



**Public  
Version Enclosed**

5000 West Russell Street  
P.O. Box 988  
Sioux Falls, SD 57101-0988

May 1, 2019

—Via Electronic Filing—

Ms. Patricia Van Gerpen, Executive Director  
South Dakota Public Utilities Commission  
State Capitol Building  
500 East Capitol Avenue  
Pierre, South Dakota 57501-5070

RE: PETITION  
2018 DSM STATUS REPORT AND PROPOSED 2020 DSM PLAN

Dear Ms. Van Gerpen:

Enclosed for filing is a Petition by Northern States Power Company requesting approval of our 2018 DSM Status Report which includes our request for: 1) approval of cost recovery for 2018 actual expenditures and incentive, 2) approval of our Proposed 2020 DSM Plan, and 3) proposed DSM Cost Adjustment Factor.

In accordance with South Dakota Admin. R. 20:10:01:39 through 42, Xcel Energy respectfully requests confidential treatment of certain information contained in this filing. In compliance with South Dakota Admin. R. 20:10:01:41, we have clearly marked each page of the confidential version with the term “CONFIDENTIAL”. A public non-confidential version is also being filed simultaneously.

Pursuant to S.D. Codified Laws Chapter 20:10:01:41, the Company submits the following justification for confidential treatment of this petition.

**(1) An identification of the document and the general subject matter of the materials or the portions of the document for which confidentiality is being requested;**

We request confidential treatment on the grounds that the material is proprietary and contains trade secret information, the disclosure of which would result in material damage to the Company’s financial or competitive position. The petition contains financial information that is not available to the general public.

**(2) The length of time for which confidentiality is being requested and a request for handling at the end of that time. This does not preclude a later request to extend the period of confidential treatment;**

The Company requests that the petition be recognized as confidential in perpetuity.

**(3) The name, address, and phone number of a person to be contacted regarding the confidentiality request;**

Steve Kolbeck  
Principal Manager –South Dakota  
Xcel Energy  
500 W. Russell Street  
P.O. Box 988  
Sioux Falls, South Dakota 57101  
(605) 339-8303

**(4) The statutory or common law grounds and any administrative rules under which confidentiality is requested. Failure to include all possible grounds for confidential treatment does not preclude the party from raising additional grounds in the future;**

The Company requests confidential treatment because the information is both trade secret and proprietary. The claim for confidential treatment is based on South Dakota Admin. R. 20:10:01:39 (4) and S.D. Codified Laws Chapter 1-27-30. The information contained within the referenced documents meets the definition of “trade secret” under S.D. Codified Laws Chapter 37-29-1(4)(1), the South Dakota Uniform Trade Secrets Act, which is defined as information that “[d]erives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and... is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.” The information also meets the definition of “proprietary information” under S.D. Codified Laws Chapter 1-27-28, which is defined as “information on pricing, costs, revenue, taxes, market share, customers, and personnel held by private entities and used for that private entity's business purposes.”

**(5) The factual basis that qualifies the information for confidentiality under the authority cited.**

Consistent with the terms of the Settlement Stipulation approved by the Commission in the Company's 2012 electric rate case (Docket EL12-046), the rate of return on equity is confidential.

For any questions regarding this filing, please feel free to call me at (605) 339-8350 or email [Steven.T.Kolbeck@xcelenergy.com](mailto:Steven.T.Kolbeck@xcelenergy.com) or contact Jessica Peterson at (612) 330-6850 or email [Jessica.K.Peterson@xcelenergy.com](mailto:Jessica.K.Peterson@xcelenergy.com).

Sincerely,

A handwritten signature in black ink that reads "Steve Kolbeck". The signature is written in a cursive style with a large, looping initial "S".

