



**Public
Version Enclosed**

5000 West Russell Street
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Sioux Falls, SD 57101-0988

May 1, 2024

—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
2023 DSM STATUS REPORT AND PROPOSED 2025 DSM PLAN

Dear Ms. Van Gerpen:

Enclosed for filing is a Petition by Northern States Power Company requesting approval of our 2023 DSM Status Report which includes our request for: 1) approval of cost recovery for 2023 actual expenditures and incentive, 2) approval of our Proposed 2025 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 South Dakota Admin. R. 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;

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Principal Manager – South Dakota
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(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;

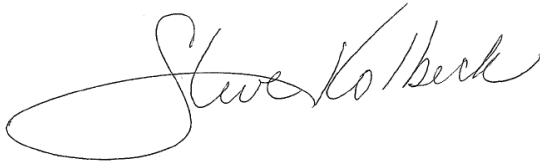
The Company requests confidential treatment because the information is both trade secret and proprietary. The claim for confidential treatment is based on South Dakota Admin. R. 20:10:01:39 (4) and S.D. Codified Laws Chapter 1-27-30. The information contained within the referenced documents meets the 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 or contact Kristen Ruud at (612) 216-7979 or email Kristen.S.Ruud@xcelenergy.com.

Sincerely,

A handwritten signature in cursive script that reads "Steve Kolbeck". The signature is written in black ink and is positioned above the typed name and title.

Steve Kolbeck
Principal Manager –South Dakota

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**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 2023 ANNUAL
DSM STATUS REPORT, INCLUDING 2023
COST RECOVERY AND INCENTIVE AND
APPROVAL OF THE PROPOSED 2025 DSM
COST ADJUSTMENT FACTOR AND
PROGRAM PLAN

**PETITION FOR 2023 DSM
PROGRAM APPROVAL AND
PROPOSED 2025 DSM COST
ADJUSTMENT FACTOR**

DOCKET NO. EL24- ____

Northern States Power Company, doing business as Xcel Energy, submits to the South Dakota Public Utilities Commission, this Petition seeking approval of our 2023 Annual Demand Side Management (DSM) Report and Proposed 2025 DSM Plan (Plan).

In 2023, our DSM portfolio achievement exceeded 6.9 GWh. These savings will reduce overall energy consumption and, as a result, lower a customer's electric bill. Our enclosed 2025 Plan builds upon 2023 as we continue our energy efficiency and conservation focus to help customers manage their energy usage and save money.

The remainder of this Petition will provide the following: (1) 2023 DSM results and earned incentive; (2) DSM program portfolio; (3) Report on DSM cost recovery; (4) DSM cost adjustment factor report; and (5) the Company's 2025 DSM plan.

We respectfully request that the Commission approve the following as part of this Petition:

- The Company's 2023 DSM Tracker account;
- Approve the incentive of \$249,691 earned for 2023 program performance;
- Approve the proposed 2025 electric DSM Adjustment Factor of \$0.000453 per kWh; and
- Approve the proposed 2025 DSM Plan.

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PETITION

I. 2023 DSM RESULTS AND EARNED INCENTIVE

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. In 2023, we achieved over 6.9 GWh of energy savings achievement. Our total actual expenditures of \$841,563 falls above the filed budget, but within the Commission approved budget flexibility.¹

B. Cross Subsidization Review

In compliance with Commission request, we verify that neither the residential nor the business segment is receiving more benefit than another.² Although there have been changes in the percent of spend, as well as percent of kWh over time, the percent of recovery between classes, as shown in Table 1, has been consistent over the past several years.

Table 1 – Cross Subsidization Review

Year	Percent of Spend (excl. Planning)		Percent of kWh		Percent of Recovery	
	Residential	Business	Residential	Business	Residential	Business
2018	42%	58%	42%	58%	35%	65%
2019	44%	56%	29%	71%	36%	64%
2020	33%	67%	33%	67%	37%	63%
2021	33%	67%	42%	58%	37%	63%
2022	61%	39%	40%	60%	37%	63%
2023	81%	19%	76%	24%	37%	63%

C. Program Achievement

To evaluate the cost-effectiveness of our portfolio for 2023, we looked at the Total Resource Cost (TRC) ratio, which compares total benefits to total costs of the portfolio. If a program or portfolio has a TRC ratio above one, it is considered cost-effective since

¹ Docket EL13-015, Commission Order December 3, 2013.

² The Commission requested the Company provide a cross-subsidization table in Docket No. EL17-019 during the December 5, 2017 Hearing.

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the benefits outweigh the costs. As shown in the table below, the 2023 portfolio demonstrated a TRC Ratio of 2.40.

Table 2 provides a breakdown of 2023 achievements by program. A full executive summary, which includes both a comparison of 2023 targets versus actuals and cost-effectiveness test results, is provided as Attachment A.

**Table 2 – 2023 Actual Achievements
Executive Summary Table**

2023	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio
Business Segment					
Lighting Efficiency	51	\$138,776	311	1,685,626	1.09
Business Saver's Switch	3	\$11,823	2	3	0.11
Peak and Energy Control	0	\$6,701	0	0	0.00
Business Segment Total	54	\$157,299	313	1,685,629	1.06
Residential Segment					
Home Lighting	7,041	\$168,925	701	5,196,773	6.64
Heat Pump Water Heaters	3	\$2,951	1	8,148	0.74
Residential Demand Response	1,669	\$478,689	1,632	35,872	2.17
Consumer Education	24,675	\$21,363	0	0	0.00
Residential Segment Total	33,388	\$671,929	2,334	5,240,793	3.68
Planning Segment					
Regulatory Affairs	0	\$12,335	0	0	0.00
Planning Segment Total	0	\$12,335	0	0	0.00
PORTFOLIO TOTAL	33,442	\$841,563	2,647	6,926,422	2.40

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.

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D. DSM Incentive Report – Calculation Inputs

The Company submits the following 2023 incentive calculation in accordance with the Commission’s October 21, 2011 Order, which approved an incentive of 30 percent of expenditures capped at the approved budget.

Approved Budget	\$832,303
Actual Spend	\$841,563

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 **\$832,303 x 30% = \$249,691**.

This incentive is accounted for in the Company’s 2023 DSM Tracker included in Attachment C.

II. DSM PROGRAM PORTFOLIO

We offer our commercial and residential customers several different opportunities to participate in our energy efficiency programs. In this section, we provide program descriptions and 2023 program activity and results as well as any changes we anticipate for 2025. While we propose changes to existing programs, no new programs are being proposed for 2025.

A. Business Portfolio

1. Business Lighting

The Business Lighting program offers rebates to motivate business customers to purchase LED (light-emitting diode) lamps and fixtures. This will reduce customer up-front costs associated with energy-efficient lighting and provide energy savings over the life of the equipment. The Business Lighting program includes rebates for retrofit and new construction prescriptive projects, as well as a custom rebate for equipment not included in the prescriptive offerings.

a. 2023 Program Activity and Results

The Business Lighting program fell short of its target in 2023. This shortfall was a continued result of adjusting our prescriptive measure mix; whereas certain lighting

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technologies such as high bay fixtures, troffers and retrofit kits were removed because on average they were not cost effective. Additionally, our Custom program continues to grow, but due to the nature of these typically large projects, the timing was not conducive to savings achievement in 2023.

b. 2025 Proposed Changes

To encourage participation, the Company proposes to add the following new measures to the portfolio in 2025: LED to LED (Type B tube), Horticulture LED lighting, Luminaire level lighting controls, 3-foot LED linear tubes, new exterior LED lamps HID base (mogul & E26), and new exterior downlights. We expect the program cost effectiveness to increase in subsequent years as a result of the Custom program and additional added measures.

The Company anticipates that the Business Lighting program will continue to see a drop in energy savings as lighting technologies, once more efficient, become common place technologies with longer lifetimes. Our Custom Rebate product will be able to leverage many of the new opportunities available, but the overall budget will be aligned with targets.

2. Business Saver's Switch[®]

Business Saver's Switch is a demand 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. Control periods occur as a result of (1) direction from the Midcontinent Independent System Operator (MISO), (2) if, in the Company's opinion the reliability of the system is endangered, or (3) if there is an economic decision to reduce load in particular areas. A minimum of one control event per cooling season is required by MISO. Customers opt-in to the program.

The program is marketed using direct mail, email and by our customer representatives at our Business Solutions Center.

a. 2023 Program Activity and Results

The Business Saver's Switch program had limited growth in 2023 due to low enrollment, leading to coming in under target on participation and budget.

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The Company held one control event in 2023 for two hours.

b. 2025 Proposed Changes

The Company is not proposing any changes for the program in 2025.

3. Electric Rate Savings (Peak and Energy Controlled Rates)

The Electric Rate Savings (ERS) program is offered to any business customer that can reduce their electric loads by at least 50 kW during control periods when customers are called upon to curtail their energy usage. These control periods can be initiated by the Company or the Midcontinent Independent System Operator (MISO). In return for their load availability, business customers receive a monthly discount on their demand charges and can potentially save up to 50 percent on their electrical demand charges over the entire year.

Two conditions would result in customer load curtailment for ERS: (1) If the Company is directed to curtail by MISO to help maintain stability in the MISO territory as whole, or (2) if, in the company's opinion, the reliability of system is endangered.³

ERS is promoted directly to customers through Xcel Energy's Account Management and Business Solutions Center teams.

a. 2023 Program Activity and Results

In 2023, the Company had new participants in the ERS program. The program had one event in 2023 that affected South Dakota where participants were required to curtail their load down to their predetermined demand level for a total of one hour. The event was a MISO Real Power test lasting an hour in length that occurred in August. Additionally, the Company performed an annual notification test which does not require program participants to control their load. This notification test is necessary to verify customer contact information to ensure that the correct contacts are notified to ensure program compliance in the event of an actual curtailment event.

Program costs were for administrative and application maintenance costs as the company maintains the notification system used for both the notification test and MISO events.

³ The need can be identified by Commercial Operations, Transmission, or Distribution. Reliability of the system could mean many things and take different circumstances and is not tied to a specific level of demand. In general, if there is a large concern about meeting firm load obligations with expected capacity, we can call on these programs to preserve firm load and we may call on these programs prior to the imminent loss of firm loads.

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b. 2025 Proposed Changes

The Company is not proposing any changes for the program in 2025.

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 lower their monthly electric bills. The Home Lighting program is a gateway product into our energy-efficiency programs due to the low up-front cost to customers and ease of participation. The Company promotes the Home Lighting program through a variety of channels including bill onserts, emails, and point of purchase displays.

The Company motivates 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/retail partner. Discounted prices are received at the cash register, making it easy to participate without the hassle of mail-in rebates. Incentives are paid upstream, and the discounts are passed directly to customers.

a. 2023 Program Activity and Results

The program fell slightly short of the participation and energy savings targets for 2023. The number of residential versus business bulbs sold is defined in the table below.

Table 3 Home Lighting Achievement

Type of Customer	Number of LED Bulbs Sold	Percent of Bulbs	Rebate Total
Residential	88,746	94%	\$122,988
Business (Generally Small Business)	5,565	6%	\$7,757

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b. 2025 Proposed Changes

In 2024, the baseline for screw-in bulbs was updated to 45 lumens per watt to match the efficiency levels set by the Department of Energy. Because of this, the savings per bulb sold decreased. That analysis for the program was derived by analyzing the market potential, historical sales data, available retail channels and participating customer segments. The Company anticipates similar penetration and participation in 2025; therefore, there are no proposed changes at this time.

5. Heat Pump Water Heaters

The Heat Pump Water Heaters program offers retrofit and new construction rebates to residential customers who purchase and install qualifying energy efficient heat pump water heaters. Rebates are offered to encourage customers to purchase energy efficient equipment by reducing up-front costs associated with new heat pump water heaters. The following water heating measures are rebated as part of the program:

- Medium Draw Heat Pump Water Heater – Refrigerant Based Cooling & Electric Resistance Heat (30-80 Gallon);
- Medium Draw Heat Pump Water Heater – Refrigerant Based Cooling & ASHP Heat (30-80 Gallon);
- Medium Draw Heat Pump Water Heater – Refrigerant Based Cooling & Natural Gas Heat (30-80 Gallon);
- Medium Draw Heat Pump Water Heater – Non-Refrigerant Based Cooling & Electric Resistance Heat (30-80 Gallon);
- Medium Draw Heat Pump Water Heater – Non-Refrigerant Based Cooling & ASHP Heat (30-80 Gallon); and
- Medium Draw Heat Pump Water Heater – Non-Refrigerant Based Cooling & Natural Gas Heat (30-80 Gallon).

Heat pump water heaters have a much larger incremental cost but save a significant amount of energy over an electric resistance water heater. Rebates were provided at \$400 per equipment which funds approximately 50 percent of the incremental cost to purchase and install this energy efficient option. The up-front cost of the technology is a barrier for most customers and the offered rebate helps overcome this barrier by reducing the incremental cost to provide a payback between eight and sixteen months. We continue to encourage the use of energy-efficient opportunities with our customers and providing rebates on electric heat pump water heaters will continue to reduce customer barriers that

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prohibit energy efficient options from being utilized. It is additionally important to position these funds to complement federal funding where customers seek to participate.

a. 2023 Program Activity and Results

In 2023, the Heat Pump Water Heaters program continued to see low participation. The up-front cost of the technology continued to be a barrier as well as lack of product availability within the market.

b. 2025 Proposed Changes

The Company does not intend to adjust the program materially in 2025 as new rebates were already placed in market beginning in 2022. The higher rebate, put in place in 2022, should continue to assist with market transformation by increasing demand for the product which will then increase product availability within the market.

