

CLEAN VERSION

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 2015 ANNUAL
DSM STATUS REPORT, INCLUDING 2015
COST RECOVERY AND INCENTIVE AND
APPROVAL OF THE PROPOSED 2017 DSM
COST ADJUSTMENT FACTOR AND
PROGRAM PLAN

**PETITION FOR 2015 DSM
PROGRAM APPROVAL AND
PROPOSED 2017 DSM COST
ADJUSTMENT FACTOR**

DOCKET NO. EL16-018

OVERVIEW

Northern States Power Company, doing business as Xcel Energy, submits to the South Dakota Public Utilities Commission, this Petition seeking approval of the 2015 annual Demand Side Management Status (DSM) Report, including 2015 cost recovery and incentive, as well as approval of our Proposed 2017 DSM Plan (Plan) and Cost Adjustment Factor.

We respectfully request that the Commission approve the following:

- The Company's 2015 DSM Tracker account;
- The incentive earned for program performance in 2015;
- Our proposed 2017 DSM Cost Adjustment Factor of \$0.000504 per kWh, and;
- Our Proposed 2017 DSM Plan.

The remainder of our filing will include the following sections:

- I. ***2015 DSM Status Report*** – Presents 2015 program performance including budgets, goals, expenditures, actual energy savings and participation. This section also specifies any programmatic changes for our 2017 Plan.
- II. ***2015 DSM Cost Recovery Report*** – Provides the 2015 DSM Tracker. The Company seeks approval to record \$844,973 in DSM spending in its DSM Tracker account.
- III. ***2015 DSM Cost Adjustment Factor Report*** – Presents the calculation of the DSM Cost Adjustment Factor to be applied to customer electric usage for recovery of

2015 DSM expenditures, effective January 1, 2017. We are proposing a new electric DSM Cost Adjustment Factor of \$0.000504 per customer kWh.

- IV. *DSM Incentive Report*** – Presents the calculations of the Company’s DSM Financial Incentive. We request approval to record and recover \$232,512 in incentive from customers in the DSM Tracker for calendar year 2015.
- V. *Summary of Proposed 2017 DSM Plan*** – Provides the portfolio level executive summary along with updated cost-effectiveness results.

REPORT

I. 2015 DSM Status Report

A. Executive Summary

Our DSM portfolio continues to offer a mix of both load management and energy efficiency programs to our South Dakota customers. In 2015, we continued to help customers manage their energy bills by achieving more than 4.5 GWh of energy savings.

Per our 2015 Plan¹, we achieved 74 percent of our planned goal. We anticipated lower than expected achievement this year as a result of re-launching our Business Lighting Efficiency program. The lighting program removed CFL technology measures and began offering light-emitting diode (LED) technologies exclusively within the program. We knew that this adjustment would require additional education for customers on the benefits of LED technology. However, the transition has taken longer than anticipated and as a result, we petitioned the Commission², to adjust the 2016 Lighting Efficiency program. New construction LED lighting measures were approved by the Commission in December 2015. We are aware of an active new construction market for business lighting measures in South Dakota and look forward to using these opportunities to continue to educate customers on the benefits of LED technologies.

As we continued to encourage customers to adopt high efficiency equipment we identified opportunities to increase residential participation resulting in increased spending above our anticipated budget. The total actual expenditures of \$844,973 fall above the filed budget, however, within the Commission approved budget flexibility³.

¹ Docket EL 14-040.

² Docket EL 15-015, October 5, 2015.

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

To evaluate the cost-effectiveness of our portfolio in 2015, we looked at the Total Resource Cost (TRC) ratio, which compares total benefits to total costs of the portfolio.⁴ If a program or portfolio has a TRC ratio above one, it is considered cost-effective. As shown in the table below, the 2015 portfolio demonstrated a TRC Ratio value of 1.73.

The 2015 DSM Plan was created based on market assumptions and forecasts of customer interest. Table 1 provides a breakdown of 2015 achievements by program. A full executive summary, which includes both a comparison of 2015 goals versus actuals and all cost-effectiveness test results, is provided as Attachment A.

