



**Public
Version Enclosed**

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

April 29, 2022

—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
2021 DSM STATUS REPORT AND PROPOSED 2023 DSM PLAN

Dear Ms. Van Gerpen:

Enclosed for filing is a Petition by Northern States Power Company requesting approval of our 2021 DSM Status Report which includes our request for: 1) approval of cost recovery for 2021 actual expenditures and incentive, 2) approval of our Proposed 2023 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;

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

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

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

PUBLIC

(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 Jessica Peterson at (612) 330-6850 or email Jessica.K.Peterson@xcelenergy.com.

Sincerely,

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

Steve Kolbeck
Principal Manager –South Dakota

PUBLIC

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

IN THE MATTER OF THE PETITION OF
NORTHERN STATES POWER COMPANY
FOR APPROVAL OF THE 2021 ANNUAL
DSM STATUS REPORT, INCLUDING 2021
COST RECOVERY AND INCENTIVE AND
APPROVAL OF THE PROPOSED 2023 DSM
COST ADJUSTMENT FACTOR AND
PROGRAM PLAN

**PETITION FOR 2021 DSM
PROGRAM APPROVAL AND
PROPOSED 2023 DSM COST
ADJUSTMENT FACTOR**

DOCKET NO. EL22- ____

Northern States Power Company, doing business as Xcel Energy, submits to the South Dakota Public Utilities Commission, this Petition seeking approval of our 2021 Annual Demand Side Management (DSM) Report and Proposed 2023 DSM Plan (Plan).

In 2021, our DSM portfolio achievement exceeds 10.6 GWh. These savings will reduce overall energy consumption and, as a result, lower a customer's electric bill. Our enclosed 2023 Plan builds upon 2022 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) 2021 DSM results and earned incentive; (2) DSM program portfolio; (3) Report on DSM recovery; (4) DSM cost adjustment factor report; and (5) the Company's 2023 DSM plan.

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

- The Company's 2021 DSM Tracker account;
- Approve the incentive of \$248,609 earned for 2021 program performance;
- Approve the proposed 2023 electric DSM Adjustment Factor of \$0.000487 per kWh; and
- Approve the proposed 2023 DSM Plan.

PUBLIC

PETITION

I. 2021 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 2021, we achieved over 10.6 GWh of energy savings achievement. This achievement is a result of high penetration of LED lighting for both residential and commercial customers. Our total actual expenditures of \$898,686 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
2015	67%	33%	62%	38%	35%	66%
2016	34%	66%	26%	74%	35%	65%
2017	44%	56%	45%	55%	35%	65%
2018	42%	58%	42%	58%	35%	65%
2019	44%	56%	29%	71%	36%	64%
2020	33%	67%	33%	67%	37%	63%
2021	33%	67%	42%	58%	37%	63%

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.

PUBLIC

C. Program Achievement

To evaluate the cost-effectiveness of our portfolio for 2021, 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 the benefits outweigh the costs. As shown in the table below, the 2021 portfolio demonstrated a TRC Ratio of 1.68.

Table 2 provides a breakdown of 2021 achievements by program. A full executive summary, which includes both a comparison of 2021 goals versus actuals and cost-effectiveness test results, is provided as Attachment A.

**Table 2 – 2021 Actual Achievements
Executive Summary Table**

2021	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio
Business Segment					
Lighting Efficiency	110	\$562,736	995	6,097,503	1.12
Business Saver's Switch	32	\$33,055	48	66	1.67
Peak and Energy Control	2	\$1,651	260	515	75.62
Business Segment Total	144	\$597,442	1,303	6,098,084	1.16
Residential Segment					
Home Lighting	6,196	\$97,442	603	4,455,965	8.32
Heat Pump Water Heaters	1	\$300	1	3,820	1.70
Residential Demand Response	1,020	\$190,672	889	42,531	3.45
Consumer Education	5,524	\$2,397	N/A	N/A	N/A
Residential Segment Total	12,741	\$290,810	1,493	4,502,316	5.72
Planning Segment					
Regulatory Affairs	N/A	\$10,434	N/A	N/A	N/A
Planning Segment Total	N/A	\$10,434	N/A	N/A	N/A
PORTFOLIO TOTAL	12,885	\$898,686	2,796	10,600,400	1.68

PUBLIC

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.

D. DSM Incentive Report – Calculation Inputs

The Company submits the following 2021 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	\$828,696
Actual Spend	\$898,686

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 **\$828,696 x 30% = \$248,609**.

This incentive is accounted for in the Company's 2021 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, 2021 program activity and results, any changes we anticipate for 2023, and budget and goal considerations. There are no new programs being launched in 2023.

A. Business Portfolio

1. Business Lighting

The Business Lighting program offers retrofit and new construction rebate incentives to commercial and industrial customers who purchase and install qualifying energy-efficient lighting fixtures and lamps. Rebates are offered to motivate customers to purchase LED (light-emitting diode) lamps and fixtures by reducing the up-front costs associated with energy-efficient lighting.

PUBLIC

a. 2021 Program Activity and Results

The Business Lighting program continues to provide high achievement while maintaining a low cost per kWh of nine cents in 2021. We attribute these results to the successful installations of linear tubes, high bays, and troffer fixtures.

b. 2023 Proposed Changes

In 2022, Xcel Energy eliminated high bay and troffer fixtures in the prescriptive program because they were no longer cost-effective. To maintain opportunities for our customers to participate, the Company added a new Lighting Custom Efficiency program. The Custom Lighting option allows customers to submit projects for retrofit and new construction projects that are not offered in the prescriptive products. A Custom application must be submitted prior to the customer purchasing the equipment, and each project will be evaluated individually for cost-effectiveness. To date, no projects have completed the Custom Lighting product, however, there are five projects in the queue. Xcel Energy will continue to offer the Custom product for 2023. The Custom Lighting program creates opportunities for customers to obtain rebates on new lighting technologies, removing limits on wattage and type of fixtures. No additional changes were made to the products or rebate amounts for 2023.

c. Budget and Goal Considerations

With the removal of high-bay and troffer fixtures from the prescriptive program, the Company estimates a drop in energy savings; however, with the new Custom Lighting product, the savings and budget are forecasted to be approximately the same as 2022.

We note rebated and forecasted units in Table 3 below and have included rebate types in Attachment B.

Table 3: Business Lighting Efficiency Units

Year	Actual/Forecasted Units	Additional Information
2019	33,832	Achieved
2020	48,489	Achieved
2021	29,105	Achieved
2022	32,489	Filed/Forecasted
2023	32,573	Filed/Forecasted

PUBLIC

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 using load control receivers operated remotely via wireless signals. Control periods occur because 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.

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

a. 2021 Program Activity and Results

The Business Saver's Switch program had a successful year. While only a couple of premises were added to the program, these premises had a substantial number of AC units, leading the program to exceed goals, while coming in under budget.

The Company held one control event in 2021 for two hours as a result of our MISO obligations.

b. 2023 Proposed Changes

There are no changes proposed for 2023.

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 initiated by the Company or MISO. In return for their load availability, customers receive a monthly discount on their demand charges and can potentially save up to 50 percent on their demand charges over the entire year.

PUBLIC

Two conditions would result in customer load curtailment for ERS: (1) If the Company is directed to do so 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. 2021 Program Activity and Results

In 2021, we exceeded our achievement goal and spent less than budgeted. The program experienced new load from two new program participants.

The program had one event in 2021 which required participants to curtail their load down to their predetermined demand level for one hour. This event was an emergency MISO event. Additionally, we 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 in the event of an actual curtailment event the correct contacts are notified to ensure program compliance.

Program costs were for administrative and application maintenance costs as the company maintained the notification system used for both the notification test and MISO real power test event.

b. 2023 Proposed Changes

There are no proposed changes for 2023.

c. Budget and Goal Considerations

We expect minimal growth in participants and achievements over the next two years. Based on this probability the budget should be expected to remain similar to 2023.

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.

PUBLIC

B. Residential Portfolio

1. 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. We promote the Home Lighting program through a variety of channels including bill onserts, emails, digital advertising and point of purchase displays.

We motivate customers to purchase LEDs by offering in-store retail discounts. The discounts are provided through collaboration with bulb manufacturers and retailers. The discount varies depending on the type of bulb and the manufacturer/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. 2021 Program Activity and Results

The program surpassed the participation and energy savings goals for 2021. The increased achievements were a result of customers looking for ways to reduce their energy bills with customers continuing to spend more time at home due to the COVID-19 pandemic. Installing LEDs is an easy way to achieve savings. We were able to exceed our savings goal while spending was very close to the anticipated budget. This was because our average rebates were lower than expected due to current market pricing. The number of residential versus business bulbs sold is defined in Table 4 below. Additionally, we provide rebate types in Attachment B.

Table 4: Home Lighting Achievement

Type of Customer	Number of LED Bulbs Sold	Percent of Bulbs	Rebate Total
Residential	77,970	94%	\$68,165
Business (Generally Small Business)	5,228	6%	\$4,872

PUBLIC

b. 2023 Proposed Changes

We are requesting no additional changes to the Home Lighting program in 2023. Rebates were adjusted in the 2022 DSM Plan.

c. Budget and Goal Considerations

The energy savings and budget target for the product was derived by analyzing the market potential and historical sales data, while considering new technologies, available retail channels and participating customer segments. The goal and budget have increased for 2023 to account for reaching additional customers in newer channels.

2. 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 at this time:

- 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 want to encourage the use of energy-efficient opportunities with our customers and providing

PUBLIC

rebates on electric heat pump water heaters will continue to reduce customer barriers that prohibit this energy efficient option from being utilized.

a. 2021 Program Activity and Results

In 2021, the Heat Pump Water Heaters program continued to see low participation. The up-front cost of the technology (at \$300) continued to be a barrier as well as lack of product availability within the market. We want to encourage the use of energy-efficient opportunities and the increase in rebate level (to \$400) will help us encourage customers to purchase electric heat pump water heaters by reducing the cost barrier.

b. 2023 Proposed Changes

We are requesting no additional changes to the Heat Pump Water Heaters program in 2023. Rebates were adjusted in the 2022 DSM Plan.

c. Budget and Goal Considerations

The higher rebate, put in place in 2022, should assist with market transformation by increasing demand for the product which will then increase product availability within the market. The program budget includes rebates, promotion and administrative costs. The rebates make up the majority of the budget while a smaller amount is allotted to administration and promotion. The Company will utilize low-cost marketing tactics, partnerships with manufacturers, distributors, retailers, and trade partner outreach to increase awareness of the program.

3. Residential Demand Response

We offer 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 and are promoted primarily via email, direct mail and our customer care organization.