6. Residential Demand Response

The Company offers two demand response products to our residential customers under the Residential Demand Response program: Saver's Switch® and AC Rewards. Both products target central air conditioners for reducing system load during demand peaks. Both offerings are promoted primarily via email, direct mail and our customer care organization. For both programs, customers opt-in to the program to participate.

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 enroll this equipment as well. Electric water heaters can be controlled year-round, and customers receive incentives for their participation year-round. Saver's Switch has been a part of the company's demand response portfolio since approximately 1990. As such a significant portion of switches deployed are nearing the end of their useful life.

The AC Rewards program (smart thermostat offering) was launched in 2020 and 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 needed.

AC Rewards requires customers to "Bring Your Own Thermostat (BYOT)", which means that any customer who has a central AC and a qualifying thermostat is eligible to participate. Customers will be incentivized with a one-time incentive for enrolling their

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qualifying device in AC Rewards and an annual incentive for every year they remain on the offering. For customers who do not have a qualifying thermostat, but have a central AC, they can receive a discount for purchasing and installing an ENERGY STAR® rated thermostat that is AC Rewards qualified. The following measures are incentivized:

Measure Offerings	Incentives
Saver Switch for AC	\$10 discount off electric charges from June through September
Saver Switch for Water Heaters	\$2 monthly discount off electric charges year-round
AC Rewards	\$75 bill credit for enrolling in the demand management program and \$25 annual bill credit in October
Thermostat Optimization	\$50 incentive for installing a qualifying smart thermostat

Control periods occur as a result of (1) direction from the Midcontinent Independent System Operator (MISO), (2) if, in the Company's opinion the reliability of the system is endangered, or (3) if there is an economic decision to reduce load in particular areas. A minimum of one control event per cooling season is required by MISO.

a. 2023 Program Activity and Results

In 2023, the Residential Demand Response program substantially exceeded its budget while participants and achievements were above target. In all, the Company installed more than 1,300 new Saver's Switches, via a combination of new participants and maintenance replacements of existing installations that have outlived their useful life. The Company also enrolled over 300 thermostats into AC Rewards.

The Saver's Switch and AC Rewards products had one control event in 2023. The Company continues to plan for the execution of a minimum of one control event per year.

b. 2025 Proposed Changes

For 2025 the Residential Demand Response budget is increased to accommodate the ongoing replacement need of switches that have outlived their useful lives and are due for replacement. The Company anticipates approximately a 50/50 mix of new installations versus maintenance replacements of older switches, but the mix may vary from year to year depending on customer signup interest. The Company also plans to expand the list of qualifying thermostats available for participation in the AC Rewards product.

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7. Trade Partner Engagement

Trade Partners are a key marketing channel for our DSM efforts. Trade Partners educate and promote our programs to customers, verify that the equipment they are installing meets our program specifications and help customers complete the rebate paperwork. We consider our Trade Partners to be contractors, distributors and manufacturers of energy-efficient equipment.

Trade Partner support is conducted through training workshops and Account Manager outreach. Account Management in Sioux Falls plays an important role in supporting the efforts of our South Dakota Trade Partners. Account Management is available to meet with Trade Partners for program training, site visits and help with rebate paperwork.

Other support is provided through phone and email communications from Trade Relations Managers. Xcel Energy's Trade Relations Managers are based in Minneapolis and assist our South Dakota Trade Partners by providing answers to trade questions on our rebate specifications and paperwork. They produce email updates for Trade Partners when there is important information to share. Trade Relations Managers are also available to conduct additional, in depth, trainings on an as-needed basis.

8. Consumer Education

The Consumer Education program creates awareness of energy efficiency by providing residential customers with information and resources to reduce their homes' energy use. The Company provides customers with opportunities to actively engage in energy efficiency by meeting customers at events and via digital channels. These opportunities provide direct messaging outreach to customers. On-site engagement at events allows the Company's brand ambassadors to have direct conversations with customers allowing them to ask questions and learn more. Customized digital outreach allows customers to explore resources on their own time.

In 2023, the Company achieved under the year-end participation target. The program's primary focus at community events is to engage with customers one to one to discuss ways they can save energy and money utilizing Xcel Energy's tools and resources. The two milestone events allow for the Company to engage with a large number of customers. The program also explored digital marketing and contributes to Apogee, a monthly email to customers educating them on their bill along with energy and money-saving tips.

To continuously improve education efforts, the team is finding ways to improve educational and awareness outreach opportunities to engage with customers in Xcel

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Energy's service territory to increase awareness and participation. The aim is to educate customers in an inviting space and target high impact events with big crowds. The team will explore social media and other digital communications to increase outreach and participation with customers. The combination of these initiatives continues to drive participation in DSM products.

In 2023, the company sponsored and participated in two milestone events in our service territory:

- February 24-26, 2023 – Sioux Falls Empire Home Show, Sioux Falls Convention Center, Sioux Falls, SD
 - The Company engaged with over 1,000 customers at this show and distributed 677 LED bulbs while driving messaging around home-energy saving tips and program messaging. This show is an ideal event to deliver our home energy-saving messaging. The event attracted 7,900 people.
- September 9, 2023 – Sioux Falls Sidewalk Arts Festival, Sioux Falls, SD
 - The Company engaged with approximately 2,200 customers and distributed 432 LED bulbs to customers. With approximately 25,000 visitors attending this event, this is a great opportunity to engage with a large number of customers.

9. 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 and policies 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 onsets and regulatory requests. There are no changes proposed for 2025 within this budget.

III. 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 emissions associated with using fossil fuels. This section reports the actual 2023 spending and cost recovery as well as the Company's carrying charge rates.

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In 2023, the total portfolio spend came in at \$841,563. This amount is above our approved budget of \$832,303 but falls within the ten percent spend flexibility granted by the Commission.⁴ In addition to DSM expenses, the Company is requesting recovery of \$249,691 in financial incentive earned for our 2023 DSM performance for total recovery of \$1,091,254.

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 2023 and found in the 2023 Tracker; and
- Xcel Energy's 2023 DSM Tracker, which documents monthly DSM expenditures and recovered costs.

IV. DSM COST ADJUSTMENT FACTOR

The current DSM Cost Adjustment Factor of \$0.000487 per kWh was implemented on January 1, 2024.⁵ The Company requests a new DSM Cost Adjustment Factor of \$0.000453 per kWh to be effective with the first billing cycle of January 2025.

Supportive documentation for this rate change request, some of which falls under the category of confidential data, is provided as Attachments D1-D4 of this filing and includes:

- Information specified in South Dakota Administrative Rule 20:10:13:26 regarding the updated DSM Cost Adjustment Factor;
- Forecasted 2024 and 2025 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 \$0.000453 per customer kWh to be effective with the first billing cycle of January 2025 and to remain in effect through December 2025 or until the Commission approves a new DSM Cost Adjustment Factor. This is a decrease of \$0.000034 per kWh compared to the previous DSM Cost Adjustment Factor. This decrease is due to lower projected spend in 2025.

⁴ 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)

⁵ Docket EL23-013, Commission Order December 7, 2023.

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If Commission approval of the proposed adjustment is delayed beyond the timeframe needed to implement the rate change by January 1, 2025 the Company will continue to apply the current DSM Cost Adjustment of \$0.000487 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 2025. It is based on the forecasted December 2025 unrecovered balance in the Company's DSM Tracker account. This 2025 forecasted balance is based on the forecasted January beginning balance, projected expenditures and the forecasted incentive. The inputs and calculation are shown below.

[CONFIDENTIAL DATA BEGINS HERE

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, 2025 – December 31, 2025 period. This rate of **[CONFIDENTIAL DATA BEGINS HERE CONFIDENTIAL DATA ENDS HERE]** would result in a negative balance. To get as close to a possible \$0 balance by December 31, 2025, the rate was incrementally decreased to reflect future inclusion of carrying charges, until the balance approached \$0 without going negative. The resulting rate is **\$0.000453 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

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the amount of onserts per bill when necessary; this further reduces cost. We will combine in 2025 if timing of each filing allows the ability to do so.

V. 2025 DSM PLAN

This section includes a summary of our proposed 2025 Plan. Our plan for 2025 is to continue to provide customers energy efficient options and rebates to help them manage future energy bills. Table 7 summarizes our proposed targets and provides updated cost-effectiveness results by program. The total portfolio has a passing TRC Ratio of 2.55. A full executive summary, which includes all cost-effectiveness test results, is provided as Attachment E.

**Table 7 – Proposed 2025 DSM Plan
Executive Summary**

2025	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio
Business Segment					
Lighting Efficiency	152	\$235,965	429	3,227,941	2.89
Business Saver's Switch	20	\$26,500	57	78	2.81
Peak and Energy Control	1	\$10,000	174	448	9.34
Business Segment Total	173	\$272,465	659	3,228,466	2.96
Residential Segment					
Home Lighting	5,183	\$85,999	144	1,086,707	3.04
Heat Pump Water Heaters	14	\$8,300	5	42,296	1.38
Residential Demand Response	1,860	\$404,250	1,017	59,253	2.48
Consumer Education	30,000	\$22,000	0	0	0.00
Residential Segment Total	37,057	\$520,549	1,166	1,188,256	2.55
Planning Segment					
Regulatory Affairs	0	\$10,800	0	0	0.00
Planning Segment Total	0	\$10,800	0	0	0.00
PORTFOLIO TOTAL	37,230	\$803,814	1,825	4,416,721	2.75

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CONCLUSION

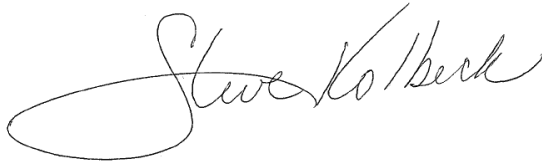
In summary, the Company respectfully requests that the Commission:

- Approve the Company's 2023 DSM Tracker account;
- Approve the incentive of \$249,691 earned for 2023 program performance;
- Approve the proposed 2025 electric DSM Adjustment Factor of \$0.000453 per kWh; and
- Approve the proposed 2025 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, 2024

Xcel Energy



By: _____

Steve Kolbeck
Principal Manager –South Dakota

Service of Filings

We request that communications regarding this Application be directed to:

Christine Schwartz
Regulatory Administrator
Xcel Energy
414 Nicollet Mall, 401-7
Minneapolis, MN 55401
(612) 330-6793
Regulatory.Records@xcelenergy.com

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Executive Summary Table-2023																		
Goal					Actual										Actual Test Results			
2023	Electric Participants	Electric Budget	Generator kW	Generator kWh	Electric Participants	% of Goal	Electric Budget	% of Goal	Generator kW	% of Goal	Generator kWh	Lifetime Years	Lifetime Generator kWh	% of Goal	Participant Test Ratio	Utility Test Ratio	Ratepayer Impact Measure Test Ratio	TRC Ratio
Business Segment																		
Lighting Efficiency	477	\$393,373	784	6,482,533	51	11%	\$138,776	35%	311	40%	1,685,626	14	24,360,749	26%	2.98	4.76	0.38	1.09
Business Saver's Switch	20	\$25,250	57	78	3	15%	\$11,823	47%	2	3%	3	15	47	4%	INF	0.11	0.11	0.11
Peak and Energy Control	1	\$10,000	174	448	0	0%	\$6,701	67%	0	0%	0	0	0	0%		0.00	0.00	0.00
Total	498	\$428,623	1,014	6,483,059	54	11%	\$157,299	37%	313	31%	1,685,629	14	24,360,796	26%	2.98	4.21	0.38	1.06
Residential Segment																		
Home Lighting	8,066	\$131,615	714	5,281,610	7,041	87%	\$168,925	128%	701	98%	5,196,773	13	69,049,018	98%	57.22	10.17	0.27	6.64
Heat Pump Water Heaters	25	\$10,900	8	61,901	3	12%	\$2,951	27%	1	14%	8,148	13	105,920	13%	4.57	0.97	0.22	0.74
Residential Demand Response	1,400	\$230,000	835	59,022	1,669	119%	\$478,689	208%	1,632	196%	35,872	10	362,488	61%	24.48	2.08	1.93	2.17
Consumer Education	62,070	\$393,680	N/A	N/A	33,388	54%	\$21,363	5%	N/A	N/A	N/A	NA	NA	NA				
Residential Segment Total	62,070	\$393,680	1,556	5,402,533	33,388	54%	\$671,929	171%	2,334	150%	5,240,793	13	69,517,426	97%	55.05	4.04	0.40	3.68
Planning Segment																		
Regulatory Affairs	0	\$10,000	0	0	0	N/A	\$12,335	N/A	0	N/A	0	NA	NA	NA				
Total	0	\$10,000	0	0	0	N/A	\$12,335	N/A	0	N/A	0	NA	NA	NA				
PORTFOLIO TOTAL																		
	62,568	\$832,303	2,571	11,885,592	33,442	53%	\$841,563	101%	2,647	103%	6,926,422	14	93,878,222	58%	11.66	4.01	0.39	2.40