Table 1 – Executive Summary Table of 2015 Actual Achievements

2015	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio
Business Segment					
Lighting Efficiency	99	\$238,751	312	1,687,744	1.02
Business Saver's Switch	7	\$28,556	55	407	1.93
Peak and Energy Control	9	\$4,708	797	43,889	72.86
Business Segment Total	115	\$272,015	1,165	1,732,039	1.34
Residential Segment					
Ground Source Heat Pump	9	\$14,361	26	44,799	0.62
Home Lighting	38,919	\$204,700	338	2,727,345	2.48
Residential Saver's Switch	1,024	\$270,775	726	5,877	2.67
Consumer Education	93,056	\$63,005	0	0	-
Residential Segment Total	133,008	\$552,841	1,089	2,778,021	2.21
Planning Segment					
Regulatory Affairs	0	\$20,117	0	0	-
Planning Segment Total	0	\$20,117	0	0	-
PORTFOLIO TOTAL	133,123	\$844,973	2,254	4,510,060	1.73

The Status Report continues to show a successful year for the DSM portfolio. While under goal, we were able to exceed 2014 performance⁵. We maintain a well-balanced portfolio of programs and continued to educate customers. More details of each program's performance are offered in the 2015 Program Achievements section below.

⁴ A TRC ratio above 1.0 indicates the benefit outweighs the costs.

⁵ In 2014, the Company achieved 4,452,883 GWh of achievement.

B. 2015 Program Achievements

1. Business Segment

a. Lighting Efficiency

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

i. 2015 Program Activity and Results

The Lighting Efficiency program was re-launched in 2015 after being idled since April of 2013 as a result of budget constraints. The re-launched program focused exclusively on providing commercial and industrial customer incentives for installing LED lighting technology. Non-LED rebates were completely removed from the 2015 program to aid in market transformation to the more efficient technology.

The primary focus for 2015 was to build program awareness. We found that there was a need to reestablish the program in the market and note the change to LED lamps and fixtures. We utilized multiple channels of communication to build the awareness, including in-person trade partner training, customer and trade partner emails, newsletters, online information sheets and one-on-one conversations with lighting stakeholders.

Participation in the first half of the year was slow due to sales lead times after the re-launch, but the program began to gain traction in the third and fourth quarters.

Despite missing its filed savings targets, the program established a project pipeline that will carry well into 2016. The program's overall spending per savings ratio was higher than the filed ratio due to incurring costs associated with the program's re-launch, building pipeline and communication efforts while corresponding projects will not be completed until 2016.

ii. 2017 Program Changes

The 2017 program will continue to rebate the seven LED new construction measures launched at the beginning of 2016. These measures were added in response to increased new construction. No other changes are being filed for 2017.

b. Business Saver's Switch®

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

i. 2015 Program Activity and Results

Due to a relatively few large customer installations, we exceeded achievement targets while staying within budget for the year. This was a result of efficiencies in deploying multiple switches at few locations. All installs for the year were new installations; there were no maintenance replacements of existing switches.

iii. 2017 Program Changes

There are no changes to the program anticipated for the 2017 program year.

c. Peak Controlled and Energy Controlled Rates

The Electric Rate Savings (ERS) program is offered to any business customers who can reduce their electric loads during control periods by at least 50 kW. In return for reducing their loads, they receive a monthly discount on their demand charges. Participants save as much as 50 percent on demand charges over the year. The ERS program is promoted directly through our account management and Business Solutions Center team.

i. 2015 Program Activity and Results

The program fell short of the approved goal for 2015. We attribute this to future changes in the program as noted by our opt-out waiver⁶ provided to customers who wanted to leave the rate due to the possible increase in control events.