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

The AC Rewards program was launched in 2020 and offers residential electric customers the opportunity to implement demand response options via a smart thermostat. The

PUBLIC

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 qualifying device in AC Rewards. Customers who do not have a qualifying thermostat, but have a central AC, can receive a discount for purchasing and installing an ENERGY STAR® rated thermostat that is AC Rewards qualified. The following measures are incentivized at this time:

Table 5: Residential Demand Response Incentives

Measure Offerings	Incentives
Saver’s Switch for AC	15% discount off electric charges from June through September
Saver’s Switch for Water Heaters	2% 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 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. 2021 Program Activity and Results

In 2021, the Residential Demand Response program underspent its budget while participants and achievements were below target. In all, the Company installed about 350 new Saver’s Switches, enrolled 363 thermostats into AC Rewards, and paid out 156 Thermostat Optimization rebates.

The Saver’s Switch and AC Rewards products had one control event in 2021. The Company continues to plan for the execution of a minimum of one control event per year.

PUBLIC

b. 2023 Proposed Changes:

There are no proposed changes for 2023.

C. Additional Demand Side Efforts

1. 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 training on an as-needed basis.

In 2021, the pandemic prohibited Trade Relations Managers from conducting in person trainings per Company guidelines designed to protect employees and customers alike.

2. Consumer Education

The Consumer Education program creates awareness of energy conservation 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 via community outreach events and advertising within our service territory. Utilizing these different tactics allows us to reach a wide variety of customers.

The program's primary focus at community events is to drive customers to learn more about what they can do to save energy and money. In 2021, the Company did not meet the participation targets for this program largely because of the pandemic, which led to the cancellation of in-person events. Spending was reduced based on fewer outreach

PUBLIC

opportunities. With the continued cancellation of events, the Company had to pivot and explore activating digital content to educate customers via social media, email, other web platforms and virtual event platforms instead of in person events. Our participation is based on unique digital video reviews through our digital marketing campaign. With the return of in-person events in 2022, the Company looks forward to activating events once again. Of further note, no advertising was purchased in 2021.

3. Regulatory Affairs

The Planning & Administration group manages all DSM regulatory filings, prepares and directs 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. We are proposing no changes to our program budget in 2023.

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 2021 spending and cost recovery as well as the Company's carrying charge rates.

In 2021, the total portfolio spend came in at \$898,686. This amount is above our approved budget of \$828,696, but falls within the ten percent spend flexibility granted by the Commission.⁴ In addition to DSM expenses, the Company is requesting recovery of \$248,609 in financial incentive earned for our 2021 DSM performance for total recovery of \$1,147,295.

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 2021 and found in the 2021 Tracker; and
- Xcel Energy's 2021 DSM Tracker, which documents monthly DSM expenditures and recovered costs.

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)

PUBLIC

IV. DSM COST ADJUSTMENT FACTOR

The current DSM Cost Adjustment Factor of \$0.000554 per kWh was implemented on January 1, 2022.⁵ The Company requests a new DSM Cost Adjustment Factor of \$0.000487 per kWh to be effective with the first billing cycle of January 2023.

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 2021 and 2023 DSM Trackers reflecting the forecasted cost recovery with the current and proposed rates;
- Proposed bill onsert notice; and
- Proposed updated tariff sheet in both redlined and clean versions.

The Company requests a new DSM Cost Adjustment Factor of \$0.000487 per customer kWh to be effective with the first billing cycle of January 2023 and to remain in effect through December 2023 or until the Commission approves a new DSM Cost Adjustment Factor. This is a decrease of \$0.000067 per kWh compared to the previous DSM Cost Adjustment Factor. This decrease is due to the 2020 adjustment leading to over recovery.

If Commission approval of the proposed adjustment is delayed beyond the timeframe needed to implement the rate change by January 1, 2023, 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 2023. It is based on the forecasted December 2023 unrecovered balance in the Company's DSM Tracker account. This 2023 forecasted balance is based on the forecasted January beginning balance, projected expenditures and the forecasted incentive. The inputs and calculation are shown below.

⁵ Docket EL21-014, Commission Order December 13, 2021.

[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, 2023 – December 31, 2023 period. This rate of [CONFIDENTIAL DATA BEGINS HERE CONFIDENTIAL DATA ENDS HERE] would result in a negative balance because it does not consider carrying charges, which are negative for several months during 2023. To get as close to a possible \$0 balance by December 31, 2023, the rate was incrementally decreased to reflect future inclusion of carrying charges, until the balance approached \$0 without going negative. The resulting rate is **\$0.000487 per customer kWh**.

We note that the bill onsert for the DSM Cost Adjustment Factor has, in the past, been combined with the South Dakota Infrastructure Rider Rate. Attempts are made to limit the amount of onserts per bill when necessary; this further reduces cost. We will combine in 2023 if timing of each filing allows the ability to do so.

V. 2023 DSM Plan

This section includes a summary of our proposed 2023 Plan. Our plan for 2023 is to continue to provide customers energy efficient options and rebates to help them manage future energy bills. Table 6 summarizes our proposed goals and provides updated cost-effectiveness results by program. The total portfolio has a passing TRC Ratio of 2.00. A full executive summary, which includes all cost-effectiveness test results, is provided as Attachment E.

PUBLIC

**Table 6: Proposed 2023 DSM Plan
Executive Summary**

2023	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio
Business Segment					
Lighting Efficiency	477	\$393,373	784	6,482,533	1.45
Business Saver's Switch	20	\$25,250	57	78	1.33
Peak and Energy Control	1	\$10,000	174	448	4.39
Business Segment Total	498	\$428,623	1,014	6,483,059	1.46
Residential Segment					
Home Lighting	8,066	\$131,615	714	5,281,610	7.19
Heat Pump Water Heaters	25	\$10,900	8	61,901	1.02
Residential Demand Response	1,400	\$230,000	835	59,022	1.79
Consumer Education	52,579	\$21,165	N/A	N/A	N/A
Residential Segment Total	62,070	\$393,680	1,556	5,402,533	3.75
Planning Segment					
Regulatory Affairs	N/A	\$10,000	N/A	N/A	N/A
Planning Segment Total	N/A	\$10,000	N/A	N/A	N/A
PORTFOLIO TOTAL	62,568	\$832,303	2,571	11,885,592	2.00

PUBLIC

Service of Filings

We request that communications regarding this Application be directed to:

Lynnette Sweet
Regulatory Administrator
Xcel Energy
414 Nicollet Mall, 401-7
Minneapolis, MN 55401
(612) 321-3159
Regulatory.Records@xcelenergy.com

PUBLIC

CONCLUSION

In summary, the Company respectfully requests that the Commission:

- Approve the Company's 2021 DSM Tracker account;
- Approve the incentive of \$248,609 earned for 2021 program performance;
- Approve the proposed 2023 electric DSM Adjustment Factor of \$0.000487 per kWh; and
- Approve the proposed 2023 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: April 29, 2022

Xcel Energy

A handwritten signature in dark ink, reading "Steve Kolbeck". The signature is fluid and cursive, with a large loop at the beginning of the first name.

By:

Steve Kolbeck
Principal Manager –South Dakota

Executive Summary Table - 2021 Actual Achievements																		
	GOAL				ACTUAL										TEST RESULTS			
2021	Participants	Budget	Generator kW	Generator kWh	Participants	% of Goal	Spend	% of Goal	Generator kW	% of Goal	Generator kWh	Lifetime Years	Lifetime Generator kWh	% of Goal	Participant Ratio	Utility Ratio	RIM Ratio	TRC Ratio
Business Segment																		
Lighting Efficiency	591	\$414,226	591	5,181,197	110	19%	\$562,736	136%	995	169%	6,097,503	17	103,893,418	118%	2.31	5.41	0.49	1.12
Business Saver's Switch	10	\$25,250	28	39	32	320%	\$33,055	131%	48	169%	66	15	993	171%	INF	1.67	1.19	1.67
Peak and Energy Control	1	\$10,000	174	345	2	200%	\$1,651	17%	260	149%	515	5	2,575	149%	INF	75.62	9.70	75.62
Total	602	\$449,476	793	5,181,582	144	24%	\$597,442	133%	1,303	164%	6,098,084	17	103,896,987	118%	2.32	5.40	0.52	1.16
Residential Segment																		
Home Lighting	4,999	\$99,655	413	3,011,712	6,196	124%	\$97,442	98%	603	146%	4,455,965	13	55,895,396	148%	47.71	16.29	0.32	8.32
Heat Pump Water Heaters	21	\$12,900	9	71,574	1	5%	\$300	2%	1	7%	3,820	10	38,203	5%	7.16	4.16	0.28	1.70
Residential Demand Response	1,400	\$235,500	817	99,889	1,020	73%	\$190,672	81%	889	109%	42,531	10	424,110	43%	18.67	3.81	0.99	3.45
Consumer Education	68,000	\$21,165	N/A	N/A	5,524	8%	\$2,397	11%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Segment Total	74,420	\$369,220	1,239	3,183,176	12,741	17%	\$290,810	79%	1,493	120%	4,502,316	13	56,357,709	141%	40.77	7.96	0.41	5.72
Planning Segment																		
Regulatory Affairs	N/A	\$10,000	N/A	N/A	N/A	N/A	\$10,434	104%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	N/A	\$10,000	N/A	N/A	N/A	N/A	\$10,434	104%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PORTFOLIO TOTAL	75,022	\$828,696	2,032	8,364,757	12,885	17%	\$898,686	108%	2,796	138%	10,600,400	15	160,254,696	127%	4.17	6.17	0.47	1.68

LIGHTING EFFICIENCY					
2021 Net Present Cost Benefit Summary Analysis For All Participants					
	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$742,054	\$742,054	\$742,054	\$742,054
T & D	N/A	\$453,451	\$453,451	\$453,451	\$453,451
Marginal Energy	N/A	\$1,850,096	\$1,850,096	\$1,850,096	\$1,850,096
Environmental Externality	N/A	N/A	N/A	N/A	\$0
Subtotal	N/A	\$3,045,601	\$3,045,601	\$3,045,601	\$3,045,601
Participant Benefits					
Bill Reduction - Electric	\$5,590,994	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$552,231	N/A	N/A	\$552,231	\$552,231
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0
Subtotal	\$6,143,226	N/A	N/A	\$552,231	\$552,231
Total Benefits	\$6,143,226	\$3,045,601	\$3,045,601	\$3,597,832	\$3,597,832
Costs					
Utility Project Costs					
Customer Services	N/A	\$0	\$0	\$0	\$0
Utility Administration	N/A	\$10,504	\$10,504	\$10,504	\$10,504
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$552,231	\$552,231	\$552,231	\$552,231
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$562,736	\$562,736	\$562,736	\$562,736
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$5,590,994	N/A	N/A
Subtotal	N/A	N/A	\$5,590,994	N/A	N/A
Participant Costs					
Incremental Capital Costs	\$2,414,411	N/A	N/A	\$2,414,411	\$2,414,411
Incremental O&M Costs	\$241,971	N/A	N/A	\$241,971	\$241,971
Subtotal	\$2,656,382	N/A	N/A	\$2,656,382	\$2,656,382
Total Costs	\$2,656,382	\$562,736	\$6,153,730	\$3,219,117	\$3,219,117
Net Benefit (Cost)	\$3,486,844	\$2,482,865	(\$3,108,129)	\$378,715	\$378,715
Benefit/Cost Ratio	2.31	5.41	0.49	1.12	1.12