LIGHTING EFFICIENCY						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	14.5	years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760	
Benefits						Gross Customer kW	C	1	kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	78.23%	
Generation	N/A	\$166,579	\$166,579	\$166,579	\$166,579	Gross Load Factor at Customer	E	48.84%	
T & D	N/A	\$29,704	\$29,704	\$29,704	\$29,704	Transmission Loss Factor (Energy)	F	4.550%	
Marginal Energy	N/A	\$464,815	\$464,815	\$464,815	\$464,815	Transmission Loss Factor (Demand)	G	5.317%	
Environmental Externality	N/A	N/A	N/A	N/A	\$103,465	Societal Net Benefit (Cost)	H	\$440	
Subtotal	N/A	\$661,098	\$661,098	\$661,098	\$764,563	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I	7.37	kW
Bill Reduction - Electric	\$1,604,338	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		6.09
Rebates from Xcel Energy	\$117,625	N/A	N/A	\$117,625	\$117,625	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		31,548
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		33,051
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$1,721,963	N/A	N/A	\$117,625	\$117,625	Total Participants	J	51	
Total Benefits						Total Budget	K	\$138,776	
	\$1,721,963	\$661,098	\$661,098	\$778,723	\$882,188	Gross kW Saved at Customer	$(J \times I)$	376.08	kW
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		311
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		1,608,930
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		1,685,626
Utility Administration	N/A	\$21,151	\$21,151	\$21,151	\$21,151	Societal Net Benefits	$(J \times I \times H)$		\$165,528
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			\$0.0057
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			\$447
Rebates	N/A	\$117,625	\$117,625	\$117,625	\$117,625				
Other	N/A	\$0	\$0	\$0	\$0				
Subtotal	N/A	\$138,776	\$138,776	\$138,776	\$138,776				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$1,604,338	N/A	N/A				
Subtotal	N/A	N/A	\$1,604,338	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$500,650	N/A	N/A	\$500,650	\$500,650				
Incremental O&M Costs	\$77,235	N/A	N/A	\$77,235	\$77,235				
Subtotal	\$577,885	N/A	N/A	\$577,885	\$577,885				
Total Costs									
	\$577,885	\$138,776	\$1,743,114	\$716,660	\$716,660				
Net Benefit (Cost)	\$1,144,079	\$522,323	(\$1,082,016)	\$62,063	\$165,528				
Benefit/Cost Ratio	2.98	4.76	0.38	1.09	1.23				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

BUSINESS SAVER'S SWITCH						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test				
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)				
Benefits						Program Summary per Participant			
Avoided Revenue Requirements						Gross kW Saved at Customer	I	3.27 kW	
Generation	N/A	\$1,106	\$1,106	\$1,106	\$1,106	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	0.62 kW	
T & D	N/A	\$197	\$197	\$197	\$197	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	1 kWh	
Marginal Energy	N/A	\$1	\$1	\$1	\$1	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	1 kWh	
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Program Summary All Participants			
Subtotal	N/A	\$1,304	\$1,304	\$1,304	\$1,304	Total Participants	J	3	
Participant Benefits						Total Budget	K	\$11,823	
Bill Reduction - Electric	\$5	N/A	N/A	N/A	N/A	Gross kW Saved at Customer	$(J \times I)$	9.82 kW	
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	2 kW	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	3 kWh	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	3 kWh	
Subtotal	\$5	N/A	N/A	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$	(\$10,518)	
Total Benefits						Utility Program Cost per kWh Lifetime			\$250,7718
	\$5	\$1,304	\$1,304	\$1,304	\$1,304	Utility Program Cost per kW at Gen			\$6,328
Costs									
Utility Project Costs									
Customer Services	N/A	\$0	\$0	\$0	\$0				
Utility Administration	N/A	\$11,823	\$11,823	\$11,823	\$11,823				
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0				
Measurement & Verification	N/A	\$0	\$0	\$0	\$0				
Rebates	N/A	\$0	\$0	\$0	\$0				
Other	N/A	\$0	\$0	\$0	\$0				
Subtotal	N/A	\$11,823	\$11,823	\$11,823	\$11,823				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$5	N/A	N/A				
Subtotal	N/A	N/A	\$5	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$0	N/A	N/A	\$0	\$0				
Total Costs									
	\$0	\$11,823	\$11,828	\$11,823	\$11,823				
Net Benefit (Cost)									
	\$5	(\$10,519)	(\$10,523)	(\$10,519)	(\$10,518)				
Benefit/Cost Ratio									
	INF	0.11	0.11	0.11	0.11				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

PEAK AND ENERGY CONTROL						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		0.0 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	#DIV/0!	
Generation	N/A	\$0	\$0	\$0	\$0	Gross Load Factor at Customer	E	#DIV/0!	
T & D	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Energy)	F		0.000%
Marginal Energy	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Demand)	G		0.000%
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Societal Net Benefit (Cost)	H	#DIV/0!	
Subtotal	N/A	\$0	\$0	\$0	\$0	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		#DIV/0!
Bill Reduction - Electric	\$0	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		#DIV/0!
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		#DIV/0!
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		#DIV/0!
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$0	N/A	N/A	\$0	\$0	Total Participants	J		0
Total Benefits						Total Budget	K		\$6,701
Costs						Gross kW Saved at Customer	$(J \times I)$		#DIV/0!
Utility Project Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		#DIV/0!
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		#DIV/0!
Utility Administration	N/A	\$6,487	\$6,487	\$6,487	\$6,487	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		#DIV/0!
Advertising & Promotion	N/A	\$214	\$214	\$214	\$214	Societal Net Benefits	$(J \times I \times H)$		#DIV/0!
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Rebates	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Other	N/A	\$0	\$0	\$0	\$0	#DIV/0!			
Subtotal	N/A	\$6,701	\$6,701	\$6,701	\$6,701	#DIV/0!			
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$0	N/A	N/A				
Subtotal	N/A	N/A	\$0	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$0	N/A	N/A	\$0	\$0				
Total Costs									
	\$0	\$6,701	\$6,701	\$6,701	\$6,701				
Net Benefit (Cost)									
	\$0	(\$6,701)	(\$6,701)	(\$6,701)	(\$6,701)				
Benefit/Cost Ratio									
	INF	-	-	-	-				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

BUSINESS SEGMENT TOTAL						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		14.5 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D		76.69%
Generation	N/A	\$167,685	\$167,685	\$167,685	\$167,685	Gross Load Factor at Customer	E		47.59%
T & D	N/A	\$29,901	\$29,901	\$29,901	\$29,901	Transmission Loss Factor (Energy)	F		4.550%
Marginal Energy	N/A	\$464,816	\$464,816	\$464,816	\$464,816	Transmission Loss Factor (Demand)	G		5.317%
Environmental Externality	N/A	N/A	N/A	N/A	\$103,465	Societal Net Benefit (Cost)	H		\$384
Subtotal	N/A	\$662,402	\$662,402	\$662,402	\$765,868	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		7.15 kW
Bill Reduction - Electric	\$1,604,343	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		5.79 kW
Rebates from Xcel Energy	\$117,625	N/A	N/A	\$117,625	\$117,625	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		29,795 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		31,215 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$1,721,968	N/A	N/A	\$117,625	\$117,625	Total Participants	J		54
Total Benefits						Total Budget	K		\$157,299
Costs						Gross kW Saved at Customer	$(J \times I)$		385.90 kW
Utility Project Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		313 kW
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		1,608,933 kWh
Utility Administration	N/A	\$39,460	\$39,460	\$39,460	\$39,460	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		1,685,629 kWh
Advertising & Promotion	N/A	\$214	\$214	\$214	\$214	Societal Net Benefits	$(J \times I \times H)$		\$148,309
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Rebates	N/A	\$117,625	\$117,625	\$117,625	\$117,625	Utility Program Cost per kW at Gen			
Other	N/A	\$0	\$0	\$0	\$0	\$0.0065			
Subtotal	N/A	\$157,299	\$157,299	\$157,299	\$157,299	\$503			
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$1,604,343	N/A	N/A				
Subtotal	N/A	N/A	\$1,604,343	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$500,650	N/A	N/A	\$500,650	\$500,650				
Incremental O&M Costs	\$77,235	N/A	N/A	\$77,235	\$77,235				
Subtotal	\$577,885	N/A	N/A	\$577,885	\$577,885				
Total Costs									
	\$577,885	\$157,299	\$1,761,642	\$735,184	\$735,184				
Net Benefit (Cost)	\$1,144,084	\$505,103	(\$1,099,240)	\$44,844	\$148,309				
Benefit/Cost Ratio	2.98	4.21	0.38	1.06	1.20				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

HOME LIGHTING						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		13.3 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D		16.52%
Generation	N/A	\$341,611	\$341,611	\$341,611	\$341,611	Gross Load Factor at Customer	E		14.19%
T & D	N/A	\$60,957	\$60,957	\$60,957	\$60,957	Transmission Loss Factor (Energy)	F		5.358%
Marginal Energy	N/A	\$1,315,693	\$1,315,693	\$1,315,693	\$1,315,693	Transmission Loss Factor (Demand)	G		6.808%
Environmental Externality	N/A	N/A	N/A	N/A	\$299,546	Societal Net Benefit (Cost)	H		\$473
Subtotal	N/A	\$1,718,261	\$1,718,261	\$1,718,261	\$2,017,807	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		0.56 kW
Bill Reduction - Electric	\$6,137,553	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		0.10 kW
Rebates from Xcel Energy	\$130,745	N/A	N/A	\$130,745	\$130,745	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		699 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		738 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$6,268,298	N/A	N/A	\$130,745	\$130,745	Total Participants	J		7,041
Total Benefits						Total Budget	K		\$168,925
	\$6,268,298	\$1,718,261	\$1,718,261	\$1,849,006	\$2,148,552	Gross kW Saved at Customer	$(J \times I)$		3,956.02 kW
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		701 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		4,918,317 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		5,196,773 kWh
Utility Administration	N/A	\$31,232	\$31,232	\$31,232	\$31,232	Societal Net Benefits	$(J \times I \times H)$		\$1,870,079
Advertising & Promotion	N/A	\$6,948	\$6,948	\$6,948	\$6,948	Utility Program Cost per kWh Lifetime			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Rebates	N/A	\$130,745	\$130,745	\$130,745	\$130,745				\$0.0024
Other	N/A	\$0	\$0	\$0	\$0				\$241
Subtotal	N/A	\$168,925	\$168,925	\$168,925	\$168,925	Net Benefit (Cost)			
Utility Revenue Reduction									\$6,158,749
Revenue Reduction - Electric	N/A	N/A	\$6,137,553	N/A	N/A	Benefit/Cost Ratio			
Subtotal	N/A	N/A	\$6,137,553	N/A	N/A				57.22
Participant Costs									10.17
Incremental Capital Costs	\$109,548	N/A	N/A	\$109,548	\$109,548				0.27
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				6.64
Subtotal	\$109,548	N/A	N/A	\$109,548	\$109,548				7.72
Total Costs									
	\$109,548	\$168,925	\$6,306,478	\$278,473	\$278,473				
Net Benefit (Cost)									
	\$6,158,749	\$1,549,336	(\$4,588,216)	\$1,570,533	\$1,870,079				
Benefit/Cost Ratio									
	57.22	10.17	0.27	6.64	7.72				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

HEAT PUMP WATER HEATERS						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		13.0 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D		100.00%
Generation	N/A	\$606	\$606	\$606	\$606	Gross Load Factor at Customer	E		83.51%
T & D	N/A	\$108	\$108	\$108	\$108	Transmission Loss Factor (Energy)	F		5.630%
Marginal Energy	N/A	\$2,155	\$2,155	\$2,155	\$2,155	Transmission Loss Factor (Demand)	G		6.900%
Environmental Externality	N/A	N/A	N/A	N/A	\$443	Societal Net Benefit (Cost)	H		(\$920)
Subtotal	N/A	\$2,869	\$2,869	\$2,869	\$3,311	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		0.35 kW
Bill Reduction - Electric	\$10,355	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		0.38 kW
Rebates from Xcel Energy	\$1,200	N/A	N/A	\$1,200	\$1,200	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		2,563 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		2,716 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$11,555	N/A	N/A	\$1,200	\$1,200	Total Participants	J		3
Total Benefits						Total Budget	K		\$2,951
Costs						Gross kW Saved at Customer	$(J \times I)$		1.05 kW
Utility Project Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		1 kW
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		7,689 kWh
Utility Administration	N/A	\$1,751	\$1,751	\$1,751	\$1,751	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		8,148 kWh
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$		(\$966)
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Rebates	N/A	\$1,200	\$1,200	\$1,200	\$1,200	\$0.0279			
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Subtotal	N/A	\$2,951	\$2,951	\$2,951	\$2,951	\$2,614			
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$10,355	N/A	N/A				
Subtotal	N/A	N/A	\$10,355	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$2,352	N/A	N/A	\$2,352	\$2,352				
Incremental O&M Costs	\$174	N/A	N/A	\$174	\$174				
Subtotal	\$2,526	N/A	N/A	\$2,526	\$2,526				
Total Costs									
	\$2,526	\$2,951	\$13,307	\$5,478	\$5,478				
Net Benefit (Cost)	\$9,029	(\$83)	(\$10,438)	(\$1,409)	(\$966)				
Benefit/Cost Ratio	4.57	0.97	0.22	0.74	0.82				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

