



**SOUTH DAKOTA**

**2017 Demand Side Management Plan**

**November 18, 2016**

## Table of Contents

I.	Introduction .....	1
II.	DSM Goals and Objectives .....	1
III.	DSM Cost Effectiveness .....	1
IV.	DSM 2017 Targets .....	3
V.	DSM Programs in South Dakota.....	3
VI.	DSM Program Development and Delivery .....	3
VII.	DSM Program Marketing and Communications .....	8
VIII.	DSM Program Budget and Schedule .....	8
IX.	Recovery of DSM Costs and Lost Margin.....	10

## **I. Introduction**

NorthWestern Energy's initial energy efficiency plan was approved by the South Dakota Public Utilities Commission ("Commission") in Docket No. GE12-001 on June 16, 2014. NorthWestern proposes this 2017 Demand Side Management Plan ("2017 DSM Plan") as a continuation of the work described in that plan with noted changes. The 2017 DSM Plan is based on NorthWestern's two years of experience in South Dakota, continued successful programs in Montana, and best practices in the utility industry. The measures, program offerings, and implementation strategies continue to evolve as business conditions change and as DSM program experience in South Dakota is fine tuned.

The 2017 DSM Plan budget is established at \$1,237,203 for electric programs and \$489,110 for natural gas programs for a total budget of \$1,726,313. Both utility programs include offerings for residential and commercial (non-residential) customers. Details of the 2017 offerings and budget are listed in this document and accompanying attachments.

## **II. DSM Goals and Objectives**

There are two fundamental purposes for NorthWestern's proposed 2017 DSM Plan:

- 1) Acquire low-cost energy resources for the benefit of NorthWestern customers, and
- 2) Help customers better understand ways that energy efficiency can assist them in managing their energy usage and costs.

NorthWestern continues the development of the DSM delivery infrastructure (programs, contractors, funding sources, trade ally relationships, etc.) from the past 2 years to maintain a steady, sustainable DSM acquisition schedule into the future. DSM program activities include customer education and program mechanisms that offer customers energy efficiency choices and additional control over their energy usage and costs.

## **III. DSM Cost Effectiveness**

Borrowing from NorthWestern's Montana DSM work and building on the infrastructure developed and results of the past two years in its South Dakota markets, NorthWestern has applied South Dakota-specific electric and natural gas avoided costs to DSM measures considered for continuing programs in South Dakota. A Total Resource Cost Test ("TRC") was employed to screen individual DSM measures for cost effectiveness. Appendix A shows the unit energy



savings (“UES”) values for each type of residential home energy audit and measures targeted to residential and commercial/industrial customers that were determined to be cost effective and included in the 2017 DSM Plan.

In determining the 2017 program offerings, NorthWestern considered the cost effectiveness results of the past two years of program activity. The cost effectiveness results were provided as Attachment A of the November 18, 2016 Quarterly Report in Docket GE12-001. The residential electric offerings in the first years of the program did not perform as expected. Based on the results of the recent Electric Efficiency Potential Assessment for Montana and the application of South Dakota avoided costs, a number of measures have been eliminated. The rebate programs in the 2017 DSM Plan have been designed to be more cost effective. The workbooks containing measure calculations are provided in Attachment A of the 2017 DSM Plan.

This analysis for the 2017 DSM measures resulted in changes to program offerings and rebate levels. A comparison of measures between Year 2 and those offered for 2017 are listed in Appendix B. Of note, compact fluorescent lamps (“CFLs”) have been eliminated from both the residential and commercial rebate programs. The performance of and lower purchase prices for light-emitting diode (“LED”) lamps have allowed this technology to be cost effective and included for both residential and commercial rebates.

- A. Cost Effectiveness Decision Rule: NorthWestern continues to apply an environmental benefit factor of 10% to the cost effectiveness analysis of its South Dakota DSM programs. Therefore, the Cost Effectiveness Decision Rule establishes that all measures with a TRC equal to or greater than 0.9 are considered cost effective for purposes of screening the DSM measures for inclusion.
- B. Cost Effective Measures: The measures that were determined to be cost effective for residential and commercial/industrial customers and for inclusion in 2017 DSM programs are provided in Section VI - DSM Program Development and Delivery. These measures are also listed in Appendix A.

#### **IV. 2017 DSM Targets**

Developing a portfolio of DSM programs typically includes establishment of annual targets or goals for specific levels of acquired DSM. NorthWestern proposes to go forward with specific DSM programs that include 679 residential home energy audits and cost effective measures that are dependent on proposed funding levels for 2017. The proposed budget supports an estimated acquisition of 6,816,405 kilowatt hours (“kWh”) for electric programs and 15,900 dekatherms (“dkt”) for the natural gas programs if customer participation follows the number of audits and mix of measures at the levels projected in the plan.

#### **V. DSM Programs in South Dakota**

The DSM programs and infrastructure needed to support NorthWestern activities in South Dakota are still relatively new. NorthWestern’s experience in Montana has been foundational in establishing and continuing to offer successful DSM programs in South Dakota. Adjustments continue to be made based on opportunities, continued results in South Dakota and customer needs.

#### **VI. DSM Program Development and Delivery**

The DSM development and delivery infrastructure consists of a team of NorthWestern personnel (NorthWestern DSM Team) and NorthWestern’s Program Contractor, DNV GL.

The NorthWestern DSM Team is responsible for designing, managing, and tracking programs, as well as for reporting results and supporting DSM filings. Additionally, local NorthWestern personnel participate in program outreach, communication, and promotion with customers and trade allies.

The Program Contractor is responsible for program implementation to achieve overall and local DSM targets, coordinating program outreach activities with both the administration and field components of the NorthWestern DSM team, and reporting program activities/results.

The 2017 DSM Plan is organized into the five general programs with rebate offerings broken out between electric and natural gas. The 2017 DSM Plan is based on the cost effectiveness analysis and experience gained from the first two years of program offerings. Qualifying energy



efficiency measures for the rebate programs (non-energy audit programs) are shown below, with additional details on each qualifying measure presented in Appendix A.

### **A. Residential Home Energy Audit Program**

Residential electric or natural gas customers in single-family dwellings whose space and/or water heating fuels are delivered by NorthWestern and whose home is at least five years old are eligible for an on-site energy audit. Homeowners and renters will generally qualify. On-site audits are conducted to survey energy use, install water-heating energy saving measures, and to identify energy saving opportunities. Customers receive a customized report. While some energy savings are reported as a result of the residential audit, this program is not expected to meet the TRC test of  $\geq 0.9$ , but it is a foundational component of a sustainable DSM implementation strategy. Customer satisfaction with home energy audits during the first two years of this offering has been high:

- “It was good to hear what I was doing OK with and how I could improve the house. I’m looking forward to the written report.”
- “Very useful information-made changes based on recommendations.”
- “Both Auditors were very nice in telling some things they were looking for and what might be done to improve some problems that might found.”
- “Very nice young man and woman. We were pleased with their findings and recommendations. Glad we did the audit!”
- “Very pleasant, professional. Fantastic program. Recommending to everyone I see and know.”