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

2021	ELECTRIC	Actual
Input Summary and Totals		
Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	17.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	71.14%
Gross Load Factor at Customer	E	50.15%
Transmission Loss Factor (Energy)	F	4.873%
Transmission Loss Factor (Demand)	G	5.640%
Societal Net Benefit (Cost)	H	\$287
Program Summary per Participant		
Gross kW Saved at Customer	I	12.00 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	9.05 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	52,731 kWh
Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	55,432 kWh
Program Summary All Participants		
Total Participants	J	110
Total Spend	K	\$562,736
Gross kW Saved at Customer	$(J \times I)$	1,320 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	995 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	5,800,402 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	6,097,503 kWh
Societal Net Benefits	$(J \times I \times H)$	\$378,715
Utility Program Cost per kWh Lifetime		
Utility Program Cost per kW at Gen		\$0.0054
		\$565

BUSINESS SAVER'S SWITCH						2021	ELECTRIC	Actual
2021 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals		
	Participant	Utility	Rate	Total		Program "Inputs" per Customer kW		
	Test	Test	Impact	Resource	Societal			
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)			
Benefits								
Avoided Revenue Requirements								
Generation	N/A	\$34,343	\$34,343	\$34,343	\$34,343	Lifetime (Weighted on Generator kWh)	A	15.0 years
T & D	N/A	\$20,966	\$20,966	\$20,966	\$20,966	Annual Hours	B	8760
Marginal Energy	N/A	\$22	\$22	\$22	\$22	Gross Customer kW	C	1.0 kW
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Generator Peak Coincidence Factor	D	17.56%
Subtotal	N/A	\$55,331	\$55,331	\$55,331	\$55,331	Gross Load Factor at Customer	E	0.00%
Participant Benefits								
Bill Reduction - Electric	\$13,253	N/A	N/A	N/A	N/A	Transmission Loss Factor (Energy)	F	4.873%
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Transmission Loss Factor (Demand)	G	5.640%
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Societal Net Benefit (Cost)	H	\$87
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Program Summary per Participant		
Subtotal	\$13,253	N/A	N/A	\$0	\$0	Gross kW Saved at Customer	I	8.01 kW
Total Benefits								
\$13,253	\$55,331	\$55,331	\$55,331	\$55,331	\$55,331	Net coincident kW Saved at Generator	(I x D) / (1 - G)	1.49 kW
Costs								
Utility Project Costs								
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	(B x E x I)	2 kWh
Utility Administration	N/A	\$33,055	\$33,055	\$33,055	\$33,055	Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	2 kWh
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Program Summary All Participants		
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Total Participants	J	32
Rebates	N/A	\$0	\$0	\$0	\$0	Total Spend	K	\$33,055
Other	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	(J x I)	256 kW
Subtotal	N/A	\$33,055	\$33,055	\$33,055	\$33,055	Net coincident kW Saved at Generator	(I x D) / (1 - G) x J	48 kW
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$13,253	N/A	N/A	Gross Annual kWh Saved at Customer	(B x E x I) x J	63 kWh
Subtotal	N/A	N/A	\$13,253	N/A	N/A	Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J	66 kWh
Participant Costs								
Incremental Capital Costs	\$0	N/A	N/A	\$0	\$0	Societal Net Benefits	(J x I x H)	\$22,276
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0	Utility Program Cost per kWh Lifetime		
Subtotal	\$0	N/A	N/A	\$0	\$0	\$33.2749		
Total Costs								
\$0	\$33,055	\$46,308	\$33,055	\$33,055	\$33,055	Utility Program Cost per kW at Gen		
Net Benefit (Cost)								
\$13,253	\$22,276	\$9,023	\$22,276	\$22,276	\$22,276			
Benefit/Cost Ratio								
INF	1.67	1.19	1.67	1.67	1.67			

PEAK AND ENERGY CONTROL						2021	ELECTRIC	Actual
2021 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	5.0 years
						Annual Hours	B	8760
						Gross Customer kW	C	1.0 kW
						Generator Peak Coincidence Factor	D	100.00%
						Gross Load Factor at Customer	E	0.02%
						Transmission Loss Factor (Energy)	F	4.873%
						Transmission Loss Factor (Demand)	G	5.640%
						Societal Net Benefit (Cost)	H	\$503
Avoided Revenue Requirements						Program Summary per Participant		
Generation	N/A	\$77,613	\$77,613	\$77,613	\$77,613	Gross kW Saved at Customer	I	122.50 kW
T & D	N/A	\$47,142	\$47,142	\$47,142	\$47,142	Net coincident kW Saved at Generator	(I x D) / (1 - G)	
Marginal Energy	N/A	\$59	\$59	\$59	\$59	Gross Annual kWh Saved at Customer	(B x E x I)	
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	
Subtotal	N/A	\$124,814	\$124,814	\$124,814	\$124,814	Program Summary All Participants		
Participant Benefits						Total Participants	J	2
Bill Reduction - Electric	\$11,217	N/A	N/A	N/A	N/A	Total Spend	K	\$1,651
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross kW Saved at Customer	(J x I)	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	(I x D) / (1 - G) x J	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	(B x E x I) x J	
Subtotal	\$11,217	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J	
Total Benefits						Societal Net Benefits	\$123,163	
Costs						Utility Program Cost per kWh Lifetime		
Utility Project Costs						Utility Program Cost per kW at Gen		
Customer Services	N/A	\$0	\$0	\$0	\$0			\$0.6409
Utility Administration	N/A	\$1,651	\$1,651	\$1,651	\$1,651			\$6
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	\$1,651	\$1,651	\$1,651	\$1,651			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$11,217	N/A	N/A			
Subtotal	N/A	N/A	\$11,217	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	\$1,651	\$12,868	\$1,651	\$1,651			
Net Benefit (Cost)								
Net Benefit (Cost)	\$11,217	\$123,163	\$111,946	\$123,163	\$123,163			
Benefit/Cost Ratio	INF	75.62	9.70	75.62	75.62			

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

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

HOME LIGHTING						2021	ELECTRIC	Actual
2021 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	12.5 years
						Annual Hours	B	8760
						Gross Customer kW	C	1 kW
						Generator Peak Coincidence Factor	D	16.70%
						Gross Load Factor at Customer	E	14.28%
						Transmission Loss Factor (Energy)	F	4.967%
						Transmission Loss Factor (Demand)	G	6.244%
						Societal Net Benefit (Cost)	H	\$432
Avoided Revenue Requirements						Program Summary per Participant		
Generation	N/A	\$343,589	\$343,589	\$343,589	\$343,589	Gross kW Saved at Customer	I	0.55 kW
T & D	N/A	\$209,711	\$209,711	\$209,711	\$209,711	Net coincident kW Saved at Generator	(I x D) / (1 - G)	
Marginal Energy	N/A	\$1,034,207	\$1,034,207	\$1,034,207	\$1,034,207	Gross Annual kWh Saved at Customer	(B x E x I)	
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	
Subtotal	N/A	\$1,587,506	\$1,587,506	\$1,587,506	\$1,587,506	Program Summary All Participants		
Participant Benefits						Total Participants	J	6,196
Bill Reduction - Electric	\$4,805,208	N/A	N/A	N/A	N/A	Total Spend	K	\$97,442
Rebates from Xcel Energy	\$75,015	N/A	N/A	\$75,015	\$75,015	Gross kW Saved at Customer	(J x I)	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	(I x D) / (1 - G) x J	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	(B x E x I) x J	
Subtotal	\$4,880,223	N/A	N/A	\$75,015	\$75,015	Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J	
Total Benefits	\$4,880,223	\$1,587,506	\$1,587,506	\$1,662,521	\$1,662,521	Societal Net Benefits	(J x I x H)	
Costs						Utility Program Cost per kWh Lifetime		
Utility Project Costs						Utility Program Cost per kW at Gen		
Customer Services	N/A	\$0	\$0	\$0	\$0			
Utility Administration	N/A	\$17,720	\$17,720	\$17,720	\$17,720			
Advertising & Promotion	N/A	\$4,707	\$4,707	\$4,707	\$4,707			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$75,015	\$75,015	\$75,015	\$75,015			
Other	N/A	\$0	\$0	\$0	\$0			
Subtotal	N/A	\$97,442	\$97,442	\$97,442	\$97,442			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$4,805,208	N/A	N/A			
Subtotal	N/A	N/A	\$4,805,208	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$102,284	N/A	N/A	\$102,284	\$102,284			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$102,284	N/A	N/A	\$102,284	\$102,284			
Total Costs	\$102,284	\$97,442	\$4,902,649	\$199,726	\$199,726			
Net Benefit (Cost)	\$4,777,939	\$1,490,065	(\$3,315,143)	\$1,462,796	\$1,462,796			
Benefit/Cost Ratio	47.71	16.29	0.32	8.32	8.32			

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

HEAT PUMP WATER HEATERS						2021	ELECTRIC	Actual
2021 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	10.0 years
						Annual Hours	B	8760
						Gross Customer kW	C	1.0 kW
						Generator Peak Coincidence Factor	D	100.00%
						Gross Load Factor at Customer	E	70.84%
						Transmission Loss Factor (Energy)	F	5.950%
						Transmission Loss Factor (Demand)	G	7.220%
						Societal Net Benefit (Cost)	H	\$1,098
Avoided Revenue Requirements						Program Summary per Participant		
Generation	N/A	\$333	\$333	\$333	\$333	Gross kW Saved at Customer	I	0.58 kW
T & D	N/A	\$203	\$203	\$203	\$203	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	
Marginal Energy	N/A	\$711	\$711	\$711	\$711	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	
Subtotal	N/A	\$1,247	\$1,247	\$1,247	\$1,247	Program Summary All Participants		
Participant Benefits						Total Participants	J	1
Bill Reduction - Electric	\$4,077	N/A	N/A	N/A	N/A	Total Spend	K	\$300
Rebates from Xcel Energy	\$300	N/A	N/A	\$300	\$300	Gross kW Saved at Customer	$(J \times I)$	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	
Subtotal	\$4,377	N/A	N/A	\$300	\$300	Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	
Total Benefits						Societal Net Benefits	$(J \times I \times H)$	
Costs						Utility Program Cost per kWh Lifetime		
Utility Project Costs						Utility Program Cost per kW at Gen	\$0.0079	
Customer Services	N/A	\$0	\$0	\$0	\$0	Total		
Utility Administration	N/A	\$0	\$0	\$0	\$0	\$481		
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$300	\$300	\$300	\$300			
Other	N/A	\$0	\$0	\$0	\$0			
Subtotal	N/A	\$300	\$300	\$300	\$300			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$4,077	N/A	N/A			
Subtotal	N/A	N/A	\$4,077	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$611	N/A	N/A	\$611	\$611			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$611	N/A	N/A	\$611	\$611			
Total Costs								
Net Benefit (Cost)								
Benefit/Cost Ratio								