RESIDENTIAL DEMAND RESPONSE						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		10.1 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D		38.09%
Generation	N/A	\$835,784	\$835,784	\$835,784	\$835,784	Gross Load Factor at Customer	E		0.10%
T & D	N/A	\$148,827	\$148,827	\$148,827	\$148,827	Transmission Loss Factor (Energy)	F		5.630%
Marginal Energy	N/A	\$8,767	\$8,767	\$8,767	\$8,767	Transmission Loss Factor (Demand)	G		6.900%
Environmental Externality	N/A	N/A	N/A	N/A	\$1,640	Societal Net Benefit (Cost)	H		\$141
Subtotal	N/A	\$993,379	\$993,379	\$993,379	\$995,019	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		2.39 kW
Bill Reduction - Electric	\$37,233	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		0.98 kW
Rebates from Xcel Energy	\$50,887	N/A	N/A	\$50,887	\$50,887	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		20 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		21 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$88,119	N/A	N/A	\$50,887	\$50,887	Total Participants	J		1,669
Total Benefits						Total Budget	K		\$478,689
	\$88,119	\$993,379	\$993,379	\$1,044,265	\$1,045,905	Gross kW Saved at Customer	$(J \times I)$		3,987.53 kW
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		1,632 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		33,852 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		35,872 kWh
Utility Administration	N/A	\$427,716	\$427,716	\$427,716	\$427,716	Societal Net Benefits	$(J \times I \times H)$		\$563,616
Advertising & Promotion	N/A	\$87	\$87	\$87	\$87	Utility Program Cost per kWh Lifetime			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Rebates	N/A	\$50,887	\$50,887	\$50,887	\$50,887				\$1.3206
Other	N/A	\$0	\$0	\$0	\$0				\$293
Subtotal	N/A	\$478,689	\$478,689	\$478,689	\$478,689	Net Benefit (Cost)			
Utility Revenue Reduction									\$84,519
Revenue Reduction - Electric	N/A	N/A	\$37,233	N/A	N/A	Benefit/Cost Ratio			
Subtotal	N/A	N/A	\$37,233	N/A	N/A				24.48
Participant Costs									2.08
Incremental Capital Costs	\$3,600	N/A	N/A	\$3,600	\$3,600				1.93
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				2.17
Subtotal	\$3,600	N/A	N/A	\$3,600	\$3,600	Net Benefit (Cost)			
Total Costs									\$514,689
	\$3,600	\$478,689	\$515,922	\$482,289	\$482,289	Benefit/Cost Ratio			
	\$84,519	\$514,689	\$477,457	\$561,976	\$563,616				1.93
	24.48	2.08	1.93	2.17	2.17	Net Benefit (Cost)			

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

CONSUMER EDUCATION						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		0.0 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D		#DIV/0!
Generation	N/A	\$0	\$0	\$0	\$0	Gross Load Factor at Customer	E		#DIV/0!
T & D	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Energy)	F		0.000%
Marginal Energy	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Demand)	G		0.000%
Environmental Externality	N/A	N/A	N/A	N/A	N/A	Societal Net Benefit (Cost)	H		#DIV/0!
Subtotal	N/A	\$0	\$0	\$0	\$0	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		0.00 kW
Bill Reduction - Electric	\$0	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		#DIV/0!
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		#DIV/0!
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		#DIV/0!
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$0	N/A	N/A	\$0	\$0	Total Participants	J		24,675
Total Benefits						Total Budget	K		\$21,363
Costs						Gross kW Saved at Customer	$(J \times I)$		0.00 kW
Utility Project Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		#DIV/0!
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		#DIV/0!
Utility Administration	N/A	\$4,983	\$4,983	\$4,983	\$4,983	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		#DIV/0!
Advertising & Promotion	N/A	\$16,380	\$16,380	\$16,380	\$16,380	Societal Net Benefits	$(J \times I \times H)$		#DIV/0!
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Rebates	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Other	N/A	\$0	\$0	\$0	\$0	#DIV/0!			
Subtotal	N/A	\$21,363	\$21,363	\$21,363	\$21,363	#DIV/0!			
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$0	N/A	N/A				
Subtotal	N/A	N/A	\$0	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$0	N/A	N/A	\$0	\$0				
Total Costs									
	\$0	\$21,363	\$21,363	\$21,363	\$21,363				
Net Benefit (Cost)									
	\$0	(\$21,363)	(\$21,363)	(\$21,363)	(\$21,363)				
Benefit/Cost Ratio									
	INF	-	-	-	-				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

RESIDENTIAL SEGMENT TOTAL						2023 ELECTRIC		Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals		
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW		
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	13.3 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760
Benefits						Gross Customer kW	C	1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	27.36%
Generation	N/A	\$1,178,001	\$1,178,001	\$1,178,001	\$1,178,001	Gross Load Factor at Customer	E	7.13%
T & D	N/A	\$209,892	\$209,892	\$209,892	\$209,892	Transmission Loss Factor (Energy)	F	5.361%
Marginal Energy	N/A	\$1,326,615	\$1,326,615	\$1,326,615	\$1,326,615	Transmission Loss Factor (Demand)	G	6.854%
Environmental Externality	N/A	N/A	N/A	N/A	\$301,629	Societal Net Benefit (Cost)	H	\$304
Subtotal	N/A	\$2,714,509	\$2,714,509	\$2,714,509	\$3,016,137	Program Summary per Participant		
Participant Benefits						Gross kW Saved at Customer	I	0.24 kW
Bill Reduction - Electric	\$6,185,141	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	
Rebates from Xcel Energy	\$182,831	N/A	N/A	\$182,831	\$182,831	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants		
Subtotal	\$6,367,972	N/A	N/A	\$182,831	\$182,831	Total Participants	J	33,388
Total Benefits						Total Budget	K	\$671,929
Total Benefits	\$6,367,972	\$2,714,509	\$2,714,509	\$2,897,340	\$3,198,969	Gross kW Saved at Customer	$(J \times I)$	7,944.60 kW
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	
Utility Administration	N/A	\$465,683	\$465,683	\$465,683	\$465,683	Societal Net Benefits	$(J \times I \times H)$	
Advertising & Promotion	N/A	\$23,415	\$23,415	\$23,415	\$23,415	Utility Program Cost per kWh Lifetime		
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		
Rebates	N/A	\$182,831	\$182,831	\$182,831	\$182,831	\$0.0097		
Other	N/A	\$0	\$0	\$0	\$0	\$288		
Subtotal	N/A	\$671,929	\$671,929	\$671,929	\$671,929			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$6,185,141	N/A	N/A			
Subtotal	N/A	N/A	\$6,185,141	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$115,500	N/A	N/A	\$115,500	\$115,500			
Incremental O&M Costs	\$174	N/A	N/A	\$174	\$174			
Subtotal	\$115,675	N/A	N/A	\$115,675	\$115,675			
Total Costs								
Total Costs	\$115,675	\$671,929	\$6,857,070	\$787,604	\$787,604			
Net Benefit (Cost)								
Net Benefit (Cost)	\$6,252,297	\$2,042,580	(\$4,142,561)	\$2,109,736	\$2,411,365			
Benefit/Cost Ratio								
Benefit/Cost Ratio	55.05	4.04	0.40	3.68	4.06			

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

REGULATORY AFFAIRS						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test				
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)				
Benefits						Program Summary per Participant			
Avoided Revenue Requirements						Gross kW Saved at Customer	I		#DIV/0!
Generation	N/A	\$0	\$0	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		#DIV/0!
T & D	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		#DIV/0!
Marginal Energy	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		#DIV/0!
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Program Summary All Participants			
Subtotal	N/A	\$0	\$0	\$0	\$0	Total Participants	J		0
Participant Benefits						Total Budget	K		\$12,335
Bill Reduction - Electric	\$0	N/A	N/A	N/A	N/A	Gross kW Saved at Customer	$(J \times I)$		#DIV/0!
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		#DIV/0!
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		#DIV/0!
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		#DIV/0!
Subtotal	\$0	N/A	N/A	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$		#DIV/0!
Total Benefits						Utility Program Cost per kWh Lifetime			#DIV/0!
	\$0	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			#DIV/0!
Costs									
Utility Project Costs									
Customer Services	N/A	\$0	\$0	\$0	\$0				
Utility Administration	N/A	\$12,335	\$12,335	\$12,335	\$12,335				
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0				
Measurement & Verification	N/A	\$0	\$0	\$0	\$0				
Rebates	N/A	\$0	\$0	\$0	\$0				
Other	N/A	\$0	\$0	\$0	\$0				
Subtotal	N/A	\$12,335	\$12,335	\$12,335	\$12,335				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$0	N/A	N/A				
Subtotal	N/A	N/A	\$0	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$0	N/A	N/A	\$0	\$0				
Total Costs									
	\$0	\$12,335	\$12,335	\$12,335	\$12,335				
Net Benefit (Cost)									
	\$0	(\$12,335)	(\$12,335)	(\$12,335)	(\$12,335)				
Benefit/Cost Ratio									
	INF	-	-	-	-				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

PLANNING SEGMENT TOTAL						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		0.0 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	#DIV/0!	
Generation	N/A	\$0	\$0	\$0	\$0	Gross Load Factor at Customer	E	#DIV/0!	
T & D	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Energy)	F		0.000%
Marginal Energy	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Demand)	G		0.000%
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Societal Net Benefit (Cost)	H	#DIV/0!	
Subtotal	N/A	\$0	\$0	\$0	\$0	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		#DIV/0!
Bill Reduction - Electric	\$0	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		#DIV/0!
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		#DIV/0!
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		#DIV/0!
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$0	N/A	N/A	\$0	\$0	Total Participants	J		0
Total Benefits						Total Budget	K		\$12,335
Costs						Gross kW Saved at Customer	$(J \times I)$		#DIV/0!
Utility Project Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		#DIV/0!
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		#DIV/0!
Utility Administration	N/A	\$12,335	\$12,335	\$12,335	\$12,335	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		#DIV/0!
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$		#DIV/0!
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Rebates	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Other	N/A	\$0	\$0	\$0	\$0	#DIV/0!			
Subtotal	N/A	\$12,335	\$12,335	\$12,335	\$12,335	#DIV/0!			
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$0	N/A	N/A				
Subtotal	N/A	N/A	\$0	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$0	N/A	N/A	\$0	\$0				
Total Costs									
	\$0	\$12,335	\$12,335	\$12,335	\$12,335				
Net Benefit (Cost)									
	\$0	(\$12,335)	(\$12,335)	(\$12,335)	(\$12,335)				
Benefit/Cost Ratio									
	INF	-	-	-	-				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2023 SD DSM Actual Cost-Effectiveness Analysis

PORTFOLIO TOTAL						2023 ELECTRIC			Actual
2023 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		13.6 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits						Gross Customer kW	C		1 kW
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D		29.61%
Generation	N/A	\$1,345,686	\$1,345,686	\$1,345,686	\$1,345,686	Gross Load Factor at Customer	E		9.00%
T & D	N/A	\$239,793	\$239,793	\$239,793	\$239,793	Transmission Loss Factor (Energy)	F		5.163%
Marginal Energy	N/A	\$1,791,432	\$1,791,432	\$1,791,432	\$1,791,432	Transmission Loss Factor (Demand)	G		6.784%
Environmental Externality	N/A	N/A	N/A	N/A	\$405,094	Societal Net Benefit (Cost)	H		\$306
Subtotal	N/A	\$3,376,911	\$3,376,911	\$3,376,911	\$3,782,005	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I		0.25 kW
Bill Reduction - Electric	\$7,789,484	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		0.08 kW
Rebates from Xcel Energy	\$300,456	N/A	N/A	\$300,456	\$300,456	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		196 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		207 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$8,089,940	N/A	N/A	\$300,456	\$300,456	Total Participants	J		33,442
Total Benefits						Total Budget	K		\$841,563
	\$8,089,940	\$3,376,911	\$3,376,911	\$3,677,367	\$4,082,461	Gross kW Saved at Customer	$(J \times I)$		8,330.50 kW
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		2,647 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		6,568,791 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		6,926,422 kWh
Utility Administration	N/A	\$517,478	\$517,478	\$517,478	\$517,478	Societal Net Benefits	$(J \times I \times H)$		\$2,547,338
Advertising & Promotion	N/A	\$23,629	\$23,629	\$23,629	\$23,629	Utility Program Cost per kWh Lifetime			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Rebates	N/A	\$300,456	\$300,456	\$300,456	\$300,456	\$0.0090			
Other	N/A	\$0	\$0	\$0	\$0	\$318			
Subtotal	N/A	\$841,563	\$841,563	\$841,563	\$841,563				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$7,789,484	N/A	N/A				
Subtotal	N/A	N/A	\$7,789,484	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$616,150	N/A	N/A	\$616,150	\$616,150				
Incremental O&M Costs	\$77,409	N/A	N/A	\$77,409	\$77,409				
Subtotal	\$693,559	N/A	N/A	\$693,559	\$693,559				
Total Costs									
	\$693,559	\$841,563	\$8,631,047	\$1,535,123	\$1,535,123				
Net Benefit (Cost)									
	\$7,396,381	\$2,535,348	(\$5,254,136)	\$2,142,245	\$2,547,338				
Benefit/Cost Ratio									
	11.66	4.01	0.39	2.40	2.66				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

