



414 Nicollet Mall
Minneapolis, MN 55401

June 28, 2019

—Via Electronic Filing—

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

RE: REPLY COMMENTS
IMPACT OF SEVERE WEATHER
DOCKET NO. E,G-999/CI-19-0160

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits the attached Reply Comments in response to the Comments submitted by the Minnesota Department of Commerce and Office of the Attorney General on May 20, 2019 in the above-referenced docket.

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 Pamela Gibbs at pamela.k.gibbs@xcelenergy.com or 612-330-2889, or me at gail.baranko@xcelenergy.com or 612-330-6935 if you have any questions regarding this filing.

Sincerely,

/s/

GAIL BARANKO
MANAGER, REGULATORY PROJECT MANAGEMENT

Enclosures
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

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

IN THE MATTER OF A COMMISSION
INQUIRY INTO THE IMPACT OF SEVERE
WEATHER IN JANUARY AND
FEBRUARY 2019 ON UTILITY
OPERATIONS AND SERVICE

DOCKET NO. E,G999/CI-19-160

REPLY COMMENTS

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission these Reply Comments in response to the Comments submitted by the Minnesota Department of Commerce and Office of the Attorney General (OAG) on May 20, 2019.

The severe weather conditions during the January 28 to February 1, 2019 timeframe strained utility systems, tested utility escalated operations protocols, and put customer curtailment compliance to the test. The sustained nature of the conditions also threatened public safety, which was our primary consideration throughout the event. As events such as these unfold, we must both react to what is happening and anticipate what is to come – often without the benefit of perfect or complete information. We therefore use the best information we have, combined with the best judgement of our expert resources, and take the actions that we believe are in the best interest of our customers.

For example, we backed down our natural gas generating units to their economic minimums while Northern Natural Gas completed repairs to its Farmington compressor station. We did this out of an abundance of caution, not because there were specific impacts to the plants. Rather, we took preemptive action to help ensure natural gas pressures would be maintained to metro area customers – and to avoid potential operational impacts to the plant, which would have more greatly reduced electric energy and capacity for our customers for a longer period of time. Another

example is our general appeal – asking customers to conserve gas – as the record-setting cold persisted and then worsened. Some of our natural gas customers had already experienced outages from low pressure levels in localized portions of our system; and with the coldest temperatures of the event looming, we issued the general appeal – again, out of an abundance of caution – to avoid potential further customer impacts.

The Department and OAG Comments reflect the seriousness of the event, with a particular emphasis on lessons-learned and the levels of non-compliance by non-firm natural gas customers on the Xcel Energy, CenterPoint Energy, and Minnesota Energy Resources Corporation systems. For Xcel Energy, the approximately 40 percent of non-firm customers who failed to fully control paid \$769,490.75 in penalties, ranging from just \$5.00 to over \$110,000 per customer. Because the system is designed from a supply and distribution perspective to serve only Firm customers under extreme conditions like occurred with this event, Non-Firm customers who fail to curtail jeopardize our ability to reliably serve Firm customers.

While full compliance is always our goal – and we believe we have tariff provisions that encourage full compliance – customers sometimes have challenges with timely implementation. The penalties serve to motivate these customers to remedy the circumstance that resulted in non-compliance. The Department identified specific parts of utility natural gas non-firm rate tariffs that may benefit from changes to improve compliance with future curtailment events. While one solution for non-compliance might be requiring those customers to switch to Firm service, doing so could have long-term and significant consequences. In some cases, we might have to procure additional natural gas transportation to ensure Firm service, and those contracts commonly have a 10-year term. In other cases, we might also have to install additional distribution infrastructure; that, too, is a long-term investment. We therefore believe the facts around each situation require consideration before a decision is made to remove the customer from the interruptible service – such as whether the customer is making investments or taking other steps that demonstrate good will and commitment toward future strict compliance.

That said, we have comprehensively reviewed our interruptible tariffs, and respond to the Department's specific questions and requests, which we believe also are responsive to the more general curtailment concerns expressed by the OAG. In summary, we believe our current penalty levels are an appropriate deterrent. We believe increased customer education, communication, and touchpoints that supplement our current training and communications will help to improve compliance levels. We offer to memorialize several process-related protocols in our tariffs.

We also respond to the Department's request to provide further discussion of the two types of modeling we do to ensure reliable natural gas service for our customers: (1) Supply modeling, which ensures an adequate daily volume of gas for the overall system, and (2) Distribution modeling, which ensures delivery of the natural gas to each and every customer, through a network of underground pipes of varying diameters and lengths.

Supply modeling is more visible, and therefore familiar in the regulatory process, as it forms the foundation for the annual Contract Demand Entitlement filings that natural gas utilities submit to the Commission for fuel cost recovery purposes. The most comparable inputs between the Supply and Distribution modeling are air temperature and number of customers – but even these differ between the two models. For Supply, the air temperature input is the average of the high and low for the gas day at a representative point on the system. For Distribution, it is the air temperature for the coldest hour at geographically dispersed points on the system. In terms of customer numbers, Supply modeling uses a gross number to derive a daily volume to serve the system. For Distribution, the model assesses the numbers of customers served by specific and complex networks of differently-sized pipes that must also consider variables such as the distance of the furthest customer from a main supply pipe and whether there is a second source of supply from a different part of the system.

We take our responsibility to provide our customers with reliable safe service very seriously. Our general appeal and the actions we took with public officials and emergency responders in the outage-impacted areas were a direct result of our commitment to our customers and to public safety. We are consistently investing in our systems to ensure adequate service, and our growth in net distribution plant over a significant period of time demonstrates this commitment. We plan and drill our preparations for escalated operations events, and our efforts to maintain service and respond to circumstances during the 2019 polar vortex is an example of a coordinated response to a very severe event that impacted nearly every aspect of our operations.

I. ENSURING ADEQUATE SERVICE FOR CUSTOMERS

In this section we respond to specific questions and requests from the Department regarding various aspects of our service to customers during the event, including expanding our explanation of the differences between natural gas supply modeling and distribution modeling.

A. Xcel Energy Generating Resources Fully Served Customer Needs

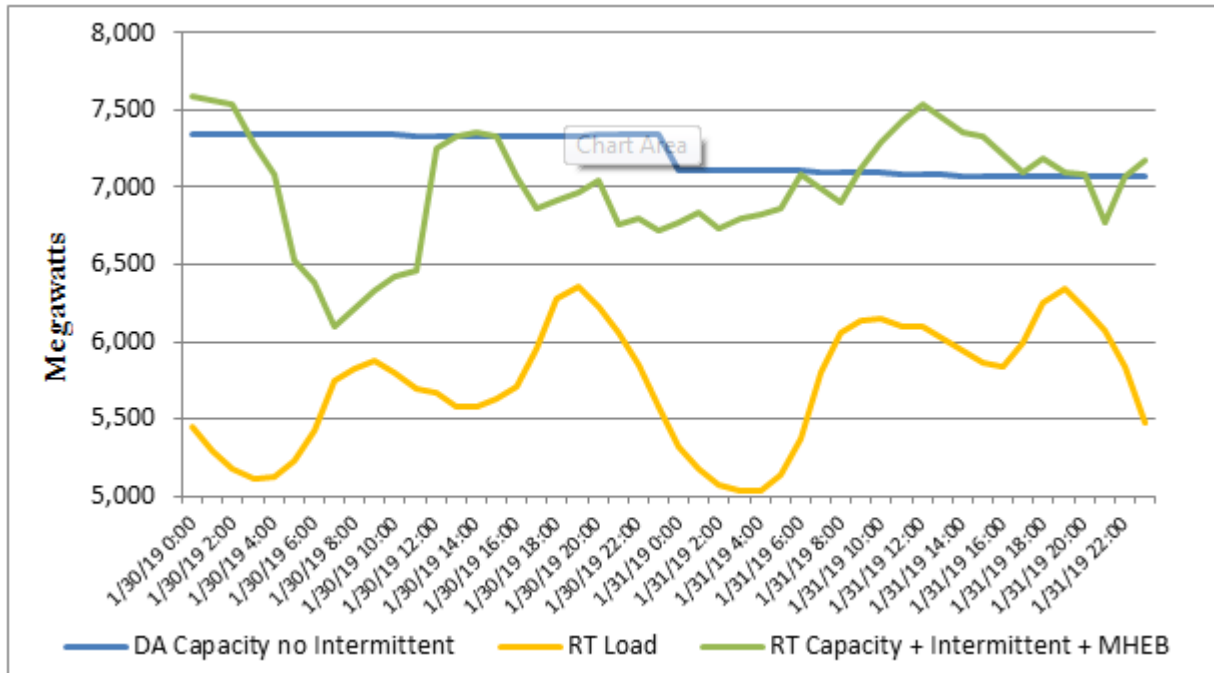
1. There were no Forced Generating Unit Outages or Other Impacts from the Farmington Compressor Station Issue

The Department's Comments characterize our actions to back down our Blackdog, Highbridge, and Riverside combined cycle generating units to minimum load during the January 30, 2019 NNG Farmington compressor station outage as being necessitated by the compressor station issue. As stated in our April 12, 2019 Comments, however, we chose to back down these generating units. To be clear, the compressor station issue did not result in any forced outages of generation on the Xcel Energy system, nor did it necessitate the operation of certain units be modified.