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

RESIDENTIAL DEMAND RESPONSE						2021	ELECTRIC	Actual
2021 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals		
	Participant	Utility	Rate	Total		Program "Inputs" per Customer kW		
	Test	Test	Impact	Resource	Societal	Lifetime (Weighted on Generator kWh)	A	10.0 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B	8760
Benefits						Gross Customer kW	C	1.0 kW
						Generator Peak Coincidence Factor	D	36.83%
						Gross Load Factor at Customer	E	0.20%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	5.950%
Generation	N/A	\$446,054	\$446,054	\$446,054	\$446,054	Transmission Loss Factor (Demand)	G	7.220%
T & D	N/A	\$271,867	\$271,867	\$271,867	\$271,867	Societal Net Benefit (Cost)	H	\$243
Marginal Energy	N/A	\$8,611	\$8,611	\$8,611	\$8,611			
Environmental Externality	N/A	N/A	N/A	N/A	\$0			
Subtotal	N/A	\$726,532	\$726,532	\$726,532	\$726,532			
Participant Benefits								
Bill Reduction - Electric	\$543,027	N/A	N/A	N/A	N/A			
Rebates from Xcel Energy	\$39,600	N/A	N/A	\$39,600	\$39,600			
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0			
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$582,627	N/A	N/A	\$39,600	\$39,600			
Total Benefits	\$582,627	\$726,532	\$726,532	\$766,132	\$766,132			
Costs								
Utility Project Costs								
Customer Services	N/A	\$0	\$0	\$0	\$0			
Utility Administration	N/A	\$149,651	\$149,651	\$149,651	\$149,651			
Advertising & Promotion	N/A	\$1,421	\$1,421	\$1,421	\$1,421			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$39,600	\$39,600	\$39,600	\$39,600			
Other	N/A	\$0	\$0	\$0	\$0			
Subtotal	N/A	\$190,672	\$190,672	\$190,672	\$190,672			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$543,027	N/A	N/A			
Subtotal	N/A	N/A	\$543,027	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$31,200	N/A	N/A	\$31,200	\$31,200			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$31,200	N/A	N/A	\$31,200	\$31,200			
Total Costs	\$31,200	\$190,672	\$733,698	\$221,872	\$221,872			
Net Benefit (Cost)	\$551,427	\$535,860	(\$7,167)	\$544,260	\$544,260			
Benefit/Cost Ratio	18.67	3.81	0.99	3.45	3.45			

Program Summary per Participant			
Gross kW Saved at Customer	I	2.20 kW	
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.87 kW	
Gross Annual kWh Saved at Customer	(B x E x I)	39 kWh	
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	42 kWh	
Program Summary All Participants			
Total Participants	J	1,020	
Total Spend	K	\$190,672	
Gross kW Saved at Customer	(J x I)	2,239 kW	
Net coincident kW Saved at Generator	(I x D) / (1 - G) x J	889 kW	
Gross Annual kWh Saved at Customer	(B x E x I) x J	40,000 kWh	
Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J	42,531 kWh	
Societal Net Benefits	(J x I x H)	\$544,260	
Utility Program Cost per kWh Lifetime			\$0.4496
Utility Program Cost per kW at Gen			\$214

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

RESIDENTIAL SEGMENT TOTAL						2021	ELECTRIC	Actual	
2021 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	12.5 years	
						Annual Hours	B	8760	
						Gross Customer kW	C	1.0 kW	
						Generator Peak Coincidence Factor	D	24.77%	
						Gross Load Factor at Customer	E	8.68%	
						Transmission Loss Factor (Energy)	F	4.977%	
						Transmission Loss Factor (Demand)	G	6.635%	
						Societal Net Benefit (Cost)	H	\$356	
Avoided Revenue Requirements						Program Summary per Participant			
Generation	N/A	\$789,976	\$789,976	\$789,976	\$789,976	Gross kW Saved at Customer	I	0.44 kW	
T & D	N/A	\$481,781	\$481,781	\$481,781	\$481,781	Net coincident kW Saved at Generator	(I x D) / (1 - G)		0.12 kW
Marginal Energy	N/A	\$1,043,529	\$1,043,529	\$1,043,529	\$1,043,529	Gross Annual kWh Saved at Customer	(B x E x I)		336 kWh
Environmental Externality	N/A	N/A	N/A	N/A	\$0	Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)		353 kWh
Subtotal	N/A	\$2,315,286	\$2,315,286	\$2,315,286	\$2,315,286	Program Summary All Participants			
Participant Benefits						Total Participants	J	12,741	
Bill Reduction - Electric	\$5,352,312	N/A	N/A	N/A	N/A	Total Spend	K	\$290,810	
Rebates from Xcel Energy	\$114,915	N/A	N/A	\$114,915	\$114,915	Gross kW Saved at Customer	(J x I)		5,626 kW
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	(I x D) / (1 - G) x J		1,493 kW
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	(B x E x I) x J		4,278,233 kWh
Subtotal	\$5,467,226	N/A	N/A	\$114,915	\$114,915	Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J		4,502,316 kWh
Total Benefits						Societal Net Benefits	(J x I x H)		\$2,005,295
Costs						Utility Program Cost per kWh Lifetime			\$0.0052
Utility Project Costs						Utility Program Cost per kW at Gen			\$195
Customer Services	N/A	\$0	\$0	\$0	\$0				
Utility Administration	N/A	\$168,735	\$168,735	\$168,735	\$168,735				
Advertising & Promotion	N/A	\$7,160	\$7,160	\$7,160	\$7,160				
Measurement & Verification	N/A	\$0	\$0	\$0	\$0				
Rebates	N/A	\$114,915	\$114,915	\$114,915	\$114,915				
Other	N/A	\$0	\$0	\$0	\$0				
Subtotal	N/A	\$290,810	\$290,810	\$290,810	\$290,810				
Utility Revenue Reduction									
Revenue Reduction - Electric	N/A	N/A	\$5,352,312	N/A	N/A				
Subtotal	N/A	N/A	\$5,352,312	N/A	N/A				
Participant Costs									
Incremental Capital Costs	\$134,095	N/A	N/A	\$134,095	\$134,095				
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0				
Subtotal	\$134,095	N/A	N/A	\$134,095	\$134,095				
Total Costs									
	\$134,095	\$290,810	\$5,643,122	\$424,906	\$424,906				
Net Benefit (Cost)	\$5,333,131	\$2,024,475	(\$3,327,836)	\$2,005,295	\$2,005,295				
Benefit/Cost Ratio	40.77	7.96	0.41	5.72	5.72				

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

PORTFOLIO TOTAL						2021	ELECTRIC	Actual
2021 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals		
	Participant	Utility	Rate	Total		Program "Inputs" per Customer kW		
	Test	Test	Impact	Resource	Societal			
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)			
Benefits								
Avoided Revenue Requirements								
Generation	N/A	\$1,643,985	\$1,643,985	\$1,643,985	\$1,643,985			
T & D	N/A	\$1,003,339	\$1,003,339	\$1,003,339	\$1,003,339			
Marginal Energy	N/A	\$2,893,707	\$2,893,707	\$2,893,707	\$2,893,707			
Environmental Externality	N/A	N/A	N/A	N/A	\$0			
Subtotal	N/A	\$5,541,031	\$5,541,031	\$5,541,031	\$5,541,031			
Participant Benefits								
Bill Reduction - Electric	\$10,967,776	N/A	N/A	N/A	N/A			
Rebates from Xcel Energy	\$667,146	N/A	N/A	\$667,146	\$667,146			
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0			
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$11,634,922	N/A	N/A	\$667,146	\$667,146			
Total Benefits	\$11,634,922	\$5,541,031	\$5,541,031	\$6,208,177	\$6,208,177			
Costs								
Utility Project Costs								
Customer Services	N/A	\$0	\$0	\$0	\$0			
Utility Administration	N/A	\$224,380	\$224,380	\$224,380	\$224,380			
Advertising & Promotion	N/A	\$7,160	\$7,160	\$7,160	\$7,160			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$667,146	\$667,146	\$667,146	\$667,146			
Other	N/A	\$0	\$0	\$0	\$0			
Subtotal	N/A	\$898,686	\$898,686	\$898,686	\$898,686			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$10,967,776	N/A	N/A			
Subtotal	N/A	N/A	\$10,967,776	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$2,548,506	N/A	N/A	\$2,548,506	\$2,548,506			
Incremental O&M Costs	\$241,971	N/A	N/A	\$241,971	\$241,971			
Subtotal	\$2,790,477	N/A	N/A	\$2,790,477	\$2,790,477			
Total Costs	\$2,790,477	\$898,686	\$11,866,462	\$3,689,163	\$3,689,163			
Net Benefit (Cost)	\$8,844,445	\$4,642,345	(\$6,325,431)	\$2,519,014	\$2,519,014			
Benefit/Cost Ratio	4.17	6.17	0.47	1.68	1.68			

Lifetime (Weighted on Generator kWh)	A	15.1 years
Annual Hours	B	8760
Gross Customer kW	C	1.0 kW
Generator Peak Coincidence Factor	D	35.14%
Gross Load Factor at Customer	E	15.45%
Transmission Loss Factor (Energy)	F	4.917%
Transmission Loss Factor (Demand)	G	6.394%
Societal Net Benefit (Cost)	H	\$338
Program Summary per Participant		
Gross kW Saved at Customer	I	1.01 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.38 kW
Gross Annual kWh Saved at Customer	(B x E x I)	1,369 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	1,440 kWh
Program Summary All Participants		
Total Participants	J	7,361
Total Spend	K	\$898,686
Gross kW Saved at Customer	(J x I)	7,447 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G) x J	2,796 kW
Gross Annual kWh Saved at Customer	(B x E x I) x J	10,079,188 kWh
Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J	10,600,400 kWh
Societal Net Benefits	(J x I x H)	\$2,519,014
Utility Program Cost per kWh Lifetime		\$0.0056
Utility Program Cost per kW at Gen		\$321