Steve Kolbeck  
Principal Manager –South Dakota

**PUBLIC**

**STATE OF SOUTH DAKOTA  
BEFORE THE  
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE PETITION OF  
NORTHERN STATES POWER COMPANY  
FOR APPROVAL OF THE 2018 ANNUAL  
DSM STATUS REPORT, INCLUDING 2018  
COST RECOVERY AND INCENTIVE AND  
APPROVAL OF THE PROPOSED 2020 DSM  
COST ADJUSTMENT FACTOR AND  
PROGRAM PLAN

**PETITION FOR 2018 DSM  
PROGRAM APPROVAL AND  
PROPOSED 2020 DSM COST  
ADJUSTMENT FACTOR**

DOCKET NO. EL19- \_\_\_\_

Northern States Power Company, doing business as Xcel Energy, submits to the South Dakota Public Utilities Commission, this Petition seeking approval of our 2018 Annual Demand Side Management (DSM) Report and Proposed 2020 DSM Plan (Plan).

We respectfully request that the Commission approve the following:

- The Company's 2018 DSM Tracker account;
- Approve the incentive of \$232,322 earned for 2018 program performance;
- Approve the proposed 2020 electric DSM Adjustment Factor of \$0.000475 per kWh; and
- Approve the proposed 2020 DSM Plan.

The remainder of our filing will include the following sections:

**I. 2018 DSM Status Report**

This section presents 2018 program performance including budgets, goals, expenditures, actual energy savings and participation. This section also specifies any programmatic changes for our 2020 Plan.

**II. DSM Cost Recovery Report**

This section provides the final 2018 DSM Tracker seeking approval to record \$776,907 in DSM spending in its DSM Tracker account.

## **PUBLIC**

### **III. DSM Incentive Report**

Calculations of the Company's DSM Financial Incentive can be found in this section. We request approval to record and recover \$232,322 in incentive from customers in the DSM Tracker for calendar year 2018.

### **IV. DSM Cost Adjustment Factor Report**

The section presents the calculation of the 2018 DSM Cost Adjustment Factor to be applied to customer electric usage for recovery of 2018 DSM expenditures, effective January 1, 2020. We are proposing an increase to our electric DSM Cost Adjustment Factor of \$0.000475 per customer kWh.

### **V. Summary of Proposed 2019 DSM Plan**

We provide the portfolio level executive summary along with updated cost-effectiveness results for our 2020 Plan.

## **REPORT**

### **I. 2018 DSM STATUS REPORT**

#### **A. Executive Summary**

Demand Side Management resources are part of a wide variety of offerings by the Company to empower our customers to control their energy usage and their monthly electric bills. Our DSM portfolio offers a mix of solutions designed to meet individual needs and preferences. We provide programs designed to meet individual interests of all types of customers, offering everyone the opportunity to participate.

In 2018, we successfully helped customers manage their energy bills by achieving more than 6 GWh of energy savings. The Company exceeded their projected 2018 in part due to an exceedingly successful year for Home Lighting.

The purpose of our energy efficiency portfolio is to encourage customers to adopt high efficiency equipment. As such, we identified opportunities in 2018 to increase residential participation resulting in increased spending above our anticipated budget. The total actual expenditures of \$776,907 falls slightly above the filed budget and within the

## PUBLIC

Commission approved budget flexibility.<sup>1</sup> We note that no programs were suspended in 2018.

There are often times in which rebate spend in Residential Lighting (which also covers small businesses) exceeds rebate spend in the commercial programs. The Company offers Table 1 as verification that these programs do not cross subsidize each other or rather neither segment is receiving more benefit than another. Although there have been changes in the percent of spend as well as percent of kWh over time, the percent of recovery between classes has been consistent.

**Table 1 – Cross Subsidization Review**

Year	Percent of Spend (excl. Planning)		Percent of kWh		Percent of Recovery	
	Residential	Business	Residential	Business	Residential	Business
2014	35%	65%	22%	78%	35%	65%
2015	67%	33%	62%	38%	35%	66%
2016	34%	66%	26%	74%	35%	65%
2017	44%	56%	45%	55%	35%	65%
2018	42%	58%	42%	58%	35%	65%

To evaluate the cost-effectiveness of our portfolio for 2018, we looked at the Total Resource Cost (TRC) ratio, which compares total benefits to total costs of the portfolio.<sup>2</sup> If a program or portfolio has a TRC ratio above one, it is considered cost-effective. As shown in the table below, the 2018 portfolio demonstrated a TRC Ratio value of 1.53.