### **B. Residential Existing and New Construction Program–Electric**

The residential electric existing and new construction offerings have been combined, simplifying eligibility requirements and rebate levels. As noted earlier, prescriptive rebates are offered for LEDs in the 2017 DSM Plan. This program may include rebates for the following measures:

- LED fixture or screw-in "A" lamp or Parabolic Anodized Reflector (“PAR”)
- Energy Star Residential Dishwasher
- Engine Block Heater Timer
- Air Source Heat Pump
- Smart Thermostat
- Low flow showerhead (< 1.75 GPM)
- Faucet Aerator (1.5 GPM)

Electric water heater tank wrap ( $\geq R-11$ )  
Furnace whistle

### **C. Residential Existing Construction Program–Natural Gas**

Residential natural gas rebates are offered for existing construction only. This program may include rebates for the following measures:

- Water Heater Pipe Insulation
- Hot Water Tank Insulation
- Low Flow Showerhead (2.0 GPM max)
- Low Flow Showerhead (1.5 GPM max)
- High Efficiency Furnace
- High Efficiency Pool/Spa Heating Boiler
- High Efficiency Hot Water Boiler
- Programmable Thermostat
- Attic Insulation ( $\geq R-49$ )
- Basement or Crawlspace Wall Insulation ( $\geq R-19$ )
- Floor Insulation ( $\geq R-30$ )
- Floor Insulation ( $\geq R-19$ )
- Floor Insulation ( $\geq R-38$ )
- Boiler Pipe Insulation
- Weatherstripping
- Outlet Gaskets/Switch Plate Covers
- Foam Sealant
- Faucet Aerator (Kitchen, 1.5 GPM max)
- Faucet Aerator (Bathroom, 1.0 GPM max)
- Furnace whistle

### **D. Commercial Existing and New Construction Program–Electric**

The commercial electric existing and new construction offerings have been combined, simplifying eligibility requirements and rebate levels. Custom rebates continue to be offered for unique projects which deliver cost effective savings. As noted earlier, prescriptive rebates are offered for LEDs in the 2017 DSM Plan. Lighting measures are projected to be the most commonly rebated, followed by variable frequency drives (“VFDs”).

- Low wattage T-8 lamps (25 watt and 28 watt)
- LED screw-in and MR-16 lamp
- LED Pin-Based lamp
- LED fixture - 60 watts and larger
- LED fixture - under 60 watts
- LED fixture - refrigerated/freezer case lighting
- LED tubes
- T-5 HO or T-8 fluorescent fixtures replacing HID fixtures
- Switch Mounted Occupancy Sensor controlling > 300 watts
- Energy Star Steamer
- Efficient Direct Expansion (DX) Chiller



- Efficient Water Cooled Chiller
- Efficient Air Cooled Chiller
- Fan motor VFD
- Pump motor VFD
- Solid State Cooking Controls
- Canned Lighting Air Tight Sealing
- Demand Control Ventilation
- Split Pole ("SP") to Electronically Commuted Motor ("ECM") - Refrigerated/Freezer fan motor
- SP to ECM - NON-Refrigerated/Freezer fan motor
- Efficient Air Compressor with VFD
- Anti-Sweat Heater Controls (Cooler)
- Anti-Sweat Heater Controls (Freezer)
- Suction Pipe Insulation on refrigerator/freezer ( $\geq R-3.8$ )
- VFD controlled refrigeration compressor
- Air Source Heat Pump
- HVAC Fan Notched V-Belt
- Faucet Aerator (1.5 GPM)
- R-11 Electric water heater tank wrap
- Low-Flow Showerhead (2.0 GPM)
- Engine Block Heater Timer
- High Frequency Battery Charger

#### **E. Commercial Existing Program–Natural Gas**

Rebates for commercial natural gas measures are offered for existing construction. The custom rebates continue to be offered to both existing and new construction for unique projects which deliver cost effective savings.

- Boiler Stack Economizer
- Drainwater Heat Recovery
- Duct Sealing and Insulation
- Energy Star Fryer
- Faucet Aerator (Kitchen)
- Energy Star Steam Cooker
- High Efficiency Water Heater
- Hot Water Pipe Insulation
- Hot Water Tank Insulation
- Hot Water Temperature Setback
- Programmable Thermostats
- Modulating Gas Valve
- Motion Faucet Controls
- Multi-tank Conveyor Energy Star Dishwasher
- Recirculation Controls
- Attic Insulation
- Basement Wall Insulation ( $\geq R-19$ )
- Exterior Wall Insulation (Above Grade,  $\geq R-19$ )



## DSM Program Rebates

### A. Residential Rebates

In general, participating customers can claim rebates for eligible DSM Program measures by completing a Rebate Application Form (available in NorthWestern offices, from a participating trade ally, or from the NorthWestern Energy web site) and mailing the form along with proof-of-purchase documentation to the Program Contractor.

With the 2017 program, CFLs no longer qualify for rebates. LED lamps have been added to the 2017 residential rebate offerings. Customers will be encouraged to switch from incandescent/halogen bulbs to more efficient LED lamps in their homes. All NorthWestern electric residential customers will be eligible to participate through a Mail-in Rebate offering with rebates of up to \$2 per LED for a minimum of 4 and a maximum of 10 LED bulbs.

Natural gas rebates for residential customers include some measures for which the rebate is higher when a customer works with a Preferred Contractor. Listings of Preferred Equipment and Insulation Contractors are provided through the website and through the Energy Efficiency Program Hotline supported by the Program Contractor.

### B. Commercial Rebates and Incentives

As with residential rebates, participating commercial customers can claim rebates for eligible DSM Program measures by completing a Rebate Application Form (available in NorthWestern offices, from the NorthWestern Energy web site, or through trade allies) and mailing the form along with proof-of-purchase documentation to the Program Contractor.

The Commercial DSM Programs target NorthWestern's non-residential customers in South Dakota. The 2017 rebate program includes prescriptive rebates for LEDs in the non-residential sector. Projects must qualify for at least a \$50 rebate to be eligible.

Appendix A and Attachment A of the 2017 DSM Plan provide additional detail on eligible 2017 DSM program measures and qualification criteria. A comparison of measures and rebates offered in the proposed 2017 Plan to Year 2 is shown in Appendix B.

## **VII. DSM Program Communications and Marketing**

The South Dakota DSM communications and marketing efforts are intended to effectively and efficiently promote DSM programs to NorthWestern's South Dakota natural gas and electric customers through NorthWestern Energy employees and its trade allies. These communication and marketing efforts are targeted to generating increased public awareness of the programs and encouraging customers to take advantage of the opportunity to save energy.

Programs will continue to be offered under the Efficiency Plus (E+) umbrella and mirror best practice strategies that have been successfully implemented in Montana or shown success with South Dakota customers. Modifications to communications and program design continues to be incorporated to align with the South Dakota market.

## **VIII. DSM Program Budget and Schedule**

### **A. Budget**

NorthWestern continues to contract with DNV GL to implement the 2017 DSM Plan utilizing the foundation established with program start-up in 2014-15. DNV GL has an established presence in South Dakota with trained on-site field personnel, and supports the South Dakota DSM effort with staff from other locations, primarily located in Helena, Montana. DNV GL also uses various computer software, data collection, and administrative systems that were adapted for the South Dakota programs.