We decided to implement a short-term ramp down of these generating units as a proactive measure, with our customers' safety and best interests top of mind. In addition to helping to preserve overall natural gas system pressures to the metro area, our actions avoided the potential for a multi-hour restart of the plants if gas pressures to the plants would have dropped below the minimums. Instead, we were able to return the plants to maximum load very quickly once the compressor station returned to service.

Additionally, we note that our decision to back down the three generating units to minimum load did not result in the purchase of any replacement power. As shown in Figure 1 on page 2 of our Comments – repeated here below – the Company had sufficient resources online during the event to cover our load requirements, even with the reduction in output from the combined cycle plants.

**Figure 1: NSP System Generation Capacity vs. Load
January 30-31, 2019**



The reduction in capacity was approximately 420 MW over a period of three hours – not a reduction of over 1,000 MW over a period of approximately 10 hours, as stated in the Department Comments.¹

2. *Contractual Supply Provisions for Natural Gas Generators*

The Department asked specific questions regarding our contractual terms with NNG for our combined cycle generating units, which we address below.

As part of Xcel Energy Electric’s firm transportation agreements with NNG, we have pressure commitments for gas deliveries to Highbridge, Black Dog, Cannon Falls, Mankato, Riverside, and Blue Lake. All transportation contracts between NNG and its customers (including the Company) incorporate the pipeline’s tariff General Terms and Conditions, Section 22, which provides a system of reservation charge crediting in the event NNG is unable to meet the obligations of a firm transportation contract. As explained in Part 1 above, the Company had sufficient resources to serve customer load, and proactively reduced the plants to their minimums to avoid potential impacts from the Farmington Compressor Station outage. Overall, delivery pressures to the generating units were adequate to serve our needs for that day, and therefore the

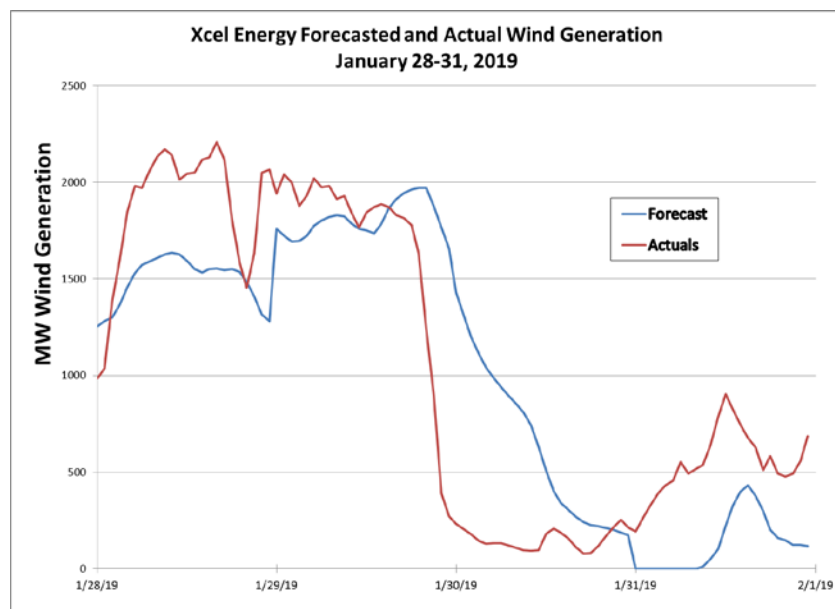
¹ See Department Comments at page 8. (May 20, 2019).

NNG tariff provisions were not activated.

3. *Future Wind Forecasts Will Rely on Improved Information*

The Department observed that the Xcel Energy wind forecast was similar to MISO's in that they both forecasted the drop-off in wind resources would occur later than it actually happened. While Xcel Energy meteorologists predicted the significant down-ramp in wind generation late evening January 29, 2019, we forecasted the drop-off would occur approximately 12 hours later, as shown in Figure 2 below.

**Figure 2: Xcel Energy Wind Generation Actuals vs. Forecast
January 28-31, 2019**



After this event, we worked with the wind generator owners to clarify the cold-weather cut-out temperature thresholds at each facility. As a result, we are better equipped to more accurately predict the loss of wind generation due to cold temperatures going forward.

B. No Other Interstate Pipeline Issues

The Department requested all utilities to discuss whether any interstate pipeline issues impacted operations during the event – and if so, any associated rates or reliability impacts. Other than the NNG Farmington Compressor Station issue discussed above – which had no negative impacts on rates or reliability – there were no other Interstate Pipeline issues that impacted our operations during the cold weather event.

C. Consistent Investment in our System to Meet Customer Needs

The Department requested that we provide any additional information that we think might be helpful to their analysis of the 2019 polar vortex event. Below, we provide a view of growth in our net distribution plant since our last rate case, which demonstrates we are investing in our system to ensure adequate service to customers. We also provide historic temperature comparisons for the Princeton and Hugo areas that experienced localized outages during the event, that we believe demonstrate that the 2019 event put unique strains on those systems.

1. Growth in Net Distribution Plant

We are continually investing in our system to meet our customers' needs and ensure adequate service. Since our last rate case, our overall net gas distribution plant has grown an average of 5.5 percent. The types of projects directly related to meeting customer needs are generally new business and capacity projects. These net plant additions have had an average growth of 3.9 percent over the same period – and as such, represent the overwhelming majority of our gas distribution investments over this period.

We summarize our annual net distribution plant additions for the period of 2010-2018 below

Northern States Power Company

Gas Utility - Distribution

Average Year Net Plant - Minnesota Jurisdiction

2010 Rate Case and 2010 - 2018 Actual

(\$000s)

	2010 Rate Case Average	2010 Average	2011 Average	2012 Average	2013 Average	2014 Average	2015 Average	2016 Average	2017 Average	2018 Average	
Plant	732,641	731,218	751,120	765,895	789,252	830,281	882,709	930,080	968,749	1,026,990	
Reserve	332,043	321,063	340,249	355,187	369,814	389,751	408,470	419,968	431,615	449,001	Avg Growth
Net Plant	400,598	410,155	410,871	410,708	419,438	440,531	474,239	510,112	537,134	577,989	5.5%
GUIC DIMP											
Plant				64	411	863	6,117	17,238	29,440	48,906	
Reserve				0	6	21	66	(784)	(3,689)	(5,060)	
Net Plant				63	405	843	6,051	18,021	33,129	53,966	
Net Plant Less GUIC DIMP	400,598	410,155	410,871	410,645	419,033	439,688	468,188	492,091	504,005	524,023	3.9%

To isolate the new business and capacity additions, we have separately shown the safety-related investments associated with our Distribution Infrastructure Management Program (DIMP) that are recovered through the Gas Utility Infrastructure Cost (GUIC) cost recovery rider. The overwhelming majority of the growth is attributable to our basic system.

2. *Princeton and Hugo Systems*

The Princeton and Hugo distribution systems have evolved over time. We have been unable to find full temperature histories for these two localities. However, looking at regional histories, we note some comparable temperature where these two systems experienced no low pressure issues or outages due to weather. We therefore believe that the weather conditions associated with this particular event were uniquely severe in the heating loads they created at least on these portions of our system. We discuss each of the systems below.

a. Princeton System

The part of the Princeton area system that experienced the 152-customer outage in early 2019 was first put into service in the year 2000, and has grown and changed over time. The coldest temperature during the 2019 polar vortex event at the St Cloud airport, as reported by the National Weather System, was -34F.² In January 2009, the St. Cloud Airport reported a temperate of -36F³ with no weather related outages in our Princeton area system.

b. Hugo System

The part of the Hugo system that experienced the 29-customer outage was first put into service in 1999. That system too has grown and changed over time. Weather data for the Hugo area was harder to find. Historical weather records for this area appear to default to the Minneapolis-St. Paul Airport. Temperatures during the 2019 polar vortex event for this community were likely in the range of -31F (reported for Wyoming, MN 15 miles north of Hugo) and -28F (reported for the St. Paul, MN airport 18.5 miles south of Hugo).⁴ We found weather history for Forest Lake, Minnesota, which is 8.4 miles from Hugo, but only back to 2007 which indicates January temperate lows of -26F for both January 2009 and 2011.⁵

Again, we believe the circumstances of the 2019 polar vortex were unique, as the Hugo area has not experienced any weather-related outages in the past, despite very cold temperatures.

