



500 West Russell St  
Sioux Falls, SD 57104

December 20, 2019

**--Via Electronic Filing--**

Ms. Patricia Van Gerpen, Executive Director  
South Dakota Public Utilities Commission  
Capitol Building, 1<sup>st</sup> Floor  
500 E. Capitol Ave.  
Pierre, SD 57501-5070

RE: PLAN TO OFFER COAL-FIRED GENERATING RESOURCES INTO THE MISO  
MARKET ON A SEASONAL BASIS

Dear Ms. Van Gerpen:

For informational purposes, Northern States Power Company, doing business as Xcel Energy, submits to the South Dakota Public Utilities Commission the attached petition, which was filed today with the Minnesota Public Utilities Commission (MPUC). The Company is seeking MPUC approval of a plan to offer the Allen S. King Generating Station (King Plant) and Unit 2 of the Sherburne County Generating Station (Sherco 2) into the MISO market on a seasonal basis.

In summary, the Company has analyzed operational changes at our coal-fired generating plants and the Company is proposing to suspend normal operations at the King Plant during non-peak seasons as soon as March 2020 and to suspend normal operation at Sherco 2 during non-peak seasons beginning in September 2020. During these seasonal suspension periods, the Company would operate the facilities only if required for reliability.

Thank you, and please contact me if you have any questions regarding the Company's seasonal dispatch plan for the King and Sherco 2 plants.

SINCERELY,

/s/

STEVE KOLBECK  
PRINCIPAL MANAGER

Enclosure



414 Nicollet Mall  
Minneapolis, MN 55401

December 20, 2019

—Via Electronic Filing—

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

RE: PETITION  
PLAN TO OFFER GENERATING RESOURCES INTO THE MISO MARKET ON A  
SEASONAL BASIS  
DOCKET NO. E002/M-19-\_\_\_\_

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits the attached Petition for approval of a plan to offer the Allen S. King Generating Station (King or the King Plant) and Unit 2 of the Sherburne County Generating Station (Sherco 2) into the MISO market on a seasonal basis. We present the results of our seasonal operations analysis in support of our proposal.

We have electronically filed this document with the Minnesota Public Utilities Commission, and a summary of the filing has been served on all parties on the Company's miscellaneous electric service list.

Please contact me at [allen.krug@xcelenergy.com](mailto:allen.krug@xcelenergy.com) or 612-330-6270 Rebecca Eilers at [rebecca.d.eilers@xcelenergy.com](mailto:rebecca.d.eilers@xcelenergy.com) or 612-330-5570 if you have any questions regarding this filing.

Sincerely,

/s/

ALLEN KRUG  
ASSOCIATE VICE PRESIDENT, STATE REGULATORY POLICY

Enclosures  
c: Service Lists

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Dan Lipschultz	Commissioner
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
John Tuma	Commissioner

IN THE MATTER OF THE PETITION OF  
NORTHERN STATES POWER COMPANY  
FOR APPROVAL OF A PLAN TO OFFER  
GENERATING RESOURCES INTO THE  
MISO MARKET ON A SEASONAL BASIS

DOCKET No. E002/M-19-\_\_\_\_\_

**PETITION**

**INTRODUCTION**

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Petition for approval of a plan to offer the Allen S. King Generating Station (King or the King Plant) and Unit 2 of the Sherburne County Generating Station (Sherco 2) into the MISO market on a seasonal basis.

The Commission's November 13, 2019 Order approving utilities' 2017-2018 AAA reports opened an investigation in a separate docket and required a compliance filing analyzing the potential options for seasonal dispatch generally, and potential options and strategies for utilizing "economic" commitments for specific coal-fired generating plants.<sup>1</sup> The Commission issued a Notice of Comment Period requesting comments on the process and scope of the investigation on December 13, 2019. We will provide further comments on the process and scope in response to the Commission's Notice. However, the Company has analyzed changes in operations at our coal-fired generating plants, and as discussed further below, the Company is proposing to suspend normal operation at the King Plant during non-peak seasons as soon as March 2020 and to suspend normal operation at Sherco 2 during non-peak seasons beginning in September 2020. During these seasonal suspension periods, the Company would operate the facilities only if required for reliability.

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<sup>1</sup> ORDER ACCEPTING 2017-2018 ELECTRIC REPORTS AND SETTING ADDITIONAL REQUIREMENTS, Docket No. E999/AA-18-373 (November 13, 2019).