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

2022/2023 Lighting Measures

Type	Lighting Efficiency	2020 Rebate Amount (\$)	2021 Rebate Amount (\$)	2022 Rebate Amount (\$)	2023 Rebate Amount (\$)	Rebate Adjustment	Justification
Retrofit	Stairwell Fixture	\$ 4000	\$ 4000	\$ 4000	\$ 4000		
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	\$015/watt	\$015/watt	\$015/watt	\$015/watt	N/A	
Retrofit	LED Mogul Screw-base lamp 30-39W	\$ 3000	\$ 3000	\$ 3000	\$ 3000	N/A	
Retrofit	LED Mogul Screw-base lamp 40-49W	\$ 4000	\$ 4000	\$ 4000	\$ 4000	N/A	
Retrofit	LED Mogul Screw-base lamp 50-79W	\$ 5000	\$ 5000	\$ 5000	\$ 5000	N/A	
Retrofit	LED Mogul Screw-base lamp 80-119W	\$ 6000	\$ 6000	\$ 6000	\$ 6000	N/A	
Retrofit	LED Mogul Screw-base lamp 120-230W	\$ 7500	\$ 7500	\$ 7500	\$ 7500	N/A	
Retrofit	LED/LFC Exit Sign	\$ 2500	\$ 2500	\$ 2500	\$ 2500	N/A	
Retrofit	LED Interior Screw In Fixture Retrofit	\$ 1000	\$ 1000	\$ 1000	\$ 1100	N/A	
Retrofit	LED Interior Fixture <= 25W	\$ 2000	\$ 2000	\$ 2000	\$ 2000	N/A	
Retrofit	LED Interior Fixture 26W - 50W	\$ 4000	\$ 4000	\$ 4000	\$ 4000	N/A	
Retrofit	LED Ref and Frz Cases 5' or 6' doors	\$ 4500	\$ 4500	\$ 4500	\$ 4600	N/A	
Retrofit	LED Parking Garage Lighting 25W-60W	\$ 7500	\$ 7500	\$ 7500	\$ 7500	N/A	
Retrofit	LED Area Lighting - 45-65W	\$ 2500	\$ 2500	\$ 2500	\$ 2500	N/A	
Retrofit	LED Area Lighting - 66-89W	\$ 2500	\$ 2500	\$ 2500	\$ 2500	N/A	
Retrofit	LED Area Lighting - 90-119W	\$ 5000	\$ 5000	\$ 5000	\$ 5000	N/A	
Retrofit	LED Area Lighting - 120-140W	\$ 5000	\$ 5000	\$ 5000	\$ 5000	N/A	
Retrofit	LED Troffer Fixture 1X4	\$ 2000	\$ 2000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED Troffer Fixture 2X2	\$ 2000	\$ 2000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED Troffer Fixture 2X4	\$ 3000	\$ 3000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED Troffer Retrofit Kit 1X4	\$ 1500	\$ 1500	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED Troffer Retrofit Kit 2X2	\$ 1500	\$ 1500	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED Troffer Retrofit Kit 2X4	\$ 2500	\$ 2500	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED Exterior Wall Pack <= 25W	\$ 2500	\$ 2500	\$ 2500	\$ 2500	N/A	
Retrofit	LED Exterior Wall Pack 26W - 60W	\$ 5000	\$ 5000	\$ 5000	\$ 5000	N/A	
Retrofit	LED Exterior Wall Pack 61W - 150W	\$ 8000	\$ 8000	\$ 8000	\$ 8000	N/A	
Retrofit	LED Parking Garage Wall Pack <= 25W	\$ 3500	\$ 3500	\$ 3500	\$ 3500	N/A	
Retrofit	LED Parking Garage Wall Pack 26W - 60W	\$ 7500	\$ 7500	\$ 7500	\$ 7500	N/A	
Retrofit	LED Parking Garage Wall Pack 61W - 150W	\$ 10000	\$ 10000	\$ 10000	\$ 10000	N/A	
Retrofit	LED Outdoor Canopy or Soffit lighting 25W - 60W	\$ 7500	\$ 7500	\$ 7500	\$ 7500	N/A	
Retrofit	LED Outdoor Canopy or Soffit lighting 61W - 150W	\$ 10000	\$ 10000	\$ 10000	\$ 10000	N/A	
Retrofit	LED Interior Lamp <= 5W	\$ 400	\$ 400	\$ 200	\$ 200	Rebate reduced in 2022	Lower cost of technology
Retrofit	LED Interior Lamp 6W - 10W	\$ 600	\$ 600	\$ 300	\$ 300	Rebate reduced in 2022	Lower cost of technology
Retrofit	LED Interior Lamp 11W - 20W	\$ 800	\$ 800	\$ 400	\$ 400	Rebate reduced in 2022	Lower cost of technology
Retrofit	LED Tube Type A 2 foot	\$ 200	\$ 200	\$ 200	\$ 200	N/A	
Retrofit	LED Tube Type C 2 foot	\$ 500	\$ 500	\$ 500	\$ 500	N/A	
Retrofit	LED Tube Type A 4 foot	\$ 200	\$ 200	\$ 200	\$ 200	N/A	
Retrofit	LED Tube Type C 4 foot	\$ 500	\$ 500	\$ 500	\$ 500	N/A	
Retrofit	LED Tube Type B 4 foot	\$ 300	\$ 300	\$ 300	\$ 300	N/A	
Retrofit	LED High Bay Fixture - 95-189W replaces HHD	\$ 10000	\$ 10000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Fixture - 190-290W replaces HHD	\$ 12000	\$ 12000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Fixture - 291-464W replaces HHD	\$ 15000	\$ 15000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Fixture - 465-625W replaces HHD	\$ 20000	\$ 20000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 95-189W replaces HHD	\$ 4000	\$ 4000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 190-290W replaces HHD	\$ 5000	\$ 5000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 291-464W replaces HHD	\$ 8000	\$ 8000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 465-625W replaces HHD	\$ 16000	\$ 16000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Fixture - 95-189W replaces fluorescent	\$ 10000	\$ 10000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Fixture - 190-290W replaces fluorescent	\$ 12000	\$ 12000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Fixture - 291-464W replaces fluorescent	\$ 15000	\$ 15000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Fixture - 465-625W replaces fluorescent	\$ 20000	\$ 20000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 95-189W replaces fluorescent	\$ 4000	\$ 4000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 190-290W replaces fluorescent	\$ 5000	\$ 5000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 291-464W replaces fluorescent	\$ 8000	\$ 8000	\$ -	\$ -	Deleted in 2022	Not cost-effective
Retrofit	LED High Bay Retrofit Kit - 465-625W replaces fluorescent	\$ 16000	\$ 16000	\$ -	\$ -	Deleted in 2022	Not cost-effective
New Construction	LED Interior Lamp <= 5W	\$ 400	\$ 400	\$ 200	\$ 200	Rebate reduced in 2022	Lower cost of technology
New Construction	LED Interior Lamp 6W - 10W	\$ 600	\$ 600	\$ 300	\$ 300	Rebate reduced in 2022	Lower cost of technology
New Construction	LED Interior Lamp 11W - 20W	\$ 800	\$ 800	\$ 400	\$ 400	Rebate reduced in 2022	Lower cost of technology
New Construction	LED Interior Fixture <= 25W	\$ 1500	\$ 1500	\$ 1500	\$ 1500	N/A	
New Construction	LED Interior Fixture 26W - 50W	\$ 2000	\$ 2000	\$ 2000	\$ 2000	N/A	
New Construction	LED Ref and Frz Cases 5' or 6' doors	\$ 3500	\$ 3500	\$ 3500	\$ 3500	N/A	
New Construction	LED Parking Garage Lighting 25W-60W	\$ 3500	\$ 3500	\$ 2500	\$ 2500	Rebate reduced in 2022	Lower cost of technology
New Construction	LED Area Lighting - 45-65W	\$ 1500	\$ 1500	\$ 1500	\$ 1500	N/A	
New Construction	LED Area Lighting - 66-89W	\$ 1500	\$ 1500	\$ 1500	\$ 1500	N/A	
New Construction	LED Area Lighting - 90-119W	\$ 3000	\$ 3000	\$ 3000	\$ 3000	N/A	
New Construction	LED Area Lighting - 120-140W	\$ 3000	\$ 3000	\$ 3000	\$ 3000	N/A	
New Construction	LED Troffer Fixture 1X4	\$ 1500	\$ 1500	\$ -	\$ -	Deleted in 2022	Not cost-effective
New Construction	LED Troffer Fixture 2X2	\$ 1500	\$ 1500	\$ -	\$ -	Deleted in 2022	Not cost-effective
New Construction	LED Troffer Fixture 2X4	\$ 2500	\$ 2500	\$ -	\$ -	Deleted in 2022	Not cost-effective
New Construction	LED Exterior Wall Pack <= 25W	\$ 1500	\$ 1500	\$ 1500	\$ 1500	N/A	
New Construction	LED Exterior Wall Pack 26W - 60W	\$ 3000	\$ 3000	\$ 3000	\$ 3000	N/A	
New Construction	LED Exterior Wall Pack 61W - 150W	\$ 5000	\$ 5000	\$ 5000	\$ 5000	N/A	
New Construction	LED Parking Garage Wall Pack <= 25W	\$ 1500	\$ 1500	\$ 1500	\$ 1500	N/A	
New Construction	LED Parking Garage Wall Pack 26W - 60W	\$ 3000	\$ 3000	\$ 3000	\$ 3000	N/A	
New Construction	LED Parking Garage Wall Pack 61W - 150W	\$ 5000	\$ 5000	\$ 5000	\$ 5000	N/A	
New Construction	LED Outdoor Canopy or Soffit lighting 25W - 60W	\$ 5000	\$ 5000	\$ 2000	\$ 2000	Rebate reduced in 2022	Lower cost of technology
New Construction	LED Outdoor Canopy or Soffit lighting 61W - 150W	\$ 5000	\$ 5000	\$ 2500	\$ 2500	Rebate reduced in 2022	Lower cost of technology
Custom Lighting	Average rebate amount estimated			\$ 7/23.00	\$ 7/23.00	Added in 2022	Expand options for customers

Home Lighting	2020 Rebate Amount (\$)	2021 Rebate Amount (\$)	2022 Rebate Amount (\$)	2023 Rebate Amount (\$)	Rebate Adjustment	Justification
LED Bulb - A-Line	\$1.06	\$1.07	\$0.90	\$0.90	n/a	n/a
LED Bulb - Specialty	\$1.10	\$1.54	\$1.30	\$1.30	n/a	n/a
LED Bulb - Linear Tube - Residential portion	\$2.00	\$2.00	\$2.00	\$2.00	n/a	n/a
LED Bulb - Linear Tube - Business portion	\$2.00	\$3.92	\$3.92	\$3.92	n/a	n/a