The 2017 DSM Plan spending is substantially dependent on customer participation. NorthWestern will make every attempt to adhere to the budget estimates shown in Table 1 below. NorthWestern will monitor customer participation and spending as the programs proceed. NorthWestern will notify the Commission staff if spending in 2017 appears likely to deviate from the estimated budget amounts by greater than or less than 10%. As noted in program updates during the first years of the Plan, individual commercial projects have the potential to require large portions of the rebate/incentive funds. While such projects contribute greatly to the acquisition of cost effective electric or natural gas supply resources, those projects impact on program budgets may restrict broader customer participation.

The 2017 DSM Plan budget is separated into electric and natural gas sections. The residential audit budget is split equally between electric and natural gas, as the majority of customers have



both electric and natural gas service or are on electric heat rates. Education and recommendations are provided for both electric and natural gas opportunities. While savings and savings opportunities are greatest for space and/or water heat customers, the customer who uses electricity only for lights and appliances, and heats space or water with natural gas, receives both electric and natural gas benefits. Electric and natural gas rebate budgets are split based upon estimated participation. The total 2017 budget is \$1,726,313 of which \$1,237,203 is designated for electric programs and \$489,110 for natural gas. The expected budget by program for the 2017 DSM Plan is summarized in Table 1.

**Table 1: NorthWestern Energy 2017 DSM Program Budget**

<b>NorthWestern Energy 2017 SD DSM Program Budget</b>			
	<b>Electric 2017 Budget (1/1/2017 - 12/31/2017)</b>	<b>Natural Gas 2017 Budget (1/1/2017 - 12/31/2017)</b>	<b>Total Electric and Natural Gas 2017 Budget (1/1/2017 - 12/31/2017)</b>
<b>Contractor Expenses (DNV GL)</b>			
Residential Audit Program	\$ 253,097	\$ 253,097	\$ 506,195
E+ Programs Contractor Expenses	\$ 247,437	\$ 83,317	\$ 330,754
<b>Contractor Expenses (DNV GL) Total</b>	<b>\$ 500,534</b>	<b>\$ 336,414</b>	<b>\$ 836,948</b>
<b>NorthWestern Energy E+ Expenses</b>			
Rebates	\$ 654,640	\$ 133,875	\$ 788,515
Admin/non-labor (Travel, office supplies, etc.)	\$ 4,000	\$ 4,000	\$ 8,000
Advertising	\$ 78,029	\$ 14,821	\$ 92,850
<b>NorthWestern Energy Expenses Total</b>	<b>\$ 736,669</b>	<b>\$ 152,696</b>	<b>\$ 889,365</b>
<b>Totals</b>	<b>\$ 1,237,203</b>	<b>\$ 489,110</b>	<b>\$ 1,726,313</b>

**B. Schedule**

NorthWestern requests Commission approval of the 2017 DSM plan to be effective January 1, 2017 in order to maintain continuity of the residential audit and natural gas rebate/incentive programs and to resume offering electric rebate/incentive programs that were terminated during the fourth quarter of 2016 because the rebate budgets had been exhausted.



**IX. Recovery of DSM Costs and Lost Margin**

The initial DSM Plan established a DSM Electric/Natural Gas Tracker (“DSM Tracker”). The DSM Tracker appears as the Energy Efficiency Adjustment (“EEA”) line item on customer bills. With the 2017 DSM Plan, the annual DSM Tracker will start on January 1, 2017 pending Commission approval of this filing. The 2017 DSM programs will be offered from January 1, 2017 through December 2017. The 2017 Program Year contract with the Program Contractor will continue through March 1, 2018 to allow for processing and payment of work completed through December 31, 2017. Final reporting of 2017 DSM spending and savings will occur in March 2018.

NorthWestern proposes a continuation of the Lost Margin Percentages as follows:

- Electric Lost Margin Percentage = 30.0%
- Natural Gas Lost Margin Percentage = 7.79%

	2017 PROGRAM BUDGET	LOST MARGIN		TOTAL
		Electric @ 30.0 %	Natural Gas @ 7.79%	
Electric DSM	\$1,237,203	\$371,161	–	\$1,608,364
Natural Gas DSM	\$489,110	–	\$38,102	\$527,212
Total	\$1,726,313	\$371,161	\$38,102	\$2,135,576

The table above is a forecast of DSM Program Costs and Lost Margin for 2017. Any over/under collection for year 2016 activities (including interest), plus forecasted DSM Program Costs and Lost Margin for 2017, have been added together to compute rates for 2017 as shown in the redlined electric and natural gas tariff pages.

NorthWestern submits the revised electric and natural gas tariffs in both redline and final format in Attachment B to this filing. The revisions to the tariffs are based on program spending and recovery through the end of December 2017. The new EEA amount reflected in electric customers’ bills will be \$0.00123 per kWh compared to the current adjustment of \$0.00050. Natural gas customers will see a charge of \$0.01068 per therm compared to the current credit adjustment of \$0.00070. In Attachment C, Pages 1 and 2 denote the calculations used to

determine the updated EEA for the electric and natural gas tariffs. The calculation includes the true-up balance as of October 31, 2016.

## Appendix A

**2017 South Dakota Residential Home Energy Audit-Electric and Natural Gas**

**2017 South Dakota Residential Existing and New Construction Program-Electric**

**2017 South Dakota Residential Existing Construction Program-Natural Gas**

**2017 South Dakota Commercial Existing and New Construction Program-Electric**

**2017 South Dakota Commercial Existing Construction Program-Natural Gas**

### 2017 South Dakota Residential Home Energy Audit-Electric and Natural Gas

<b>Residential Audit Type</b>	<b>Space Heat Fuel</b>	<b>Water Heat Fuel</b>	<b>Electricity Provider</b>	<b>Electric Savings (kWh)</b>	<b>Electric Savings (kw)</b>	<b>Natural Gas Savings (dKt)</b>
A	NorthWestern Natural Gas	NorthWestern Natural Gas	NorthWestern	172.00	0.05	5.85
B	NorthWestern Natural Gas	NorthWestern Natural Gas	Other Utility	-	-	4.84
C	NorthWestern Natural Gas	Other Utility	Other Utility	-	-	1.82
D	Electric	Electric	NorthWestern	1,083.00	0.29	-
E	Other Utility	Electric	NorthWestern	430.00	0.03	-
F	NorthWestern Natural Gas	Electric	NorthWestern	540.00	0.06	3.18
G	Electric	Natural Gas	NorthWestern	350.00	-	3.13
H	Electric & other gas appliances present	Electric	NorthWestern	1,027.00	0.07	-
M*	Any	Electric Only	NorthWestern	430.00	0.03	-
N	Other Utility	Natural Gas	Other Utility	-	-	3.13