2024/2025 Lighting Measures

Type	Lighting Efficiency	2022 Rebate Amount (\$)	2023 Rebate Amount (\$)	2024 Rebate Amount (\$)	2025 Rebate Amount (\$)	Rebate Adjustment	Justification
Retrofit	Stairwell Fixture	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.00	N/A	
Retrofit	Networked Lighting Controls	\$.40/watt	\$.40/watt	\$.40/watt	\$.40/watt	N/A	
Retrofit	Standalone Occupancy sensor	\$.05/watt	\$.05/watt	\$.05/watt	\$.05/watt	N/A	
Retrofit	Standalone Daylighting sensor	\$.10/watt	\$.10/watt	\$.10/watt	\$.10/watt	N/A	
Retrofit	Standalone Daylighting & Occupancy sensors	\$.15/watt	\$.15/watt	\$.15/watt	\$.15/watt	N/A	
Retrofit	High End Trim	N/A	N/A	\$.15/watt	\$.15/watt	N/A	
Retrofit	LED Mogul Screw-base lamp 30-39W	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	N/A	
Retrofit	LED Mogul Screw-base lamp 40-49W	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.00	N/A	
Retrofit	LED Mogul Screw-base lamp 50-79W	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	N/A	
Retrofit	LED Mogul Screw-base lamp 80-119W	\$ 60.00	\$ 60.00	\$ 60.00	\$ 60.00	N/A	
Retrofit	LED Mogul Screw-base lamp 120-230W	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	N/A	
Retrofit	LED/LEIC Exit Sign	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	N/A	
Retrofit	LED Interior Screw In Fixture Retrofit	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	N/A	
Retrofit	LED Interior Fixture <= 25W	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	N/A	
Retrofit	LED Interior Fixture 20W - 50W	\$ 40.00	\$ 40.00	\$ 40.00	\$ 40.00	N/A	
Retrofit	LED Ref and Frz Cases 5' or 6' doors	\$ 45.00	\$ 45.00	\$ 45.00	\$ 45.00	N/A	
Retrofit	LED Parking Garage Lighting 25W-60W	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	N/A	
Retrofit	LED Area Lighting - 45-65W	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	N/A	
Retrofit	LED Area Lighting - 66-89W	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	N/A	
Retrofit	LED Area Lighting - 90-119W	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	N/A	
Retrofit	LED Area Lighting - 120-140W	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	N/A	
Retrofit	LED Exterior Wall Pack <= 25W	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	N/A	
Retrofit	LED Exterior Wall Pack 26W - 60W	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	N/A	
Retrofit	LED Exterior Wall Pack 61W - 150W	\$ 80.00	\$ 80.00	\$ 80.00	\$ 80.00	N/A	
Retrofit	LED Parking Garage Wall Pack <= 20W	\$ 35.00	\$ 35.00	\$ 35.00	\$ 35.00	N/A	
Retrofit	LED Parking Garage Wall Pack 20W - 60W	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	N/A	
Retrofit	LED Parking Garage Wall Pack 61W - 150W	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	N/A	
Retrofit	LED Outdoor Canopy or Soffit lighting 25W - 60W	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	N/A	
Retrofit	LED Outdoor Canopy or Soffit lighting 61W - 150W	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	N/A	
Retrofit	LED Interior Lamp <= 5W	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	N/A	
Retrofit	LED Interior Lamp 6W - 10W	\$ 3.00	\$ 3.00	\$ 3.00	\$ 3.00	N/A	
Retrofit	LED Interior Lamp 11W - 20W	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00	N/A	
Retrofit	LED Tube Type A 2 foot	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	N/A	
Retrofit	LED Tube Type C 2 foot	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00	N/A	
Retrofit	LED Tube Type A 4 foot	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	N/A	
Retrofit	LED Tube Type C 4 foot	\$ 5.00	\$ 5.00	\$ 5.00	\$ 5.00	N/A	
Retrofit	LED Tube Type B 4 foot	\$ 3.00	\$ 3.00	\$ 3.00	\$ 3.00	N/A	
Retrofit	LED Tube Type A 3 foot	N/A	N/A	N/A	\$ 2.00	New measure	
Retrofit	LED Tube Type B 3 foot	N/A	N/A	N/A	\$ 3.00	New measure	
Retrofit	LED Tube Type C 3 foot	N/A	N/A	N/A	\$ 5.00	New measure	
Retrofit	LED Exterior Lamps - 30-39W (HID Base)	N/A	N/A	N/A	\$ 30.00	New measure	
Retrofit	LED Exterior Lamps - 40-49W (HID Base)	N/A	N/A	N/A	\$ 40.00	New measure	
Retrofit	LED Exterior Lamps - 50-79W (HID Base)	N/A	N/A	N/A	\$ 50.00	New measure	
Retrofit	LED Exterior Lamps - 80-119W (HID Base)	N/A	N/A	N/A	\$ 60.00	New measure	
Retrofit	LED Exterior Lamps - 120-144W (HID Base)	N/A	N/A	N/A	\$ 75.00	New measure	
Retrofit	LED Exterior Lamps - 145-250W (HID Base)	N/A	N/A	N/A	\$ 75.00	New measure	
Retrofit	LED to LED Type B Tube	N/A	N/A	N/A	\$ 3.00	New measure	
Retrofit	LED Exterior Downlight <= 25W	N/A	N/A	N/A	\$ 35.00	New measure	
Retrofit	LED Exterior Downlight <= 25W (CFL Base)	N/A	N/A	N/A	\$ 25.00	New measure	
Retrofit	LED Exterior Downlight 26W - 50W	N/A	N/A	N/A	\$ 50.00	New measure	
Retrofit	LED Exterior Downlight 26W - 50W (CFL Base)	N/A	N/A	N/A	\$ 35.00	New measure	
Retrofit	LED Grow Lighting Fixtures	N/A	N/A	N/A	\$.70/watt	New measure	
New Construction	LED Interior Lamp <= 5W	\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00	N/A	
New Construction	LED Interior Lamp 6W - 10W	\$ 3.00	\$ 3.00	\$ 3.00	\$ 3.00	N/A	
New Construction	LED Interior Lamp 11W - 20W	\$ 4.00	\$ 4.00	\$ 4.00	\$ 4.00	N/A	
New Construction	LED Interior Fixture <= 25W	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	N/A	
New Construction	LED Interior Fixture 20W - 50W	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	N/A	
New Construction	LED Ref and Frz Cases 5' or 6' doors	\$ 35.00	\$ 35.00	\$ 35.00	\$ 35.00	N/A	
New Construction	LED Parking Garage Lighting 25W-60W	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	N/A	
New Construction	LED Area Lighting - 45-65W	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	N/A	
New Construction	LED Area Lighting - 66-89W	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	N/A	
New Construction	LED Area Lighting - 90-119W	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	N/A	
New Construction	LED Area Lighting - 120-140W	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	N/A	
New Construction	LED Exterior Wall Pack <= 25W	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	N/A	
New Construction	LED Exterior Wall Pack 26W - 60W	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	N/A	
New Construction	LED Exterior Wall Pack 61W - 150W	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	N/A	
New Construction	LED Parking Garage Wall Pack <= 25W	\$ 15.00	\$ 15.00	\$ 15.00	\$ 15.00	N/A	
New Construction	LED Parking Garage Wall Pack 26W - 60W	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	N/A	
New Construction	LED Parking Garage Wall Pack 61W - 150W	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	N/A	
New Construction	LED Outdoor Canopy or Soffit lighting 25W - 60W	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	N/A	
New Construction	LED Outdoor Canopy or Soffit lighting 61W - 150W	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	N/A	
New Construction	LED Grow Lighting Fixtures	N/A	N/A	N/A	\$.70/watt	New measure	
New Construction	LED Exterior Downlight <= 25W	N/A	N/A	N/A	\$ 25.00	New measure	
New Construction	LED Exterior Downlight 26W - 50W	N/A	N/A	N/A	\$ 40.00	New measure	
Custom Lighting	Average rebate amount estimated	\$ 7,023.00	\$ 7,023.00	\$ 7,023.00	\$ 7,023.00	N/A	

Home Lighting	2022 Rebate Amount (\$)	2023 Rebate Amount (\$)	2024 Rebate Amount (\$)	2025 Rebate Amount (\$)	Rebate Adjustment	Justification
LED Bulb - A-Line	\$0.90	\$0.90	Included in new GSL category below	Included in new GSL category below	n/a	n/a
LED Bulb - Specialty	\$1.30	\$1.30	Included in new GSL category below	Included in new GSL category below	n/a	n/a
LED Bulb - Linear Tube - Residential portion	\$2.00	\$2.00	\$2.00	\$2.50	n/a	n/a
LED Bulb - Linear Tube - Business portion	\$3.92	\$3.92	\$2.00	\$2.50	Yes	Discounts offered in stores are the same for both res and bus so this matches the res rebate.
LED Bulb - General Service Lamp (GSL)	n/a	n/a	\$0.96	\$1.37	n/a	New category to align with DOE definitions
LED Bulb - Non General Service Lamp Specialty	n/a	n/a	\$2.00	\$1.50	n/a	New category to align with DOE definitions
LED Connected Lighting	n/a	n/a	\$2.00	\$2.00	n/a	New measure
LED Nightlight	n/a	n/a	\$1.00	\$2.00	n/a	New measure

PUBLIC

Xcel Energy
South Dakota Capital Structure
Carrying Charge Calculation

State of South Dakota Jurisdiction
 2023 Rate Case-Docket EL-22-17 (Order issued 6/8/23)
Base Assumptions

Capital Structure:

Long-term Debt
 Short-term Debt
 Preferred Stock
 Common Equity

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<u>Percent</u>	<u>Cost</u>	<u>Weighted Cost</u>

[CONFIDENTIAL
 DATA ENDS HERE]

6.82%

Weighted Cost of Capital

Equity
 Debt
 Total

[CONFIDENTIAL
 DATA BEGINS
 HERE]

[CONFIDENTIAL
 DATA ENDS HERE]

Weighted Cost of Capital

6.82%

Book Depreciation Rate	30 years	3.33%
Tax Depreciation Life - MACRS	20 years	
Composite SD Tax Rate =	21.0000%	
Composite Company Tax Rate =	28.0300%	
Property Tax Exempt =	0	

Use these values beginning January 1, 2018:

(b) Composite SD Tax Rate 21%

(c) Carrying Charge Rate =

[CONFIDENTIAL DATA BEGINS HERE]

[CONFIDENTIAL DATA ENDS HERE]

Supporting Documentation for Updated DSM Cost Adjustment Factor

The following is information specified in South Dakota Administrative Rule 20:10:13:26 regarding the updated DSM Cost Adjustment Factor:

(1) Name and address of the public utility;

Xcel Energy
500 West Russell Street
Sioux Falls, South Dakota 57104
(605) 339-8350

(2) Section and sheet number of tariff schedule;

Xcel Energy proposes to update DSM Rate tariff sheet number 73 in Section 5 of the Xcel Energy South Dakota Electric Rate Book. Attachment D4 includes the proposed tariff sheets with the updated DSM Rate.

(3) Description of the change;

The proposed updated DSM Rate is designed to true up the cost recovery, which is over our forecasted budget in the time period of 2023-2024 timeframe, as well as recover all forecasted 2024 DSM expenditures and incentives.

(4) Reason for the change;

As proposed in the South Dakota DSM Plan and described in the DSM Cost Adjustment Factor tariff sheet, the Company plans to update the DSM Cost Adjustment Factor on an annual basis in the Status Report filing. The updated DSM Rate is designed to true up any over-recovery or under-recovery that exists in the tracker as well as recover the forecasted DSM expenditures and incentives for the upcoming year.

(5) Present rate;

Pursuant to the Commission's December 7, 2023 Order,¹ Xcel Energy implemented the approved rate of \$0.000487 per kWh effective January 1, 2024.

(6) Proposed rate;

Xcel Energy requests a new DSM Cost Adjustment Factor of \$0.000453 per customer kWh.

(7) Proposed effective date of modified rate;

Xcel Energy requests this new DSM Cost Adjustment Factor of \$0.000453 per customer kWh become effective with the first billing cycle of January 2025. We request this rate remain in effect through December 2024 or until the Commission approves a new DSM Cost Adjustment Factor.

(8) Approximation of annual amount of increase or decrease in revenue;

This new DSM Cost Adjustment Factor of \$0.000453 per customer kWh is a decrease of \$0.000034 per kWh or 7 percent.

(9) Points affected;

The proposed updated DSM Rate would be applicable to all areas served by Xcel Energy in South Dakota.

(10) Estimation of the number of customers whose cost of service will be affected and annual amounts of either increases or decreases, or both, in cost of service to those customers;

The proposed electric tariff will apply to all customers throughout all customer classes as described within the filing. Xcel Energy presently serves just over 108,000 electric customers in 36 communities in eastern South Dakota.

¹ Docket No. EL23-013

(11) Statement of facts, expert opinions, documents, and exhibits to support the proposed changes.

A narrative for the calculation of the updated rate is included in the DSM Cost Adjustment Factor Report section of this filing. Attachments D2-D4 include the forecasted 2024 and 2025 DSM Trackers, which are referenced in the narrative, along with the proposed customer bill onsert message and the proposed updated tariff sheets in both redline and clean versions.