We are proactively seeking Commission approval of this proposal for several reasons. First, we note that there is some risk that the cost impacts and the environmental benefits of our Unit Commitment Plan may not materialize as anticipated. We therefore provide this analysis for Commission review prior to enacting the proposed changes. Second, under the fuel clause Rules, a proposal to revise electric energy provisions is considered a change in rates and must be reviewed by the Commission.<sup>2</sup> And under fuel clause reform, the Commission has approved the Company's 2020 fuel cost forecast in its November 14, 2019 Order.<sup>3</sup> That forecast did not take this proposal into account, which—if approved—will impact our 2020 fuel costs.

In addition to these Commission approvals, we note that the Company intends to consult MISO's Independent Market Monitor (IMM) and possibly the Federal Energy Regulatory Commission (FERC) before commencing seasonal operations. However, we believe this Commission's approval is a critical first step toward moving forward with seasonal operations of King and Sherco 2.

In this Petition, we present the results of our seasonal operations analysis in support of our proposal. We respectfully request that the Commission approve:

- Offering the King Plant on a seasonal basis beginning as soon as March 1, 2020;
- Offering Sherco 2 on a seasonal basis beginning September 1, 2020; and
- The ability to true-up 2020 fuel costs that may differ from our initial 2020 fuel forecast in Docket No. E002/AA-19-293 to reflect the change in commitment of King and Sherco 2.

## **I. SUMMARY OF FILING**

A one-paragraph summary is attached pursuant to Minn. R. 7829.1300, subp. 1.

## **II. SERVICE ON OTHER PARTIES**

Pursuant to Minn. R. 7829.1300, subp. 2 and Minn. Stat. § 216.17, subd. 3, Xcel Energy has electronically filed this document. A summary of the filing has been served on all parties on our miscellaneous electric service list and on the enclosed service list for Docket No E999/CI-19-704.

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<sup>2</sup> Minn. Rules 7825.2390

<sup>3</sup> Docket No. E002/AA-19-293

### **III. GENERAL FILING INFORMATION**

Pursuant to Minn. R. 7829.1300, subp. 3, the Company provides the following information.

**A. Name, Address, and Telephone Number of Utility**

Northern States Power Company doing business as:  
Xcel Energy  
414 Nicollet Mall  
Minneapolis, MN 55401  
(612) 330-5500

**B. Name, Address, and Telephone Number of Utility Attorney**

Ryan Long  
Lead Assistant General Counsel  
Xcel Energy  
414 Nicollet Mall, 401 - 8<sup>th</sup> Floor  
Minneapolis, MN 55401  
(612) 215-4659

**C. Date of Filing**

The date of this filing is December 20, 2019.

**D. Statute Controlling Schedule for Processing the Filing**

The proposal discussed in this Petition falls within the definition of a miscellaneous filing under Minn. R. 7829.0100, subp. 11, because no determination of Xcel Energy's general revenue requirement is necessary. Minn. R. 7829.1400, subps. 1 and 4, permits comments in response to a miscellaneous filing to be filed within 30 days and reply comments to be filed no later than 10 days thereafter.

**E. Utility Employee Responsible for Filing**

Al Krug  
Associate Vice President, State Regulatory Policy  
Xcel Energy  
414 Nicollet Mall, 401 - 7<sup>th</sup> Floor  
Minneapolis, MN 55401  
(612) 330-7974

#### **IV. MISCELLANEOUS INFORMATION**

Pursuant to Minn. R. 7829.0700, the Company requests that the following persons be placed on the Commission's official service list for this proceeding:

Ryan Long	Lynnette Sweet
Lead Assistant General Counsel	Regulatory Administrator
Xcel Energy	Xcel Energy
414 Nicollet Mall, 401 - 8 <sup>th</sup> Floor	414 Nicollet Mall, 401 - 7 <sup>th</sup> Floor
Minneapolis, MN 55401	Minneapolis, MN 55401
ryan.j.long@xcelenergy.com	regulatory.records@xcelenergy.com

Any information requests in this proceeding should be submitted to Ms. Sweet at the Regulatory Records email address above.

#### **V. EFFECT OF CHANGE UPON XCEL ENERGY REVENUE**

We do not anticipate a change in revenue as a result of this proposal. If approved, the Company would reflect the actual fuel clause impacts in the fuel clause true-up.