² <https://www.weather.gov/mpx/stclimate>

³ *Ibid*

⁴ <https://www.dnr.state.mn.us/climate/journal/cold-outbreak-january-27-31-2019.html>

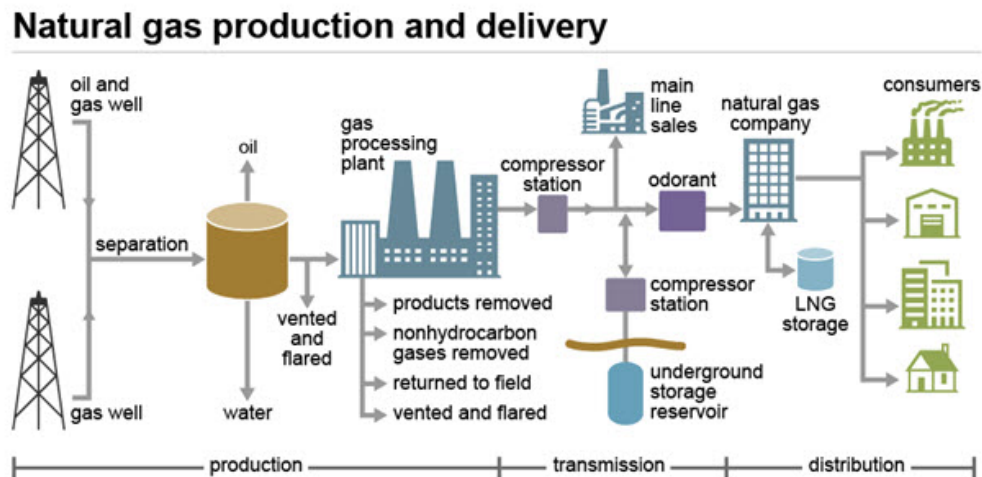
⁵ <https://www.usclimatedata.com/climate/forest-lake/minnesota/united-states/usmn0268/2018/1>

II. SUPPLY PLANNING AND DISTRIBUTION MODELING ARE NECESSARILY DIFFERENT

A. Natural Gas Delivery from Suppliers to End Users

The fundamental principle of the natural gas delivery system is gas flowing from higher to lower pressure – *i.e.*, from larger to smaller pipes. Planning for adequate supplies for use by ultimate end point consumers involves two primary components: Supply Planning and Distribution Modeling.

Figure 3: Simplified Natural Gas Delivery Diagram



Source: Energy Information Association https://www.eia.gov/energyexplained/index.php?page=natural_gas_delivery

Supply Planning involves the transmission system, which can be compared to the interstate highway system for cars. Distribution Modeling involves the distribution system – or what would comparably be the highways, roads, and neighborhood streets. The transmission system moves large amounts of natural gas thousands of miles from the producing regions to local distribution companies, like NSP Gas. The amount of pressure in a pipeline is measured in pounds per square inch. The pressure of gas in each section of transmission line typically ranges from 200 pounds to 1,500 pounds per square inch, depending on the type of area in which the pipeline is operating. Many major interstate pipelines are “looped” – or have two or more lines running parallel to each other in the same right of way – to provide maximum capacity during periods of peak demand. Compressor Stations around the system create pressure to help “push” the gas through the lines.

When the natural gas in a transmission pipeline reaches a local gas utility, it normally passes through “gate stations,” which receive gas at different locations and from different pipelines. Gate stations serve three purposes: (1) they reduce the pressure in the line from transmission levels (200 to 1,500 pounds) to distribution levels, which range from $\frac{1}{4}$ pound to 200 pounds; (2) they add an odorant, the distinctive scent associated with natural gas, so that consumers can smell even small quantities of gas; and (3) they measure the flow rate of the gas to determine the amount being received by the utility.

From the gate station, natural gas moves into distribution lines or “mains” that range from less than 2 inches to more than 12 inches in diameter. Within each distribution system, there are sections that operate at different pressures, with regulators controlling the pressure. Generally speaking, the closer natural gas gets to a customer, the smaller the pipe diameter is, and the lower the pressure is.

Generally, the gas utility's central control center continuously monitors flow rates and pressures at various points in its system. The NSP Gas system has 551 points that can be monitored via Supervisory Control and Data Acquisition (SCADA).

Operators ensure that the gas reaches each customer with sufficient flow rate and pressure to fuel equipment and appliances. They also ensure that the pressures stay below the maximum allowable pressure for the monitored sections within the system.

As gas flows through the system, regulators control the flow from higher to lower pressures. If a regulator senses that the pressure has dropped below a set point it will open accordingly to allow more gas to flow. Conversely, when pressure rises above a set point, the regulator will close to adjust. Sophisticated computer programs are necessary to evaluate the delivery capacity of the network and to ensure that all customers receive adequate supplies of gas at or above the minimum pressure level required by their gas appliances.

Distribution mains are interconnected in multiple grid patterns. The final system component that delivers natural gas into homes and businesses is a service line, which terminates at the gas meter. When the gas reaches a customer's meter, it passes through another pressure regulator to reduce its pressure to under $\frac{1}{4}$ pound per square inch, if necessary. This is the normal pressure for natural gas within a household piping system; and in practical terms, is less than the pressure created by a child blowing bubbles through a straw in a glass of milk. When a gas furnace or stove

is turned on, the gas pressure is slightly higher than the air pressure, so the gas flows out of the burner and ignites in its familiar blue flame.⁶

B. Natural Gas Supply Planning

As explained above, Supply Planning focuses on the transmission aspect of natural gas delivery – or ensuring sufficient gas volume is delivered to the Xcel Energy service area for use throughout a 24-hour period. Supply Planning in Minnesota is the subject of an annual regulatory process under Minnesota Rules Chapter 7825, which addresses a number of utility financial matters. Relevant parts of this Rule are intended to enable regulated gas and electric utilities to adjust rates to reflect changes in the cost of energy delivered to customers. Annual Contract Demand (CD) Entitlement filing requirements are prescribed in Minn. R. 7825.2910, and result in evaluation of utility procurement policies, plans for adequate supplies, and the utilities' actions to minimize costs for customers prior to granting utility cost recovery.

Commission approval of CD Entitlement filings allow the Company to implement, through the Purchased Gas Adjustment (PGA), changes in our interstate pipeline transportation, storage entitlements, and other demand-related contracts for the upcoming year. Annually updating our natural gas transportation, storage entitlements, and supply contracts is important to ensure the Company has access to sufficient capacity to cover the anticipated peak demand of our natural gas customers. To determine the amount required, we consider our forecast of customer needs under Design Day (DD) conditions. By comparing that anticipated need to our current supply arrangements, we determine the incremental additions that are needed to ensure we can meet our customer needs under the most extreme conditions at reasonable cost.

Our objective in calculating DD customer demand is to forecast anticipated demand at design temperatures, so that adequate firm supply resources may be planned for and made available if DD weather conditions occur. Because customer response to temperature is dynamic, particularly if we experience severely cold seasonal temperatures, we calculate DD using two methods.⁷ Key inputs are the gross numbers of customers on the system and a derived use-per-customer, using the coldest day. The current modeling temperature for Supply Planning is an average daily temperature of -26F.

⁶ This description of the gas delivery system is largely provided by the American Gas Association at: <https://www.aga.org/natural-gas/delivery/how-does-the-natural-gas-delivery-system-work-/>

⁷ Current methods: (1) calculate DD using both Actual Peak Use per Customer Design Day (UPC DD) and Average Monthly Design Day (Avg. Monthly DD) methods; and (2) consider the results when predicting future DD needs.

We use allocation factors to estimate the relationship of DD between the states and regional jurisdictions.⁸ Finally, we add a Reserve Margin to balance the uncertainty of: (a) experiencing DD conditions; (b) actual consumer demand during DD conditions; and (c) the need to protect against the potential loss of a source of firm natural gas supply.

This process culminates in the Supply plan for the overall system – ensuring adequate daily supplies for the NSP Gas distribution system to deliver to the 645,000 Xcel Energy retail gas customers in the Upper Midwest.⁹

C. Distribution Delivery Modeling

Contrary to Supply Planning, which ensures *daily* volumes to a limited number of points (Gate Stations) on the system, Distribution Delivery Modeling ensures adequate *peak hour* volumes to over 465,000 customer homes and businesses in Minnesota. Planning for natural gas delivery to end point retail customers is necessarily different than planning for adequate natural gas supplies for the system. While both involve sophisticated analyses, as explained in Part 1 above, planning the distribution system for efficient and adequate distribution of natural gas to end users requires sophisticated tools, combined with engineering calculations and judgement. Primary variables include the diameter, route, and length of the distribution pipes, customer usage predictions, largely based on home heating loads – so based on temperatures, which have an affect how hard customers’ furnaces will have to work to maintain a comfortable interior temperature.

Local distribution system modeling predicts how pressures will decrease as gas flows through the network of piping – and in contrast to Supply Planning – the analysis is for the *peak hour* usage in the network of piping, considering the length and diameter of each pipeline segment. The models focus on pressure, because it is lack of pressure at the service delivery points at individual customer homes/buildings that causes local distribution system outages. Therefore, the tools that underlie the analysis include actual operating models of the complex network of regulators, and varying pipe diameters, lengths, and configurations. As we have explained, gas pressures decrease as the gas flows, so the models assess the capabilities of the network to maintain adequate pressures at the farthest points of the system.