The 2018 DSM Plan was created based on market assumptions and a forecast of customer interest. Table 2 provides a breakdown of 2018 achievements by program. A full executive summary, which includes both a comparison of 2018 goals versus actuals and cost-effectiveness test results, is provided as Attachment A.

---

<sup>1</sup> Docket EL13-015, Commission Order December 3, 2013.

<sup>2</sup> A TRC ratio above 1.0 indicates the benefit outweighs the costs.

**PUBLIC**

**Table 2 – Executive Summary Table of 2018 Actual Achievements**

2018	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio
<b>Business Segment</b>					
Lighting Efficiency	134	\$394,257	506	3,497,612	1.27
Business Saver's Switch	10	\$44,850	54	129	1.30
Peak and Energy Control	3	\$3,876	11	408	1.34
<b>Business Segment Total</b>	<b>147</b>	<b>\$442,982</b>	<b>571</b>	<b>3,498,149</b>	<b>1.27</b>
<b>Residential Segment</b>					
Home Lighting	4,601	\$98,643	282	2,558,158	3.31
Residential Saver's Switch	637	\$185,091	485	1,391	2.86
Consumer Education	79,218	\$35,868	0	0	N/A
<b>Residential Segment Total</b>	<b>84,456</b>	<b>\$319,602</b>	<b>767</b>	<b>2,559,550</b>	<b>2.81</b>
<b>Planning Segment</b>					
Regulatory Affairs	0	\$14,323	0	0	N/A
<b>Planning Segment Total</b>	<b>0</b>	<b>\$14,323</b>	<b>0</b>	<b>0</b>	<b>N/A</b>
<b>Portfolio Total</b>	<b>84,603</b>	<b>\$776,907</b>	<b>1,338</b>	<b>6,057,698</b>	<b>1.53</b>

The Status Report shows a successful year for the DSM portfolio. We maintain a well-balanced portfolio of programs and continue to educate customers on the benefits of choosing energy efficiency. Additional details of individual program’s performance are offered in the Section B below. We also provide any changes to these programs for the 2020 Plan.

**B. DSM Program Portfolio**

**1. Business Lighting Efficiency**

The Business Lighting Efficiency program offers retrofit and new construction rebate incentives to commercial and industrial customers who purchase and install qualifying energy efficient lighting products. Rebates are offered to encourage customers to purchase energy efficient lighting by reducing the up-front costs associated with new lighting equipment.

The program budget includes incentives, promotion and administrative costs. Customer incentives make up the majority of the budget while a smaller amount is allotted to

## PUBLIC

administration and promotion which includes distributor mailings, local trainings and informational materials

### *a. 2018 Program Activity and Results*

The Business Lighting program achieved six percent more savings than it did the previous year and spent approximately \$23,000 less making it one of the most successful years for the program. We attribute these results to the addition of further customer choices for business lighting. For example, 22 percent of the total energy savings for the program were a result of the addition of LED linear tube rebates in 2018; this amounts to nearly 10,000 units, LED tubes offer customers a less costly alternative than upgrading to an LED troffer.

To enhance our 2018 success, we also invested funding into a South Dakota socket saturation study that will provide data on the number of sockets available and the number of sockets filled with energy efficient products. This will position the program better for forecasting future benefits, limiting additional cost and providing prospects for future marketing activities.

We note rebated and forecasted units in Table 3 below.

**Table 3: Business Lighting Efficiency Units**

<b>Year</b>	<b>Actual/ Forecasted Units</b>	<b>Additional Information</b>
2014	18,808	Last year of fluorescent rebates
2015	9,766	First year of LED-only
2016	18,416	Achieved
2017	11,700	Achieved
2018	21,291	Supplemental Filing
2019	16,326	Forecasted

### *b. Proposed Changes*

To continue our success in 2020, we continue to expand the rebates offered to customers based on market need. New measures include:

- Adjusted fluorescent baseline for existing High Bay fixtures rebates;
- Mogul base rebates for screw-in replacements for HID lamps;
- T5 linear tube rebates; Stairwell fixture rebates; and



## PUBLIC

- Network lighting control rebates, including sensors that provide occupancy, daylight harvesting and high end trim.