#### **VI. DESCRIPTION AND PURPOSE OF FILING**

The increasing levels of renewables on our system and across the MISO footprint are impacting the wholesale energy markets, and we expect those impacts to increase as more renewables are added. Wind and solar resources provide energy to the grid without fuel costs and have a dispatch cost of zero, or a negative price. In response to the changing market dynamics and the Commission inquiries into the operations of our fleet, we evaluated the impacts of moving to seasonal operations at our King and Sherco 2 plants and, through this Petition, we are proposing to implement seasonal operations for King in March of 2020, and Sherco 2 in September of 2020, subject to the aforementioned approvals.

##### **A. Background**

The Sherco 2 unit is a coal-fired generator with a capacity of approximately 765 MW located in Sherburne County, MN. Sherco 2 is one of three units at the Sherburne County Generating Station. In our last Integrated Resource Plan (IRP), the Commission approved our proposal to retire Sherco 2 in 2023.<sup>4</sup>

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

The A.S. King plant is a coal-fired generator with a capacity of approximately 560 MW located in Washington County, MN. Currently, King is scheduled to retire in 2037. In our IRP filed on July 1, 2019, we proposed to accelerate the retirement of King to 2028.<sup>5</sup>

The Company has received Commission approval to add approximately 2000 MW of wind in the 2019-2021 timeframe. Other utilities in the region are also expected to add significant amounts of renewable resources as demonstrated by the amount of interconnection requests in the MISO queue. We expect that these additions of renewable resources in the region will allow for more cost-effective utilization of our existing coal generators if we adjust their operating practices. To test this expectation, we conducted economic modeling of moving to economic commitment and seasonal operations at Sherco 2 and King, and we discuss the results of that modeling in detail below.

For purposes of this proposal, we defined seasonality using a traditional definition of shoulder months and summer and winter months. Specifically, we defined winter and summer operation as the period from December through February and June through August, respectively. These months generally align with higher market prices and higher load levels. We defined shoulder months as March through May and September through November.

## **B. Proposal**

After conducting a preliminary analysis, we concluded that further study was warranted. We developed our Unit Commitment Plan scenario to build on our initial work:

*Unit Commitment Plan:* We developed a Unit Commitment Plan that would begin seasonal operations at King as soon as March 2020 and begin seasonal operations at Sherco 2 in September of 2020. Both plants would be idled during the shoulder months of March, April, May, September, October, and November in 2021, 2022, and 2023. By idling a plant, utilities retain the ability to restart units if there is a need for system reliability or other critical activity.

As discussed further below, we analyzed the cost impacts of our Unit Commitment Plan using the PLEXOS model and base assumptions used in our 2020 fuel cost forecast. We intend to monitor actual savings impacts throughout the year and

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<sup>5</sup> Docket No. E002/RP-19-368

perform a validation at year end. If actual impacts do not result in benefits to our customers, we will consider modifications to our plan. However, if our Unit Commitment Plan results in benefits, we will look for opportunities to expand seasonal operations to include other generation facilities or longer periods when units are idled.

Our Unit Commitment Plan also provides important opportunities for the Company to validate models showing the impact of changing the operations of our coal units as we transition away from coal and toward a decarbonized future. Specifically, we will be able to validate our assessment of the impact on energy costs, O&M and capital savings opportunities, reliability and emissions under seasonal operations. In this way, we expect to gain insight into the benefits and challenges of our Unit Commitment Plan.

Because the Unit Commitment Plan is a new operational approach for these units, we will need the ability to flexibly implement the plan. For instance, if Sherco 1 goes offline, we may need to make Sherco 2 available in order to provide steam to one of our large customers. We also may need to start units that are in seasonal operation if there is a need for system reliability, environmental or other testing, or other critical activity. Further, we request the flexibility to adjust our Plan or discontinue it entirely if circumstances warrant. To the extent we encounter unforeseen issues, we will notify the Commission and will modify operations to ensure we continue to reliably serve our customers.

Finally, the Company's operation of King and Sherco 2 will be subject to MISO's Tariff rules. As such, seasonal operations may require ongoing consultation with the MISO IMM or with FERC, and the Company may need to economically commit or start the units in order to comply with the MISO Tariff and federal law.