⁸ Minnesota regional allocations are: Metro, Brainerd, Mainline, Mainline-Welcome, Willmar, Paynesville, VGT-Chisago, Watkins, Tomah, Red Wing, Grand Forks MN, Fargo MN.

⁹ The Xcel Energy Upper Midwest gas system serves customers in Michigan, Minnesota, and North Dakota. Customer count as of June 3, 2019.

Like Supply Planning, Distribution Modeling also considers weather/temperatures. For many years, the NSP Gas engineering models have used -25F for the Princeton and Hugo areas to determine when system reinforcements may be necessary. We have since updated our models to reflect lower temperatures, using a “one in thirty” risk management approach. This approach utilizes the relative frequency of occurrence of that temperature in the historic weather data being equaled or exceeded in any given year. As such, we have updated the temperature input for certain geographic portions of our service area, including Princeton and Hugo. As we discussed at the Commission’s Planning Meeting and in our Comments, the localized outages in the Princeton and Hugo areas during the late January 2019 event were the result of low system pressures. The extreme conditions caused home heating systems to run nearly constantly to maintain interior temperatures, and this heating load was higher than our local distribution system models predicted. We have no record of any customer outages during prior cold weather events due to low system pressures.

II. GENERAL CUSTOMER APPEAL TO CURTAIL USAGE

As we have previously discussed, on the late evening hours of January 29 after receiving calls from customers in the Princeton area regarding low pressures or outages, we interrupted service to a neighborhood of approximately 150 customers. In the early morning hours of January 30, we began receiving similar calls from customers in the Hugo area regarding gas pressure and outages. The outages in these areas resulted from localized low system pressures in these parts of our distribution system. In addition to localized appeals in these impacted areas, we issued a general request the afternoon of January 30, 2019 for customers to lower their thermostats. We made this request as a conservative measure to ensure adequate natural gas for our customers due to the sustained nature of the low temperatures.

We made the decision with the knowledge that unplanned localized gas outages had already occurred (in Princeton and Hugo), and a concern that we hadn’t even experienced the coldest temperatures from the weather system yet – the coldest temperatures were, in fact, expected in the early morning hours of January 31st. We, therefore, issued the general appeal out of an abundance of caution for public safety.

As we have explained, operating a utility system during a severe event such as this requires hundreds, if not thousands, of decisions in the moment as the event unfolds and we work to anticipate what might be next. We are working from imperfect, but the best information and the best judgement of our subject-matter-experts. There is no question that the severity and extended duration of this event held the potential for significant harm for our customers. With customer safety as our top priority, we believed a request for voluntary reduction in gas use was prudent, out of an

abundance of caution, to avoid any possible further gas outages. While this decision was made in the moment, in hindsight, we continue to believe it was the right decision for the circumstances, and we would do it again to ensure the safety of our customers.

III. NON-FIRM SERVICE TARIFFS

A. Interruptible Rate Design

The Department requested a discussion of whether avoided costs are included in the utility's determination of interruptible rates. Our interruptible distribution rate discounts are not directly based on costs avoided through curtailment. Rather, the embedded cost of service, the competitive market, and firm rates are all considered. The interruptible class is not allocated certain costs related to serving peak load, such as a share of our LNG and LPG plants. We set the revenue apportionment to the interruptible class by comparing the allocation of embedded costs in the class cost of service study to revenues under the market prices of typical competitive alternative fuel. We also consider that prices need to be set to reflect a reasonable discount from firm prices, given that interruptible service is of lower value. Through this process, interruptible distribution rates are set such that they are not subsidized by other classes, since the rates recover more than the class's share of the allocated embedded cost of service.

Our natural gas commodity rates for interruptible service are set at the average commodity cost forecasted for each month in our monthly PGA filings plus any true-up from the prior year's natural gas commodity costs. In addition, any interruptible capacity or overrun purchases associated with non-curtailment days are directly assigned to the interruptible classes in our annual natural gas PGA true-up.

B. Customer Communications

The Department requested all utilities to provide discussion of current communications with interruptible customers regarding curtailments, including frequency and content. The Department also requested all utilities to propose tariff language memorializing communication best practices.

Interruptible customers sign an Interruptible Gas Service Agreement with the Company, which details their commitment to service under the interruptible tariff. The interruptible tariff and agreement includes language that states that non-compliance with curtailment is a breach of contract subject to discontinuation of service and/or movement to another rate. We make efforts to perform an annual account review with all interruptible customer managed accounts, which includes a

majority of the interruptible customers. As part of this review, the Xcel Energy account representative reviews the customer's recent bill history and discusses any customer planned load changes, as well as rate or bill changes and opportunities for energy efficiency.

Our current communication plan with Non-Firm natural gas customers starts in the fall of each year when we send an informational packet about the program and their responsibilities. These packets include materials regarding informational meetings we will be holding, a request for the customer to confirm/update their curtailment contact information by a certain date, a reminder to customers that it is crucial to limit natural gas usage when called to do so – and reminders of the implications and penalties for not interrupting when called upon to do so. We provide a copy of our 2017-18 informational packet as Attachment A to this Reply.

We also host informational meetings every fall to provide updates regarding the curtailment communication process, what drives natural gas curtailments, and discuss the commitment to curtail when called to do so. In November each year, we initiate “test” curtailment calls to customers so they can practice working through the process; we monitor their response to our test calls to ensure they are receiving our communications. To aid compliance, we offer customers options regarding their notifications, which include: email, text, or phone calls. We additionally maintain a “curtailment hotline” (1-888-852-6748) for customers that they can call anytime and it provides recorded information for potential upcoming curtailments. We additionally maintain up-to-date information on our website, which is accessible 24/7 at: https://www.xcelenergy.com/programs_and_rebates/business_programs_and_rebates/rates/interruptible_gas_rates. Finally, we work individually with customers throughout the year to answer their questions, update their contacts, and update their notification preferences.

We believe communication with customers on our interruptible rates is of great importance, and we are committed to continuing to educate and communicate with our customers to ensure they understand the requirements, their responsibilities, and implications of non-compliance. Our current tariff language already memorializes that the Company will provide curtailment notifications to customer provided notification devices a minimum of one hour prior to the curtailment start. We believe our communication practices are appropriately captured in our tariff. However, for completeness, we offer that the following language could be added to the Availability section of our Interruptible Service (sheet 5-10) and Interruptible Transportation Service (sheet 5-16):

The Company will complete customer curtailment notification testing by December 1 annually.

C. Potential Tariff Changes to Increase Compliance

We believe that our customers on interruptible service intend to curtail as required to do so. If we become aware of customers with no intention to curtail, we would work to move them from the discounted rate to a firm rate, as our current tariff language allows. In this extreme weather event, there were likely some customer backup systems that were not reacting as well as hoped due to the severity of the weather and the prolonged nature of the event. We are committed to continue to work with customers on their contractual commitments, educate them on the curtailment process, and communicate with them on a regular basis regarding the program. We provide a response to the Department's specific recommendations below.

The Department recommended that utilities propose tariff language intended to reduce unauthorized use, including possible removal from the program after one instance of non-compliance. We understand the goal is to reduce unauthorized gas use during curtailments, and we share this goal. While any non-compliance is a serious matter, we note that the circumstances of non-compliance vary. For example, did the customer fail to curtail entirely, or were they late in achieving curtailment? Does the customer have a history of non-compliance? Is the customer making investments or taking other steps that demonstrate good will and commitment toward future strict compliance? We are committed to continuing to educate our customers, communicate with them regarding their responsibilities, and work with them to be sure the interruptible program is the right fit for their needs and ours in order to maintain a reliable interruptible program. We believe the current tariff language regarding possible removal of non-compliant customers from the service along with the significant penalty charge of \$5 per therm for unauthorized gas usage provides reasonable deterrence.

We also note that the long-term implications associated with moving a customer from non-firm to firm service warrant careful consideration. For example, if we would need to procure additional firm natural gas supply and those contracts generally have a 10-year term due to the construction of upstream facilities needed by our transportation providers. Additionally, installation of additional distribution infrastructure may be necessary to support firm service, which also is a long-term investment. We, therefore, believe the facts around each situation require consideration before a decision is made to remove the customer from the interruptible service and place them on firm service. In addition to having long-term

consequences, for these reasons, we might not be able to make a change to firm service immediately.

The Department recommended that utilities propose tariff language addressing the requirements for interruptible service, including language that utilities have an obligation to verify customer claims of back-up or ability to cease taking gas service. Our current contract and tariff language includes the customer obligation to provide and maintain suitable and adequate back-up or the ability to cease consumption by shutting down process load. Contract and tariff provisions also point to the unauthorized use of gas during an interruption as a breach of the terms of service, and allow the Company to discontinue service or move non-compliant customers to a different rate. These provisions, along with other communications, outline the commitment that the customer makes when on interruptible rates. If the Commission believes more clarity is needed, we offer the following tariff language (underlined):

An interruptible customer's unauthorized use of gas during an interruption is a breach of the terms of service. Xcel Energy reserves the right to discontinue service for such unauthorized use of gas and/or move non-compliant customers to a different rate class. Customers receiving interruptible service without suitable and adequate back-up or the ability to cease consumption by shutting down process load may be moved to a firm rate class.