\* Denotes Multifamily Audit



2017 South Dakota Residential Existing and New Construction Program-Electric

Energy Saving Measures	Rebate per Unit (Preferred Contractor)	Rebate per Unit (Self Installed or Non Preferred Contractor)	Units	Qualifiers
LED fixture or screw-in "A" lamp or PAR	\$ 2.00	\$ 2.00	per lamp	Must be Energy Star® Qualified
Energy Star Residential Dishwasher	\$ 5.00	\$ 4.00	per unit	Energy Star rated Dishwasher - Must have electric water heat
Engine Block Heater Timer	\$ 5.00	\$ 4.00	per unit	Timer programmed to < 8 hours per day
Air Source Heat Pump HVAC unit (13 SEER 1.0)	\$ 100.00	\$ 80.00	per ton	SEER > 16 and HSPF > 9
Smart Thermostat (web-enabled)	\$ 45.00	\$ 36.00	per unit	Must have electric space heat and cooling
Low flow showerhead (< 1.75 GPM)	\$ 10.00	\$ 8.00	per unit	Must have electric water heat - GPM ≤ 1.75
1.5 GPM Faucet Aerator	\$ 1.00	\$ 0.80	per unit	Must have electric water heat - Kitchen Aerator GPM ≤ 1.50
R-11 Electric water heater tank wrap	\$ 10.00	\$ 8.00	per unit	Must have electric water heat - Insulation ≥ R-11
Furnace whistle	\$ 0.25	\$ 0.25	per unit	Must have electric furnace or heat pump

## 2017 South Dakota Residential Existing Construction Program-Natural Gas

Energy Saving Measures	Rebate per Unit (Preferred Contractor)	Rebate per Unit (Self Installed or Non Preferred Contractor)	Units	Qualifiers
Water Heater Pipe Insulation	\$ 0.75	\$ 0.75	per linear ft	Existing R-0 increase to R-3 minimum, first 6' of pipe or pipe in unheated space
Hot Water Tank Insulation	\$ 7.00	\$ 7.00	per water heater	Existing R-0 increase to R-11 minimum, insulation added to tank exterior
Low Flow Showerhead (2.0 GPM max)	\$ 10.00	\$ 10.00	per showerhead	Replace ≥2.5 gpm with 2.0 gpm showerhead (Water Sense Labeled Only)
Low Flow Showerhead (1.5 GPM max)	\$ 20.00	\$ 20.00	per showerhead	Replace ≥2.5 gpm with 1.5 gpm showerhead (Water Sense Labeled Only)
High Efficiency Furnace	\$ 2.50	\$ 2.00	per furnace kbtu input	Install AFUE ≥90% furnace
Floor Insulation	\$ 0.30	\$ 0.24	per sq ft	Existing R-0 increase to minimum R-30, floor above an unconditioned space
Attic Insulation	\$ 0.50	\$ 0.40	per sq ft	Existing R-0 increase to minimum R-49
Basement or Crawlspace Wall Insulation	\$ 0.40	\$ 0.32	per sq ft	Existing R-0 increase to minimum R-19, includes rim joist insulation
Programmable Thermostat	\$ 0.02	\$ 0.02	per sq ft area controlled	Existing manual thermostat install programmable unit, maximum 1 per customer
High Efficiency Pool/Spa Heating Boiler	\$ 1.25	\$ 1.00	per boiler kbtu input	Install AFUE ≥90% boiler; used for pool or spa
Floor Insulation	\$ 0.30	\$ 0.24	per sq ft	Existing R-0 increase to minimum R-19, floor above an unconditioned space
Floor Insulation	\$ 0.40	\$ 0.32	per sq ft	Existing R-0 increase to minimum R-38, floor above an unconditioned space
Boiler Pipe Insulation	\$ 0.75	\$ 0.75	per linear ft	Existing R-0 increase to R-3 minimum, first 6' of pipe or pipe in unheated space
Weatherstripping	\$ 5.00	\$ 5.00	per door	Max 2 exterior doors
Outlet Gaskets/Switch Plate Covers	\$ 0.35	\$ 0.35	per gasket	Switch plate and outlet gasket covers on exterior walls; minimum 10 per home
Foam Sealant	\$ 5.00	\$ 5.00	per can of foam	Maximum of 2 cans per home
High Efficiency Hot Water Boiler	\$ 4.00	\$ 3.20	per boiler kbtu input	Install AFUE ≥90% hot water boiler
Faucet Aerator (Kitchen, 1.5 GPM max)	\$ 2.00	\$ 2.00	per kitchen aerator	Water Sense labeled only and ≤1.5 GPM
Faucet Aerator (Bathroom, 1.0 GPM max)	\$ 1.00	\$ 1.00	per bathroom aerator	Water Sense labeled only and ≤1.0 GPM
Furnace whistle	\$ 0.25	\$ 0.25	per furnace whistle	Must have gas fired furnace



## 2017 South Dakota Commercial Existing and New Construction Program-Electric

Energy Saving Measures	Rebate per Unit	Units	Qualifiers
Low wattage T-8 lamps (25 watt and 28 watt)	\$ 0.75	per lamp	
LED screw-in and MR-16 lamp	\$ 2.50	per lamp	Must be Energy Star® Qualified
LED Pin-Based lamp	\$ 6.00	per lamp	Must be Energy Star® Qualified
LED fixture - 60 watts and larger	\$ 85.00	per fixture	Must be on Energy Star Qualified LED Lighting List or Design Lights Consortium or Seattle Lighting Design Laboratory Lists of Qualifying LED products. Not applicable to LED tubes (lamps).
LED fixture - under 60 watts	\$ 25.00	per fixture	Must be on Energy Star Qualified LED Lighting List or Design Lights Consortium or Seattle Lighting Design Laboratory Lists of Qualifying LED products. Not applicable to LED tubes (lamps).
LED fixture - refrigerated/freezer case lighting	\$ 10.00	per case foot	Must be on Energy Star Qualified LED Lighting List or Design Lights Consortium or Seattle Lighting Design Laboratory Lists of Qualifying LED products.
LED tubes	\$ 3.00	per tube	Lamps installed in existing fixtures. Must be on Energy Star Qualified LED Lighting List or Design Lights Consortium or Seattle Lighting Design Laboratory Lists of Qualifying LED products.
T-5 HO or T-8 fluorescent fixtures replacing HID fixtures	\$ 85.00	per fixture	
Switch Mounted Occupancy Sensor controlling > 300 watts	\$ 10.00	per unit	
Other lighting measures as approved by NorthWestern Energy	NA	NA	Design Approved by NorthWestern Energy
Energy Star Steamer	\$ 200.00	per unit	Must be Energy Star® Qualified
Efficient Direct Expansion (DX) Chiller	\$ 35.00	per ton	EER > 12.0 (IPLV)
Efficient Water Cooled Chiller	\$ 80.00	per ton	kW/ton < 0.40 (IPLV)
Efficient Air Cooled Chiller	\$ 50.00	per ton	EER > 15.0 (IPLV)
Fan motor variable frequency drive (VFD)	\$ 50.00	per HP	No soft starts - Automated speed control
Pump motor variable frequency drive (VFD)	\$ 50.00	per HP	No soft starts - Automated speed control
Solid State Cooking Controls	\$ 0.25	per CFM MAU	Automated fan speed control
Canned Lighting Air Tight Sealing	\$ 1.00	per unit	Must have electric space heat
Demand Control Ventilation	\$ 35.00	per HP supply fan	Must have space cooling - VFD on supply and return/relief fans
SP to ECM - Refrigerated/Freezer fan motor	\$ 0.75	per watt installed	ECM motor installed on refrigerator or freezer evaporator fan
SP to ECM - NON-Refrigerated/Freezer fan motor	\$ 0.50	per watt installed	ECM motor installed other than refrigerator or freezer evaporator fan
Efficient Air Compressor with VFD	\$ 40.00	per HP	Automated speed control
Anti-Sweat Heater Controls (Cooler)	\$ 20.00	per door	Refrigerated display case controls
Anti-Sweat Heater Controls (Freezer)	\$ 25.00	per door	Freezer display case controls
Suction Pipe R-3.8 Insulation on refrigerator/freezer	\$ 1.50	per linear ft	Suction pipe for walk-in cooler/freezer - Insulation > R-3
VFD controlled refrigeration compressor	\$ 15.00	per HP	Automated speed control
Air Source Heat Pump HVAC unit	\$ 50.00	per ton	SEER > 15 and HSPF > 8.5
HVAC Fan Notched V-Belt	\$ 1.00	per HP fan	Belt drive HVAC fan motors
1.5 GPM Faucet Aerator	\$ 1.00	per unit	Must have electric water heat - GPM < 1.5
R-11 Electric water heater tank wrap	\$ 10.00	per unit	Must have electric water heat - Insulation > R-11
2.0 GPM Low-Flow Showerhead	\$ 4.00	per unit	Must have electric water heat - GPM < 2.0
Engine Block Heater Timer	\$ 10.00	per unit	Timer programmed to < 8 hours per day
High Frequency Battery Charger	\$ 25.00	per unit	Non-linear high-frequency battery charger