Additionally, we continue to reduce incentives due to a continued drop in cost for LED technologies by reducing rebates for LED Interior Screw-in Fixture Retrofit, LED Outdoor Canopy fixtures for New Construction and Refrigerated Case Lighting Retrofit and New Construction.

We provide a listing of all rebates and changes for the Business Program in Attachment B.

### **2. Business Saver's Switch®**

Business Saver's Switch is a prescriptive load management program available to commercial customers. The program uses direct load control to cycle customers' rooftop air conditioning units during periods of peak demand, helping to maintain system reliability. Loads are controlled through the use of load control receivers operated remotely via wireless signals. The program is marketed via direct mail, email and via our customer representatives at our Business Solutions Center.

#### *a. 2018 Program Activity and Results*

The Business Saver's Switch program had a successful year. The number of new participants was slightly lower than anticipated, but the achievements were higher. This was due to participants enrolling into the program with larger AC units than projected.

In recent years, the program has had relatively few control events. The program was activated once in 2018. While control seasons in recent years have not been as robust as in the past, the Company is planning to execute at a minimum one control event per cooling season.

#### *b. 2020 Proposed Changes*

The budget and projected achievements, for 2020 will be reduced slightly.

### **3. Electric Rate Savings**

The Peak and Energy Control program consists of two programs: (1) Peak Control Services and (2) Energy Control Services. The program is offered to any business customer that can reduce their electric loads by at least 50 kW during control periods initiated by the Company or the Midcontinent Independent System Operator (MISO). In return for reducing their loads, customers receive a monthly discount on their demand

## PUBLIC

charges and can potentially save up to 50 percent on their demand charges over the entire year. The program is promoted directly to customers through Xcel Energy's Account Management and Business Solutions Center teams.

Energy savings are calculated using specific customer kW values customers pledge to shed during an event within their customer contract. These values are calculated off incremental customer participation and do not include savings associated with historical participants (those beginning participation prior to 2018). Further, energy savings are not based on the control events conducted within this 2018 annual timeframe, rather the Company uses a historical average. We take into account that MISO has the ability to control these programs up to 20 hours a year.

### *a. 2018 Program Activity and Results*

In 2018, the program spent less than its budget and participants and achievements were below target. The program experienced minor growth to the program's total controllable load.

We did not have any control events for the program in 2018. Unlike in previous years the program also had no test events in 2018 outside of the annual notification tests which do not require program participants to control their load. Program costs were primarily due to administrative and application development costs as the company continues to develop and implement a new notification system.

### *b. 2020 Proposed Changes*

We expect to continue to increase participation in the program during 2020 by promoting directly to qualifying customers through Xcel Energy's account representatives.

## **4. Home Lighting**

The Home Lighting program offers discounted prices on light emitting diode (LED) bulbs. Energy efficient lights are an easy and low cost way for residential and small business customers to save energy and reduce the cost of their monthly electric bills. We promote the Home Lighting program through a variety of channels including bill inserts, emails, digital advertising and point of purchase displays.

We motivate customers to purchase LEDs by offering in-store retail discounts. The discounts are provided through collaboration with bulb manufacturers and retailers. The discount varies depending on the type of bulb and the manufacturer/retailer partner. Discounted prices are received at the cash register, making it easy to participate without

## PUBLIC

the hassle of mail-in rebates. Incentives are paid upstream and the discounts are passed on to the customer.

Although the lighting market continues to mature, there is still room for consumers to replace inefficient bulbs with LEDs. The NEMA lamp shipment indices confirm that there is still an opportunity to transform the market, as a majority of the new bulbs shipped to stores are inefficient, either halogen or incandescent.<sup>3</sup> We plan to continue to focus on promoting LED bulbs while there is still a chance to influence customers.

The energy savings and budget target for the product was derived by analyzing the market potential and historical sales data, while considering new technologies, available retail channels and participating customer segments. All Xcel Energy South Dakota electric customers are eligible to participate in the program.

### *a. 2018 Program Activity and Results*

The program surpassed the participation and energy savings goals for 2018. The increased achievements were a result of customers looking for ways to reduce their energy bills, responding favorably to promotions and acting on discounted lighting prices. The number of residential versus business bulbs sold is defined in the table below. The program anticipates a small amount of bulbs will be purchased by small business owners. We further note that only LED light bulbs were discounted in 2018.