## **C. MISO Impacts**

### *1. Must-Offer Requirement*

Under the current MISO resource adequacy construct, the Company is required to have sufficient capacity to meet its required planning reserve margin (PRM) on an annual basis. The Company generally meets its PRM obligation by submitting a Fixed Resource Adequacy Plan (FRAP). Resources that are included in a FRAP or that clear in MISO's annual Planning Reserve Auction (PRA), are required to be offered into the MISO energy market on a daily basis. Generation capacity that is not used in a FRAP and does not clear the PRA is currently relieved of the day-ahead must-offer



energy requirement. However, resources that are not required to submit day-ahead offers may still be expected to generate if real-time energy prices exceed unit costs.

For the June 2019 to May 2020 Planning Year, the Company entered the PRA with a surplus capacity position of 1136.1 MW Zonal Resource Credits (ZRC). We did not include Sherco 2 in our FRAP, and Sherco 2 did not clear in the June 2019 PRA. As a result, the Company is not required to offer Sherco 2 into the MISO energy market through June 2020. Without the must-offer requirement, we have the flexibility to reduce operations at Sherco 2 for extended periods of time, or even months at a time. We could also replace the current planning resource capacity commitment from one resource with another resource (*e.g.*, we could switch the planning resource obligation from A.S. King to Sherco 2).

Based on the excess capacity on our system over the next several years, we expect that both Sherco 2 and King could be relieved of any must-offer requirement in future years. However, that conclusion could change if the Company's capacity position unexpectedly changes, or if future PRAs clear at significantly higher prices. The auction clearing price in Zone 1 for the 2019/2020 PRA was \$2.99/MW-Day. If capacity margins in Zone 1 tighten and the clearing prices significantly increase, Sherco 2 or King could clear in the PRA and be required to be offered into the MISO energy market. In addition, changes to the current MISO resource adequacy construct are under consideration. MISO's IMM proposed a market power rule that could require units to be brought back online if significant reliability risks arise in the MISO footprint.

While we do not expect these risks to significantly impact our proposal, we note them here because these or other changing circumstances could impact our ability to implement our proposal as currently contemplated. We propose to report any such developments to the Commission and, as discussed further below, we will provide annual reports on the impact of our actions and any proposed changes for the Commission's review.

## 2. *Commitment of Generation*

Historically, the Company has offered coal generators with a commit status of "must run" in the MISO energy market, which results in each unit running at its minimum operating limit or higher and disqualifies it from receiving make-whole payments if market clearing prices are not sufficient to cover the unit's variable production costs. A self-committed generator remains available for economic dispatch between the minimum and maximum output levels. However, the Company recently updated its offer status for Sherco and King, and now offers the units with a default commit

status of “economic” unless reliability issues or operational needs require otherwise.<sup>6</sup> This change has resulted in a significant reduction in hours run at both King and Sherco<sup>7</sup>:

**Table 1: Recent Operations at Sherco Units 1 and 2 and King**

Unit	Unit #	Date Range	Offline Days		Total Days	Starts by Type			
			Reserve Shutdown	Outage		MISO Economic	MISO Reliability Must Run	Company Must Run	Total
Sherco	1	8/25/19 - 10/31/19	39	4	68	3	0	3	6
	2	8/25/19 - 10/31/19	0	0	68	0	0	0	0
King	1	7/8/19 - 10/31/19	73	9	116	2	2	3	7

Reserve Shutdown days are days where the unit was not committed in MISO due to economics. We anticipate economic benefits, to result from this change in strategy, which allows MISO’s Security Constrained Unit Commit (SCUC) and Security Constrained Economic Dispatch (SCED) models to commit and dispatch these resources.

MISO’s SCUC model is currently limited to a single day commitment period. The Company has consistently advocated for the development and implementation of a multi-day commitment, and discussions with MISO are ongoing. With a multi-day commitment mechanism, the Company’s coal generators could be economically committed based on MISO’s forecast of load and resources over a multi-day period with full consideration of unit parameters, such as minimum run times, extended startup time, and minimum down time. The current single-day commitment model does not adequately assess these cycle times, and market outcomes may not fully optimize commitments of these resources. A less-than-optimal market solution could increase costs to customers across the MISO footprint. Prior to the implementation of a multi-day commitment process, we have encouraged MISO to expand the minimum run time beyond the 24 hour cap currently in place. MISO’s lack of a multi-day commitment mechanism may cause King and Sherco 2, in the absence of seasonal idling, to operate at a loss during the shoulder months in 2020-2023 unless we are able to increase our offers to fully recover these costs.