Although the budget was underspent, the Company continued to pursue customer participation through various marketing activities. Every year a program information packet is sent to participating customer, explaining any program changes, reminders of their responsibility as an interruptible customer on a control day and providing historical information. A customer meeting is also held to better explain the program, MISO

⁶ Docket No.15-014

impacts and operational details. The budget going forward will remain the same in an effort to maintain the current participation level.

ii. 2017 Program Changes

There are no changes to the program anticipated for the 2017 program year.

2. Residential Segment

a. Ground Source Heat Pump

The Ground Source Heat Pump (GSHP) program provides rebates to residential customers who purchase and install a qualifying closed-loop GSHP where electricity is used as the primary heating and cooling source. Customers must install the GSHP for both space heating and space cooling; systems installed for the purpose of only heating or cooling are not rebated through the program.

This program is primarily marketed through installers. Customers are also made aware of the program via our website and consumer events.

i. 2015 Program Activity and Results

There was a decrease in participation in 2015 attributed in part to the maturity of the program. In addition, participation is significantly driven by installers. Several of the installers actively promoting the program in 2014 did not participate in 2015.

To increase program awareness, the program was featured at the Sioux Falls Canaries Game and was promoted using a bill insert in September. Additional promotional activities have been planned to increase program participation in 2016.

The program was under budget but the dollars are in-line with the program's actual achievement.

ii. 2017 Program Changes

The Ground Source Heat Pump program will be removed from the portfolio on December 31, 2016.

b. Home Lighting

The Home Lighting program offers discounted prices on compact fluorescent light (CFL) and light-emitting diode (LED) bulbs. Energy efficient lights are an easy and low cost way for customers to save energy and reduce the cost of their monthly electric bills. We promote the Home Lighting program through a variety of venues including a bill onsert, radio and interactive advertising, community events and point of purchase displays.

Additionally, we continue to partner with MidAmerican Energy Company on its gas home energy audit program *HomeCheck Assessment*. MidAmerican delivers the program and installs energy efficient bulbs in customers' homes. This partnership delivers and installs lighting energy savings directly to our service area.

i. 2015 Program Activity and Results

The program exceeded its participation and energy savings goals. Additional dollars were allocated to the Home Lighting program in 2015 to achieve higher participation and energy savings.

ii. 2017 Program Changes

In 2017, the Home Lighting program is further expanding incentives for LED bulbs. There continues to be a reduction in price for LEDs, increasing the probability of customers purchasing an LED bulb over a traditional CFL. In addition, LEDs bulbs tend to provide higher customer satisfaction because they perform better in different lighting applications.

In 2016, some large retailers will stop stocking CFLs bulbs and will focus on LEDs. This trend is expected to continue to grow in 2017, making it more difficult to find locations to purchase CFLs moving forward. As a result, a majority of funding available for Home Lighting will shift to LED bulbs.

c. Residential Saver's Switch®

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

i. 2015 Program Activity and Results

In 2015, we had strong interest in the program. As a result, the achievements and program expenses are both substantially above what was planned. All installs for the year were new installations; there were no maintenance replacements of existing switches.

ii. 2017 Program Changes

There are no changes to the program anticipated for the 2017 program year.

d. Consumer Education

Consumer Education is an indirect-impact program focusing on creating awareness of energy conservation by providing residential customers with information on how to reduce energy usage within their homes.

The primary objective of the Consumer Education program is to heighten residential customers' awareness about energy efficiency and energy conservation. Through the program we want to develop engaged customers who proactively take steps to reduce energy consumption by increasing their homes' efficiency measures and thereby reducing their energy consumption.

i. 2015 Program Activity and Results

This year we employed an electronic email campaign as well as onsite community outreach to provide information and resources to residential customers. By utilizing the seasonal email campaign, we were able to expand communications to customers and reduce program costs. To supplement onsite outreach, a kiosk with energy conservation tips and videos was installed in the Sioux Falls public library. We exceeded both our participation and budget goals.

