also aligns with the Company's ambitious carbon reduction goals, which support achievement of Minnesota's overall climate goals. Repowering and extending the lives of wind assets out into the future is consistent with those goals, especially to the extent that it reduces costs to customers.

The Company's most recent Integrated Resource Plan is currently pending before the Commission, and we will file a Supplement with several updates by June 30, 2020. The Supplement Preferred Plan will include significant renewable additions (including wind resources) over the planning period.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

Repowered wind assets provide the opportunity to ensure that customers continue to receive clean and affordable energy from high-performing, economic wind resources. Further, deploying the latest technology at existing sites will maximize their production capability while avoiding additional transmission interconnection costs, and incremental generation resulting from this higher efficiency technology can reduce grid emissions.

- **Increase access to conservation and clean energy resources for Minnesotans**

As noted above, this wind solicitation will result in our customers receiving benefits from clean affordable energy resources into the future. To the extent repowered projects generate additional energy relative to legacy assets, they will lead to increased levels of clean energy on our system.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

We expect that capital expenditures, job creation and other economic benefits will be dependent on the total magnitude of projects that are ultimately approved. As a proxy, we expect an 800-1,000 MW total project portfolio between our company-proposed projects and proposals from current facilities under PPA, which could create between 800-1,000 temporary construction jobs and approximately \$1,000-1,400 million in direct investment. This estimate is based on our experience with staffing from prior wind projects and information that contractors have shared with us. We note that construction projects also often spur other direct and indirect employment and other benefits in the proximate communities and for the state. Further, we anticipate repowering projects would extend existing long-term O&M jobs at each plant for years into the future.

Our solicitation will include a requirement for bidders to certify their use of union labor for construction. We note that all of the Company's proposed projects will include a commitment to union labor for construction.

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<sup>4</sup> See Docket No. E002/RP-15-21. ORDER APPROVING PLAN WITH MODIFICATIONS AND ESTABLISHING REQUIREMENTS FOR FUTURE RESOURCE PLAN FILINGS (January 11, 2017) at Order Point 3.



## Summaries of Proposed Projects

Wind Solicitation

Docket No. E,G999/CI-20-492

Xcel Energy Report

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- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

The Company plans to include a preference for women, veteran, and minority-owned businesses in its bidding process. The Company has a strong commitment to supplier diversity for our own sourcing efforts.

### **Estimated Timeline to Initiate and Complete Project:**

- July 2020: Solicitation launch
- August 2020: Solicitation close
- August-September 2020: Bid evaluation, leading to a shortlist of projects to pursue
- October-November 2020: Contract negotiations with shortlist projects
- December 2020: File petition for project approvals with the Minnesota Commission

### **Estimated Costs:**

Any project considered for serving NSP system demand will be evaluated for cost and customer impacts relative to our resource plan modeling. For repowered projects we would expect the net present value of projects to reduce total costs to customers, as they would displace existing projects with higher levelized costs.

## **Proposed Project Name and Description: Energy Efficiency Services**

### **CATEGORY: *Lowering Customer Bills***

The Company is pursuing a number of activities to increase available conservation improvement program (CIP) services for electric and natural gas customers to lower customer bills and create jobs in the state economy. In addition to expanding programs already underway and those we are currently evaluating – including home energy efficiency kits, rebate bonuses across several high impact products, virtual audits and inspections, and the easing of participation requirements in some products – we propose to spend twice the minimum statutory requirement on our electric and natural gas low income programs. Increasing energy efficiency activity during the economic slowdown will contribute to lower bills for all customers. Further, increasing direct rebate payment opportunities for customers to replace inoperative or inefficient equipment will lead to job growth for trade services, and potentially also for our customers.

Attachment A6 (EE Spreadsheet) provides more details on each project, including description, cost, timing, and jobs created

#### **How the Project Meets the Conditions Listed in the Commission’s May 20, 2020 Notice:**

- **Provide significant utility system benefits**

These activities are estimated to produce societal benefits, in the form of avoided utility infrastructure costs, of over \$100 million on the electric system and almost \$2 million on the natural gas system.

- **Consistent with approved resource plans, approved natural gas distribution infrastructure or pipeline safety plans, triennial conservation plans, and existing Commission orders**

These activities are consistent with CIP requirements as established in Minn. Stat. 216B.241 and have the added benefit of helping the company achieve and exceed statutory requirements for the Conservation Improvement Program. While the incremental conservation activities we propose as part of this relief and recovery initiative are not included in the 2020 CIP Extension plan we are currently operating under, we will follow the program modification process established by the Department of Commerce, where necessary, to obtain the appropriate approvals. We plan to include our proposal to spend twice the minimum statutory requirement for electric and natural gas low income programs in our 2021-2023 CIP Triennial Plan that we will file with the Department on July 1, 2020.

- **Reduce carbon or other pollutant emissions in the power sector or across economic sectors**

CIP activities contribute to lowering any emissions produced by the Company’s infrastructure or operations, by avoiding the need to deliver the energy that is avoided through conservation. We provide estimates of avoided emissions as part of our Annual CIP Status Reports. Utilizing the average per kWh carbon savings from the 2019 CIP Status Report against the expected incremental savings from relief and recovery activities, we estimate that these efforts could result in an additional reduction of 19,000 lifetime short tons of CO<sub>2</sub>.