**Table 4: Home Lighting Achievement**

Type of Customer	Number of Bulbs Sold	Percent of Bulbs	Rebate Total
Residential	57,969	94%	\$68,089
Business ( <i>Generally Small Business</i> )	3,700	6%	\$ 4,346

### *b. 2020 Proposed Changes*

We plan on adding LED linear tubes to increase the variety of LED bulbs offered in the program. The availability of inefficient bulbs may change rapidly over the next three years; however the timing of this change is uncertain. We will adjust the mix of bulbs available as this change plays out to ensure the program continues to influence customers to make efficient choices.

---

<sup>3</sup> <https://www.nema.org/Intelligence/Pages/Lamp-Indices.aspx>

## PUBLIC

### 5. Residential Saver's Switch®

The Residential Saver's Switch program offers a bill discount to customers who agree to allow the Company to remotely control their central air conditioners during the summer months and their electric water heaters regardless of season. Saver's Switch is a significant component of our demand response portfolio. The program is marketed primarily through direct mail.

#### *a. 2018 Program Activity and Results*

In 2018, the Saver's Switch program spent its budget while participants and achievements were slightly below target. This is primarily due to higher than anticipated costs for materials and service delivery. Approximately one third of the participants came from the replacement of switches scheduled for maintenance. These switches have outlived their useful life and were due for equipment replacement.

The program had no control events in 2018 outside of a scheduled event. While control seasons in recent years have not been nearly as robust as in the past, the Company continues to plan for the execution of a minimum of one control event per cooling season.

#### *b. 2020 Proposed Changes*

The Residential Saver's Switch program will begin to be part of our Residential Demand Response program beginning in 2020. We describe this at more length Section V.

### C. Additional Demand Side Efforts

#### 1. Trade Partners

We consider our Trade Partners to be contractors, distributors and manufacturers of energy-efficient equipment. The Company values our Trade Partners as one of the most important marketing channels for DSM. Trade Partners promote our programs to our customers, verify that the equipment they are installing meets our program specifications and help complete rebate paperwork.

We support our Trade Partners through training workshops, Account Manager activities, phone support and email communications. Training workshops are scheduled on an as-needed basis.

## PUBLIC

Our Account Manager in Sioux Falls has an important role in supporting the efforts of our Trade Partners in South Dakota. He is available to meet with Trade Partners for program training, site visits, and help with rebate paperwork.

Xcel Energy's Trade Relations Managers are based in Minneapolis and assist our South Dakota Trade Partners as needed. They provide phone support for questions on our rebate specifications and paperwork. They produce email updates to Trade Partners when there is important information to share. Trade Relations Managers are also available to travel to South Dakota to provide in-depth program training as needed.

### **2. Consumer Education**

The Consumer Education program is part of the Company's residential program portfolio. The program's focus is to provide customers with simple ways they can make their home more energy efficient while driving them to our portfolio of energy savings programs. We focused efforts in 2018 on three specific tactics: community events, digital outreach and bill communications. Utilizing different tactics is critical to reaching a wide variety of customers.

#### *a. Community Events*

The program's primary focus at community events is to drive customers to take "action," whether through a targeted program lead or a direct program signup, and to provide customers with information on how they can make their home more energy efficient. Our 2018 events allowed us to help customers, in-person, with energy-related questions and recommended energy efficiency programs and actions that were a fit for their individual homes.

In 2018, the Company participated in three large community events:

- February 23-25 – Empire Home Show, Sioux Falls Convention Center, Sioux Falls
- July 20-21 – Sioux Falls Jazz Festival, Yankton Trails Park, Sioux Falls
- November 10-11 – Autumn Arts and Crafts Festival, Denny Sanford Premier Center, Sioux Falls

#### *b. Digital Outreach*

In addition to face-to-face community outreach, the program has invested in a digital video series to help reach a wide variety of customers outside of targeted community events. The video series developed by the company, "This Is How," is a series of tutorials on how to make simple, no- and low-cost energy saving changes to customers' homes.

## PUBLIC

### *c. Bill Communications*

The program also utilizes bill communications via onserts, a cost-effective way to communicate with large groups of residential customers. We place bill onserts to promote easy ways customers could lower their summer cooling costs.