## 2017 South Dakota Commercial Existing Construction Program-Natural Gas

Energy Saving Measures	Rebate per Unit	Units	Qualifiers
Basement Wall Insulation > R-19	\$ 0.50	per sqft of basement wall	Existing R-0 increase to minimum R-19, includes rim joist insulation;
Boiler Stack Economizer	\$ 0.50	per boiler kbtu input	
Drainwater Heat Recovery	\$ 2.50	per gallon water heater	Must have natural gas water heater
Duct Sealing and Insulation	\$ 0.75	per sqft of duct	For ducting in unheated spaces; Install R-8 minimum
Energy Star Fryer	\$ 375.00	per ENERGY STAR Fryer	ENERGY STAR® qualified - Large Vat Fryer
Faucet Aerator (Kitchen 2.0 GPM)	\$ 2.00	per aerator	Replace ≥2.5 gpm with 2.0 gpm aerator (Water Sense Labeled Only)
ENERGY STAR Steam Cooker	\$ 100.00	per steam cooker	ENERGY STAR® qualified with ≥38% cooking efficiency
High Efficiency Water Heater	\$ 1.00	per water heater kbtu input	(No tankless Water Heaters); EF ≥0.62 or 90% TE replaces a standard EF ≤0.594
Hot Water Pipe Insulation	\$ 1.00	per linear foot	First 10' of pipe or pipe in unheated spaces; Install R-3 minimum
Hot Water Tank Insulation	\$ 7.50	per water heater	Existing R-0 increase to R-11 minimum, insulation added to tank exterior
Hot Water Temperature Setback	\$ 0.25	per gallon water heater	Temperature setback ≤110 degrees
Programmable Thermostats	\$ 0.02	per building sqft controlled	Must have natural gas space heat
Modulating Gas Valve	\$ 1.25	per boiler/furnace kbtu input	
Motion Faucet Controls	\$ 0.50	per faucet	Must have natural gas water heater
Multi-tank Conveyor Energy Star Dishwasher	\$ 400.00	per dishwasher	Full service kitchens only
Recirculation Controls	\$ 10.00	per time clock	Timeclock control added to existing DHW circulation pump
Attic Insulation	\$ 0.40	per sqft of attic	Install R-49 minimum insulation where previous insulation was ≤R-11
Exterior Wall Insulation (Above Grade)	\$ 0.35	per sqft of wall	Install R-21 minimum insulation where previous insulation was ≤R-4

THIS PAGE INTENTIONALLY LEFT BLANK

## Appendix B

### Comparison of Measures Year 2 (2015-16) to 2017

South Dakota Comparison Year 2 (2015-16) to 2017 Residential Existing Construction Program-Electric				
Energy Saving Measures	Rebate per Unit (Preferred Contractor)	Rebate per Unit Installed or Non Preferred Contractor)	Units	2017 Changes
Canned Lighting Air Tight Sealing	\$ 12.00	\$ 0.60	per can	Measure Eliminated
Compact Fluorescent Lamp (CFL) Fixture	\$ 5.00	\$ 5.00	per unit	Measure Eliminated
Compact Fluorescent Lamp (CFL) Lamp	\$ 1.00	\$ 1.00	per unit	Measure Eliminated
Lighter Colored Shingles	\$ 25.00	\$ 25.00	per home	Measure Eliminated
R-11 Steel Doors with foam core	\$ 15.00	\$ 15.00	per door	Measure Eliminated
Doors - Weatherization	\$ 10.00	\$ 10.00	per home	Measure Eliminated
Heat Pump - Ground or Water Source (Desuperheater)	\$ 75.00	NA	per unit	Measure Eliminated
Duct Sealing	\$ 250.00	NA	per unit	Measure Eliminated
Insulation (Basement - Wall) 2*4	\$ 0.30	\$ 0.24	per sqft	Measure Eliminated
Insulation (Ceiling/Attic)	\$ 1.00	\$ 0.80	per sqft	Measure Eliminated
Proper Sizing - Central Air Conditioner	\$ 3.00	NA	per ton	Measure Eliminated
Proper Sizing - Heat Pump	\$ 3.00	NA	per ton	Measure Eliminated
Refrigerator/Freezer - Energy Star	\$ 15.00	\$ 15.00	per unit	Measure Eliminated
Thermostat - Clock/Programmable	\$ 0.04	\$ 0.00	per square-foot	Measure Eliminated
Water Heater Tank Blanket/R-11 Insulation	\$ 10.00	\$ 8.00	per unit	Measure Eliminated
Water Heater Thermostat Setback	\$ 0.35	\$ 0.35	per gallon water heater	Measure Eliminated
Faucet Aerators	\$ 3.00	\$ 3.00	per unit	Measure Eliminated
Faucet Aerators	\$ 1.00	\$ 0.80	per unit	Reduced rebate from \$2.00
Low-Flow Showerheads	\$ 10.00	\$ 8.00	per showerhead	Increased rebate from \$2.00 - lower GPM required
Outlet Gasket	\$ 0.30	\$ 0.30	per gasket	Measure Eliminated
Pool Pump Timers	\$ 40.00	\$ 40.00	per horsepower	Measure Eliminated
Energy Star Dishwasher	\$ 5.00	\$ 4.00	per dishwasher	Reduced rebate from \$6.00
Air Source Heat Pump	\$ 100.00	\$ 80.00	per ton	Reduced rebate from \$500/\$400
Hot Water Pipe Insulation	\$ 1.00	\$ 0.80	per foot of R-3 insulation	Measure Eliminated
Insulation (Duct)	\$ 2.00	\$ 1.60	per sqft of duct	Measure Eliminated
Insulation (Wall) 2*6	\$ 0.40	\$ 0.32	per sqft of wall	Measure Eliminated
Insulation (Wall) 2*6	\$ 0.75	\$ 0.60	per sqft of wall (R-0 to R-21)	Measure Eliminated
Engine Block Heater Timer	\$ 5.00	\$ 4.00	per unit	Measure Added
LED fixture or screw-in lamp	\$ 2.00	\$ 2.00	per unit	Measure Added
Smart Thermostat - web enabled	\$ 45.00	\$ 36.00	per unit	Measure Added
Furnace Whistle	\$ 0.25	\$ 0.25	per unit	Measure Added

NOTE: 2017 Residential Electric Programs have been combined for Existing and New Construction.