- **Increase access to conservation and clean energy resources for Minnesotans**

The proposed CIP activities directly increase access to conservation resources for our customers and will contribute to energy conservation requirements established in Minn. Stat. 216B.241.

- **Create jobs or otherwise assist in economic recovery for Minnesotans**

Although we do not anticipate any jobs directly created by our proposed incremental CIP investments, we expect they would indirectly support a number of jobs. Several reports point to the positive job growth created by energy efficiency. Most recently the [2020 U.S. Energy and Employment Report](#) showed that the number of jobs in energy efficiency exceeded that of all other sectors in the energy category. These jobs include HVAC & lighting trades as well as materials manufacturing. While it is difficult to directly quantify the jobs created by additional investment in energy efficiency, it is logical that helping customers initiate energy saving projects at their homes and businesses will benefit job creation and retention. The Midwest Energy Efficiency Alliance [reported](#) that \$1.87B was invested in energy efficiency in 2018 and 552,331 jobs were supported by that investment. That indicates that the Company’s incremental investment detailed below could support over 2,700 jobs.

As part of the increased spending for low income customers the Company plans to support health and safety repairs that are barriers to energy efficiency projects such as vermiculite abatement. These activities will support specialized trade services.

- **Use woman, veteran, or minority owned businesses as much as possible and provide documentation of these efforts**

As noted in the filing, Xcel Energy has a strong commitment to supplier diversity. To the extent this proposed investment has any bidding involved, we will consider including additional points toward bidders who include the use of woman, veteran, or minority owned businesses. In addition, the Company supports the Midwest Energy Efficiency Alliance’s Diversity and Inclusion initiative that seeks to attract and encourage diversity in the energy efficiency sector.

**Estimated Timeline to Initiate and Complete Project:**

Some efforts, such as virtual audits and Home Saving Kits, have already launched while others are under review and development. This will be an on-going effort through the remainder of 2020. We will be evaluating and adapting to the challenges our customers face as they emerge and evolve.

**Estimated Costs:**

Estimated Electric CIP Activities*	Incremental Spend	Energy Savings from increased activities	Net benefits to customers
	\$6,000,000	68 GWh	\$111,000,000

Estimated Gas CIP Activities*	Incremental Spend	Energy Savings from increased activities	Net benefits to customers
	\$3,100,000	100,000 Dth	\$2,000,000