<sup>6</sup> We continue to commit these units with a commit status of “must run” in certain limited circumstances, including for required environmental and performance testing, for fuel and emissions management, to meet unit minimum run time parameters, during periods of elevated reliability risk, and in response to operating directives from MISO and Transmission Operations.

<sup>7</sup> Sherco 1 was offered on economic basis during this timeframe.

### 3. *Benefits of Seasonal Commitment or Idle Compared to Economic Commitment*

As discussed above, we are proposing to commit King on a seasonal basis as soon as March 2020 and commit Sherco 2 on a seasonal basis beginning in September of 2020. Even if a multi-day commitment process were established, moving to a seasonal commitment provides additional certainty for operations and opportunities for reduced O&M and capital expenditures at the plant as well as reduced carbon emissions. The ultimate goal is to optimize the remaining life of these coal units. The specific impacts of our proposal are discussed further below.

### 4. *Additional MISO and FERC Requirements*

Generation capacity such as King and Sherco 2 that have no must-offer requirement still remain subject to MISO's physical withholding rules in the MISO Real-Time Market.<sup>8</sup> Failing to economically commit generation can in certain circumstances constitute physical withholding, which is prohibited under the MISO Tariff. However, the prohibition on physical withholding only applies to *economic* generation that is withheld from the market. The Company has completed PROMOD modeling showing that, in most shoulder-season months, offering King and Sherco 2 through "economic commitment" would result in *uneconomic* operation. In other words, based on the offers we are currently using, the variable cost of operating the facilities (fuel and variable O&M) would be more than the units would receive in revenue. Assuming that we are unable, under the MISO Tariff, to raise our offers sufficiently to address this gap, the Company believes it can proceed with its Unit Commitment Plan consistent with the MISO Tariff's physical withholding rules. However, the Company does intend to consult with the IMM, and possibly with FERC, to confirm our understanding that the market rules do not prohibit seasonal idling of these unit.

## **D. Modeling and Fuel Clause Impacts**

### 1. *Fuel Cost Impacts*

The Company analyzed seasonal idling of King and Sherco 2 in the context of NSP's fuel clause. On May 1, 2019, the Company filed its 2020 fuel forecast to set monthly fuel clause adjustment rates for calendar year 2020.<sup>9</sup> The Company used PLEXOS to model the NSP power supply system and forecast costs for fuel and purchased energy

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<sup>8</sup> See *Midwest ISO*, 102 FERC ¶ 61,280 at P 96 (2002); MISO Market Monitoring Business Practice Manual at 41.

<sup>9</sup> Docket No. E002/AA-19-293. The Company updated the forecast in July 31, 2019 Reply Comments.

in that proceeding.<sup>10</sup> King and Sherco 2 were assumed to be must-commit in the 2020 fuel forecast.

First, the Company modeled the impacts of committing King and Sherco 2 on an economic (rather than must-run) basis.<sup>11</sup> The impacts of that change in commitment status is shown below in Table 2.

**Table 2: Potential NSPM Fuel Clause Impacts of Year-Round Economic Commit Versus Must Commit for King and Sherco 2 (\$000)**

Base LMP			
2020	2021	2022	2023
(\$9,227)	(\$19,061)	(\$28,794)	(\$22,727)
High LMP			
2020	2021	2022	2023
(\$4,676)	(\$9,056)	(\$14,992)	(\$10,173)

As shown above, we project significant savings as a result of transitioning from must-commit to economic commitment, which we implemented in mid to late summer 2019.

Next, the Company modeled the impacts of transitioning from a fully economic commitment strategy to a seasonal commitment construct where the units are idled during the shoulder seasons and economically committed in the summer and winter seasons. The fuel clause impact of that change in commitment status is shown below in Table 3.

**Table 3: Potential NSPM Fuel Clause Impacts of Seasonal Economic Commitment Plan Versus Year-Round Economic Commit for King and Sherco 2 (\$000)**

Base LMP			
2020	2021	2022	2023
\$597	\$126	\$152	(\$184)
High LMP			
2020	2021	2022	2023
\$1,067	\$433	\$704	\$574

As shown above, the change from year-round economic commitment to seasonal commitment results in little impact on total fuel costs. We note, however, that the PLEXOS model takes into account expected market conditions and that the projected fuel cost impacts shown above could differ depending on actual market conditions.