Northern States Power Company State of South Dakota- Electric Utility DSM Cost Recovery & Incentive Mechanism - Total 2024 Forecast													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
	Actual	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	
2024	CONFIDENTIAL DATA BEGINS												
1.	EXPENSES												
	Balance												
2.	DSM Program Expenditures												
3.	Total Incentive (Line 2 * 30%)												
4.	Total Expenditures + Incentive (Line 2 + 3)												
	RECOVERY												
5.	DSM Adjustment Factor (\$/MWh)												
6.	Calendar Month Sales Volume Forecast (MWh)												
7.	Total Cost Recovery (Line 5*6)												
8.	Sub-Balance (Over/Under Recovery) (Line 1 + 4 - 7)												
9.	Accum Deferred Tax (Line 8 *21%)												
10.	Net Investment (Line 8 - 9)												
11.	Carrying Charge Rate												
12.	Carrying Charge (Line 10 * carrying charge)												
13.	13. End of Month Balance (over)/under recovered (Line 8 + 12)												
												CONFIDENTIAL DATA ENDS	

Table 1: 2024 DSM Tracker Forecast, With Cost Recovery in 2024

CONFIDENTIAL DATA BEGINS

CONFIDENTIAL DATA ENDS

Northern States Power Company State of South Dakota- Electric Utility DSM Cost Recovery & Incentive Mechanism - Total 2025 Forecast													
	January Forecast	February Forecast	March Forecast	April Forecast	May Forecast	June Forecast	July Forecast	August Forecast	September Forecast	October Forecast	November Forecast	December Forecast	Total
EXPENSES													
[CONFIDENTIAL DATA BEGINS													
1. Balance													
2. DSM Program Expenditures													
3. Total Incentive (Line 2 * 30%)													
4. Total Expenditures + Incentive (Line 2 + 3)													
RECOVERY													
5. DSM Adjustment Factor (\$/MWh)													
6. Calendar Month Sales Volume Forecast (MWh)													
7. Total Cost Recovery													
8. Sub-Balance (Over)/Under Recovery (Line 1 + 4 - 7)													
9. Accum Deferred Tax (Line 8 * 21%)													
10. Net Investment (Line 8 - 9)													
11. Carrying Charge Rate													
12. Carrying Charge (Line 10 * carrying charge)													
13. End of Month Balance (Line 8 + 12)													
CONFIDENTIAL DATA ENDS													

Table 2: 2025 DSM Tracker Forecast, With Cost Recovery in 2025

[CONFIDENTIAL DATA BEGINS

CONFIDENTIAL DATA ENDS]

Proposed Customer Bill Onsert Language

DSM Cost Adjustment Factor Decrease Effective January 1, 2025

Xcel Energy offers a variety of load management and demand side management (DSM) programs to our South Dakota customers to help them reduce their home’s usage. The South Dakota Public Utilities Commission has approved a new Demand Side Management Cost Adjustment Factor as a separate line item on your monthly electric bill to recover the cost of our load management and DSM programs. Beginning January 1, 2025 the rate factor will decrease from \$0.000487 per kWh to \$0.000453 per kWh.

Residential Electric Service — Winter Month Bill Example

This chart provides a comparison of customer bills by applying the prior DSM rate versus the new DSM rate. The table below shows the DSM Rider rate decrease only and does not factor in any other rate change that may occur at the same time.

Usage (kWh)	Prior Rates				New Rates				Amount of Bill Decrease	Percent Decrease
	Other Rates	Prior DSM Factor	Prior DSM	Prior Bill	Other Rates	New DSM Factor	New DSM	New Bill		
400	\$57.02	\$0.000487	\$0.19	\$57.21	\$57.02	\$0.000453	\$0.18	\$57.20	(0.01)	-0.02%
500	\$69.19	\$0.000487	\$0.24	\$69.43	\$69.19	\$0.000453	\$0.23	\$69.42	(0.01)	-0.01%
600	\$81.37	\$0.000487	\$0.29	\$81.66	\$81.37	\$0.000453	\$0.27	\$81.64	(0.02)	-0.02%
750	\$99.64	\$0.000487	\$0.37	\$100.01	\$99.64	\$0.000453	\$0.34	\$99.98	(0.03)	-0.03%
1000	\$130.09	\$0.000487	\$0.49	\$130.58	\$130.09	\$0.000453	\$0.45	\$130.54	(0.04)	-0.03%
2000	\$251.88	\$0.000487	\$0.97	\$252.85	\$251.88	\$0.000453	\$0.91	\$252.79	(0.06)	-0.02%

For more information:

You may call **800.895.4999** with questions or examine the new rates by visiting our website at xcelenergy.com

Legislative

**DEMAND SIDE MANAGEMENT COST
ADJUSTMENT FACTOR**

Section No. 5
~~11th~~^{12th} Revised Sheet No. 73
Cancelling ~~10th~~^{11th} Revised Sheet No. 73

APPLICATION

Applicable to bills for electric service provided under the Company's retail rate schedules.

RIDER

There shall be included on each customer's monthly bill a Demand Side Management Cost Adjustment, which shall be calculated by multiplying the monthly applicable billing kilowatt hours (kWh) by the Demand Side Management Factor (DSM Factor). This Demand Side Management Cost Adjustment shall be calculated before city surcharge and sales tax.

DETERMINATION OF DSM FACTOR

A DSM Factor shall be calculated by dividing the forecasted balance of the DSM Tracker Account (Tracker), including any True Up, by the Forecasted Retail Sales for the Next Recovery Period. The DSM Factor shall be rounded to the nearest \$0.000001 per kWh.

The DSM Factor may be adjusted annually with approval of the South Dakota Public Utilities Commission (Commission). The DSM Factor is:

All Customers ~~\$0.0004870~~^{0.000453} per kWh

TR

DSM Tracker shall include all annual expenses, costs and incentives associated with demand side management programs and that are approved by the Commission. All revenues recovered pursuant to the Demand Side Management Cost Adjustment shall be credited to the Tracker.

Forecasted Retail Sales shall be the estimated total retail electric sales for the Next Recovery Period.

Next Recovery Period shall be that period that begins January 1 and ends December 31 following the Company's most recent May 1 filing.

TRUE-UP

True Up shall include the difference between the revenues received from customers and actual expenditures for the most recent recovery period ending December 31.

A True Up will be included in each annual May 1 filing beginning with the May 1, 2013 filing. The 2012 DSM Factor calculation will not include a True Up due to no previous cost or revenue activity prior to implementation of the Demand Side Management Cost Adjustment in 2012. Beginning with the Company's request submitted on May 1, 2013, the DSM Factor may include a True Up.

Date Filed: ~~05-01-23~~⁰⁵⁻⁰¹⁻²⁴ By: ~~Christopher B. Clark~~^{Ryan J. Long} Effective Date: ~~01-01-24~~
President, Northern States Power Company, a Minnesota corporation
Docket No. ~~EL23-04324-~~ Order Date: ~~12-07-23~~

Non-Legislative

**DEMAND SIDE MANAGEMENT COST
ADJUSTMENT FACTOR**

Section No. 5
12th Revised Sheet No. 73
Cancelling 11th Revised Sheet No. 73

APPLICATION

Applicable to bills for electric service provided under the Company's retail rate schedules.

RIDER

There shall be included on each customer's monthly bill a Demand Side Management Cost Adjustment, which shall be calculated by multiplying the monthly applicable billing kilowatt hours (kWh) by the Demand Side Management Factor (DSM Factor). This Demand Side Management Cost Adjustment shall be calculated before city surcharge and sales tax.

DETERMINATION OF DSM FACTOR

A DSM Factor shall be calculated by dividing the forecasted balance of the DSM Tracker Account (Tracker), including any True Up, by the Forecasted Retail Sales for the Next Recovery Period. The DSM Factor shall be rounded to the nearest \$0.000001 per kWh.

The DSM Factor may be adjusted annually with approval of the South Dakota Public Utilities Commission (Commission). The DSM Factor is:

All Customers \$0.000453 per kWh

R

DSM Tracker shall include all annual expenses, costs and incentives associated with demand side management programs and that are approved by the Commission. All revenues recovered pursuant to the Demand Side Management Cost Adjustment shall be credited to the Tracker.

Forecasted Retail Sales shall be the estimated total retail electric sales for the Next Recovery Period.

Next Recovery Period shall be that period that begins January 1 and ends December 31 following the Company's most recent May 1 filing.

TRUE-UP

True Up shall include the difference between the revenues received from customers and actual expenditures for the most recent recovery period ending December 31.

A True Up will be included in each annual May 1 filing beginning with the May 1, 2013 filing. The 2012 DSM Factor calculation will not include a True Up due to no previous cost or revenue activity prior to implementation of the Demand Side Management Cost Adjustment in 2012. Beginning with the Company's request submitted on May 1, 2013, the DSM Factor may include a True Up.

Executive Summary Table - 2025								
2025	Electric Participants	Electric Budget	Generator kW	Generator kWh	Participant Test Ratio	Utility Test Ratio	Ratepayer Impact Measure Test Ratio	TRC Ratio
Business Segment								
Lighting Efficiency	152	\$235,965	429	3,227,941	5.72	8.70	0.61	2.89
Business Saver's Switch	20	\$26,500	57	78	INF	2.81	2.80	2.81
Peak and Energy Control	1	\$10,000	174	448	INF	9.34	9.08	9.34
Business Segment Total	173	\$272,465	659	3,228,466	5.72	8.15	0.65	2.96
Residential Segment								
Home Lighting	5,183	\$85,999	144	1,086,707	9.08	7.64	0.47	3.04
Heat Pump Water Heaters	14	\$8,300	5	42,296	4.30	2.78	0.41	1.38
Residential Demand Response	1,860	\$404,250	1,017	59,253	2.07	2.78	2.42	2.48
Consumer Education	30,000	\$22,000	N/A	N/A				
Residential Segment Total	37,057	\$520,549	1,166	1,188,256	5.62	3.46	0.93	2.55
Planning Segment								
Regulatory Affairs	0	\$10,800	0	0				
Planning Segment Total	0	\$10,800	0	0				
PORTFOLIO TOTAL	37,230	\$803,814	1,825	4,416,721	5.69	5.00	0.75	2.75

PUBLIC

2025 SD DSM Plan Cost-Effectiveness Analysis

LIGHTING EFFICIENCY						2025 ELECTRIC				GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals				
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW				
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A		16.4 years	
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760	
Benefits						Gross Customer kW	C		1 kW	
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D		60.93%	
Generation	N/A	\$508,921	\$508,921	\$508,921	\$508,921	Gross Load Factor at Customer	E		52.81%	
T & D	N/A	\$58,639	\$58,639	\$58,639	\$58,639	Transmission Loss Factor (Energy)	F		4.550%	
Marginal Energy	N/A	\$1,484,980	\$1,484,980	\$1,484,980	\$1,484,980	Transmission Loss Factor (Demand)	G		5.317%	
Environmental Externality	N/A	N/A	N/A	N/A	\$259,023	Societal Net Benefit (Cost)	H		\$2,816	
Subtotal	N/A	\$2,052,540	\$2,052,540	\$2,052,540	\$2,311,563	Program Summary per Participant				
Participant Benefits						Gross kW Saved at Customer	I		4.38 kW	
Bill Reduction - Electric	\$3,128,742	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$			2.82 kW
Rebates from Xcel Energy	\$186,965	N/A	N/A	\$186,965	\$186,965	Gross Annual kWh Saved at Customer	$(B \times E \times I)$			20,270 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$			21,236 kWh
Incremental O&M Savings	\$233,199	N/A	N/A	\$233,199	\$233,199	Program Summary All Participants				
Subtotal	\$3,548,906	N/A	N/A	\$420,164	\$420,164	Total Participants	J		152	
Total Benefits						Total Budget	K		\$235,965	
	\$3,548,906	\$2,052,540	\$2,052,540	\$2,472,704	\$2,731,727	Gross kW Saved at Customer	$(J \times I)$			666.02 kW
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$			429 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$			3,081,069 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$			3,227,941 kWh
Utility Administration	N/A	\$24,000	\$24,000	\$24,000	\$24,000	Societal Net Benefits	$(J \times I \times H)$			\$1,875,649
Advertising & Promotion	N/A	\$25,000	\$25,000	\$25,000	\$25,000	Utility Program Cost per kWh Lifetime				
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen				
Rebates	N/A	\$186,965	\$186,965	\$186,965	\$186,965	\$0.0045				
Other	N/A	\$0	\$0	\$0	\$0	\$551				
Subtotal	N/A	\$235,965	\$235,965	\$235,965	\$235,965					
Utility Revenue Reduction										
Revenue Reduction - Electric	N/A	N/A	\$3,128,742	N/A	N/A					
Subtotal	N/A	N/A	\$3,128,742	N/A	N/A					
Participant Costs										
Incremental Capital Costs	\$620,113	N/A	N/A	\$620,113	\$620,113					
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0					
Subtotal	\$620,113	N/A	N/A	\$620,113	\$620,113					
Total Costs										
	\$620,113	\$235,965	\$3,364,707	\$856,078	\$856,078					
Net Benefit (Cost)	\$2,928,793	\$1,816,575	(\$1,312,167)	\$1,616,626	\$1,875,649					
Benefit/Cost Ratio	5.72	8.70	0.61	2.89	3.19					