\*Dependent on customer adoption of promotions

Category	Project Name	Months to Complete	Estimated Cost:	Labor Hours:	Created Jobs, Union	Created Jobs, Non-Union	Project Need and Description	System Benefit
Asset Renewal	NSPM Major Line Refurb/Rebuild/Priority Poles	6 months	\$ 20,800,000	83,200	40.0	10.0	The Major Line Rebuild program for NSPM and NSPW represents a group of projects that rebuild large segments of transmission lines on the NSP System that have a concentrated number of defects that contribute to poor line performance. These projects are typically required either because the existing line circuits are at risk for increased outage frequency or because the number of structural defects on the circuit makes it unreasonable to refurbish only the defective portions. A rebuild project scope requires complete wreck out/ removal of the physical line assets, which are then replaced with new line assets (structures, conductor, switches, etc.) either within the existing right-of-way (ROW) or with minor, targeted right-of-way expansion to accommodate outage constraints and safe construction practices. Priority poles are poles identified as being degraded to the point of requiring replacement as soon as possible. These poles are identified on an annual basis based on line inspection reports.	The facilities and appurtenances described in this section pertain to transmitting high voltage and extra high voltage electricity from generation to substation. These lines enable all generation to reach substations to be distributed to the end user, our customers. The transmission lines described have been inspected, its defects recorded, and work plans created to rebuild a portion of the line asset.
Reliability Requirement	NSPM Galloping Conductors	6 months	\$ 1,000,000	4,000	1.9	0.5	The NSPM Galloping Conductors program encompasses projects that will mitigate line galloping on circuits identified on the NSP System that have shown vulnerability to line galloping. Transmission line galloping is the high-amplitude, low-frequency oscillation of overhead power lines as a result of certain wind conditions. The movement of the wires occurs most commonly in the vertical plane, although horizontal or rotational motion is also possible. The oscillations can sometimes cause the phase conductors to come too close to each other, causing flashover and occasional outages. Through rare, persistent galloping oscillations can cause fatigue to the conductor or fastening equipment securing the conductor or insulator to a structure, resulting in a mechanical failure.	The facilities and appurtenances described in this section pertain to transmitting high voltage and extra high voltage electricity from generation to substation. These lines enable all generation to reach substations to be distributed to the end user, our customers. The transmission lines described have been inspected to determine that in wind and ice conditions, this line could gallop and could fatigue beyond intended and/or electrically fault.
Physical Security and Resiliency	Physical Security Substations	6 months	\$ 4,000,000	16,000	7.7	1.5	The NSPM/NSPW Physical Security program was developed to ensure the Company's compliance with the NERC-CIP-014 Physical Security Standard. Additionally, the program aims to improve substation site security where the Company's Protection Services department has identified ongoing theft issues. The purpose of this program is to improve the physical security of the Company's substations. The Company is developing site-specific security plans for specific substations and is obtaining third-party verification of the effectiveness of these plans. These site-specific security plans may include the following security measures: cameras, fencing/barrier improvements, ballistic shielding of identified key substation equipment, site access controls, ground sensory monitoring, and radar technology. This program is planned for 15 discrete substation sites in 2020, 10 discrete substation sites in 2021, and eight discrete substation sites in 2022.	This project category is essential to operating a strong reliable transmission grid. These projects ensure the company complies with NERC requirements and prevents in theft and/or prohibited access to electrical substations. Keeping these sites secure allows the transmission system to operate as intended.
Asset Renewal	NSPM ELR Breaker	6 months	\$ 1,500,000	6,000	2.9	0.7	The NSPM/NSPW Substation Breaker ELR program targets circuit breakers for replacement that have been identified due to poor performance or lack of available replacement parts for repair. As transmission infrastructure ages or nears or is at its expected end of life, components must be changed before failures occur. As the structural integrity of these aging assets diminishes, outages will increase in frequency and duration.	This program is critical to enable planned replacement of transmission voltage level breakers. By planning the work, emergency replacements and possible associated outages can be planned around. In addition, planning these replacements will allow for calculated system operation while ensuring emergency stock is reserved for emergencies.
Asset Renewal	NSPM Tools	6 months	\$ 850,000	-	0.0	0.0	Tools are needed in order to ensure that critical assets including transmission lines, substations, and other related assets meet reliability and capacity requirements. This includes additions to, or replacement of tools that support capital additions and line relocations.	Tools are necessary to install all transmission equipment. These tools will be used and consumed on every project in the portfolio and will degrade more quickly as more projects are added to a corresponding portfolio.
Reliability Requirement	HIBTAC	6 months	\$ 1,000,000	4,000	1.9	0.5	The Hibbing Taconite 500 KV Project includes the removal, replacement, and relocation of approximately 10 miles of an existing 500 KV line that is located on Cleveland-Cliffs, Inc.'s land where HibTAC has mining operations. The license agreement with the mine that granted Xcel Energy the right to construct and maintain the 500 KV line on the mine property also gave the mine the right to request relocation of the line. We are in the process of extending and revising the license agreement with Cleveland-Cliffs to relocate the line elsewhere on HibTAC mining land.	This project is a permit requirement to complete. The 500KV line connects the United States to Canada with sensitive and small outage windows available for maintenance.
Asset Renewal	NSPM Major Line Rebuild	12 months	\$ 5,500,000	22,000	10.6	2.0	The Major Line Rebuild program for NSPM and NSPW represents a group of projects that rebuild large segments of transmission lines on the NSP System that have a concentrated number of defects that contribute to poor line performance. These projects are typically required either because the existing line circuits are at risk for increased outage frequency or because the number of structural defects on the circuit makes it unreasonable to refurbish only the defective portions. A rebuild project scope requires complete wreck out/ removal of the physical line assets, which are then replaced with new line assets (structures, conductor, switches, etc.) either within the existing right-of-way (ROW) or with minor, targeted right-of-way expansion to accommodate outage constraints and safe construction practices.	The facilities and appurtenances described in this section pertain to transmitting high voltage and extra high voltage electricity from generation to substation. These lines enable all generation to reach substations to be distributed to the end user, our customers. The transmission lines described have been inspected, its defects recorded, and work plans created to rebuild a portion of the line asset.
Reliability Requirement	NSPM Galloping Cond (Add'l)	12 months	\$ 1,000,000	4,000	1.9	0.5	The NSPM Galloping Conductors program encompasses projects that will mitigate line galloping on circuits identified on the NSP System that have shown vulnerability to line galloping. Transmission line galloping is the high-amplitude, low-frequency oscillation of overhead power lines as a result of certain wind conditions. The movement of the wires occurs most commonly in the vertical plane, although horizontal or rotational motion is also possible. The oscillations can sometimes cause the phase conductors to come too close to each other, causing flashover and occasional outages. Through rare, persistent galloping oscillations can cause fatigue to the conductor or fastening equipment securing the conductor or insulator to a structure, resulting in a mechanical failure.	The facilities and appurtenances described in this section pertain to transmitting high voltage and extra high voltage electricity from generation to substation. These lines enable all generation to reach substations to be distributed to the end user, our customers. The transmission lines described have been inspected to determine that in wind and ice conditions, this line could gallop and could fatigue beyond intended and/or electrically fault.
Physical Security and Resiliency	Physical Security Substations	12 months	\$ 19,360,000	77,440	37.2	9.3	The NSPM/NSPW Physical Security program was developed to ensure the Company's compliance with the NERC-CIP-014 Physical Security Standard. Additionally, the program aims to improve substation site security where the Company's Protection Services department has identified ongoing theft issues. The purpose of this program is to improve the physical security of the Company's substations. The Company is developing site-specific security plans for specific substations and is obtaining third-party verification of the effectiveness of these plans. These site-specific security plans may include the following security measures: cameras, fencing/barrier improvements, ballistic shielding of identified key substation equipment, site access controls, ground sensory monitoring, and radar technology. This program is planned for 15 discrete substation sites in 2020, 10 discrete substation sites in 2021, and eight discrete substation sites in 2022.	This project category is essential to operating a strong reliable transmission grid. These projects ensure the company complies with NERC requirements and prevents in theft and/or prohibited access to electrical substations. Keeping these sites secure allows the transmission system to operate as intended.
Asset Renewal	NSPM ELR Relay	12 months	\$ 500,000	2,000	1.0	0.2	The ELR - Relay program encompasses projects that target for replacement relays that exhibit poor performance and lack available replacement parts. As transmission infrastructure continues to age or nears or is at its end of life, these components must be changed before failures occur. As the structural integrity of aging assets diminishes, outages will increase in frequency and duration.	The devices described in this category are the computer controlling sensing equipment and are programmed to operate equipment throughout the substation. As these relays age they could become less reliable in their operation, leading to a less reliable transmission system.
Asset Renewal	NSPM ELR Relay	24 months	\$ 1,600,000	6,400	3.1	0.8	The ELR - Relay program encompasses projects that target for replacement relays that exhibit poor performance and lack available replacement parts. As transmission infrastructure continues to age or nears or is at its end of life, these components must be changed before failures occur. As the structural integrity of aging assets diminishes, outages will increase in frequency and duration.	The devices described in this category are the computer controlling sensing equipment and are programmed to operate equipment throughout the substation. As these relays age they could become less reliable in their operation, leading to a less reliable transmission system.
Asset Renewal	NSPM ELR Breaker	24 months	\$ 1,500,000	6,000	2.9	0.7	The NSPM/NSPW Substation Breaker ELR program targets circuit breakers for replacement that have been identified due to poor performance or lack of available replacement parts for repair. As transmission infrastructure ages or nears or is at its expected end of life, components must be changed before failures occur. As the structural integrity of these aging assets diminishes, outages will increase in frequency and duration.	This program is critical to enable planned replacement of transmission voltage level breakers. By planning the work, emergency replacements and possible associated outages can be planned around. In addition, planning these replacements will allow for calculated system operation while ensuring emergency stock is reserved for emergencies.
Asset Renewal	NSPM ELR Transformers	24 months	\$ 16,000,000	64,000	30.8	7.7	High voltage transformers make up less than three percent of transformers in U.S. power substations, but they carry 60 to 70 percent of the nation's electricity. Because they serve as vital nodes and carry bulk volumes of electricity, these transformers are critical elements of the nation's electric power grid.	The transformers in this category are approaching the end of their useful life. By replacing them prior to end of life failure, a project and outage plan can be developed, resources can be allocated, and emergency reserves can be considered instead of relied upon.
Physical Security and Resiliency	Physical Security Substations	24 months	\$ 24,460,000	97,840	47.0	11.8	The NSPM/NSPW Physical Security program was developed to ensure the Company's compliance with the NERC-CIP-014 Physical Security Standard. Additionally, the program aims to improve substation site security where the Company's Protection Services department has identified ongoing theft issues. The purpose of this program is to improve the physical security of the Company's substations. The Company is developing site-specific security plans for specific substations and is obtaining third-party verification of the effectiveness of these plans. These site-specific security plans may include the following security measures: cameras, fencing/barrier improvements, ballistic shielding of identified key substation equipment, site access controls, ground sensory monitoring, and radar technology. This program is planned for 15 discrete substation sites in 2020, 10 discrete substation sites in 2021, and eight discrete substation sites in 2022.	This project category is essential to operating a strong reliable transmission grid. These projects ensure the company complies with NERC requirements and prevents in theft and/or prohibited access to electrical substations. Keeping these sites secure allows the transmission system to operate as intended.
Asset Renewal	NSPM Major Line Rebuild	24 months	\$ 67,140,000	268,560	129.1	32.3	The Major Line Rebuild program for NSPM and NSPW represents a group of projects that rebuild large segments of transmission lines on the NSP System that have a concentrated number of defects that contribute to poor line performance. These projects are typically required either because the existing line circuits are at risk for increased outage frequency or because the number of structural defects on the circuit makes it unreasonable to refurbish only the defective portions. A rebuild project scope requires complete wreck out/ removal of the physical line assets, which are then replaced with new line assets (structures, conductor, switches, etc.) either within the existing right-of-way (ROW) or with minor, targeted right-of-way expansion to accommodate outage constraints and safe construction practices.	The facilities and appurtenances described in this section pertain to transmitting high voltage and extra high voltage electricity from generation to substation. These lines enable all generation to reach substations to be distributed to the end user, our customers. The transmission lines described have been inspected, its defects recorded, and work plans created to rebuild a portion of the line asset.
Asset Renewal	Steel Pole Replacements	24 months	\$ 15,000,000	60,000	28.8	7.2	The Steel Pole Replacement program represents a group of projects that focus on replacing steel poles that have reached the end of their useful life or experience defects that could contribute to shortened asset life and poor line performance. These projects are typically required either because the existing line circuits are at risk for increased outage frequency or because the number of structural defects on the circuit makes it unreasonable to refurbish only the defective portions. A rebuild project scope requires complete wreck out/ removal of the physical line assets, which are then replaced with new line assets (structures, conductor, switches, etc.) either within the existing right-of-way (ROW) or with minor, targeted right-of-way expansion to accommodate outage constraints and safe construction practices.	The facilities and appurtenances described in this section pertain to transmitting high voltage and extra high voltage electricity from generation to substation. These lines enable all generation to reach substations to be distributed to the end user, our customers. The transmission lines described have been inspected, its defects recorded, and work plans created to rebuild a portion of the line asset.
			<b>Totals:</b>	<b>\$ 181,210,000</b>	<b>721,440</b>	<b>346.8</b>	<b>86.7</b>	