PUBLIC

Xcel Energy
South Dakota Capital Structure
Carrying Charge Calculation

State of South Dakota Jurisdiction
2014 Rate Case-Docket EL-14-058 (Order issued 7/22/15)
Base Assumptions

Capital Structure:

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

[CONFIDENTIAL
DATA BEGINS
HERE]

Percent Cost Weighted Cost

CONFIDENTIAL
DATA ENDS HERE]

7.22%

Weighted Cost of Capital

Equity
Debt
Total

[CONFIDENTIAL
DATA BEGINS
HERE]

CONFIDENTIAL
DATA ENDS HERE]

Weighted Cost of Capital

7.22%

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]

PUBLIC

Docket No. EL22-____
Attachment C: 2 of 2

Northern States Power Company
State of South Dakota- Electric Utility
DSM Cost Recovery & Incentive Mechanism - Total
2021 Actual

2021	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>	Total
<u>EXPENSES</u>	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	
[CONFIDENTIAL DATA BEGINS													
1. Beg. Balance													
2. DSM Program Expenditures													
3. Accrued Incentive													
4. Total Expenditures + Incentive (Line 2 + 3)													
<u>RECOVERY</u>													
5. Calendar Month Sales Volume (MWh)													
6. DSM Adjustment Factor (\$/MWh)													
7. Cost and Incentive Recovery													
8. Sub-Balance (Over)/Under Recovery (Sum Lines 1 - 3, minus Line 7)													
9. Accumulated Deferred Income Tax (Line 8 x 21%)													
10. Net Investment (Line 8 - 9)													
11. Carrying Charge Rate													
12. Carrying Charge (Line 10 x Line 11)													
13. End of Month Balance (over)/under recovered (Line 8 + 12)													

CONFIDENTIAL DATA ENDS]

[CONFIDENTIAL DATA BEGINS

CONFIDENTIAL DATA ENDS]

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 2022-2023 timeframe, as well as recover all forecasted 2023 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 13, 2021 Order,¹ Xcel Energy implemented the approved rate of \$0.000554 per kWh effective January 1, 2021.

(6) Proposed rate;

Xcel Energy requests a new DSM Cost Adjustment Factor of \$0.000487 per customer kWh.

(7) Proposed effective date of modified rate;

Xcel Energy requests this new DSM Cost Adjustment Factor of \$0.000487 per customer kWh become effective with the first billing cycle of January 2023. We request this rate remain in effect through December 2023 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 \$0.000487 per customer kWh is a decrease of \$0.000067 per kWh or 12 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 99,452 electric customers in 36 communities in eastern South Dakota.

¹ Docket No. EL21-014

(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 2022 and 2023 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
2022 Forecast

[illegible]

Table 1: 2022 DSM Tracker Actual, With Cost Recovery in 2023

[CONFIDENTIAL DATA BEGINS

CONFIDENTIAL DATA ENDS]

Northern States Power Company
State of South Dakota- Electric Utility
DSM Cost Recovery & Incentive Mechanism - Total
2023 Forecast

2023	January	February	March	April	May	June	July	August	September	October	November	December	Total
EXPENSES	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	
[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: 2023 DSM Tracker Forecast, With Cost Recovery in 2024

[CONFIDENTIAL DATA BEGINS

CONFIDENTIAL DATA ENDS]

Proposed Customer Bill Onsert Language

DSM Cost Adjustment Factor Increase Effective January 1, 2023

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, 2023 the rate factor will decrease from \$0.000554 per kWh per kWh to \$0.000487 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 increase 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 Increase	Percent Increase
	Other Rates	Prior DSM Factor	Prior DSM	Prior Bill	Other Rates	New DSM Factor	New DSM	New Bill		
400	\$56.94	\$0.000554	\$0.22	\$57.16	\$56.94	\$0.000487	\$0.19	\$57.13	(0.03)	-0.05%
500	\$69.12	\$0.000554	\$0.28	\$69.40	\$69.12	\$0.000487	\$0.24	\$69.36	(0.04)	-0.06%
600	\$81.29	\$0.000554	\$0.33	\$81.62	\$81.29	\$0.000487	\$0.29	\$81.58	(0.04)	-0.05%
750	\$99.55	\$0.000554	\$0.42	\$99.97	\$99.55	\$0.000487	\$0.37	\$99.92	(0.05)	-0.05%
1000	\$129.98	\$0.000554	\$0.55	\$130.53	\$129.98	\$0.000487	\$0.49	\$130.47	(0.06)	-0.05%
2000	\$251.71	\$0.000554	\$1.11	\$252.82	\$251.71	\$0.000487	\$0.97	\$252.68	(0.14)	-0.06%

For more information:

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

Legislative

Northern States Power Company, a Minnesota corporation
Minneapolis, MN 55401

SOUTH DAKOTA ELECTRIC RATE BOOK - SDPUC NO. 2

**DEMAND SIDE MANAGEMENT COST
ADJUSTMENT FACTOR**

Section No. 5
~~9th~~^{10th} Revised Sheet No. 73
 Cancelling ~~8th~~^{9th} 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 ~~\$0.0005540~~^{\$0.000487} per kWh

N

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: ~~05-03-21~~⁰⁴⁻²⁹⁻²²

By: Christopher B. Clark

Effective Date: ~~01-01-22~~

President, Northern States Power Company, a Minnesota corporation

Docket No. EL~~24-01422-~~

Order Date: ~~12-13-21~~

Non-Legislative

Northern States Power Company, a Minnesota corporation
Minneapolis, MN 55401

SOUTH DAKOTA ELECTRIC RATE BOOK - SDPUC NO. 2

**DEMAND SIDE MANAGEMENT COST
ADJUSTMENT FACTOR**

Section No. 5
10th Revised Sheet No. 73
Cancelling 9th 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 \$0.000487 per kWh

N

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: 04-29-22

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. EL22-

Order Date:

Executive Summary Table-2023

2023	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	477	\$393,373	784	6,482,533	4.03	5.87	0.35	1.45
Business Saver's Switch	20	\$25,250	57	78	INF	1.33	0.38	1.33
Peak and Energy Control	1	\$10,000	174	448	INF	4.39	2.82	4.39
Business Segment Total	498	\$428,623	1,014	6,483,059	4.07	5.57	0.35	1.46
Residential Segment								
Home Lighting	8,066	\$131,615	714	5,281,610	49.51	13.44	0.28	7.19
Heat Pump Water Heaters	25	\$10,900	8	61,901	4.72	1.92	0.24	1.02
Residential Demand Response	1,400	\$230,000	835	59,022	5.38	1.86	0.56	1.79
Consumer Education	52,579	\$21,165	N/A	N/A	N/A	N/A	N/A	N/A
Residential Segment Total	62,070	\$393,680	1,556	5,402,533	24.88	5.64	0.30	3.75
Planning Segment								
Regulatory Affairs	N/A	\$10,000	N/A	N/A	N/A	N/A	N/A	N/A
Planning Segment Total	N/A	\$10,000	N/A	N/A	N/A	N/A	N/A	N/A
PORTFOLIO TOTAL	62,568	\$832,303	2,571	11,885,592	7.04	5.53	0.33	2.00

LIGHTING EFFICIENCY**2023 Net Present Cost Benefit Summary Analysis For All Participants**

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$429,464	\$429,464	\$429,464	\$429,464
T & D	N/A	\$76,556	\$76,556	\$76,556	\$76,556
Marginal Energy	N/A	\$1,802,627	\$1,802,627	\$1,802,627	\$1,802,627
Environmental Externality	N/A	N/A	N/A	N/A	\$1,419
Subtotal	N/A	\$2,308,647	\$2,308,647	\$2,308,647	\$2,310,065
Participant Benefits					
Bill Reduction - Electric	\$6,270,168	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$363,097	N/A	N/A	\$363,097	\$363,097
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$434,831	N/A	N/A	\$434,831	\$434,831
Subtotal	\$7,068,096	N/A	N/A	\$797,928	\$797,928
Total Benefits	\$7,068,096	\$2,308,647	\$2,308,647	\$3,106,575	\$3,107,993
Costs					
Utility Project Costs					
Customer Services	N/A	\$0	\$0	\$0	\$0
Utility Administration	N/A	\$11,353	\$11,353	\$11,353	\$11,353
Advertising & Promotion	N/A	\$18,922	\$18,922	\$18,922	\$18,922
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$363,097	\$363,097	\$363,097	\$363,097
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$393,373	\$393,373	\$393,373	\$393,373
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$6,270,168	N/A	N/A
Subtotal	N/A	N/A	\$6,270,168	N/A	N/A
Participant Costs					
Incremental Capital Costs	\$1,753,143	N/A	N/A	\$1,753,143	\$1,753,143
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0
Subtotal	\$1,753,143	N/A	N/A	\$1,753,143	\$1,753,143
Total Costs	\$1,753,143	\$393,373	\$6,663,541	\$2,146,517	\$2,146,517
Net Benefit (Cost)	\$5,314,953	\$1,915,274	(\$4,354,895)	\$960,058	\$961,477
Benefit/Cost Ratio	4.03	5.87	0.35	1.45	1.45

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

2023 ELECTRIC**GOAL****Input Summary and Totals****Program "Inputs" per Customer kW**

Lifetime (Weighted on Generator kWh)	A	14.4 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	58.01%
Gross Load Factor at Customer	E	55.17%
Transmission Loss Factor (Energy)	F	4.550%
Transmission Loss Factor (Demand)	G	5.318%
Societal Net Benefit (Cost)	H	\$751

Program Summary per Participant

Gross kW Saved at Customer	I	2.68 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	1.64 kW
Gross Annual kWh Saved at Customer	(B x E x I)	12,972 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	13,590 kWh

Program Summary All Participants

Total Participants	J	477
Total Budget	K	\$393,373
Gross kW Saved at Customer	(J x I)	1,280.25 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G) x J	784 kW
Gross Annual kWh Saved at Customer	(B x E x I) x J	6,187,578 kWh
Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J	6,482,533 kWh
Societal Net Benefits	(J x I x H)	\$961,477

Utility Program Cost per kWh Lifetime	\$0.0042
Utility Program Cost per kW at Gen	\$502