The Department recommends utility tariffs should require interruptible customers to maintain three current contacts to receive interruption notices, and utility responsibility to update these once per year. While this provision is not part of our current tariff, that is part of our process, as we discussed above. As such, we offer a potential update to our tariff to memorialize this process as follows:

Customers must maintain three (3) current contacts to receive notice of curtailment. The Company will make an annual request that customers confirm that contact information is current.

In summary, we believe that our tariff language describes and explains our interruptible tariff appropriately. We, however, offer additional clarifications responsive to the Department's request in this Reply. We will continue to communicate with our customers around their commitment and readiness to interrupt as part of our fall meetings on the interruptible gas program, test calls, and regular account manager customer conversations.

IV. PUBLIC COMMUNICATIONS

The Department requested that we respond to the Commission's request in its *First Notice* regarding its potential role in communicating with the public in future escalated events impacting natural gas or electric service. We responded to this at page 15 of our April 12, 2019 Comments – saying:

We appreciate the Commission's support as we worked through the strain and challenges this event put on our and all utilities' systems. We are committed to continue to keep the Commission updated during severe events, as we have in the past. In this case, we believe our general appeal had an impact on natural gas usage. To the extent the Commission may want to consider something similar in the future, we are open to providing any information that may be helpful to that end.

The Department also requested all utilities provide suggestions of when public communication from the Commission may be appropriate during a severe weather event or operational issue, and how these communications should be made. We agree with the Comments of the other utilities that any public communications need to be tailored to the situation. Generally, the utilities are going to have the most current and specific information about customer impacts and actions the utility is taking – or the actions it needs customers to take – to address the situation.

Events that impact the entire state, or a significant majority of the state or region – such as the TransCanada pipeline issue from a few years ago, as referenced in the Department's Comments – is an example of a high consequence circumstance where the Commission may want to consider getting involved in doing direct public communications. We believe a potential impediment to Commission communications resonating with the general public may be a lack of general recognition of the Commission's role. We, therefore, believe the Commission communicating in coordination with the utilities would be most effective. In addition to the utilities having the most up-to-date information, customers are very familiar with their utilities and the utilities' communications channels, and will immediately recognize their communications.

We believe the most effective way to identify potential situations where direct Communications from the Commission may be most helpful would be to work with Commission Staff and the other utilities. This approach would allow for exploration of a range of escalated energy system issues, identification of broad, high consequence issues where the Commission may want to directly engage in public-facing messaging and potential ways for the utilities and Commission to coordinate communication efforts in those circumstances.

V. XCEL ENERGY COMMITMENTS

We discussed a number of lessons-learned from this severe weather event in our Comments. We also committed to submit an informational filing in this docket upon completion of the reinforcement projects we are completing in advance of the 2019-2020 heating season. We are happy to also include a status update from the other changes that we are making as a result of our lessons-learned. These include:

- Updates regarding any further reinforcement projects resulting from our updated Distribution Models to model our system under more severe temperature constraints.
- Our ongoing efforts with local officials, first responders, and emergency management personnel in the Princeton and Hugo communities to review the severe weather event and resulting outages, answer any questions, inform them of our 2019 reinforcement plans in their communities, and identify opportunities to improve from a communication and coordination standpoint.
- Further steps to clarify the communications generated by our automated customer curtailment communications system, so that interruptible Transportation customers receive clearer instructions during curtailment events.
- Our efforts to review and refine the gas nomination process to better optimize our gas supply contracts based on this cold weather event.
- Our efforts to compile a cold weather survey of plants to better understand their operating limitations as temperatures get colder, and as the duration of cold is extended.
- Based on information gleaned from the cold weather survey of plant and other operating experience, any changes we expect to make toward early action to commit units ahead of extreme cold to mitigate start-up failure risks.

As discussed in this Reply, we additionally commit to continuing to identify and leverage opportunities to educate and communicate with our non-firm interruptible customers. Finally, we make clear that we remain committed to continuing to provide notifications and regular updates to the Commission and Department for escalated events that impact our customers. Per the Department's recommendation in Comments, we are also happy to include Company contact information in these communications, so the agencies can appropriately direct any customers that may contact the agencies during the event.

CONCLUSION

Xcel Energy appreciates the opportunity to provide these Reply Comments. As noted in our Comments, we will submit an informational filing in this docket upon completion of our planned natural gas reinforcement projects, which will be before the 2019-2020 heating season. We are happy to also include a status update from the other changes that we are making as a result of our lessons-learned.

Dated: June 28, 2019

Northern States Power Company



September 2017

Dear Customer,

THANK YOU for your continued participation in our Interruptible Gas Rates program from Xcel Energy. As you prepare for the upcoming heating season, please read the important information below and in the enclosed information packet. Be certain to pass this information on to others who manage your energy systems.

- **This fall, we will be holding limited informational meetings**

Please plan to attend one of our information meetings being held this fall at several locations. Enclosed is additional information about these meetings and how you can RSVP. **NOTE:** There have been venue changes for the cities of Eau Claire and La Crosse.

- **It is important that we can contact you in the event of a gas curtailment**

Your contact information sheet is included with this letter. Please take a moment to review the names and contact numbers to ensure we have the latest contact information. *If the information is accurate, you do not need to send it back to us.* If you have changes, please update the form and return it in the enclosed, postage-paid envelope or fax it to **612.318.4703** by **September 29, 2017**. Please be aware that we will use your revised data when we perform a test of our notification system in late October or early November.

- **Your current postal and email information is important to us**

To ensure that our mailings are delivered to the right contact, please write in the correct mailing name and address in the space provided on the contact sheet. If it's left blank, we will continue using your billing address as your mailing address. Additionally, please provide email addresses for each of your contacts, as we will be communicating primarily by email in the future. At any time of the year, you can call our Business Solutions Center at **800.481.4700** or your account manager to update this information.

- **It's crucial to limit your natural gas usage during an interruption**

When we declare an interruptible gas curtailment, it is very important that you curtail your usage as agreed upon in your contract with Xcel Energy. Failure to do so will cause your company to incur substantial penalties.

We will need your updated contact and mailing information by **Friday, September 29, 2017**. Please fax it back to us at **612.318.4703**, or mail it in the enclosed, postage-paid envelope.

If you have questions, please call your Xcel Energy account manager or our Business Solutions Center at **800.481.4700**.

Sincerely,

Xcel Energy



Interruptible Gas Rates Program

Contact sheet instructions

This sheet accompanies the current contact information we have on file for you. Please correct or update the information and return it by **Friday, September 29, 2017**. You may update your contacts on the sheet provided with this packet, and then mail it back to us in the enclosed envelope or fax it to **612.318.4703**. Please use the following guidelines when updating the sheet:

- **Update the “mail to” information to ensure the program communication materials are delivered to the correct address.**
- *You may have up to three contacts, so provide information for only three contacts.* If you only have one or two contacts, please leave the other contacts blank.
- For each contact, provide your work phone number (including extension, if applicable), home phone number, and then choose two other methods of contact (either cell phone, email, numeric pager, text message/pager or fax).
- Please provide email addresses for all contacts. Email will be our primary communication channel in the future.
- When completing your contact methods, please keep in mind the following information:
 - We will immediately send an email, numeric page and text message to all contacts when we call a peak or energy control event.
 - We will then try contact 1 work phone and then contact 1 cell phone (if provided).
 - If no contact is made after several attempts, Xcel Energy will then try contact 2 work phone and then contact 2 cell phone (if provided).
 - If no contact is made after several attempts, Xcel Energy will then try contact 3 work phone and then contact 3 cell phone (if provided).
 - If no work phone or cell phone contact is made, Xcel Energy will then send a fax to contact 1, contact 2 and contact 3 (if provided).
 - If none of these methods work, we will then contact the home phone numbers.
 - **NOTE:** These contacts will occur in the order described, but will stop once contact has been made. For example, if you select work phone, email, cell phone and home phone as your methods of contact for contact 1, contact 2 and contact 3, when Xcel Energy calls a control event, we will immediately send an email, numeric page and text message to all contacts. After that we will call contact 1 work phone. If we do not get a positive response after several attempts, then we will try contact 1 cell phone several times. If we get a positive response on the cell phone, all further contact methods for contacts 2 and 3 will stop. But if no positive response is made for contact 1 cell phone, we will move on to contact 2 and contact 3, if necessary.

When you have completed the contact information sheet, please send it back to Xcel Energy in the enclosed envelope or fax it to **612.318.4703** by **Friday, September 29, 2017**.



Interruptible Gas Rates Program

2017 – 2018 program information

This folder contains important information and procedures regarding the Xcel Energy Interruptible Gas Rates Program, which your organization is currently on.

Folder contents:

- 2017 – 2018 Notification Procedure
- Hotline number and script
- Interruptible gas curtailment history for your region
- Special notice for customers without automatic meter reading
- Program information sheet
- Program penalties

The interruptible gas rate is offered to Xcel Energy customers who agree to curtail their gas usage. If Xcel Energy calls a natural gas interruption, it is critical that you limit your natural gas usage to the level agreed upon in your contract with Xcel Energy. Failure to do so will cause Firm Rate customers to experience a loss of natural gas and your company to incur substantial penalties.