Name	IDP Budget Category	Description	Benefit	2020	2021	2022	2023	2024	2025	Resources	2020 Hrs	2021 Hrs	2022 Hrs	2023 Hrs	2024 Hrs	2025 Hrs
Pole Replacement Program	Age-Related Replacements and Asset Renewal	Replacing degraded poles as identified. Includes backlog and increased identification rate.	Improves resiliency.	6.0	7.1	7.1	7.1	7.1	7.1	Designer, Line Crews	24,640	29,157	29,157	29,157	29,157	29,157
Asset Health and Renewal Projects	Age-Related Replacements and Asset Renewal	Asset renewal projects focused on the replacement of aging infrastructure incrementally above what was proposed in the 2019 plan.	Addresses failure and reliability concerns. Improves resiliency.	0.0	14.5	15.7	16.4	16.3	16.3	Designer, Line Crews, Engineer, Sub Crews	0	64,684	72,034	74,269	74,061	72,096
Substation Asset Health Renewal Programs	Age-Related Replacements and Asset Renewal	Asset renewal programs focused on the replacement of end of life equipment in our substations incrementally above what was proposed in the 2019 plan.	Addresses failure and reliability concerns.	4.0	9.2	14.4	20.5	20.5	21.5	Engineer, Sub Crews	20,000	25,975	52,000	82,675	82,675	87,675
Network Asset Renewal Program	Age-Related Replacements and Asset Renewal	Asset renewal programs focused on the replacement of end of life equipment associated with our networks incrementally above what was proposed in the 2019 plan.	Addresses safety and reliability concerns.	0.0	0.0	6.0	5.8	6.0	6.3	Designer, Line Crews	0	0	19,230	18,589	19,230	20,192
Southeast Region Reliability Initiative	Age-Related Replacements and Asset Renewal	New initiative focused on the reliability of the SE region. Line projects to be determined.	Addresses reliability concerns on key assets and specific areas.	0.3	3.0	3.0	3.0	3.0	3.0	Designer, Line Crews	1,040	12,480	12,480	12,480	12,480	12,480
Relocate Saint Paul Tunnel Feeders	Age-Related Replacements and Asset Renewal	New initiative focused on relocating feeders outside of the St. Paul tunnel system.	Addresses safety and reliability concerns.	0.0	3.5	5.0	5.0	10.0	10.0	Designer, Line Crews	0	14,560	20,800	20,800	41,600	41,600
OH Line Renewal and Reliability Programs	Age-Related Replacements and Asset Renewal	New asset renewal programs targeting end of life replacement. Examples of this programs include replacing porcelain cutouts, arrestors and transformers.	Addresses failure and reliability concerns. Improves resiliency.	8.5	0.0	7.0	12.9	16.2	17.2	Designer, Line Crews	30,430	0	26,800	47,922	59,736	63,316
MN Targeted Undergrounding Program	Age-Related Replacements and Asset Renewal	New initiative targeting infrastructure with multiple concerns including degraded equipment, equipment reaching end of life, equipment resiliency issues, equipment inadequate to meet future needs.	Reduced end of life failures, increases resiliency and increases capacity.	0.0	0.0	0.0	4.0	5.0	10.0	Designer, Line Crews	0	0	0	9,600	12,000	24,000
Cable Replacement Programs and Assessment	System Expansion or Upgrades for Reliability and Power	Cable replacement incrementally above what was proposed in the 2019 plan. Includes cable assessment activities.	Addresses failure and reliability concerns. Cable assessment reduces replacement efforts.	8.0	6.2	21.2	24.1	24.1	28.9	Designer, Line Crews	20,788	17,499	51,870	62,287	60,534	70,555
Capacity Programs - Existing	System Expansion or Upgrades for Capacity	Traditional capacity projects, including high consequence risk projects, to address overload/contingency issues incrementally above what was proposed in the 2019 plan.	Minimizes outage length by creating switching options.	0.0	7.3	10.3	19.3	14.3	14.3	Designer, Line Crews, Engineer, Sub Crews	0	34,544	48,615	90,094	66,868	66,868
Capacity Programs - New	System Expansion or Upgrades for Capacity	New capacity projects, including high consequence risk projects to address potential voltage or overload/contingency issues. This will target additional areas with legacy infrastructure where we anticipate higher EV penetration.	Addresses reliability and voltage concerns.	0.0	0.0	4.0	7.0	9.0	11.0	Designer, Line Crews	0	0	18,133	31,733	40,800	49,867
Network Monitoring (Minneapolis and Saint Paul), Substation Fiber Buildout and Cyber Security.	Other	New projects geared at upgrading our current network systems to fiber, privatizing our substation communication network and upgrading GIS/Work & Asset Management systems.	The network upgrades improve safety for crews and system reliability by enabling remote operation and monitoring of facilities provides valuable information on system loading and health of these key assets. The substation and GIS/Work & Asset Management system upgrades improve system reliability for tele-protection, availability and system security.	0.0	5.1	10.3	9.9	8.4	5.3	Designer, Line Crews	0	26,402	52,902	48,702	41,082	24,936
<b>Total Capital Expenditures</b>				<b>26.8</b>	<b>56.0</b>	<b>104.0</b>	<b>135.0</b>	<b>140.0</b>	<b>151.0</b>	<b>Total Capital</b>	<b>96,898</b>	<b>225,302</b>	<b>404,022</b>	<b>528,309</b>	<b>540,225</b>	<b>562,743</b>