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

BUSINESS SAVER'S SWITCH						2025 ELECTRIC			GOAL		
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals					
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW					
	Test	Test	Impact	Resource	Test						
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)						
Benefits						Program Summary per Participant					
Avoided Revenue Requirements						Gross kW Saved at Customer	I	16.05 kW			
Generation	N/A	\$66,717	\$66,717	\$66,717	\$66,717	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	2.84 kW			
T & D	N/A	\$7,655	\$7,655	\$7,655	\$7,655	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	4 kWh			
Marginal Energy	N/A	\$39	\$39	\$39	\$39	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	4 kWh			
Environmental Externality	N/A	N/A	N/A	N/A	\$8	Program Summary All Participants					
Subtotal	N/A	\$74,410	\$74,410	\$74,410	\$74,418	Total Participants	J	20			
Participant Benefits						Total Budget	K	\$26,500			
Bill Reduction - Electric	\$119	N/A	N/A	N/A	N/A	Gross kW Saved at Customer	$(J \times I)$	321.08 kW			
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	57 kW			
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	74 kWh			
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	78 kWh			
Subtotal	\$119	N/A	N/A	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$	\$47,918			
Total Benefits						Utility Program Cost per kWh Lifetime			\$22,7873		
	\$119	\$74,410	\$74,410	\$74,410	\$74,418	Utility Program Cost per kW at Gen			\$467		
Costs						Utility Revenue Reduction					
Utility Project Costs						Revenue Reduction - Electric	N/A	N/A	\$119	N/A	N/A
Customer Services	N/A	\$16,300	\$16,300	\$16,300	\$16,300	Subtotal	N/A	N/A	\$119	N/A	N/A
Utility Administration	N/A	\$7,600	\$7,600	\$7,600	\$7,600	Participant Costs					
Advertising & Promotion	N/A	\$2,600	\$2,600	\$2,600	\$2,600	Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0
Rebates	N/A	\$0	\$0	\$0	\$0	Subtotal	\$0	N/A	N/A	\$0	\$0
Other	N/A	\$0	\$0	\$0	\$0	Total Costs					
Subtotal	N/A	\$26,500	\$26,500	\$26,500	\$26,500		\$0	\$26,500	\$26,619	\$26,500	\$26,500
Net Benefit (Cost)						Benefit/Cost Ratio					
	\$119	\$47,910	\$47,791	\$47,910	\$47,918		INF	2.81	2.80	2.81	2.81

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PEAK AND ENERGY CONTROL						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	5.0 years	
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760	
Benefits						Gross Customer kW	C	1 kW	
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	100.00%	
Generation	N/A	\$83,957	\$83,957	\$83,957	\$83,957	Gross Load Factor at Customer	E	0.03%	
T & D	N/A	\$9,349	\$9,349	\$9,349	\$9,349	Transmission Loss Factor (Energy)	F	4.550%	
Marginal Energy	N/A	\$103	\$103	\$103	\$103	Transmission Loss Factor (Demand)	G	5.317%	
Environmental Externality	N/A	N/A	N/A	N/A	\$24	Societal Net Benefit (Cost)	H	\$508	
Subtotal	N/A	\$93,408	\$93,408	\$93,408	\$93,433	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I	164.29 kW	
Bill Reduction - Electric	\$287	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$287	N/A	N/A	\$0	\$0	Total Participants	J	1	
Total Benefits						Total Budget	K	\$10,000	
	\$287	\$93,408	\$93,408	\$93,408	\$93,433	Gross kW Saved at Customer	$(J \times I)$		
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		
Utility Administration	N/A	\$10,000	\$10,000	\$10,000	\$10,000	Societal Net Benefits	$(J \times I \times H)$		
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Rebates	N/A	\$0	\$0	\$0	\$0			\$4.4691	
Other	N/A	\$0	\$0	\$0	\$0			\$58	
Subtotal	N/A	\$10,000	\$10,000	\$10,000	\$10,000	Utility Revenue Reduction			
Utility Revenue Reduction						Revenue Reduction - Electric	N/A	N/A	
Subtotal	N/A	N/A	\$287	N/A	N/A	Participant Costs			
Participant Costs						Incremental Capital Costs	\$0	N/A	
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0	Incremental O&M Costs	\$0	N/A	
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0	Subtotal	\$0	N/A	
Subtotal	\$0	N/A	N/A	\$0	\$0	Total Costs			
Total Costs								\$0	
	\$0	\$10,000	\$10,287	\$10,000	\$10,000	Net Benefit (Cost)			
Net Benefit (Cost)								\$287	
Benefit/Cost Ratio								9.34	
	INF	9.34	9.08	9.34	9.34	Benefit/Cost Ratio			
Benefit/Cost Ratio								INF	

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PUBLIC

2025 SD DSM Plan Cost-Effectiveness Analysis

BUSINESS SEGMENT TOTAL						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test				
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)				
Benefits						Program Summary per Participant			
Avoided Revenue Requirements						Gross kW Saved at Customer	I	6.66 kW	
Generation	N/A	\$659,594	\$659,594	\$659,594	\$659,594	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	3.81 kW	
T & D	N/A	\$75,642	\$75,642	\$75,642	\$75,642	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	17,813 kWh	
Marginal Energy	N/A	\$1,485,123	\$1,485,123	\$1,485,123	\$1,485,123	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	18,662 kWh	
Environmental Externality	N/A	N/A	N/A	N/A	\$259,055	Program Summary All Participants			
Subtotal	N/A	\$2,220,359	\$2,220,359	\$2,220,359	\$2,479,414	Total Participants	J	173	
Participant Benefits						Total Budget	K	\$272,465	
Bill Reduction - Electric	\$3,129,148	N/A	N/A	N/A	N/A	Gross kW Saved at Customer	$(J \times I)$	1,151.38 kW	
Rebates from Xcel Energy	\$186,965	N/A	N/A	\$186,965	\$186,965	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	659 kW	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	3,081,570 kWh	
Incremental O&M Savings	\$233,199	N/A	N/A	\$233,199	\$233,199	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	3,228,466 kWh	
Subtotal	\$3,549,313	N/A	N/A	\$420,164	\$420,164	Societal Net Benefits	$(J \times I \times H)$	\$2,007,000	
Total Benefits						Utility Program Cost per kWh Lifetime			
	\$3,549,313	\$2,220,359	\$2,220,359	\$2,640,523	\$2,899,578	Utility Program Cost per kW at Gen		\$0.0051	
Costs						Utility Program Cost per kW at Gen			
Utility Project Costs								\$414	
Customer Services	N/A	\$16,300	\$16,300	\$16,300	\$16,300				
Utility Administration	N/A	\$41,600	\$41,600	\$41,600	\$41,600				
Advertising & Promotion	N/A	\$27,600	\$27,600	\$27,600	\$27,600				
Measurement & Verification	N/A	\$0	\$0	\$0	\$0				
Rebates	N/A	\$186,965	\$186,965	\$186,965	\$186,965				
Other	N/A	\$0	\$0	\$0	\$0				
Subtotal	N/A	\$272,465	\$272,465	\$272,465	\$272,465				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$3,129,148	N/A	N/A				
Subtotal	N/A	N/A	\$3,129,148	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$620,113	N/A	N/A	\$620,113	\$620,113				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$620,113	N/A	N/A	\$620,113	\$620,113				
Total Costs									
	\$620,113	\$272,465	\$3,401,613	\$892,578	\$892,578				
Net Benefit (Cost)	\$2,929,199	\$1,947,894	(\$1,181,254)	\$1,747,945	\$2,007,000				
Benefit/Cost Ratio	5.72	8.15	0.65	2.96	3.25				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

HOME LIGHTING						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	15.9 years	
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760	
Benefits						Gross Customer kW	C	1 kW	
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	16.63%	
Generation	N/A	\$163,076	\$163,076	\$163,076	\$163,076	Gross Load Factor at Customer	E	14.58%	
T & D	N/A	\$18,861	\$18,861	\$18,861	\$18,861	Transmission Loss Factor (Energy)	F	5.364%	
Marginal Energy	N/A	\$474,871	\$474,871	\$474,871	\$474,871	Transmission Loss Factor (Demand)	G	6.804%	
Environmental Externality	N/A	N/A	N/A	N/A	\$84,490	Societal Net Benefit (Cost)	H	\$710	
Subtotal	N/A	\$656,808	\$656,808	\$656,808	\$741,298	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I	0.16 kW	
Bill Reduction - Electric	\$1,314,803	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		0.03 kW
Rebates from Xcel Energy	\$69,199	N/A	N/A	\$69,199	\$69,199	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		198 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		210 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$1,384,002	N/A	N/A	\$69,199	\$69,199	Total Participants	J	5,183	
Total Benefits						Total Budget	K	\$85,999	
	\$1,384,002	\$656,808	\$656,808	\$726,007	\$810,497	Gross kW Saved at Customer	$(J \times I)$	805.22 kW	
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		144 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		1,028,412 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		1,086,707 kWh
Utility Administration	N/A	\$13,800	\$13,800	\$13,800	\$13,800	Societal Net Benefits	$(J \times I \times H)$		\$572,036
Advertising & Promotion	N/A	\$3,000	\$3,000	\$3,000	\$3,000	Utility Program Cost per kWh Lifetime			\$0.0050
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			\$599
Rebates	N/A	\$69,199	\$69,199	\$69,199	\$69,199				
Other	N/A	\$0	\$0	\$0	\$0				
Subtotal	N/A	\$85,999	\$85,999	\$85,999	\$85,999				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$1,314,803	N/A	N/A				
Subtotal	N/A	N/A	\$1,314,803	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$152,462	N/A	N/A	\$152,462	\$152,462				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$152,462	N/A	N/A	\$152,462	\$152,462				
Total Costs									
	\$152,462	\$85,999	\$1,400,802	\$238,461	\$238,461				
Net Benefit (Cost)	\$1,231,540	\$570,809	(\$743,994)	\$487,546	\$572,036				
Benefit/Cost Ratio	9.08	7.64	0.47	3.04	3.40				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

HEAT PUMP WATER HEATERS						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	13.0 years	
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760	
Benefits						Gross Customer kW	C	1 kW	
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	100.00%	
Generation	N/A	\$5,524	\$5,524	\$5,524	\$5,524	Gross Load Factor at Customer	E	93.99%	
T & D	N/A	\$630	\$630	\$630	\$630	Transmission Loss Factor (Energy)	F	5.630%	
Marginal Energy	N/A	\$16,893	\$16,893	\$16,893	\$16,893	Transmission Loss Factor (Demand)	G	6.900%	
Environmental Externality	N/A	N/A	N/A	N/A	\$2,912	Societal Net Benefit (Cost)	H	\$2,230	
Subtotal	N/A	\$23,047	\$23,047	\$23,047	\$25,959	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I	0.35 kW	
Bill Reduction - Electric	\$47,933	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		
Rebates from Xcel Energy	\$5,600	N/A	N/A	\$5,600	\$5,600	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary All Participants			
Subtotal	\$53,533	N/A	N/A	\$5,600	\$5,600	Total Participants	J	14	
Total Benefits						Total Budget	K	\$8,300	
	\$53,533	\$23,047	\$23,047	\$28,647	\$31,559	Gross kW Saved at Customer	$(J \times I)$		
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		
Utility Administration	N/A	\$2,700	\$2,700	\$2,700	\$2,700	Societal Net Benefits	$(J \times I \times H)$		
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Rebates	N/A	\$5,600	\$5,600	\$5,600	\$5,600			\$0.0151	
Other	N/A	\$0	\$0	\$0	\$0			\$1,594	
Subtotal	N/A	\$8,300	\$8,300	\$8,300	\$8,300	Utility Revenue Reduction			
Utility Revenue Reduction						Revenue Reduction - Electric	N/A	N/A	
Subtotal	N/A	N/A	\$47,933	N/A	N/A	Participant Costs			
Participant Costs						Incremental Capital Costs	\$10,976	N/A	
Incremental Capital Costs	\$10,976	N/A	N/A	\$10,976	\$10,976	Incremental O&M Costs	\$1,474	N/A	
Incremental O&M Costs	\$1,474	N/A	N/A	\$1,474	\$1,474	Subtotal	\$12,450	N/A	
Subtotal	\$12,450	N/A	N/A	\$12,450	\$12,450	Total Costs			
Total Costs							\$12,450	\$8,300	
	\$12,450	\$8,300	\$56,233	\$20,750	\$20,750			\$56,233	
Net Benefit (Cost)							\$41,083	\$14,747	
	\$41,083	\$14,747	(\$33,186)	\$7,897	\$10,809			(\$33,186)	
Benefit/Cost Ratio							4.30	2.78	
	4.30	2.78	0.41	1.38	1.52			0.41	

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

RESIDENTIAL DEMAND RESPONSE						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	10.0 years	
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760	
Benefits						Gross Customer kW	C	1 kW	
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	31.77%	
Generation	N/A	\$987,401	\$987,401	\$987,401	\$987,401	Gross Load Factor at Customer	E	0.21%	
T & D	N/A	\$112,700	\$112,700	\$112,700	\$112,700	Transmission Loss Factor (Energy)	F	5.630%	
Marginal Energy	N/A	\$22,576	\$22,576	\$22,576	\$22,576	Transmission Loss Factor (Demand)	G	6.900%	
Environmental Externality	N/A	N/A	N/A	N/A	\$4,444	Societal Net Benefit (Cost)	H	\$275	
Subtotal	N/A	\$1,122,677	\$1,122,677	\$1,122,677	\$1,127,122	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I	1.60 kW	
Bill Reduction - Electric	\$58,916	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		
Rebates from Xcel Energy	\$53,000	N/A	N/A	\$53,000	\$53,000	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		
Incremental O&M Savings	\$190,456	N/A	N/A	\$190,456	\$190,456	Program Summary All Participants			
Subtotal	\$302,372	N/A	N/A	\$243,456	\$243,456	Total Participants	J	1,860	
Total Benefits						Total Budget	K	\$404,250	
Costs						Gross kW Saved at Customer	$(J \times I)$	2,979.38 kW	
Utility Project Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		
Customer Services	N/A	\$275,400	\$275,400	\$275,400	\$275,400	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		
Utility Administration	N/A	\$64,000	\$64,000	\$64,000	\$64,000	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		
Advertising & Promotion	N/A	\$11,850	\$11,850	\$11,850	\$11,850	Societal Net Benefits	$(J \times I \times H)$		
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime			
Rebates	N/A	\$53,000	\$53,000	\$53,000	\$53,000	Utility Program Cost per kW at Gen			
Other	N/A	\$0	\$0	\$0	\$0	\$0.6791			
Subtotal	N/A	\$404,250	\$404,250	\$404,250	\$404,250	\$398			
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$58,916	N/A	N/A				
Subtotal	N/A	N/A	\$58,916	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$146,000	N/A	N/A	\$146,000	\$146,000				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$146,000	N/A	N/A	\$146,000	\$146,000				
Total Costs									
	\$146,000	\$404,250	\$463,166	\$550,250	\$550,250				
Net Benefit (Cost)	\$156,372	\$718,427	\$659,511	\$815,883	\$820,327				
Benefit/Cost Ratio	2.07	2.78	2.42	2.48	2.49				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