BUSINESS SAVER'S SWITCH

2023 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$33,460	\$33,460	\$33,460	\$33,460
T & D	N/A	\$0	\$0	\$0	\$0
Marginal Energy	N/A	\$14	\$14	\$14	\$14
Environmental Externality	N/A	N/A	N/A	N/A	\$3
Subtotal	N/A	\$33,473	\$33,473	\$33,473	\$33,476
Participant Benefits					
Bill Reduction - Electric	\$62,261	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0
Subtotal	\$62,261	N/A	N/A	\$0	\$0
Total Benefits	\$62,261	\$33,473	\$33,473	\$33,473	\$33,476
Costs					
Utility Project Costs					
Customer Services	N/A	\$15,750	\$15,750	\$15,750	\$15,750
Utility Administration	N/A	\$7,000	\$7,000	\$7,000	\$7,000
Advertising & Promotion	N/A	\$2,500	\$2,500	\$2,500	\$2,500
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	\$25,250	\$25,250	\$25,250	\$25,250
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$62,261	N/A	N/A
Subtotal	N/A	N/A	\$62,261	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	\$25,250	\$87,511	\$25,250	\$25,250
Net Benefit (Cost)	\$62,261	\$8,223	(\$54,037)	\$8,223	\$8,226
Benefit/Cost Ratio	INF	1.33	0.38	1.33	1.33

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

2023 ELECTRIC**GOAL**

Input Summary and Totals

Program "Inputs" per Customer kW

Lifetime (Weighted on Generator kWh)	A	15.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	16.67%
Gross Load Factor at Customer	E	0.00%
Transmission Loss Factor (Energy)	F	4.550%
Transmission Loss Factor (Demand)	G	5.317%
Societal Net Benefit (Cost)	H	\$26

Program Summary per Participant

Gross kW Saved at Customer	I	16.05 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	2.83 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	4 kWh
Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	4 kWh

Program Summary All Participants

Total Participants	J	20
Total Budget	K	\$25,250
Gross kW Saved at Customer	$(J \times I)$	321.07 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	57 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	75 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	78 kWh
Societal Net Benefits	$(J \times I \times H)$	\$8,226

Utility Program Cost per kWh Lifetime	\$21.5430
Utility Program Cost per kW at Gen	\$447

PEAK AND ENERGY CONTROL**2023 Net Present Cost Benefit Summary Analysis For All Participants**

	Participant Test	Utility Test	Rate Impact Test	Total Resource Test	Societal Test
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$43,882	\$43,882	\$43,882	\$43,882
T & D	N/A	\$0	\$0	\$0	\$0
Marginal Energy	N/A	\$61	\$61	\$61	\$61
Environmental Externality	N/A	N/A	N/A	N/A	\$0
Subtotal	N/A	\$43,943	\$43,943	\$43,943	\$43,943
Participant Benefits					
Bill Reduction - Electric	\$5,587	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0
Subtotal	\$5,587	N/A	N/A	\$0	\$0
Total Benefits	\$5,587	\$43,943	\$43,943	\$43,943	\$43,943
Costs					
Utility Project Costs					
Customer Services	N/A	\$0	\$0	\$0	\$0
Utility Administration	N/A	\$10,000	\$10,000	\$10,000	\$10,000
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	\$10,000	\$10,000	\$10,000	\$10,000
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$5,587	N/A	N/A
Subtotal	N/A	N/A	\$5,587	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	\$10,000	\$15,587	\$10,000	\$10,000
Net Benefit (Cost)	\$5,587	\$33,943	\$28,356	\$33,943	\$33,943
Benefit/Cost Ratio	INF	4.39	2.82	4.39	4.39

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

2023 ELECTRIC**GOAL****Input Summary and Totals****Program "Inputs" per Customer kW**

Lifetime (Weighted on Generator kWh)	A	5.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	100.00%
Gross Load Factor at Customer	E	0.03%
Transmission Loss Factor (Energy)	F	4.550%
Transmission Loss Factor (Demand)	G	5.318%
Societal Net Benefit (Cost)	H	\$207

Program Summary per Participant

Gross kW Saved at Customer	I	164.29 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	173.52 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	427 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F))$	448 kWh

Program Summary All Participants

Total Participants	J	1
Total Budget	K	\$10,000
Gross kW Saved at Customer	$(J \times I)$	164.29 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	174 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	427 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	448 kWh
Societal Net Benefits	$(J \times I \times H)$	\$33,943

Utility Program Cost per kWh Lifetime	\$4.4691
Utility Program Cost per kW at Gen	\$58

BUSINESS SEGMENT TOTAL

2023 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$506,806	\$506,806	\$506,806	\$506,806
T & D	N/A	\$76,556	\$76,556	\$76,556	\$76,556
Marginal Energy	N/A	\$1,802,701	\$1,802,701	\$1,802,701	\$1,802,701
Environmental Externality	N/A	N/A	N/A	N/A	\$1,422
Subtotal	N/A	\$2,386,063	\$2,386,063	\$2,386,063	\$2,387,485
Participant Benefits					
Bill Reduction - Electric	\$6,338,015	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$363,097	N/A	N/A	\$363,097	\$363,097
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$434,831	N/A	N/A	\$434,831	\$434,831
Subtotal	\$7,135,943	N/A	N/A	\$797,928	\$797,928
Total Benefits	\$7,135,943	\$2,386,063	\$2,386,063	\$3,183,991	\$3,185,413
Costs					
Utility Project Costs					
Customer Services	N/A	\$15,750	\$15,750	\$15,750	\$15,750
Utility Administration	N/A	\$28,353	\$28,353	\$28,353	\$28,353
Advertising & Promotion	N/A	\$21,422	\$21,422	\$21,422	\$21,422
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$363,097	\$363,097	\$363,097	\$363,097
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$428,623	\$428,623	\$428,623	\$428,623
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$6,338,015	N/A	N/A
Subtotal	N/A	N/A	\$6,338,015	N/A	N/A
Participant Costs					
Incremental Capital Costs	\$1,753,143	N/A	N/A	\$1,753,143	\$1,753,143
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0
Subtotal	\$1,753,143	N/A	N/A	\$1,753,143	\$1,753,143
Total Costs	\$1,753,143	\$428,623	\$6,766,638	\$2,181,767	\$2,181,767
Net Benefit (Cost)	\$5,382,800	\$1,957,440	(\$4,380,575)	\$1,002,224	\$1,003,646
Benefit/Cost Ratio	4.07	5.57	0.35	1.46	1.46

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

2023 ELECTRIC**GOAL**

Input Summary and Totals

Program "Inputs" per Customer kW

Lifetime (Weighted on Generator kWh)	A	14.4 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	54.40%
Gross Load Factor at Customer	E	40.01%
Transmission Loss Factor (Energy)	F	4.550%
Transmission Loss Factor (Demand)	G	5.317%
Societal Net Benefit (Cost)	H	\$568

Program Summary per Participant

Gross kW Saved at Customer	I	3.55 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	2.04 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	12,426 kWh
Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	13,018 kWh

Program Summary All Participants

Total Participants	J	498
Total Budget	K	\$428,623
Gross kW Saved at Customer	$(J \times I)$	1,765.61 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	1,014 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	6,188,080 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	6,483,059 kWh
Societal Net Benefits	$(J \times I \times H)$	\$1,003,646

Utility Program Cost per kWh Lifetime

\$0.0046

Utility Program Cost per kW at Gen

\$423

HOME LIGHTING**2023 Net Present Cost Benefit Summary Analysis For All Participants**

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$352,954	\$352,954	\$352,954	\$352,954
T & D	N/A	\$63,001	\$63,001	\$63,001	\$63,001
Marginal Energy	N/A	\$1,353,256	\$1,353,256	\$1,353,256	\$1,353,256
Environmental Externality	N/A	N/A	N/A	N/A	\$6,597
Subtotal	N/A	\$1,769,211	\$1,769,211	\$1,769,211	\$1,775,808
Participant Benefits					
Bill Reduction - Electric	\$6,276,042	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$102,849	N/A	N/A	\$102,849	\$102,849
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0
Subtotal	\$6,378,890	N/A	N/A	\$102,849	\$102,849
Total Benefits	\$6,378,890	\$1,769,211	\$1,769,211	\$1,872,060	\$1,878,657
Costs					
Utility Project Costs					
Customer Services	N/A	\$0	\$0	\$0	\$0
Utility Administration	N/A	\$23,966	\$23,966	\$23,966	\$23,966
Advertising & Promotion	N/A	\$4,800	\$4,800	\$4,800	\$4,800
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$102,849	\$102,849	\$102,849	\$102,849
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$131,615	\$131,615	\$131,615	\$131,615
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$6,276,042	N/A	N/A
Subtotal	N/A	N/A	\$6,276,042	N/A	N/A
Participant Costs					
Incremental Capital Costs	\$128,833	N/A	N/A	\$128,833	\$128,833
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0
Subtotal	\$128,833	N/A	N/A	\$128,833	\$128,833
Total Costs	\$128,833	\$131,615	\$6,407,656	\$260,448	\$260,448
Net Benefit (Cost)	\$6,250,057	\$1,637,597	(\$4,638,445)	\$1,611,612	\$1,618,209
Benefit/Cost Ratio	49.51	13.44	0.28	7.19	7.21

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

2023 ELECTRIC**GOAL****Input Summary and Totals****Program "Inputs" per Customer kW**

Lifetime (Weighted on Generator kWh)	A	13.4 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	16.70%
Gross Load Factor at Customer	E	14.33%
Transmission Loss Factor (Energy)	F	5.349%
Transmission Loss Factor (Demand)	G	6.804%
Societal Net Benefit (Cost)	H	\$406

Program Summary per Participant

Gross kW Saved at Customer	I	0.49 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	0.09 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	620 kWh
Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	655 kWh

Program Summary All Participants

Total Participants	J	8,066
Total Budget	K	\$131,615
Gross kW Saved at Customer	$(J \times I)$	3,983.50 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	714 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	4,999,123 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	5,281,610 kWh
Societal Net Benefits	$(J \times I \times H)$	\$1,618,209

Utility Program Cost per kWh Lifetime	\$0.0019
Utility Program Cost per kW at Gen	\$184