Name	IDP Budget Category	Description	Benefit	O&M Expenditures (\$ in millions)						Resources	Labor Hours					
				2020	2021	2022	2023	2024	2025		2020 Hrs	2021 Hrs	2022 Hrs	2023 Hrs	2024 Hrs	2025 Hrs
Estimated O&M in support			Estimated O&M in support of Capital	1.3	2.8	5.2	6.8	7.0	7.6							
Drone Inspection Pilot	Other	Inspect pole top and associated equipment for degradation. UAS Pole top inspection pilot (7,500 poles)	Allows for planned replacement of degraded equipment to improve reliability and resiliency. Pilot results would drive future inspections.	0.0	0.2	0.0	0.0	0.0	0.0	Docket No. E.G999/CI-20-492	0	1,675	0	0	0	0
<b>Total O&amp;M Expenditures</b>				<b>1.3</b>	<b>3.0</b>	<b>5.2</b>	<b>6.8</b>	<b>7.0</b>	<b>7.6</b>	<b>Xcel Energy Report</b>	<b>0</b>	<b>1,675</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total Expenditures</b>										<b>96,898</b>	<b>226,977</b>	<b>404,022</b>	<b>528,309</b>	<b>540,225</b>	<b>562,743</b>	
<b>Grand Total Hours</b>										<b>47</b>	<b>109</b>	<b>194</b>	<b>254</b>	<b>260</b>	<b>271</b>	
<b>Estimated FTEs</b>										<b>47</b>	<b>109</b>	<b>194</b>	<b>254</b>	<b>260</b>	<b>271</b>	