CONSUMER EDUCATION						2025 ELECTRIC			GOAL	
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals				
	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)	Program "Inputs" per Customer kW				
Benefits						Lifetime (Weighted on Generator kWh)	A	0.00	years	
Avoided Revenue Requirements						Annual Hours	B	8760		
Generation	N/A	\$0	\$0	\$0	\$0	Gross Customer kW	C	1	kW	
T & D	N/A	\$0	\$0	\$0	\$0	Generator Peak Coincidence Factor	D	#DIV/0!		
Marginal Energy	N/A	\$0	\$0	\$0	\$0	Gross Load Factor at Customer	E	#DIV/0!		
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Transmission Loss Factor (Energy)	F	0.000%		
Subtotal	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Demand)	G	0.000%		
Participant Benefits						Societal Net Benefit (Cost)	H	#DIV/0!		
Bill Reduction - Electric	\$0	N/A	N/A	N/A	N/A	Program Summary per Participant				
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross kW Saved at Customer	I	0.00	kW	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$			#DIV/0!
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$			#DIV/0!
Subtotal	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$			#DIV/0!
Total Benefits	\$0	\$0	\$0	\$0	\$0	Program Summary All Participants				
Costs						Total Participants	J	30,000		
Utility Project Costs						Total Budget	K	\$22,000		
Customer Services	N/A	\$22,000	\$22,000	\$22,000	\$22,000	Gross kW Saved at Customer	$(J \times I)$			0.00 kW
Utility Administration	N/A	\$0	\$0	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$			#DIV/0!
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$			#DIV/0!
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$			#DIV/0!
Rebates	N/A	\$0	\$0	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$			#DIV/0!
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime				#DIV/0!
Subtotal	N/A	\$22,000	\$22,000	\$22,000	\$22,000	Utility Program Cost per kW at Gen				#DIV/0!
Utility Revenue Reduction										
Revenue Reduction - Electric	N/A	N/A	\$0	N/A	N/A					
Subtotal	N/A	N/A	\$0	N/A	N/A					
Participant Costs										
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0					
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0					
Subtotal	\$0	N/A	N/A	\$0	\$0					
Total Costs	\$0	\$22,000	\$22,000	\$22,000	\$22,000					
Net Benefit (Cost)	\$0	(\$22,000)	(\$22,000)	(\$22,000)	(\$22,000)					
Benefit/Cost Ratio	INF	-	-	-	-					

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2025 SD DSM Plan Cost-Effectiveness Analysis

RESIDENTIAL SEGMENT TOTAL						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	15.5 years	
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760	
Benefits						Gross Customer kW	C	1 kW	
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	28.64%	
Generation	N/A	\$1,156,001	\$1,156,001	\$1,156,001	\$1,156,001	Gross Load Factor at Customer	E	3.39%	
T & D	N/A	\$132,191	\$132,191	\$132,191	\$132,191	Transmission Loss Factor (Energy)	F	5.387%	
Marginal Energy	N/A	\$514,340	\$514,340	\$514,340	\$514,340	Transmission Loss Factor (Demand)	G	6.880%	
Environmental Externality	N/A	N/A	N/A	N/A	\$91,847	Societal Net Benefit (Cost)	H	\$364	
Subtotal	N/A	\$1,802,532	\$1,802,532	\$1,802,532	\$1,894,379	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I	0.10 kW	
Bill Reduction - Electric	\$1,421,651	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		
Rebates from Xcel Energy	\$127,799	N/A	N/A	\$127,799	\$127,799	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		
Incremental O&M Savings	\$188,982	N/A	N/A	\$188,982	\$188,982	Program Summary All Participants			
Subtotal	\$1,738,432	N/A	N/A	\$316,781	\$316,781	Total Participants	J	37,057	
Total Benefits						Total Budget	K	\$520,549	
Total Benefits	\$1,738,432	\$1,802,532	\$1,802,532	\$2,119,313	\$2,211,160	Gross kW Saved at Customer	$(J \times I)$	3,789.45 kW	
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		
Customer Services	N/A	\$297,400	\$297,400	\$297,400	\$297,400	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		
Utility Administration	N/A	\$80,500	\$80,500	\$80,500	\$80,500	Societal Net Benefits	$(J \times I \times H)$		
Advertising & Promotion	N/A	\$14,850	\$14,850	\$14,850	\$14,850	Utility Program Cost per kWh Lifetime			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Rebates	N/A	\$127,799	\$127,799	\$127,799	\$127,799	\$0.0282			
Other	N/A	\$0	\$0	\$0	\$0	\$447			
Subtotal	N/A	\$520,549	\$520,549	\$520,549	\$520,549				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$1,421,651	N/A	N/A				
Subtotal	N/A	N/A	\$1,421,651	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$309,438	N/A	N/A	\$309,438	\$309,438				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$309,438	N/A	N/A	\$309,438	\$309,438				
Total Costs									
Total Costs	\$309,438	\$520,549	\$1,942,200	\$829,987	\$829,987				
Net Benefit (Cost)	\$1,428,994	\$1,281,983	(\$139,668)	\$1,289,326	\$1,381,173				
Benefit/Cost Ratio	5.62	3.46	0.93	2.55	2.66				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

REGULATORY AFFAIRS						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test				
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)				
Benefits						Program Summary per Participant			
Avoided Revenue Requirements						Gross kW Saved at Customer	I	#DIV/0!	
Generation	N/A	\$0	\$0	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	#DIV/0!	
T & D	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	#DIV/0!	
Marginal Energy	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	#DIV/0!	
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Program Summary All Participants			
Subtotal	N/A	\$0	\$0	\$0	\$0	Total Participants	J	0	
Participant Benefits						Total Budget	K	\$10,800	
Bill Reduction - Electric	\$0	N/A	N/A	N/A	N/A	Gross kW Saved at Customer	$(J \times I)$	#DIV/0!	
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	#DIV/0!	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	#DIV/0!	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	#DIV/0!	
Subtotal	\$0	N/A	N/A	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$	#DIV/0!	
Total Benefits						Utility Program Cost per kWh Lifetime		#DIV/0!	
	\$0	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		#DIV/0!	
Costs									
Utility Project Costs									
Customer Services	N/A	\$0	\$0	\$0	\$0				
Utility Administration	N/A	\$10,800	\$10,800	\$10,800	\$10,800				
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0				
Measurement & Verification	N/A	\$0	\$0	\$0	\$0				
Rebates	N/A	\$0	\$0	\$0	\$0				
Other	N/A	\$0	\$0	\$0	\$0				
Subtotal	N/A	\$10,800	\$10,800	\$10,800	\$10,800				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$0	N/A	N/A				
Subtotal	N/A	N/A	\$0	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$0	N/A	N/A	\$0	\$0				
Total Costs									
	\$0	\$10,800	\$10,800	\$10,800	\$10,800				
Net Benefit (Cost)									
	\$0	(\$10,800)	(\$10,800)	(\$10,800)	(\$10,800)				
Benefit/Cost Ratio									
	INF	-	-	-	-				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

PLANNING SEGMENT TOTAL						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)	Program "Inputs" per Customer kW			
Benefits						Lifetime (Weighted on Generator kWh)	A	0.0	years
Avoided Revenue Requirements						Annual Hours	B	8760	
Generation	N/A	\$0	\$0	\$0	\$0	Gross Customer kW	C	1	kW
T & D	N/A	\$0	\$0	\$0	\$0	Generator Peak Coincidence Factor	D	#DIV/0!	
Marginal Energy	N/A	\$0	\$0	\$0	\$0	Gross Load Factor at Customer	E	#DIV/0!	
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Transmission Loss Factor (Energy)	F	0.000%	
Subtotal	N/A	\$0	\$0	\$0	\$0	Transmission Loss Factor (Demand)	G	0.000%	
Participant Benefits						Societal Net Benefit (Cost)	H	#DIV/0!	
Bill Reduction - Electric	\$0	N/A	N/A	N/A	N/A	Program Summary per Participant			
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross kW Saved at Customer	I	#DIV/0!	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		
Subtotal	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		
Total Benefits	\$0	\$0	\$0	\$0	\$0	Program Summary All Participants			
Costs						Total Participants	J	0	
Utility Project Costs						Total Budget	K	\$10,800	
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$		
Utility Administration	N/A	\$10,800	\$10,800	\$10,800	\$10,800	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		
Rebates	N/A	\$0	\$0	\$0	\$0	Societal Net Benefits	$(J \times I \times H)$		
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime	#DIV/0!		
Subtotal	N/A	\$10,800	\$10,800	\$10,800	\$10,800	Utility Program Cost per kW at Gen	#DIV/0!		
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$0	N/A	N/A				
Subtotal	N/A	N/A	\$0	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$0	N/A	N/A	\$0	\$0				
Total Costs	\$0	\$10,800	\$10,800	\$10,800	\$10,800				
Net Benefit (Cost)	\$0	(\$10,800)	(\$10,800)	(\$10,800)	(\$10,800)				
Benefit/Cost Ratio	INF	-	-	-	-				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.

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2025 SD DSM Plan Cost-Effectiveness Analysis

PORTFOLIO TOTAL						2025 ELECTRIC			GOAL
2025 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals			
	Participant	Utility	Rate	Total	Societal	Program "Inputs" per Customer kW			
	Test	Test	Impact	Resource	Test	Lifetime (Weighted on Generator kWh)	A	16.2 years	
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760	
Benefits						Gross Customer kW	C	1 kW	
Avoided Revenue Requirements						Generator Peak Coincidence Factor	D	34.52%	
Generation	N/A	\$1,815,596	\$1,815,596	\$1,815,596	\$1,815,596	Gross Load Factor at Customer	E	9.72%	
T & D	N/A	\$207,833	\$207,833	\$207,833	\$207,833	Transmission Loss Factor (Energy)	F	4.775%	
Marginal Energy	N/A	\$1,999,463	\$1,999,463	\$1,999,463	\$1,999,463	Transmission Loss Factor (Demand)	G	6.520%	
Environmental Externality	N/A	N/A	N/A	N/A	\$350,902	Societal Net Benefit (Cost)	H	\$684	
Subtotal	N/A	\$4,022,891	\$4,022,891	\$4,022,891	\$4,373,793	Program Summary per Participant			
Participant Benefits						Gross kW Saved at Customer	I	0.13 kW	
Bill Reduction - Electric	\$4,550,800	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		
Rebates from Xcel Energy	\$314,764	N/A	N/A	\$314,764	\$314,764	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		
Incremental O&M Savings	\$422,181	N/A	N/A	\$422,181	\$422,181	Program Summary All Participants			
Subtotal	\$5,287,745	N/A	N/A	\$736,945	\$736,945	Total Participants	J	37,230	
Total Benefits						Total Budget	K	\$803,814	
	\$5,287,745	\$4,022,891	\$4,022,891	\$4,759,836	\$5,110,738	Gross kW Saved at Customer	$(J \times I)$	4,940.83 kW	
Costs						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$		
Utility Project Costs						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		
Customer Services	N/A	\$313,700	\$313,700	\$313,700	\$313,700	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$		
Utility Administration	N/A	\$132,900	\$132,900	\$132,900	\$132,900	Societal Net Benefits	$(J \times I \times H)$		
Advertising & Promotion	N/A	\$42,450	\$42,450	\$42,450	\$42,450	Utility Program Cost per kWh Lifetime			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen			
Rebates	N/A	\$314,764	\$314,764	\$314,764	\$314,764			\$0.0112	
Other	N/A	\$0	\$0	\$0	\$0			\$441	
Subtotal	N/A	\$803,814	\$803,814	\$803,814	\$803,814				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$4,550,800	N/A	N/A				
Subtotal	N/A	N/A	\$4,550,800	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$929,551	N/A	N/A	\$929,551	\$929,551				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$929,551	N/A	N/A	\$929,551	\$929,551				
Total Costs									
	\$929,551	\$803,814	\$5,354,614	\$1,733,365	\$1,733,365				
Net Benefit (Cost)	\$4,358,194	\$3,219,077	(\$1,331,722)	\$3,026,471	\$3,377,373				
Benefit/Cost Ratio	5.69	5.00	0.75	2.75	2.95				

Note: Dollar values represent present value of impacts accumulated over the lifetime of the measures.