<sup>10</sup> PLEXOS is a dispatch model used in our FCA forecast. PROMOD is nodal model that can be used to analyze impacts to LMPs at the nodal level.

<sup>11</sup> Sherco 1 was assumed to be offered on an economic basis beginning in April of 2021.

2. *Avoided O&M and Capital Costs*

The Company expects to achieve additional O&M and capital savings if the Commission approves our request to adopt the Unit Commitment Plan relative to operation of the plants as must-run. While the savings may also be achieved by offering Sherco 2 and King on an economic basis, the proposed Unit Commitment Plan provides greater certainty on plant operations and therefore greater certainty that costs will be avoided.<sup>12</sup> The O&M savings would result from reduced overtime and reduced chemical and materials usage. Additional capital investment at King could also be avoided under our Unit Commitment Plan, including investments in various control systems, gas fan damper drives, buses, cooling tower cells replacements and other investments that would be needed if the plant were operated year round. Our proposed Unit Commitment Plan will allow us to further evaluate the impacts of seasonal dispatch and make modifications to our plans. Our current projection of those savings is shown in the following tables.

<b>Table 4: Projected O&amp;M Savings at King (\$000)</b>								
2020	2021	2022	2023	2024	2025	2026	2027	2028
\$1,200	\$3,700	\$1,200	\$1,200	\$2,700	\$1,800	\$2,000	\$2,200	\$2,400

<b>Table 5: Projected O&amp;M Savings at Sherco 2 (\$000)</b>			
2020	2021	2022	2023
\$850	\$1,100	\$1,900	\$2,100

<b>Table 6: Projected Capital Savings at King (\$000)</b>								
2020	2021	2022	2023	2024	2025	2026	2027	2028
\$0	\$418	\$2,445	\$3,488	\$12,751	\$1,374	\$3,183	\$1,390	\$2,100

Given that the planned retirement date of Sherco 2 is 2023, there are minimal investments planned for that unit. Accordingly, we do not expect additional capital savings at Sherco 2. Per the established fuel forecast filing procedure,<sup>13</sup> the Commission recently approved the Company’s 2020 fuel forecast in its Order dated November 14, 2019.<sup>14</sup> We do not propose to make any changes to the approved 2020 fuel forecast at this time as that would disrupt the established fuel forecast procedure

<sup>12</sup> The savings could be achieved if economic commitment resulted in generation similar to the Unit Commitment Plan.

<sup>13</sup> Docket No. E999/CI-03-802, ORDER APPROVING ADDITIONAL DETAILS OF NEW FUEL CLAUSE ADJUSTMENT PROCESS (June 12, 2019).

<sup>14</sup> Docket No. E002/AA-19-293, ORDER (November 14, 2019).

in its first year of implementation. In addition, because these changes to the operations of Sherco 2 and King could have an impact on the 2020 actual fuel costs either up or down, we view the implementation of the Unit Commitment Plan as an opportunity to study the impacts and our ability to react to any changes in market conditions. Instead of implementing any changes to the 2020 fuel forecast, we propose to examine the impacts, report the findings to the Commission, and true-up for actual fuel costs when we file the March 1, 2021 fuel forecast true-up report.<sup>15</sup> We discuss a reporting plan in more detail below.

### E. Carbon Impacts

In addition to the fuel clause, O&M, and capital expenditure impacts discussed above, seasonal operations at King and Sherco 2 will impact the carbon emissions on our system. Tables 7 and 8 below provide the net change in CO<sub>2</sub> emissions on our system based on the PLEXOS analysis described above.

**Table 7: Change in CO<sub>2</sub> Emissions of Year-Round Economic Commit Versus Must Commit for King and Sherco 2 (Millions of Tons)**

Base LMP			
2020	2021	2022	2023
(3.6)	(4.4)	(5.5)	(6.3)
High LMP			
2020	2021	2022	2023
(3.2)	(3.7)	(4.8)	(5.2)

**Table 8: Change in CO<sub>2</sub> Emissions of Seasonal Economic Commitment Plan Versus Year-Round Economic Commit for King and Sherco 2 (Millions of Tons)**

Base LMP			
2020	2021	2022	2023
(0.2)	(0.1)	(0.1)	(0.2)
High LMP			
2020	2021	2022	2023
(0.5)	(0.7)	(0.3)	(1.0)

Table 7 shows that CO<sub>2</sub> emissions on our system are reduced by the change from must-commit to economic commitment of Sherco 2 and King. CO<sub>2</sub> emissions are further reduced under our proposed Unit Commitment Plan by offering King and Sherco 2 on a seasonal basis as shown in Table 8. As generation from our coal units

<sup>15</sup> In addition, as approved by the Commission Order establishing fuel clause reform, utilities may propose changes to the fuel rates in cases of a significant unforeseen impact. If volatile market conditions cause a significant impact to actual fuel costs, we will alert the Commission and propose an intermediary solution.

is reduced, emissions of criteria pollutants are also reduced compared to year-round operations.