South Dakota Comparison Year 2 (2015-16) to 2017 Residential New Construction Program-Electric

Energy Saving Measures	Rebate per Unit (Preferred Contractor)	Rebate per Unit (Self Installed or Non Preferred Contractor)	Units	2017 Changes
<del>Canned Lighting-Air Tight Sealing</del>	<del>\$ 12.00</del>	<del>\$ 9.60</del>	<del>per can</del>	Measure Eliminated
Energy Star Dishwasher	\$ 5.00	\$ 4.00	per dishwasher	Reduced rebate from \$6.00
<del>R-11-Doors</del>	<del>\$ 15.00</del>	<del>\$ 15.00</del>	<del>per door</del>	Measure Eliminated
Air Source Heat_Pump	\$ 100.00	\$ 80.00	per ton	Reduced rebate from \$500/\$400
<del>Faucet Aerators (0.5 gpm)</del>	<del>\$ 3.00</del>	<del>\$ 3.00</del>	<del>per aerator</del>	Measure Eliminated
Faucet Aerators (1.5 gpm)	\$ 1.00	\$ 0.80	per aerator	Reduced rebate from \$2.00
<del>Freezer- Stand-Alone</del>	<del>\$ 15.00</del>	<del>\$ 15.00</del>	<del>per ES-freezer</del>	Measure Eliminated
<del>Heat_Pump-Ground or Water-Source (Desuperheater)</del>	<del>\$ 75.00</del>	<del>NA</del>	<del>per desuperheater</del>	Measure Eliminated
Low-Flow Showerheads (1.75 gpm)	\$ 10.00	\$ 8.00	per showerhead	Increased rebate from \$2.00 - lower GPM required
<del>Compact Fluorescent Fixture (CFL)</del>	<del>\$ 5.00</del>	<del>\$ 5.00</del>	<del>per fixture</del>	Measure Eliminated
<del>Pool Pump-Timers</del>	<del>\$ 40.00</del>	<del>\$ 40.00</del>	<del>per pump HP</del>	Measure Eliminated
<del>Refrigerator/Freezer-Energy Star</del>	<del>\$ 15.00</del>	<del>\$ 15.00</del>	<del>per unit</del>	Measure Eliminated
<del>Water_Heater-Thermostat-Setback</del>	<del>\$ 0.35</del>	<del>\$ 0.35</del>	<del>per gallon-water heater</del>	Measure Eliminated
<del>Compact Fluorescent Lamp (CFL)</del>	<del>\$ 1.00</del>	<del>\$ 1.00</del>	<del>per lamp</del>	Measure Eliminated
Engine Block Heater Timer	\$ 5.00	\$ 4.00	per unit	Measure Added
Smart Thermostat - web enabled	\$ 45.00	\$ 36.00	per unit	Measure Added
Water Heater Tank Wrap/R-11 Insulation	\$ 10.00	\$ 8.00	per unit	Measure Added
Furnace Whistle	\$ 0.25	\$ 0.25	per unit	Measure Added
LED fixture or screw-in lamp	\$ 2.00	\$ 2.00	per unit	Measure Added

NOTE: 2017 Residential Electric Programs have been combined for Existing and New Construction.

South Dakota Comparison Year 2 (2015-16) to 2017 Residential Existing Construction Program-Natural Gas				
Energy Saving Measures	Rebate per Unit (Preferred Contractor)	Rebate per Unit (Self Installed or Non Preferred Contractor)	Units	2017 Changes
Attic/Ceiling Insulation R-0 to R-49	\$ 0.50	\$ 0.40	per sqft of attic	
Basement Insulation, Side Wall	\$ 0.40	\$ 0.32	per sqft of basement/crawlspace wall	Increased rebate from \$0.25/\$0.20
Floor & Crawlspace Insulation R-4.94 to R19	\$ 0.30	\$ 0.24	per sqft of floor	Increased rebate from \$0.20/\$0.16
Condensing Hot Water Boiler 90%	\$ 4.00	\$ 3.20	per kbtu boiler	
High Efficiency Pool/Spa Heating Boiler	\$ 1.25	\$ 1.00	per kbtu boiler	
High Efficiency Furnace 90 AFUE	\$ 2.50	\$ 2.00	per kbtu furnace	
Programmable Thermostat	\$ 0.02	\$ 0.02	per sqft of control area	
<del>GreenFan-Fan-Controller</del>	<del>\$ 1.00</del>	<del>\$ 1.00</del>	<del>per kbtu-furnace</del>	Measure eliminated
Boiler Pipe Insulation	\$ 0.75	\$ 0.75	per linear foot	
Residential Weatherstripping	\$ 5.00	\$ 5.00	per door	
<del>Residential-Door-Sweeps</del>	<del>\$ 4.00</del>	<del>\$ 4.00</del>	<del>per door</del>	Measure eliminated
Residential Outlet Gasket	\$ 0.35	\$ 0.35	per outlet gasket	
Residential Foam Sealant	\$ 5.00	\$ 5.00	per can of Foam Sealant	
Residential Water Heater Pipe Insulation	\$ 0.75	\$ 0.75	per linear foot	Increased rebate from \$4.00
Hot Water Tank Insulation	\$ 7.00	\$ 7.00	per R-11 blanket	
Low Flow Showerhead (2.0 GPM max)	\$ 10.00	\$ 10.00	2.0 gpm showerhead	
Low Flow Showerhead (1.5 GPM max)	\$ 20.00	\$ 20.00	1.50 gpm showerhead	
Faucet Aerator (Kitchen)	\$ 2.00	\$ 2.00	per Kitchen Aerator	
Faucet Aerator (Bathroom)	\$ 1.00	\$ 1.00	per Bathroom Aerator	
Furnace Whistle	\$ 0.25	\$ 0.25	per unit	Measure Added
Floor Insulation R-4.94 to R30	\$ 0.30	\$ 0.24	per sqft of floor	Measure Added
Floor Insulation R-4.94 to R38	\$ 0.40	\$ 0.32	per sqft of floor	Measure Added



South Dakota Comparison Year 2 (2015-16) to 2017 Commercial Existing Construction Program-Electric