Although gas interruptions do not occur frequently, it is important that your employees are prepared.

- Share the information in the enclosed folder with all your employees who are affected when Xcel Energy calls a natural gas interruption.
- Make sure you have an adequate supply of standby fuel on hand.
- **Verify and/or update the information on the “Contact Information Sheet” included in the packet.**
- Use Xcel Energy’s toll-free Interruptible Gas Curtailment Hotline number to obtain information regarding the likelihood of a natural gas interruption. The hotline number is listed on the enclosed materials including a magnet for easy reference.

Xcel Energy utilizes an automated calling system to contact your company in the event of a natural gas interruption. Please refer to the insert in the folder for additional, detailed information about this system.

If you have questions about any piece of information in the folder, please contact your Xcel Energy representative or our Business Solutions Center at **800.481.4700**.

Thank you for your cooperation.



Participation in Xcel Energy Gas Rate Programs

Save on your natural gas rates throughout the year

We offer tremendous savings opportunities and choices for our natural gas business customers through our interruptible gas rate savings programs. If you are able to curtail your natural gas use during peak days, you can qualify for reduced natural gas rates throughout the entire year.

During periods of peak gas demands such as bitter cold winter days, our gas customers may require more natural gas than is normally available. By participating in the interruptible gas rate savings programs, you help reduce the amount of gas our customers need, which helps us meet the gas requirements at critical times.

Pay less per therm, when you agree to interruptible gas rate terms

When you join the program, you agree to go off the gas system within one hour of notification, provide and maintain suitable and adequate alternate fuel-capable standby facilities and have access to sufficient standby alternate fuel for curtailment periods. You also must install a phone line to the utility-owned Metretek, a telemetering device that reads your meter on an hourly basis. In return, you will pay significantly less per therm on your year-round gas usage.

Add the optional Limited Firm Service *(only available in Minnesota and North Dakota)*

With an interruptible rate you also have the additional option to use our convenient, affordable **Limited Firm Service**. This service lets you reserve up to 15 days of gas supply for use during curtailment days. This secure supply supplements your own back-up supply during time of curtailment and is delivered via the Xcel Energy distribution system.

You pay an up-front availability charge and then pay for the gas only if and when you use it. While you still need an on-site, back-up supply, you'll lower your operating costs by eliminating the need for large, on-site, alternative fuel storage.

Note: Call our Business Solutions Center at **800.481.4700** before the heating season begins to reserve your limited firm supply. Our limited firm natural gas supply is not always available and usually only on a first come, first served basis.

You have more choices with Xcel Energy transportation rates

Our **optional natural gas transportation rates** offer the flexibility to purchase your own supply of natural gas — either independently or through a third-party agent — and use the reliability and security of our distribution system to transport it to your facility.

If your daily requirements are more than 500 therms, you can qualify for either the **firm transportation rate** or, for more cost savings, you may choose the **interruptible transportation service**. The firm transportation service remains available during our curtailment periods, whereas the interruptible transportation service is not available during **some** curtailments.

Call **800.481.4700** today to learn more and to sign up and start saving!

By offering these special rates — interruptible, limited firm, or a transportation service — Xcel Energy can meet your low-cost requirements while still meeting your energy needs. To find out what rate is best for you, contact your Xcel Energy account manager or our Business Solutions Center at **800.481.4700**.

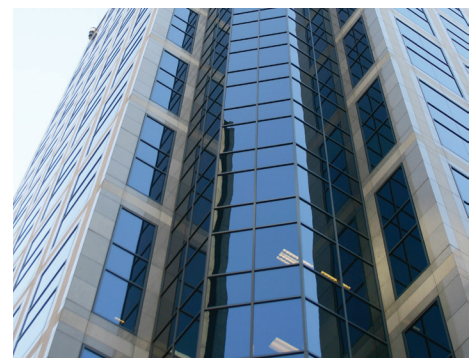


Who can benefit?

Many companies qualify for our interruptible gas rate programs.

Types of organizations that frequently take advantage of these programs include:

- Manufacturing facilities
- Water and wastewater treatment facilities
- Food products industry
- Healthcare facilities
- Apartment and commercial properties
- Educational facilities
- Facilities with back-up gas systems





Interruptible Gas Rates Program

Minnesota/North Dakota

Natural gas system curtailment history

1 = A full day (24 hours) of curtailment. Fractions denote curtailment for a portion of the day (e.g. 0.25 = six hours of curtailment.)

2016 – 2017 all Minnesota and North Dakota areas – all priorities												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2015 – 2016 all Minnesota and North Dakota areas – zero curtailment, all priorities												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2014 – 2015 all Minnesota and North Dakota areas												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
12/30/14	0.96	0.96	0.96	0.96	0.96							
1/6/15	0.96	1	1	1	1	1	1					
1/7/15	1	1	1	1	1	1	1	1	1	1	1	1
2/4/15	1	1	1	1	1	1	1					
2/18/15	1	1	1	1	1	1	1	1	1	1	1	1
Total	4.92	4.96	4.96	4.96	4.96	4	4	2	2	2	2	2

2013 – 2014 all Minnesota and North Dakota areas												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
1/5/14	1	1	1	1	1	1	1	1	1	1	1	1
1/6/14	1	1	1	1	1	1	1	1	1	1	1	1
1/7/14	1	1	1	1	1	1	1	1	1	1	1	1
1/8/14	1	1	1	1	1							
1/21/14	1	1	1	1	1	1						
1/22/14	1	1	1	1	1	1	1	1	1			
1/23/14	1	1	1	1	1	1	1					
1/25/14	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1/26/14	1	1	1	1	1	1	1	1	1	1	1	1
1/27/14	1	1	1	1	1	1	1	1	1	1	1	1
1/28/14	1	1	1	1	1	1	1	1	1	1	1	1
2/5/14		1	1	1	1	1	1					
2/6/14	1	1	1	1	1	1	1	1	1	1	1	1
2/9/14	0.96	0.96	0.96	0.96	0.96	0.96						
2/10/14	1	1	1	1	1	1	1					
2/25/14	1	1	1	1	1	1						
2/27/14	1	1	1	1	1	1	1	1	1	1	1	1
3/1/14	1	1	1	1	1	1	1	1	1	1	1	1
3/2/14	1	1	1	1	1	1	1	1	1	1	1	1
3/3/14	1	1	1	1	1	1	1	1	1	1	1	1
Total	18.46	19.46	19.46	19.46	19.46	18.46	15.50	12.50	12.50	11.50	11.50	11.50

(continued)

2013 – 2014 Fargo Moorhead only												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
1/25/14	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Total	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75

2012 – 2013 — Saint Paul area only												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
10/7/12		0.46										1
10/8/12		1										1
10/9/12		1										1
10/10/12		1										1
10/11/12		1										1
10/12/12		1										1
10/13/12		1										1
10/14/12		1										1
10/15/12		1										1
10/16/12		1										1
10/17/12		0.5										1
Total	0.00	9.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00

2012 – 2013 all Minnesota and North Dakota areas — zero curtailment, all priorities												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2011 – 2012 all states/areas — zero curtailment, all priorities												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2010 – 2011 all Minnesota and North Dakota areas												
Groups	9	8	7	6	5	4	3	2	1E	1D	1B	1A
12/01/10		1	1	1	1	1	1	1	1		1	1
02/09/11		0.96	0.96									
Total	0.00	1.96	1.96	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00



Interruptible Gas Rates Program

2017 – 2018 Notification Procedure

1. The Xcel Energy notification system calls with a recorded message informing you to curtail.
(See the Curtailment script included in this packet.)
2. You confirm receiving the message by pressing the number “1” or saying, “confirm.”
Note: If you receive a call from our Notification System, at least one or all of your interruptible gas rate facilities is affected. If you have multiple facilities on the interruptible gas rate, and your contact information is identical for each facility, you will receive only one interruption call.
3. Switch your equipment to an alternate fuel.
Note: You do not have to call Xcel Energy back to confirm the switch to an alternate fuel.
4. If you **CANNOT SWITCH** to your alternate fuel, contact your Xcel Energy representative or our Business Solutions Center at **800.481.4700**.
5. When the interruption is over, the notification system will call you with a release message.
(See the Release script included in this packet.)
6. Confirm this message by pressing “1” or saying, “confirm.”
7. Switch your equipment back to natural gas at your convenience.

PLEASE NOTE THAT THE AUTOMATED NOTIFICATION SYSTEM WILL BE CALLING YOU TWICE: ONCE FOR THE START OF THE CURTAILMENT AND ONCE FOR THE RELEASE.