Table 9, below, applies the high and low environmental cost values as established by the Commission to the reduction in CO<sub>2</sub> emissions due to seasonal commitment relative to Year-Round Economic Commitment for the Base LMP scenario in Table 8.

**Table 9: Environmental Cost Impacts of Seasonal Economic Commitment Plan Versus Year-Round Economic Commit for King and Sherco 2 (\$000)**

	2020	2021	2022	2023
Low Environmental Cost (\$/ton)	\$9.90	\$10.32	\$10.77	\$11.22
High Environmental Cost (\$/ton)	\$46.45	\$48.39	\$50.38	\$52.43
Reduction in CO <sub>2</sub> × Low Env. Cost	(\$1,980)	(\$1,032)	(\$1,077)	(\$2,244)
Reduction in CO <sub>2</sub> × High Env. Cost	(\$9,290)	(\$4,839)	(\$5,038)	(\$10,486)

## **F. Employment Impacts**

Our Unit Commitment Plan will not result in a reduction of Company employees. Our business plans incorporate a reduction in employees through attrition as we prepare to cease operation at our coal plants.

## **G. Learnings and Reporting Plan**

As noted above, the Commission’s November 13, 2019 Order approving the 2017-2018 AAA reports<sup>16</sup> required an additional compliance filing analyzing the potential options for seasonal dispatch generally, and potential options and strategies for utilizing “economic” commitments for specific coal-fired generating plants. In addition to the specific reporting requirements in the Commission’s Order, the Company will provide additional analysis of the impacts of our Unit Commitment Plan on an annual basis, including an analysis of the hours King or Sherco 2 would have been committed if offered into the MISO day-ahead market. The Unit Commitment Plan could be modified or expanded if in the best interest of customers.

## **CONCLUSION**

The Company is pleased to submit this filing for the Commission’s consideration, and respectfully requests Commission approval of the following:

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<sup>16</sup> ORDER ACCEPTING 2017-2018 ELECTRIC REPORTS AND SETTING ADDITIONAL REQUIREMENTS, Docket No. E999/AA-18-373 (November 13, 2019).

- Our Unit Commitment Plan to operate King and Sherco 2 on a seasonal basis.
- Flexibility in implementing our Unit Commitment Plan to restart units if there is a need for system reliability or other critical activity.
- In addition to the specific reporting requirements in the Commission's November 13, 2019 Order in Docket No. E999/AA-18-373, the Company will provide additional analysis of the impacts of our Unit Commitment Plan on an annual basis, including an analysis of the hours King or Sherco 2 would have been committed if offered into the MISO day-ahead market.
- The ability to true-up 2020 fuel costs that may differ from our initial 2020 fuel forecast in Docket No. E002/AA-19-293 to reflect the change in commitment of King and Sherco 2.

Dated: December 20, 2019

Northern States Power Company



STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Dan Lipschultz	Commissioner
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
John Tuma	Commissioner

IN THE MATTER OF THE PETITION OF  
NORTHERN STATES POWER COMPANY FOR  
APPROVAL OF A PLAN TO OFFER  
GENERATING RESOURCES INTO THE  
MISO MARKET ON A SEASONAL BASIS

DOCKET NO. E002/M-19-\_\_\_\_\_

**PETITION**

**SUMMARY OF FILING**

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Petition for approval of a plan to offer the Allen S. King Generating Station (King or the King Plant) and Unit 2 of the Sherburne County Generating Station (Sherco 2) into the MISO market on a seasonal basis.

## 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

**XCEL ENERGY MISCELLANEOUS ELECTRIC SERVICE LIST  
DOCKET NO. E999/CI-19-704**

Dated this 20<sup>th</sup> day of December 2019

/s/

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Paget Pengelly  
Regulatory Administrator

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