### *d. Participation*

Participation achievement continues to be measured through various educational opportunities as noted below:

- Sponsored event attendance;
- Program signups generated at sponsored events;
- Program leads generated at sponsored events; and
- Seasonal email campaign/bill onserts.

### *e. 2020 Program Changes*

In 2020, we will continue to increase the reach of the program by exploring additional digital and mobile tools to offer customers.

## **3. Regulatory Affairs**

The Planning & Administration group manages all DSM regulatory filings, directs and prepares cost-benefit analysis, provides results of energy conservation achievements and prepares cost recovery reports. This group also provides procedures for effectively addressing requirements and complying with the DSM regulatory process. The entirety of the budget is to cover non-direct program labor including labor for such things as regulatory filings and requests plus our DSM Rider onsert.

### *a. 2020 Proposed Changes*

The Company is adjusting our spend forecast to align with actual costs.

## **II. DSM Cost Recovery Report**

Cost-effective conservation benefits customers by reducing the need to build a new power plant or other generation facilities to meet our customers' electricity needs. Conservation also has environmental benefits, including a reduction in air pollution and greenhouse gas

## PUBLIC

emissions associated with using fossil fuels. This section reports the actual 2018 spending and cost recovery as well as the Company's carrying charge rates.

In 2018, the total portfolio spend came in at \$776,907. This amount is slightly above our approved budget of \$774,408, and falls within the ten percent spend flexibility granted by the Commission.<sup>4</sup> In addition to DSM expenses, the Company is requesting recovery of \$232,322 in financial incentive earned for our 2018 DSM performance for total recovery of \$1,009,228.<sup>5</sup>

Supportive documentation for this cost recovery request, some of which falls under the category of confidential data, is provided as Attachment C of this filing and includes:

- Calculations of the Carrying Charge Rates in 2018 and found in the 2018 Tracker; and
- Xcel Energy's 2018 DSM Tracker, which documents monthly DSM expenditures and recovered costs.

### III. DSM Incentive Report – Calculation Inputs

In accordance with the Commission's October 21, 2011 Order, which approved an incentive of 30 percent of expenditures capped at the approved budget. The Company submits the following 2018 incentive calculation.

Approved Budget	\$774,408
Actual Spend	\$776,907

Since the actual expenditure was greater than the approved budget, the incentive was capped at the approved budget amount. The incentive is calculated as follows: Approved Budget x 30% = Awarded Incentive or **\$774,408 x 30% = \$232,322.**

This incentive is accounted for in our 2018 DSM Tracker included in Attachment C.

---

<sup>4</sup> The Commission approved a 10 percent spend flexibility beginning in 2013 as part of the approval of the Company's 2012 DSM Status Report and 2014 DSM Proposed Plan. (Docket No. EL13-017)

<sup>5</sup> Our final 2018 Tracker notes this amount at **[CONFIDENTIAL DATA BEGINS HERE CONFIDENTIAL DATA ENDS HERE]** due to an under recovery of the 2018 incentive. The additional amount appears as a top line adjustment in the 2019 Tracker.

## PUBLIC

### IV. DSM Cost Adjustment Factor Report

The current DSM Cost Adjustment Factor of \$0.000464 per kWh was implemented on January 1, 2019.<sup>6</sup> The Company requests a new DSM Cost Adjustment Factor of \$0.000475 per kWh to be effective with the first billing cycle of January 2020.

Supportive documentation for this rate change request, some of which falls under the category of confidential data, is provided as Attachment D of this filing and includes:

- Information specified in South Dakota Administrative Rule 20:10:13:26 regarding the updated DSM Cost Adjustment Factor;
- Forecasted 2019 and 2020 DSM Trackers reflecting the forecasted cost recovery with the current and proposed rates;
- Proposed bill insert notice; and
- Proposed updated tariff sheet in both redlined and clean versions.

The Company requests a new DSM Cost Adjustment Factor of \$0.000475 per customer kWh to be effective with the first billing cycle of January 2020 and to remain in effect through December 2020 or until the Commission approves a new DSM Cost Adjustment Factor. This is an increase of \$0.000011 per kWh or two percent. The increase is due to the 2018 adjustment being slightly under recovered.