Project Name	Project Description	Spend (\$ in millions)				Timeline of Project	Jobs Created
		Total Project Spend	2020 Incremental Spend	2021 Incremental Spend	2022 - 2025 Incremental Spend		
Move Gas Meters Outside	There are currently 20,745 customers whose gas meters are located inside the customer's premise. Project moves those meters from inside to outside.	28.80		28.80	-	This is a 5-year project. Project start moved up one year from 2022 to 2021	10 - 12 union contractors
Replacement of Copper Risers and Services	Project will replace 612 copper services and 4,000 copper risers that need to be replaced. This work is not currently included in the 2021-2025 budget.	6.00	6.00			Work can be completed in one construction season. If approval not received early enough in 2020, work will be done in 2021	18 union contractors, 9 each for riser and service replacements. Does not include potential extra labor related to service line renewals
Isolation Valves	Project will add approximately 300-400 isolation valves in order to improve public safety during a gas emergency on our system. This work is not currently included in the 2021-2025 budget.	7.00	3.50	3.50		Work is spread evenly between 2020 and 2021	Per union contracts, work must be completed by Company union employees. We will hire 15 temporary union contractors to backfill Company personnel.
St. Cloud 8-inch High Pressure Line	Project will Install approximately 5,400 feet of 8-inch high-pressure pipeline to increase capacity to serve firm customer on a design day	9.00	-	-		Work will start in 2021 and be completed by November 2021	20 - 25 union contractors
<b>Total</b>		<b>50.80</b>	<b>9.50</b>	<b>32.30</b>	<b>-</b>		

Project Name	Project Description	Total Expected Spend	Timeline of Project	Indirect Job Stimulus
Public Charging Infrastructure	We will work with communities and auto dealers to site publicly available fast charging infrastructure that will be owned and operated by the Company. Program will focus to support charging in areas not currently being served by private charging companies.	\$5 million	2021 and/or 2022, depending on project participation	60 jobs
Fleet Charging Infrastructure	Company will expand the current Fleet EV Service Pilot, approved by the Commission, to commercial and non-profit organizations. We will facilitate additional participation in the existing Pilot, which we do not believe can be fully enrolled without engaging these new organizations.	No incremental spend, Program already approved for \$14 million of spend	2021 and 2022	
EV Rebates	Company will provide rebates to transit operators (Metro Transit) for the purchase of electric buses and associated equipment. Company will also provide rebates to customers for the purchase of private light-duty vehicles, tied to participation in a managed charging program tariff. Rebate will be up to \$500,000 per bus and up to \$2,500 per light-duty vehicle.	\$100 to \$150 million	2020 through 2025, or until spending cap achieved	5,500 to 7,500 jobs
Company Fleet and Charging Infrastructure	Company will accelerate electrification of our fleet by purchasing electric vehicles and installing needed charging infrastructure at Company facilities ahead of our current planned schedule.	\$1.5 million	2020 and 2021	20 jobs