Energy Saving Measures	Rebate per Unit	Units	2017 Changes
Anti-Sweat (Humidistat) Controls	\$ 20.00	per door	Units for measure changed
Automated Exhaust VFD Control - Parking Garage CO sensor	\$ 150.00	per fan motor-HP	Measure Eliminated
Centrifugal Chiller - VSD Remodel for Existing	\$ 45.00	per-chiller-ton	Measure Eliminated
Compressor VSD Retrofit	\$ 15.00	per compressor HP	
Dishwashing - Commercial Chemical System	\$ 500.00	per-Measure-Installed	Measure Eliminated
Exhaust Hood-Makeup-Air	\$ 0.40	per-cfm-of-exhaust-hood-make-up-air	Measure Eliminated
Floating Head Pressure Control	\$ 50.00	per-ton-yr	Measure Eliminated
Hot Water (SHW) Pipe-Insulation	\$ 1.00	Linear-Foot	Measure Eliminated
Hotel Key-Card Room-Energy Control System	\$ 100.00	per room	Measure Eliminated
Insulation (Wall)	\$ 0.40	Wall-Sq Ft	Measure Eliminated
Motor - Fan System - Variable Speed Control	\$ 50.00	per motor horsepower	Reduced rebate from \$100
Motor - Pump System - Variable Speed Control	\$ 50.00	per motor horsepower	Reduced rebate from \$100
Reduced Speed or Cycling of Evaporator Fans	\$ 30.00	per-Horsepower	Measure Eliminated
Refrigeration with Heat Recovery	\$ 3.00	per-gallon-DWH	Measure Eliminated
Residential Size Refrigerator	\$ 13.00	per-refrigerator	Measure Eliminated
Server (Early Retirement)	\$ 50.00	per-server	Measure Eliminated
Server Virtualization (4:1)	\$ 75.00	per-unit	Measure Eliminated
Special Glass Doors for Refrigerated Reach-in-Cases	\$ 12.00	per-linear-foot	Measure Eliminated
Strip-Curtains for Walk-Ins - Freezers	\$ 5.00	per-sqft	Measure Eliminated
Thermostat - Programmable	\$ 0.03	per-sqft-of-controlled-area	Measure Eliminated
Thermostat - Programmable	\$ 0.04	per-sqft-of-controlled-area	Measure Eliminated
Vending Machine	\$ 75.00	per-unit	Measure Eliminated

NOTE: 2017 Commercial Electric Programs have been combined for Existing and New Construction.



South Dakota Comparison Year 2 (2015-16) to 2017 Commercial Existing Construction Program-Electric (continued)

Energy Saving Measures	Rebate per Unit	Units	2017 Changes
LED Exit Lighting	\$ -10.00	per exit sign	Measure Eliminated
LED Solid State White Lighting Package	\$ -0.29	per watt saved	Measure Eliminated
Photocell - Exterior Lighting	\$ -30.00	per unit	Measure Eliminated
Daylighting Controls - Dimming-Continuous, Fluorescent Fixtures	\$ -0.30	per square ft. of area controlled	Measure Eliminated
One or Two Lamp Fixture Fully Electronic Ballast	\$ -5.00	per fixture	Measure Eliminated
Three Lamp Fixture Fully Electronic Ballast	\$ -10.00	per fixture	Measure Eliminated
Four Lamp Fixture Fully Electronic Ballast	\$ -12.00	per fixture	Measure Eliminated
T-8 lamp 4-foot	\$ -1.00	per lamp	Measure Eliminated
MV, HPSV or MH to T-8, T5HO	\$ 85.00	per fixture	Units for measure changed
Occupancy Sensors	\$ 10.00	per unit	Units for measure changed
LED Technology Lighting	TBD	per watt saved	Measure Eliminated
Water Heater Thermostat Setback	\$ -1.00	per gallon-DWH	Measure Eliminated
Low-Flow Showerheads	\$ 4.00	per showerhead	Reduced rebate from \$6.00
Power Supply 80+- Office Measure	\$ -0.30	per power supply	Measure Eliminated
Refrigerator eCube	\$ -20.00	per unit installed	Measure Eliminated
Direct Digital Control System-Wireless Performance Monitoring	\$ -0.02	per sqft	Measure Eliminated
Dishwashing - Commercial - High Efficiency	\$ -50.00	per unit	Measure Eliminated
Insulation (Ceiling)	\$ -0.75	per sqft of roof	Measure Eliminated
Insulation (Ceiling)	\$ -0.50	per sqft of roof	Measure Eliminated
Insulation (Ceiling)	\$ -0.65	per sqft of attic	Measure Eliminated
Insulation (Ceiling)	\$ -0.35	per sqft of attic	Measure Eliminated
Insulation (Duct) (Unconditioned Spaces)	\$ -2.00	per sq ft of duct insulation	Measure Eliminated
Insulation (Duct) (Unconditioned Spaces)	\$ -2.50	per sqft of duct insulation	Measure Eliminated
Insulation (Wall)	\$ -0.40	per wall sqft	Measure Eliminated
Insulation (Wall)	\$ -0.30	per wall sqft	Measure Eliminated

NOTE: 2017 Commercial Electric Programs have been combined for Existing and New Construction.



South Dakota Comparison Year 2 (2015-16) to 2017 Commercial Existing Construction Program-Electric (continued)

Energy Saving Measures	Rebate per Unit	Units	2017 Changes
<del>Office Computer Network-Energy-Management</del>	<del>\$ 4.00</del>	<del>per computer</del>	Measure Eliminated
Steam Cookers - Commercial	\$ 200.00	per Electric Steam Cooker	Reduced rebate from \$300
<del>Thermostat-Programmable</del>	<del>\$ 0.02</del>	<del>per sqft-of-controlled-area</del>	Measure Eliminated
<del>Cooking Fryers-Commercial</del>	<del>\$ 100.00</del>	<del>per fryer</del>	Measure Eliminated
Cooking Hood Controls	\$ 0.25	per cfm	
<del>Cooling Tower-Decrease-Approach-Temperature</del>	<del>\$ 12.00</del>	<del>per-chiller-ton</del>	Measure Eliminated
<del>Dishwashing-Residential-Sized-System</del>	<del>\$ 6.00</del>	<del>per-unit</del>	Measure Eliminated
Efficient Direct Expansion (DX) Chiller	\$ 35.00	per ton	Measure Added
Efficient Water Cooled Chiller	\$ 80.00	per ton	Measure Added
Efficient Air Cooled Chiller	\$ 50.00	per ton	Measure Added
Canned Lighting Air Tight Sealing	\$ 1.00	per unit	Measure Added
Demand Control Ventilation	\$ 35.00	per HP supply fan	Measure Added
Electronically Commuted Motor (ECM) - Refrigerated/Freezer fan motor	\$ 0.75	per watt installed	Measure Added
Electronically Commuted Motor (ECM) - NON-Refrigerated/Freezer fan motor	\$ 0.50	per watt installed	Measure Added
Efficient Air Compressor with VFD	\$ 40.00	per HP	Measure Added
Anti-Sweat Heater Controls (Freezer)	\$ 25.00	per door	Measure Added
Suction Pipe R-3.8 Insulation on refrigerator/freezer	\$ 1.50	per linear ft	Measure Added
Air Source Heat Pump HVAC unit	\$ 50.00	per ton	Measure Added
HVAC Fan Notched V-Belt	\$ 1.00	per HP fan	Measure Added
1.5 GPM Faucet Aerator	\$ 1.00	per unit	Measure Added
R-11 Electric water heater tank wrap	\$ 10.00	per unit	Measure Added
Engine Block Heater Timer	\$ 10.00	per unit	Measure Added
High Frequency Battery Charger	\$ 25.00	per unit	Measure Added
Low wattage T-8 lamps (25 watt and 28 watt)	\$ 0.75	per lamp	Measure Added
LED screw-in and MR-16 lamp	\$ 2.50	per lamp	Measure Added
LED Pin-Based lamp	\$ 6.00	per lamp	Measure Added
LED fixture - 60 watts and larger	\$ 85.00	per fixture	Measure Added
LED fixture - under 60 watts	\$ 25.00	per fixture	Measure Added
LED fixture - refrigerated/freezer case lighting	\$ 10.00	per case foot	Measure Added
LED tubes	\$ 3.00	per tube	Measure Added

NOTE: 2017 Commercial Electric Programs have been combined for Existing and New Construction.