HEAT PUMP WATER HEATERS

2023 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$4,285	\$4,285	\$4,285	\$4,285
T & D	N/A	\$762	\$762	\$762	\$762
Marginal Energy	N/A	\$15,859	\$15,859	\$15,859	\$15,859
Environmental Externality	N/A	N/A	N/A	N/A	\$1
Subtotal	N/A	\$20,907	\$20,907	\$20,907	\$20,908
Participant Benefits					
Bill Reduction - Electric	\$76,220	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$8,400	N/A	N/A	\$8,400	\$8,400
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0
Subtotal	\$84,620	N/A	N/A	\$8,400	\$8,400
Total Benefits	\$84,620	\$20,907	\$20,907	\$29,307	\$29,308
Costs					
Utility Project Costs					
Customer Services	N/A	\$0	\$0	\$0	\$0
Utility Administration	N/A	\$2,500	\$2,500	\$2,500	\$2,500
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$8,400	\$8,400	\$8,400	\$8,400
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$10,900	\$10,900	\$10,900	\$10,900
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$76,220	N/A	N/A
Subtotal	N/A	N/A	\$76,220	N/A	N/A
Participant Costs					
Incremental Capital Costs	\$16,464	N/A	N/A	\$16,464	\$16,464
Incremental O&M Costs	\$1,474	N/A	N/A	\$1,474	\$1,474
Subtotal	\$17,938	N/A	N/A	\$17,938	\$17,938
Total Costs	\$17,938	\$10,900	\$87,120	\$28,838	\$28,838
Net Benefit (Cost)	\$66,682	\$10,007	(\$66,213)	\$469	\$470
Benefit/Cost Ratio	4.72	1.92	0.24	1.02	1.02

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

2023 ELECTRIC**GOAL**

Input Summary and Totals

Program "Inputs" per Customer kW

Lifetime (Weighted on Generator kWh)	A	13.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	100.00%
Gross Load Factor at Customer	E	89.75%
Transmission Loss Factor (Energy)	F	5.630%
Transmission Loss Factor (Demand)	G	6.900%
Societal Net Benefit (Cost)	H	\$63

Program Summary per Participant

Gross kW Saved at Customer	I	0.30 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	0.32 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	2,337 kWh
Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	2,476 kWh

Program Summary All Participants

Total Participants	J	25
Total Budget	K	\$10,900
Gross kW Saved at Customer	$(J \times I)$	7.43 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	8 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	58,416 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	61,901 kWh
Societal Net Benefits	$(J \times I \times H)$	\$470
Utility Program Cost per kWh Lifetime		\$0.0135
Utility Program Cost per kW at Gen		\$1,366

RESIDENTIAL DEMAND RESPONSE**2023 Net Present Cost Benefit Summary Analysis For All Participants**

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$392,637	\$392,637	\$392,637	\$392,637
T & D	N/A	\$21,512	\$21,512	\$21,512	\$21,512
Marginal Energy	N/A	\$14,202	\$14,202	\$14,202	\$14,202
Environmental Externality	N/A	N/A	N/A	N/A	\$72
Subtotal	N/A	\$428,351	\$428,351	\$428,351	\$428,423
Participant Benefits					
Bill Reduction - Electric	\$541,413	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$53,000	N/A	N/A	\$53,000	\$53,000
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$190,467	N/A	N/A	\$190,467	\$190,467
Subtotal	\$784,880	N/A	N/A	\$243,467	\$243,467
Total Benefits	\$784,880	\$428,351	\$428,351	\$671,818	\$671,890
Costs					
Utility Project Costs					
Customer Services	N/A	\$126,000	\$126,000	\$126,000	\$126,000
Utility Administration	N/A	\$41,000	\$41,000	\$41,000	\$41,000
Advertising & Promotion	N/A	\$10,000	\$10,000	\$10,000	\$10,000
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$53,000	\$53,000	\$53,000	\$53,000
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$230,000	\$230,000	\$230,000	\$230,000
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$541,413	N/A	N/A
Subtotal	N/A	N/A	\$541,413	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	\$230,000	\$771,413	\$376,000	\$376,000
Net Benefit (Cost)	\$638,880	\$198,351	(\$343,062)	\$295,818	\$295,890
Benefit/Cost Ratio	5.38	1.86	0.56	1.79	1.79

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

2023 ELECTRIC**GOAL****Input Summary and Totals****Program "Inputs" per Customer kW**

Lifetime (Weighted on Generator kWh)	A	10.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	41.01%
Gross Load Factor at Customer	E	0.34%
Transmission Loss Factor (Energy)	F	5.630%
Transmission Loss Factor (Demand)	G	6.900%
Societal Net Benefit (Cost)	H	\$156

Program Summary per Participant

Gross kW Saved at Customer	I	1.35 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.60 kW
Gross Annual kWh Saved at Customer	(B x E x I)	40 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	42 kWh

Program Summary All Participants

Total Participants	J	1,400
Total Budget	K	\$230,000
Gross kW Saved at Customer	(J x I)	1,894.74 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G) x J	835 kW
Gross Annual kWh Saved at Customer	(B x E x I) x J	55,699 kWh
Net Annual kWh Saved at Generator	((B x E x I) / (1 - F)) x J	59,022 kWh
Societal Net Benefits	(J x I x H)	\$295,890

Utility Program Cost per kWh Lifetime	\$0.3886
Utility Program Cost per kW at Gen	\$276

RESIDENTIAL SEGMENT TOTAL					
2023 Net Present Cost Benefit Summary Analysis For All Participants					
	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$749,876	\$749,876	\$749,876	\$749,876
T & D	N/A	\$85,275	\$85,275	\$85,275	\$85,275
Marginal Energy	N/A	\$1,383,318	\$1,383,318	\$1,383,318	\$1,383,318
Environmental Externality	N/A	N/A	N/A	N/A	\$6,670
Subtotal	N/A	\$2,218,469	\$2,218,469	\$2,218,469	\$2,225,139
Participant Benefits					
Bill Reduction - Electric	\$6,893,674	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$164,249	N/A	N/A	\$164,249	\$164,249
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$188,993	N/A	N/A	\$188,993	\$188,993
Subtotal	\$7,246,916	N/A	N/A	\$353,241	\$353,241
Total Benefits	\$7,246,916	\$2,218,469	\$2,218,469	\$2,571,710	\$2,578,380
Costs					
Utility Project Costs					
Customer Services	N/A	\$147,165	\$147,165	\$147,165	\$147,165
Utility Administration	N/A	\$67,466	\$67,466	\$67,466	\$67,466
Advertising & Promotion	N/A	\$14,800	\$14,800	\$14,800	\$14,800
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$164,249	\$164,249	\$164,249	\$164,249
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$393,680	\$393,680	\$393,680	\$393,680
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$6,893,674	N/A	N/A
Subtotal	N/A	N/A	\$6,893,674	N/A	N/A
Participant Costs					
Incremental Capital Costs	\$291,297	N/A	N/A	\$291,297	\$291,297
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0
Subtotal	\$291,297	N/A	N/A	\$291,297	\$291,297
Total Costs	\$291,297	\$393,680	\$7,287,354	\$684,977	\$684,977
Net Benefit (Cost)	\$6,955,618	\$1,824,789	(\$5,068,885)	\$1,886,733	\$1,893,403
Benefit/Cost Ratio	24.88	5.64	0.30	3.75	3.76

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

2023 ELECTRIC		GOAL
Input Summary and Totals		
Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	13.4 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	24.63%
Gross Load Factor at Customer	E	9.92%
Transmission Loss Factor (Energy)	F	5.355%
Transmission Loss Factor (Demand)	G	6.835%
Societal Net Benefit (Cost)	H	\$322
Program Summary per Participant		
Gross kW Saved at Customer	I	0.09 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	0.03 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	82 kWh
Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	87 kWh
Program Summary All Participants		
Total Participants	J	62,070
Total Budget	K	\$393,680
Gross kW Saved at Customer	$(J \times I)$	5,885.67 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	1,556 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	5,113,238 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	5,402,533 kWh
Societal Net Benefits	$(J \times I \times H)$	\$1,893,403
Utility Program Cost per kWh Lifetime		\$0.0054
Utility Program Cost per kW at Gen		\$253

PORTFOLIO TOTAL

2023 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)
Benefits					
Avoided Revenue Requirements					
Generation	N/A	\$1,256,682	\$1,256,682	\$1,256,682	\$1,256,682
T & D	N/A	\$161,831	\$161,831	\$161,831	\$161,831
Marginal Energy	N/A	\$3,186,019	\$3,186,019	\$3,186,019	\$3,186,019
Environmental Externality	N/A	N/A	N/A	N/A	\$8,092
Subtotal	N/A	\$4,604,532	\$4,604,532	\$4,604,532	\$4,612,624
Participant Benefits					
Bill Reduction - Electric	\$13,231,690	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	\$527,346	N/A	N/A	\$527,346	\$527,346
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0
Incremental O&M Savings	\$623,824	N/A	N/A	\$623,824	\$623,824
Subtotal	\$14,382,859	N/A	N/A	\$1,151,169	\$1,151,169
Total Benefits	\$14,382,859	\$4,604,532	\$4,604,532	\$5,755,701	\$5,763,793
Costs					
Utility Project Costs					
Customer Services	N/A	\$162,915	\$162,915	\$162,915	\$162,915
Utility Administration	N/A	\$105,819	\$105,819	\$105,819	\$105,819
Advertising & Promotion	N/A	\$36,222	\$36,222	\$36,222	\$36,222
Measurement & Verification	N/A	\$0	\$0	\$0	\$0
Rebates	N/A	\$527,346	\$527,346	\$527,346	\$527,346
Other	N/A	\$0	\$0	\$0	\$0
Subtotal	N/A	\$832,303	\$832,303	\$832,303	\$832,303
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	\$13,231,690	N/A	N/A
Subtotal	N/A	N/A	\$13,231,690	N/A	N/A
Participant Costs					
Incremental Capital Costs	\$2,044,441	N/A	N/A	\$2,044,441	\$2,044,441
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0
Subtotal	\$2,044,441	N/A	N/A	\$2,044,441	\$2,044,441
Total Costs	\$2,044,441	\$832,303	\$14,063,992	\$2,876,743	\$2,876,743
Net Benefit (Cost)	\$12,338,418	\$3,772,229	(\$9,459,461)	\$2,878,958	\$2,887,050
Benefit/Cost Ratio	7.04	5.53	0.33	2.00	2.00

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

2023 ELECTRIC**GOAL**

Input Summary and Totals

Program "Inputs" per Customer kW

Lifetime (Weighted on Generator kWh)	A	14.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	31.42%
Gross Load Factor at Customer	E	16.86%
Transmission Loss Factor (Energy)	F	4.916%
Transmission Loss Factor (Demand)	G	6.489%
Societal Net Benefit (Cost)	H	\$377

Program Summary per Participant

Gross kW Saved at Customer	I	0.12 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	0.04 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I)$	181 kWh
Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	190 kWh

Program Summary All Participants

Total Participants	J	62,568
Total Budget	K	\$832,303
Gross kW Saved at Customer	$(J \times I)$	7,651.29 kW
Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	2,571 kW
Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	11,301,317 kWh
Net Annual kWh Saved at Generator	$((B \times E \times I) / (1 - F)) \times J$	11,885,592 kWh
Societal Net Benefits	$(J \times I \times H)$	\$2,887,050

Utility Program Cost per kWh Lifetime	\$0.0050
Utility Program Cost per kW at Gen	\$324