Site	Project Description	Incremental 2020 Spend	Incremental 2021 Spend	Incremental 2022 Spend	Incremental 2023 Spend	Incremental 2024 Spend	Total Incremental Spend	Project Justification
Blue Lake	Demolition and removal of Units 1 through 4 and remediation of site	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000	\$ 1,500,000	Units have been retired. Retirement will allow for replacement by new generation
Granite City	Demolition and removal of Units 1 through 4 and remediation of site	-	4,096,222	-	-	-	\$ 4,096,222	Units have been retired. Retirement will allow for replacement by new generation
Key City	Demolition and removal of Units 1 through 4 and remediation of site	-	4,096,222	-	-	-	\$ 4,096,222	Units have been retired. Retirement will allow for replacement by new generation
Minnesota Valley	Demolition and removal of plant facilities and remediation of site	457,756	11,359,209	-	-	-	\$ 11,816,965	Plant has asbestos inside and is not staffed. Annual O&M expenses are needed for clean up of basement flooding issues.
Riverside Steam	Asbestos abatement in old steam plant structures	-	1,015,500	-	-	-	\$ 1,015,500	Reduced potential for asbestos exposure to employees and release incidents. Removal is required prior to demolition of the structure.
Sherco	Closure and remediation of Ash Pond 1	400,000	3,550,000	50,000	-	-	\$ 4,000,000	This project would be mandated under the EPA CCR rules if there are groundwater exceedances with the unlined Bottom Ash Pond
Total		\$ 857,756	\$ 24,117,153	\$ 50,000	\$ -	\$ 1,500,000	\$ 26,524,909	



Site	Project Description	Incremental 2021 Spend	Incremental 2022 Spend	Incremental 2023 Spend	Incremental 2024 Spend	Total Incremental Spend
Blue Lake	Demolition and removal of Units 1 through 4 and remediation of site	\$ -	\$ -	\$ -	\$ 1,500,000	\$ 1,500,000
Granite City	Demolition and removal of Units 1 through 4 and remediation of site	-	4,096,222	-	-	\$ 4,096,222
Key City	Demolition and removal of Units 1 through 4 and remediation of site	-	4,096,222	-	-	\$ 4,096,222
Riverside Steam	Asbestos abatement in old steam plant structures	-	1,015,500	-	-	\$ 1,015,500
Sherco	Closure and remediation of Ash Pond 1	400,000	3,550,000	50,000	-	\$ 4,000,000
<b>Total</b>		<b>\$ 400,000</b>	<b>\$ 12,757,944</b>	<b>\$ 50,000</b>	<b>\$ 1,500,000</b>	<b>\$ 14,707,944</b>

CIP program changes currently under consideration or launched. These are preliminary program suggestions and some may be chosen over others depending on market indicators for economic recovery. Where required, the Company will utilize the CIP Modification Process through the Department of Commerce to gain program approval.

Program(s)	Customer Type	Target Segment(s)	Description/Strategy
Commercial Refrigeration Efficiency	Business	Liquor stores, convenience stores, grocery stores	Free direct install measures by mail in lieu of on-site assessment
Compressed Air	Business	Industrial - Electric Only	Direct Install of Compressed Air prescriptive equipment that is identified as good candidate for DI.
EIS	Business	EIS Customers	Ease participation requirements
Energy Information Systems	Business	EIS Customers	Bonus rebates for projects completed in 2020. Some customers may be delaying their projects until next year due to COVID-19 concerns. A bonus rebate may convince some of them to get the projects done this year.
HVAC+R Systems	Business	Electric and/or Gas	Bonus rebates for VFD, steam traps & boiler tune ups and waive requirement to submit applications w/in 12 months
HVAC+R Systems	Business	All business customers	Education & Outreach: Disseminate COVID-19 materials from CDD, ASHRE, OSHA and WHO
HVAC+R Systems	Business	All business customers	Direct install of thermostats for customers who qualify and participate in HVAC+R program
HVAC+R Systems	Business	Commercial, Grocery and Hospitality	Free assessments for lightly occupied buildings and grocery stores
HVAC+R Systems	Business	Trade	Engage trade partners to increase efficiency of rebate application process through digital applications
Lighting Efficiency - Fixtures	Business	Offices, Warehouses, Retail, Services, Education	Extend Current bonus for an additional 4 months through Dec 1, 2020.
Lighting Efficiency - Fixtures	Business	Offices, Warehouses, Retail, Services, Education	Bonus - interior fixtures
Lighting Efficiency - Instant Rebates	Business	Participating Trade, Business Customers	Rebate bonus to screw-in lamp measures
Lighting Efficiency - Tubes	Business	Offices, Warehouses, Retail, Services, Education	Extend Current bonus for an additional 4 months through Dec 1, 2020.
Lighting Efficiency - Tubes	Business	Offices, Warehouses, Retail, Services, Education	Bonus - linear tubes and mogul based bulbs
Recommissioning	Business	Mid-Large Commercial	Rebate Bonus
Recommissioning	Business	All business customers	Rebate bonus for implemented measures
Self Direct	Business	Mid sized business	Lower or eliminate the qualification threshold for Self Direct.
Turn Key Services	Business	Outstate Areas	Free or discounted audits and implementation services to outstate communities
Turn Key Services	Business	Small-midsize business	Free & Virtual Energy Analysis Audits for Minnesota
Turn Key Services	Business	Small business	Free Turn Key Audits for customers under 5 GWh of annual consumption
Process Efficiency	Industrial	PE customers	Targeted bonuses for project completions
Home Lighting	Residential	Lower income customers	Giveaway of LED 4 packs at food banks
Home Lighting	Residential	Lower income customers	Giveaway of LED 4 packs at food banks
Home Lighting	Residential	All residential customers	Double giveaway of LEDs from 2 to 4 or 6 per customer with fridge recycling
Low Income Segment	Residential	Income qualified customers	Increase requested budget for 2021 - 2023 Triennial to \$4.3M electric and \$2.5M gas. Allow funding for health and safety measures leading to efficiency projects.
Home Energy Services Program	Residential	Income qualified customers	Implement virtual audits/assessments
Home Energy Squad	Residential	All residential customers	Implement virtual audits/assessments
Pay it Forward	Residential	All residential customers	Allow customer rebates to be donated to help our community
Res AC	Residential	All residential customers	Rebate Bonus for mini-split cooling
Stay Home Kits	Residential	Combo customers	Free kits of energy-saving items that customers can request through a form on Company website, primarily as a strategy to supplement Home Lighting and Showerheads programs
Virtual Home Energy Squad	Residential	All residential customers	Virtual interactions with customers to find ways to save energy. Follow-up actions can include an in-person Energy Squad visit, delivery of free DIY energy-saving measures, and planning assistance for larger efficiency upgrades
Whole Home Efficiency	Residential	Combo customers eligible for Whole Home Efficiency	To leverage the increased awareness of indoor air quality, increased time at home, and respiratory health, offer IAQ monitors to Whole Home Efficiency eligible customers as a direct install measure at final inspection