In the event that Commission approval of the proposed adjustment is delayed beyond the timeframe needed to implement the rate change by January 1, 2020 the Company will continue to apply the current DSM Cost Adjustment of \$0.000464 per kWh up to the first cycle of the first full billing period following Commission approval of a revised factor.

This proposed factor is calculated to reduce the DSM Tracker balance to \$0 by the end of December 2020. It is based on the forecasted December 2020 unrecovered balance in the Company's DSM Tracker account. This forecasted balance is based on the forecasted January 2019 beginning balance, projected expenditures for 2020 and the forecasted 2020 incentive. The inputs and calculation are shown below.

**[CONFIDENTIAL DATA BEGINS HERE]**

---

<sup>6</sup> Docket EL18-023, Commission Order December 18, 2018.



**CONFIDENTIAL DATA ENDS HERE]**

This calculation results in a rate that would recover the sum of the beginning balance, approved expenditures and estimated incentives over the January 1, 2019 – December 31, 2020 period. This rate of **[CONFIDENTIAL DATA BEGINS HERE**

**CONFIDENTIAL DATA ENDS HERE]** would result in a negative balance because it does not consider carrying charges, which are negative for several months during 2020. To get as close to a possible \$0 balance by December 31, 2020, the rate was incrementally decreased to reflect future inclusion of carrying charges, until the balance approached \$0 without going negative. The resulting rate is **\$0.000475 per customer kWh.**

We note that the bill onsert for the DSM Cost Adjustment Factor has, in the past, been combined with the South Dakota Infrastructure Rider Rate. Attempts are made to limit the amount of onserts per bill when necessary; this further reduces cost. We will combine in 2020 if timing of each filing allows the ability to do so.

## V. 2020 DSM Plan

This section includes a summary of our proposed 2020 Plan. The Company is expanding their DSM portfolio to include additional lighting measures for both residential and commercial customers.<sup>7</sup> In addition, we are adding two additional residential programs as described below.

### A. New Programs

#### 1. Heat Pump Water Heaters

The Heat Pump Water Heaters program offers retrofit and new construction rebate incentives to residential customers who purchase and install qualifying energy efficient heat pump water heaters. Rebates are offered to encourage customers to purchase energy efficient heat pump water heaters by reducing the up-front costs associated with new heat pump water heaters.

---

<sup>7</sup> We outline these changes in Attachment B.

## PUBLIC

We are adding this new product to our demand side management program in 2020 based on our home energy use survey's showing the interest in these products specifically with South Dakota residential customers. Heat pump water heaters have a much larger incremental cost but save a significant amount of energy over an electric resistance water heater. The up-front cost of the technology is a barrier for most customers. We want to encourage the use of energy-efficient opportunities with our customers and providing rebates, in the amount of \$400, on electric heat pump water heaters will reduce customer barriers towards energy efficient options.

The program budget includes incentives, promotion and administrative costs. The incentives make up the majority of the budget while a smaller amount is allotted to administration and promotion which includes customer mailings, in-store signage at local retailers and information materials.

### 2. Residential Demand Response

In 2020, the Company will offer two demand response products to our residential customers: Saver's Switch and AC Rewards. The AC Rewards program and the associated ENERGY STAR® thermostat rebate will be added to the Saver's Switch program to create the new Residential Demand Response program. Both products target central air conditioners for reducing system load during demand peaks. Both offerings will be promoted primarily via email, direct mail and the Company's customer care organization.

Saver's Switch offers a seasonal bill discount to customers who agree to allow the Company to remotely control their central air conditioners during the summer months. Customers with qualifying electric water heaters can also enroll this equipment. Electric water heaters can be controlled year-round and customers receive incentives for their participation year-round.

The AC Rewards program (smart thermostat offering) offers residential electric customers the opportunity to implement a new load management option. The purpose of this product is to allow the company to control residential cooling load when deemed it is needed. The product will be "Bring Your Own Thermostat (BYOT)". Any customer who has a thermostat that meets the Company's qualifying criteria, and has central AC, may participate. Customers will be incentivized with a onetime incentive for enrolling their qualifying device in AC Rewards. Customers that do not have one can receive a discount for purchasing and installing an ENERGY STAR® rated thermostat (that also qualifies for the AC Rewards product).