Participation achievement is measured through a formula of various educational opportunities as noted below:

- 50 percent sponsored event attendance;
- 100 percent program signups generated at sponsored events;
- 100 percent program leads generated at sponsored events; and
- 100 percent seasonal email campaign/bill inserts.

ii. 2017 Program Changes

There are no changes to the program anticipated for the 2017 program year.

3. Planning Segment

a. Regulatory Affairs Administration

The Planning & Administration group manages all DSM regulatory filings, directs and prepares cost-benefit analysis, provides results of energy conservation achievements, and prepares cost recovery reports. The group also provides procedures for effectively addressing requirements and complying with the DSM regulatory process.

The following notes the Regulatory Affairs Administration budget breakout:

- 85 percent labor; and
- 15 percent promotion (bill insert⁷ and membership dues).

i. 2015 Program Activity and Results

The Regulatory Affairs Administration budget was exceeded by approximately \$5,000 in 2015. This increase is due to additional resources as part of an update to the 2016 DSM Plan⁸ as well as membership dues to the Consortium for Energy Efficiency (CEE). CEE membership allows us to continue to refine our programs through benchmarking our efforts with programs across the nation to offer the most effective programs to South Dakota.

II. DSM Cost Recovery Report

Cost-effective conservation benefits all of our customers by reducing the need to build new power plants 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 2015 spending and cost recovery as well as the Company's carrying charge rates.

In 2015, the total portfolio spend came in at \$844,973. This amount is nine percent over our approved budget of \$775,041, but falls within the ten percent spend flexibility granted

⁷ Xcel Energy is required to notify customers of the change in the DSM Cost Adjustment Factor.

⁸ Xcel Energy, Update to Petition 2014 DSM Status Report and Proposed 2016 DSM Plan, Docket 15-015, October 5, 2015.

by the Commission⁹. In addition to the DSM expenses, Xcel Energy is requesting recovery of \$232,512 in financial incentive earned for our 2015 DSM performance for total recovery of \$1,077,485.

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

- Calculations of the Carrying Charge Rates used from January 2015 through June 1, 2015;
- Calculations of the Carrying Charge Rates used from June 1, 2015 through December 31, 2015 and found in the 2015 Tracker; and
- Xcel Energy's 2015 DSM Tracker, which documents monthly DSM expenditures and recovered costs.

III. DSM Cost Adjustment Factor Report

The current DSM Cost Adjustment Factor of \$0.000448 per kWh was implemented on January 1, 2016¹⁰. Xcel Energy requests a new DSM Cost Adjustment Factor of \$0.000504 per kWh to be effective with the first billing cycle of January 2017.

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

- Information specified in South Dakota Administrative Rule 20:10:13:26 regarding the updated DSM Cost Adjustment Factor;
- Forecasted 2016 and 2017 DSM Trackers reflecting the forecasted cost recovery with the current and proposed rates;
- Proposed customer bill notice; and
- Proposed updated tariff sheet in both redlined and clean versions.

Historically, the Company includes the bill notice informing customers of the change in the DSM Cost Adjustment Factor through a customer bill insert. We propose that moving forward we include a bill onsert for future customer communication. An onsert is a space on the bill itself for communications that are part of the bill rather than a stand-alone bill insert and can be presented as a portion of a page as an additional full page or added to the back of the bill (front & back). Onserts have several advantages over a bill insert while essentially communicating in the same way. Benefits include better visibility, additional printing flexibility, less lead time and lower cost.

⁹ 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. EL-13-017)

¹⁰ Docket EL15-015, Commission Order December 16, 2015.

The proposed onsert language is provided on page 5 in Attachment C. In the event that Commission approval of the proposed adjustment is delayed beyond the timeframe needed to implement the rate change by January 1, 2017, the Company will continue to apply the current DSM Cost Adjustment of \$0.000448 per kWh up to the first cycle of the first full billing period following Commission approval of a revised factor.