Other important information:

- If the automated notification system does not receive confirmation that you received the message, it will make several additional attempts to contact you. If unsuccessful, it will continue to call the other contact numbers you have provided.
- There is an Interruptible Gas Curtailment Hotline available, which you can call anytime to listen to a recorded message regarding the status of gas curtailment at Xcel Energy. In Minnesota and North Dakota call **888.852.6748**; in Wisconsin and Michigan call **800.336.4010**.
- **If you signed a Limited Firm contract and supplies are available, you will receive a custom notification message giving you the opportunity to use a contracted Limited Firm gas day.** Customers who purchase Limited Firm contracts have the opportunity to buy-through interruptions on a limited number of days. Limited Firm customers will be contacted daily during extended interruptions and given the opportunity to use Limited Firm gas. Limited Firm service is not available in Wisconsin.
- Despite our efforts to convert all Interruptible Gas customers to the required automated gas meter reading system, some of our smaller Gas Volume Interruptible customers will be given meter-reading cards and asked to take meter readings immediately before and after curtailments. Customers with automated Metretek data collection devices are not required to send in meter-reading cards.
- The Metretek data collection device is connected to the gas meter, and is about 6x6x2 inches in size and has the manufacturer’s name ‘Metretek’ printed on the outside. The device also has a phone line attached. If you can’t find a Metretek device near your meter, please take the readings on the cards provided and drop the card in the mail.



Interruptible Gas Rates Program

Penalties

When gas interruptions are called, we are counting on you as an Interruptible Gas Rates program customer to go off system gas and switch to your alternate fuel source. If you stay on system gas, it creates planning hardships that could result in the loss of service to other customers. You may not be called to interrupt every winter; however, exposure to interruptions is always there during cold weather months. Some seasons may result in multiple controls, and other seasons no controls at all.

As a program participant, you receive a discounted charge for gas service 12 months of the year so that Xcel Energy can count on your gas during periods of peak use in the winter season. If unauthorized use of gas occurs during a control period, we are required by tariff to take back some of those savings in the form of penalties.

In Minnesota:

- In addition to the normal rates, penalties equal the higher of \$5.00/therm or an amount equal to any incremental cost incurred by Xcel Energy resulting from a failure to curtail or interrupt.

In North Dakota:

- In addition to the normal rates, penalties equal either the amount of any payment Xcel Energy is required to make to its pipeline supplier under the terms of its town border contract as a result of such failure to curtail, or \$5.00/therm of gas used in excess of the volume of gas to which the customer is requested to curtail, whichever amount is greater.

In Wisconsin and Michigan:

- The penalty for unauthorized use is \$2.00/therm UNLESS the interstate pipeline has issued a "Critical Day", or other similar designation, in which case the penalty for unauthorized use is the higher of the actual interstate pipeline penalty or \$10.00/therm.

Other possible additional penalty pipeline charges:

- Customers taking service from Northern Natural Gas may incur additional charges of \$11.30/therm or higher.
- Customers taking service from Viking Gas Transmission may incur additional charges of \$1.50/therm or higher.



Interruptible Gas Rates Program

Contact information

Group:

Current notification system for gas customer account	Please fill in the blanks in this box and update the contact information below.
Customer name	Mail to name _____
CRS premises #	Mail to address _____
Service address	Mail to city _____
Mailing address	Mail to state _____
City	Mail to ZIP _____
State, ZIP	Priority _____

Current Contact 1 information	Updated Contact 1 information
Contact name	Contact name _____
Work phone	Work phone _____ Ext. _____
Home phone	Home phone _____
Cell phone	Cell phone _____
Email	Email _____
Text number	Text number _____
Work fax	Work fax _____

Current Contact 2 information	Updated Contact 2 information
Contact name	Contact name _____
Work phone	Work phone _____ Ext. _____
Home phone	Home phone _____
Cell phone	Cell phone _____
Email	Email _____
Text number	Text number _____
Work fax	Work fax _____

Current Contact 3 information	Updated Contact 3 information
Contact name	Contact name _____
Work phone	Work phone _____ Ext. _____
Home phone	Home phone _____
Cell phone	Cell phone _____
Email	Email _____
Text number	Text number _____
Work Fax	Work fax _____



Register today!

We're offering meetings in October for participants in our **Interruptible Gas Rates Program**. Join us for breakfast or lunch at the venue of your choice. This is a great opportunity to learn what's new and to have your questions answered.

2017 Meeting Dates	Location Near You		Attend a Meeting*
Tuesday, October 24	Eau Claire, WI	Holiday Inn Eau Claire I-94 4751 Owen Ayres St., Eau Claire, WI 54701	Breakfast 7:30 a.m. Meeting 8:00 – 9:30 a.m.
Tuesday, October 24	La Crosse, WI*	Xcel Energy Service Center La Crosse 3215 Commerce Street, La Crosse, WI 54601	Lunch 12:00 p.m. Meeting 12:30 p.m. – 2:00 p.m.
Wednesday, October 25	Vadnais Heights, MN	Jimmy's Conference Center 3565 Labore Road, Vadnais Hts, MN 55110	Breakfast 7:00 a.m. Meeting 7:30 – 9:00 a.m.
Thursday, October 26	Fargo, ND*	Delta Hotels by Marriott Fargo 1635 42nd St. S., Fargo, ND 58103	Breakfast 7:00 a.m. Meeting 7:30 – 9:00 a.m.
Tuesday, October 31	Webinar	Details emailed to registered participants	9:00 – 10:30 a.m.

*Open to Minnesota Customers

To RSVP for an information session go to xcelenergy.com/2017GasRates.



Interruptible Gas Rates Program

Wisconsin/Michigan

Natural gas system curtailment history

Numbers listed represent the number of curtailment days in that time period. Fractions denote curtailment for a portion of a day (e.g. 0.75 = 18 hours of curtailment.)

	Winter 2011 – 2012	Winter 2012 – 2013	Winter 2013 – 2014	Winter 2014 – 2015	Winter 2015 – 2016	Winter 2016 – 2017
Viking Groups						
Large (Groups 4 & 5)	0	0	8.75	0	0	0
Medium (Groups 2 & 3)	0	0	6.75 (2) 8.75 (3)	0	0	0
Small (Group 1)	0	0	6.75	0	0	0
Great Lakes Groups						
Medium/Large (Groups 2–5)	0	0	0	0	0	0
Small (Group 1)	0	0	0	0	0	0
Northern Groups						
Medium/Large (Groups 2–5)	0	0	2.5	0	0	0
Small (Group 1)	0	0	1.5	0	0	0

Note: Beginning in the summer of 2016, Groups 2 and 3 were combined to form Group Medium. Groups 4 and 5 were also combined to form Group Large. Group 1 remains Group Small.



Interruptible Gas Rates Program

Special Notice

For customers without automated meter reading

As one of Xcel Energy's interruptible gas customers, your cooperation during a curtailment period is critical. To ensure that your back-up energy source is working effectively during curtailment, we need to obtain meter readings immediately after the curtailment and again when you switch back to Xcel Energy natural gas. **If your gas meter automatically communicates with Xcel Energy, you may disregard this notice.** If you do not have automated meter reading equipment, you will need to take meter readings manually.

Customers with Metretek data collection devices are not required to send in meter-reading cards. The Metretek data collection device is located near your meter, is wired to the gas meter, is about 6x6x2 inches in size and has the manufacturer's name "Metretek" printed on the outside. The device also has a phone line attached. If you can't find a Metretek device near your meter, you will need to manually read your meter.

Enclosed are a number of "Gas Curtailment Meter Reading" cards. When you are notified of a curtailment, we would like you to take meter readings. Take the reading after you switch to your alternative energy supply and again at the end of curtailment when you revert back to Xcel Energy natural gas. Please fill out this card and send it to Xcel Energy within **five business days**.

Fulfillment of the gas curtailment meter testing requirements is very important. Your cooperation in performing these readings will help avoid the need to conduct a curtailment test and will ensure that your company can remain on Xcel Energy's gas curtailment rate.

If you have any questions about this procedure, please contact your Xcel Energy representative or our Business Solutions Center at **800.481.4700**.



RESPONSIBLE BY NATURE®

Interruptible Gas Curtailment Hotline

888.852.6748

Minnesota | North Dakota

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Electric Emergency/Lights Out	800.895.1999
Gas Emergency/Gas Odor	800.895.2999
24-Hour Customer Service	800.895.4999
Business Line	855.839.8862
Builders' Call Line	800.628.2121



RESPONSIBLE BY NATURE®

Interruptible Gas Curtailment Hotline

800.336.4010

Wisconsin | Michigan

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Electric Emergency/Lights Out	800.895.1999
Gas Emergency/Gas Odor	800.895.2999
24-Hour Customer Service	800.895.4999
Business Line	855.839.8862
Builders' Call Line	800.628.2121

Gas Curtailment Meter Readings

Meter number: _____

Customer name: _____

Service address: _____

When we issue a natural gas curtailment, a reading of your gas interruptible meter must be taken. Please take a second reading when the curtailment is released.

This card must be postmarked no later than two days after the curtailment release.

Please record your meter reading in the appropriate window.