AC Rewards will provide residential customers with an additional option to participate in reducing system demand peaks with more control by giving customer the option to, if

## PUBLIC

needed, opt-out of a control event. Customers with a qualifying thermostat can enroll online. Once enrolled, participation will continue until the customer notifies us that they are leaving the program.

The program includes a rebate for new ENERGY STAR® connected thermostats eligible for AC Rewards. Thermostats meeting the ENERGY STAR® Connected Thermostat specification have demonstrated the ability to achieve energy savings through HVAC equipment runtime reductions, specifically an 8 percent or higher reduction in heating equipment runtime and a 10 percent or higher reduction for cooling equipment runtime.

In addition, offering the energy efficiency incentive for ENERGY STAR® Connected Thermostat will increase the stock of Residential Demand Response-eligible thermostats. Even if customers do not choose immediately to enroll in the Residential Demand Response program, they will be able to do so at any time during the lifetime of their smart thermostats.

Budget and goal projections will proportionality increase with this new combined offering. The AC Rewards program is expecting to install and enroll 200 smart thermostats in 2020. The volume of rebated ENERGY STAR® thermostats is projected at 700 per year.

### **B. 2020 Executive Summary**

Table 5 summarizes our proposed goals and provides updated cost-effectiveness results by program. The total portfolio has a passing TRC Ratio of 1.60. The budget is higher than our 2019 filed budget due to additional program offerings. A full executive summary, which includes all cost-effectiveness test results, is provided as Attachment E.

**PUBLIC**

**Table 5 – Executive Summary Table of 2020 Forecast**

<b>2020</b>	<b>Electric Participants</b>	<b>Electric Budget</b>	<b>Generator kW</b>	<b>Generator kWh</b>	<b>TRC Ratio</b>
<b>Business Segment</b>					
Lighting Efficiency	341	\$389,320	453	3,960,428	1.20
Business Saver's Switch	10	\$25,250	28	39	1.23
Peak and Energy Control	1	\$10,000	101	3,713	4.60
<b>Business Segment Total</b>	<b>352</b>	<b>\$424,570</b>	<b>582</b>	<b>3,964,179</b>	<b>1.21</b>
<b>Residential Segment</b>					
Home Lighting	5,245	\$96,756	408	3,009,728	3.57
Residential Demand Response	1,410	\$235,500	817	99,889	2.82
Consumer Education	68,000	\$21,165	0	0	N/A
Water Heating	21	\$15,000	12	82,115	1.35
<b>Residential Segment Total</b>	<b>74,676</b>	<b>\$368,421</b>	<b>1,237</b>	<b>3,191,731</b>	<b>2.89</b>
<b>Planning Segment</b>					
Regulatory Affairs	0	\$14,000	0	0	N/A
<b>Planning Segment Total</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>0</b>	<b>N/A</b>
<b>Portfolio Total</b>	<b>75,028</b>	<b>\$806,991</b>	<b>1,819</b>	<b>7,155,910</b>	<b>1.60</b>

**PUBLIC**

**Service of Filings**

We request that communications regarding this Application be directed to:

Jim Erickson  
Records Analyst  
Xcel Energy Services Inc.  
414 Nicollet Mall, 401-8  
Minneapolis, MN 55401  
(612) 330-5500  
Regulatory.Records@xcelenergy.com

## PUBLIC

### CONCLUSION

In summary, the Company respectfully requests that the Commission:

- Approve the Company's 2018 DSM Tracker account;
- Approve the incentive of \$232,322 earned for 2018 program performance;
- Approve the proposed 2020 electric DSM Adjustment Factor of \$0.000475 per kWh; and
- Approve the proposed 2020 DSM Plan.

We look forward to continuing these programs in South Dakota. The Company appreciates the interest and efforts of South Dakota policy makers in supporting this DSM portfolio.

Dated: May 1, 2019

Xcel Energy



By:

\_\_\_\_\_  
Steve Kolbeck  
Principal Manager –South Dakota