Xcel Energy requests a new DSM Cost Adjustment Factor of \$0.000504 per customer kWh to be effective with the first billing cycle of January 2017 and to remain in effect through December 2017 or until the Commission approves a new DSM Cost Adjustment Factor. This is an increase of \$0.000056 per kWh or 11 percent. The increase in DSM Cost Adjustment Factor is due in part due to a change in the Weighted Average Cost of Capital adjusted in our 2014 Electric Rate Case¹¹, as well as exceeding our approved budget in 2015.

This proposed factor is calculated to reduce the DSM Tracker balance to \$0 by the end of December 2017. It is based on the forecasted December 2017 unrecovered balance in the Company's DSM Tracker account. This forecasted balance is based on the forecasted January 2017 beginning balance, projected expenditures for 2017, and the forecasted 2017 incentive. The inputs and calculation are shown below.

[CONFIDENTIAL DATA BEGINS HERE

¹¹ Docket No. EL14-058, Commission Order June 1, 2015. The Weighted Average Cost of Capital (WACC) approved in Docket No. EL14-058 was incorporated into the DSM carrying charge beginning in July 2015.

CONFIDENTIAL DATA ENDS HERE]

The resulting rate is **\$0.000504 per customer kWh.**

IV. DSM Incentive Report

In accordance with the Commission's October 21, 2011 Order, which approved an incentive of 30 percent of expenditures capped at the approved budget of \$775,041, Xcel Energy submits the 2015 incentive calculation.

A. Calculation Inputs

Approved 2015 Budget	\$775,041
Actual 2015 Spend	\$844,973

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

\$775,041 x 30% = \$232,512

Based on the 2015 expenditures below the approved budget, we respectfully request approval of a DSM incentive of \$232,512. This incentive is accounted for in our 2015 DSM Tracker included in Attachment B.

V. Summary of 2017 DSM Plan

This section includes a summary of our proposed 2017 Plan. The only significant change in 2017 is the removal of the Ground Source Heat Pump program. Table 2 summarizes our proposed goals and provides updated cost-effectiveness results by program.

As shown in Table 2, the total portfolio has a passing TRC Ratio of 1.45. A full executive summary, which includes all cost-effectiveness test results, is provided as Attachment D. We respectfully request the Commission approve our Proposed 2017 DSM Plan.

Table 2 – Executive Summary Table of 2017 Forecast

2017	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio
Business Segment					
Lighting Efficiency	2,140	\$389,520	552	4,192,955	1.27
Business Saver's Switch	12	\$30,950	34	85	1.05
Peak and Energy Control	1	\$10,000	102	3,707	4.17
Business Segment Total	2,153	\$430,470	689	4,196,747	1.28
Residential Segment					
Home Lighting	3,772	\$97,340	112	1,065,912	1.87
Residential Saver's Switch	770	\$181,650	565	1,486	2.97
Consumer Education	68,000	\$27,165	0	0	-
Residential Segment Total	72,542	\$306,155	677	1,067,398	2.19
Planning Segment					
Regulatory Affairs	0	\$14,000	0	0	-
Planning Segment Total	0	\$14,000	0	0	-
PORTFOLIO TOTAL	74,696	\$750,625	1,366	5,264,144	1.45

Note: Numbers may be off by one due to rounding.

Service of Filings

We request that communications regarding this Application be directed to:

Mara Ascheman
Senior Attorney
Xcel Energy Services Inc.
414 Nicollet Mall, 401-8
Minneapolis, MN 55401
(612) 215-4605

Carl Cronin
Records Analyst
Xcel Energy Services Inc.
414 Nicollet Mall, 401-8
Minneapolis, MN 55401
(612) 330-5500

CONCLUSION

In summary, the Company respectfully requests that the Commission:

- Approve the Company's 2015 DSM Tracker account;
- Approve the incentive of \$232,512 earned for 2015 program performance;
- Approve the proposed 2017 electric DSM Adjustment Factor of \$0.000504 per kWh; and
- Approve the proposed 2017 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: November 29, 2016

Xcel Energy



By: _____

ERIC PAULI
Community Relations Manager