Dial Reading

Curtailment



Signature: _____

Curtailment Release



Signature: _____

Digital Reading

Curtailment



Signature: _____

Curtailment Release



Signature: _____



Xcel Energy
Joe Cusyk, Interruptible Gas Rates
1414 West Hamilton Ave.
Eau Claire, WI 54701-7252



20172018

Interruptible Gas Rates Program



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Interruptible Gas Rates Program

20172018



Interruptible Gas Rates Program

Minnesota/North Dakota: Hotline — 888.852.6748

Interruptible Gas Curtailment Script

Hello, this is Xcel Energy calling with urgent information for natural gas interruptible customers. Please press "1" or say "one" to hear the message. Please press "2" or say "two" to hold so you can transfer the call.

Today is _____ (date). At the end of the message, we will request that you acknowledge this message. Effective at (time) _____ a.m./p.m. on (date) _____ a natural gas interruption is called for customer priority level(s) _____. You are requested to go off system gas at that time.

Unless your meter is equipped for automatic reporting to Xcel Energy over the telephone, please remember to record the gas meter reading on the cards that were provided by Xcel Energy. If you have questions regarding this interruption, please call 888.852.6748 or your local Xcel Energy representative.

Once again, effective at (time) _____ a.m./p.m. on (date) _____ a natural gas interruption is called for customer priority level(s) _____.

This is important. Please press "1" or say "confirm" to acknowledge receipt of this message. If you wish to hear this message again, please press the # key.

Thank you for your cooperation. Goodbye.

Minnesota/North Dakota

Release Script

Hello, this is Xcel Energy calling with urgent information for natural gas interruptible customers. Please press "1" or say "one" to hear the message. Please press "2" or say "two" to hold so you can transfer the call.

Today is _____ (date). At the end of this message, we will request that you acknowledge this message. Effective at (time) _____ a.m./p.m. on (date) _____ the curtailment period is over for customer priority level(s) _____, and you are released to switch back to using natural gas as your primary fuel at your convenience.

Unless your meter is equipped for automatic reporting to Xcel Energy over the telephone, please remember to record the gas meter reading on the cards that were provided by Xcel Energy. If you have any questions regarding this curtailment release, please call 888.852.6748 or your local Xcel Energy representative.

This is important. Please press "1" or say "confirm" to acknowledge receipt of this message. If you wish to hear this message again, please press the # key.

Thank you for your cooperation. Goodbye.



Interruptible Gas Rates Program

Wisconsin/Michigan: Hotline — 800.336.4010

Interruptible Gas Curtailment Script

Hello, this is Xcel Energy-Wisconsin calling with urgent information for natural gas interruptible customers. Please press "1" or say "one" to hear the message. Please press "2" or say "two" to hold so you can transfer the call.

Today is _____ (date). At the end of the message, we will request that you acknowledge this message. Effective at (time) _____ a.m./p.m. on (date) _____ a natural gas interruption will take place. You are requested to go off system gas at that time.

Unless your meter is equipped for automatic reporting to Xcel Energy over the telephone, please remember to record the gas meter reading on the cards that were provided by Xcel Energy. If you have questions regarding this interruption, please call 800.336.4010 or your local Xcel Energy representative.

Once again, effective at (time) _____ a.m./p.m. on (date) _____ a natural gas interruption will take place. You are requested to switch to your alternative or standby fuel at that time.

This is important. Please press "1" or say "confirm" to acknowledge receipt of this message. If you wish to hear this message again, please press the # key.

Thank you for your cooperation. Goodbye.

Wisconsin/Michigan

Release Script

Hello, this is Xcel Energy-Wisconsin calling with urgent information for natural gas interruptible customers. Please press "1" or say "one" to hear the message. Please press "2" or say "two" to hold so you can transfer the call.

Today is _____ (date). At the end of this message, we will request that you acknowledge this message. Effective at (time) _____ a.m./p.m. on (date) _____ the natural gas interruption period is over, and you are released to switch back to using natural gas as your primary fuel at your convenience.

Unless your meter is equipped for automatic reporting to Xcel Energy over the telephone, please remember to record the gas meter reading on the cards that were provided by Xcel Energy. If you have any questions regarding this curtailment release, please call 800.336.4010 or your local Xcel Energy representative.

This is important. Please press "1" or say "confirm" to acknowledge receipt of this message. If you wish to hear this message again, please press the # key.

Thank you for your cooperation. Goodbye.



1800 Larimer St., Suite 1500
Denver, CO 80202

20172018

Interruptible Gas Rates Program

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 No. E,G-999/CI-19-160

Dated this 28th day of June 2019

/s/

Paget Pengelly
Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Tamie A.	Aberle	tamie.aberle@mdu.com	Great Plains Natural Gas Co.	400 North Fourth Street Bismarck, ND 585014092	Electronic Service	No	OFF_SL_19-160_Official
Kristine	Anderson	kanderson@greatermngas.com	Greater Minnesota Gas, Inc.	202 S. Main Street Le Sueur, MN 56058	Electronic Service	No	OFF_SL_19-160_Official
Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd Eagan, MN 55121	Electronic Service	No	OFF_SL_19-160_Official
Brenda A.	Bjorklund	brenda.bjorklund@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-160_Official
Joe	Brophy	jbrophy@efgroupplc.com	Centra Pipelines Minnesota Inc.	Energy Fundamentals Group LP 2324 Main Street London, ON N6P1A9 CANADA	Electronic Service	No	OFF_SL_19-160_Official
Greg	Chamberlain	greg.chamberlain@xcelenergy.com	Xcel Energy	414 Nicollet Mall Minneapolis, MN 55401	Paper Service	No	OFF_SL_19-160_Official
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1800 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-160_Official
Laura	Demman	laura.demman@nngco.com	Northern Natural Gas Company	1111 S. 103rd Street Omaha, NE 68125	Electronic Service	No	OFF_SL_19-160_Official
Ian	Dobson	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_19-160_Official
Linda A.	Farquhar	linda_farquhar@transcanada.com	Great Lakes Gas Transmission Company	700 Louisiana Street, Suite 700 Houston, TX 77002-2700	Electronic Service	No	OFF_SL_19-160_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_19-160_Official
Bruce	Gerhardson	bgerhardson@otpc.com	Otter Tail Power Company	PO Box 496 215 S Cascade St Fergus Falls, MN 565380496	Electronic Service	No	OFF_SL_19-160_Official
Bryce	Haugen	bhaugen@otpc.com	Otter Tail Power Company	215 S Cascade St P.O. Box 496 Fergus Falls, MN 56538	Electronic Service	No	OFF_SL_19-160_Official
Allen	Krug	allen.krug@xcelenergy.com	Xcel Energy	414 Nicollet Mall-7th fl Minneapolis, MN 55401	Electronic Service	No	OFF_SL_19-160_Official
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_19-160_Official
Amber	Lee	Amber.Lee@centerpointenergy.com	CenterPoint Energy	505 Nicollet Mall Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-160_Official
Annie	Levenson Falk	annief@cupminnesota.org	Citizens Utility Board of Minnesota	332 Minnesota Street, Suite W1360 St. Paul, MN 55101	Electronic Service	No	OFF_SL_19-160_Official
Michael	Loeffler	mike.loeffler@nngco.com	Northern Natural Gas Co.	CORP HQ, 714 1111 So. 103rd Street Omaha, NE 681241000	Electronic Service	No	OFF_SL_19-160_Official
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	OFF_SL_19-160_Official
Mike	McMullen	mmcmullen@misoenergy.org	MISO	2985 Ames Crossing Rd Eagan, MN 55121	Electronic Service	No	OFF_SL_19-160_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Brian	Meloy	brian.meloy@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-160_Official
David	Moeller	dmoeller@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022093	Electronic Service	No	OFF_SL_19-160_Official
Andrew	Moratzka	andrew.moratzka@stoel.com	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-160_Official
Kate	O'Connell	kate.oconnell@state.mn.us	Department of Commerce	Suite 50085 Seventh Place East St. Paul, MN 551012198	Electronic Service	No	OFF_SL_19-160_Official
Greg	Palmer	gpalmer@greatermngas.com	Greater Minnesota Gas, Inc.	PO Box 68 202 South Main Street Le Sueur, MN 56058	Electronic Service	No	OFF_SL_19-160_Official
Jennifer	Peterson	jjpeterson@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	OFF_SL_19-160_Official
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_19-160_Official
Kristin	Stastny	kstastny@briggs.com	Briggs and Morgan, P.A.	2200 IDS Center 80 South 8th Street Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-160_Official
Joseph K	Sullivan	joseph.k.sullivan@state.mn.us	Department of Commerce	85 7th Place East Ste 500 Saint. Paul, MN 55101-2198	Electronic Service	No	OFF_SL_19-160_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Lynnette	Sweet	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_19-160_Official
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_19-160_Official
Mary	Wolter	mary.wolter@wecenergygroup.com	Minnesota Energy Resources Corporation (HOLDING)	231 West Michigan St Milwaukee, WI 53203	Electronic Service	No	OFF_SL_19-160_Official
Aaron W.	Wright	N/A	Viking Gas Transmission Company	ONEOK, Inc. 100 W. Fifth Street, MD 12- 2 Tulsa, OK 74103	Paper Service	No	OFF_SL_19-160_Official