## Relief & Recovery Proposal Snapshot

June 17, 2020

Project Totals	
Total Spend	\$2938M
Capital Expenditures	\$2872M
Direct Jobs Created	5066
Indirect Jobs Created*	8200
Annual CO <sub>2</sub> Reduction (tons)	495,547

Category	Project	Description	Timing	Cost/acceleration	Annual Carbon Reduction (tons)	Job Creation
Resiliency Projects	<b>Transmission</b>	Portfolio of transmission projects related to Resiliency, Reliability, Asset Renewal, and Physical Security with accelerated construction start dates.	2020-2023	\$181M	N/A	346 Labor/Union 86 Professional
	<b>Distribution</b>	Portfolio of distribution projects related to Resiliency, Reliability, and Safety with accelerated construction start dates.	2020-2025	\$613M through 2025 \$31M in O&M	N/A	1,134
	<b>Minneapolis NWA Pilot</b>	Preliminary proposal for Non-Wires Alternative along the METRO Blue Line Extension (Bottineau) light rail corridor using variety of NWA technologies	~2022-2024	Prospectively \$4M-8M	N/A	N/A
	<b>Gas</b>	Replacement of copper risers/services. Weighted pipeline replacements. Isolation Valves. Casings. Moving meters inside.	Late 2020 - 2021	\$51M	N/A	70
	<b>Ongoing System Investments &amp; Job Pipeline</b>	AGIS AMI & FAN Huntley-Wilmarth 345kV				
Clean Energy Projects	<b>Solar at Sherco</b>	Development of up to 460 MW of solar capacity at the Sherco site. Includes storage pilot.	2023-2025	\$650M - Solar \$19M - Storage	256,934	222 Labor 30 Professional
	<b>Rooftop Solar</b>	Low-income rooftop solar with socialized costs. Focused on disadvantaged communities.	Late 2020	\$2M - Capital \$1M - O&M	229	25
	<b>Electric Vehicles</b>	Fast charging stations Expand Fleet Charging Pilot to include non-government customers Significant vehicle rebate programs Accelerate electrification of XE fleet	2021-2025	\$155M	91,120	5,500*
	<b>Asset Removal</b>	Demolition and site remediation at a series of retired generation facilities: MN Valley, Key City, Granite City, Black Dog, and various smaller projects.	<b>Bid: Q3 2020</b> <b>Work: 2021</b>	\$25M in incremental acceleration	N/A	36 Labor/Union 5 Professional
	<b>Ongoing System Investments &amp; Job Pipeline</b>	Builds: Blazing Star, Crowned Ridge I & II, Dakota Range I, II, & III, Freborn Repowers: Community Wind North, Jeffers, Mower PPAs: Deuel Harvest, Elk Creek				
Keeping Customer Bills Low	<b>Wind Additions</b>	Solicitation for repowering owned and existing PPA wind resources.	Q3 2020	\$1,200M	145,052	1000
	<b>Energy Efficiency</b>	Doubling of Low-income statutory minimum spend. Expanded EE/CIP portfolio in line with our triennial CIP filing. Accelerate other general EE activities. 16 - GWh.	2020	\$6M - Incremental Electric \$3M - Incremental Gas	2,212	2,700*

## CERTIFICATE OF SERVICE

I, Paget Pengelly, 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 Nos.**        **E,G999/CI-20-492** (*no service list available*)  
                             **E,G999/CI-20-425** (*served*)

Dated this 17<sup>th</sup> day of June 2020

/s/

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Paget Pengelly  
Regulatory Administrator

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