**South Dakota Comparison Year 2 (2015-16) to 2017 Commercial New Construction Program-Electric**

Energy Saving Measures	Rebate per Unit	Units	2017 Changes
<del>Compact Fluorescent Lamp (CFL) Fixture</del>	<del>\$ 5.00</del>	<del>per Fixture</del>	Measure Eliminated
MV, HPSV or MH to T-8 or T5HO	\$ 85.00	per Fixture	Units for measure changed
Occupancy Sensors	\$ 10.00	per unit	Units for measure changed
<del>LED Solid State White Lighting for Exterior Landscape, Signage &amp; Structure Only</del>	<del>\$ 0.20</del>	<del>per Watt saved</del>	Measure Eliminated
<del>LED custom incentive</del>	<del>TBD</del>	<del>per watt saved</del>	Measure Eliminated
Anti-Sweat (Humidistat) Controls - refrigerator case	\$ 20.00	per door	Units for measure changed
Automated Exhaust VFD Control - Parking Garage CO sensor	<del>\$ 150.00</del>	<del>per fan motor HP</del>	Measure Eliminated
Automated Ventilation VFD Control (Occupancy Sensors / CO2 Sensors)	<del>\$ 30.00</del>	<del>per fan motor HP</del>	Measure Eliminated
<del>Cooking Fryers - Commercial</del>	<del>\$ 100.00</del>	<del>per fryer</del>	Measure Eliminated
Cooking Hood Controls	\$ 0.25	per cfm	
<del>Cooling Tower Decrease Approach Temperature</del>	<del>\$ 12.00</del>	<del>per chiller ton</del>	Measure Eliminated
<del>Dishwashing - Commercial - High Efficiency</del>	<del>\$ 50.00</del>	<del>per unit</del>	Measure Eliminated
<del>Dishwashing - Commercial - Chemical System</del>	<del>\$ 400.00</del>	<del>per unit</del>	Measure Eliminated
<del>Dishwashing - Residential Sized System</del>	<del>\$ 6.00</del>	<del>per unit</del>	Measure Eliminated
<del>Duct Less Heat Pumps</del>	<del>\$ 400.00</del>	<del>per ton</del>	Measure Eliminated
<del>Exhaust Hood Makeup Air</del>	<del>\$ 0.40</del>	<del>per cfm of exhaust hood make-up air</del>	Measure Eliminated
Faucet Aerators - 1.5 GPM	\$ 1.00	per aerator	
<del>Floating Head Pressure Control</del>	<del>\$ 50.00</del>	<del>per ton-yr</del>	Measure Eliminated
<del>Hotel Key Card Room Energy Control System</del>	<del>\$ 100.00</del>	<del>per hotel room</del>	Measure Eliminated
Low-Flow Showerheads	\$ 4.00	per showerhead	Reduced rebate from \$6.00
Motor - Fan System - Variable Speed Control	\$ 50.00	per motor horsepower	Reduced rebate from \$100
Motor - Pump System - Variable Speed Control	\$ 50.00	per motor horsepower	Reduced rebate from \$100
<del>Office Computer Network Energy Management</del>	<del>\$ 4.00</del>	<del>per computer</del>	Measure Eliminated
<del>Power Supply 80+ Office Measure</del>	<del>\$ 0.30</del>	<del>per power supply</del>	Measure Eliminated
<del>Reduced Speed or Cycling of Evaporator Fans</del>	<del>\$ 30.00</del>	<del>per Horsepower</del>	Measure Eliminated
<del>Refrigeration with Heat Recovery</del>	<del>\$ 3.00</del>	<del>per gallon DWH</del>	Measure Eliminated
<del>Residential Size Refrigerator</del>	<del>\$ 13.00</del>	<del>per refrigerator</del>	Measure Eliminated
<del>Special Glass Doors for Refrigerated Reach-in Cases</del>	<del>\$ 12.00</del>	<del>per linear foot</del>	Measure Eliminated
Steam Cookers - Commercial	\$ 200.00	per Electric Steam Cooker	Reduced rebate from \$300
<del>Strip Curtains for Walk-ins - Freezers</del>	<del>\$ 5.00</del>	<del>per sqft</del>	Measure Eliminated
<del>Vending Machine</del>	<del>\$ 75.00</del>	<del>per unit</del>	Measure Eliminated

**NOTE: 2017 Commercial Electric Programs have been combined for Existing and New Construction.**



South Dakota Comparison Year 2 (2015-16) to 2017 Commercial Existing Construction Program-Electric (continued)

Energy Saving Measures	Rebate per Unit	Units	2017 Changes
<del>Water Heater Thermostat Setback</del>	<del>\$ 1.00</del>	<del>per gallon-water heater</del>	Measure Eliminated
Efficient Direct Expansion (DX) Chiller	\$ 35.00	per ton	Measure Added
Efficient Water Cooled Chiller	\$ 80.00	per ton	Measure Added
Efficient Air Cooled Chiller	\$ 50.00	per ton	Measure Added
Canned Lighting Air Tight Sealing	\$ 1.00	per unit	Measure Added
Demand Control Ventilation	\$ 35.00	per HP supply fan	Measure Added
Electronically Commuted Motor (ECM) - Refrigerated/Freezer fan motor	\$ 0.75	per watt installed	Measure Added
Electronically Commuted Motor (ECM) - NON-Refrigerated/Freezer fan motor	\$ 0.50	per watt installed	Measure Added
Efficient Air Compressor with VFD	\$ 40.00	per HP	Measure Added
Anti-Sweat Heater Controls (Freezer)	\$ 25.00	per door	Measure Added
Suction Pipe R-3.8 Insulation on refrigerator/freezer	\$ 1.50	per linear ft	Measure Added
Air Source Heat Pump HVAC unit	\$ 50.00	per ton	Measure Added
HVAC Fan Notched V-Belt	\$ 1.00	per HP fan	Measure Added
R-11 Electric water heater tank wrap	\$ 10.00	per unit	Measure Added
Engine Block Heater Timer	\$ 10.00	per unit	Measure Added
High Frequency Battery Charger	\$ 25.00	per unit	Measure Added
Low wattage T-8 lamps (25 watt and 28 watt)	\$ 0.75	per lamp	Measure Added
LED screw-in and MR-16 lamp	\$ 2.50	per lamp	Measure Added
LED Pin-Based lamp	\$ 6.00	per lamp	Measure Added
LED fixture - 60 watts and larger	\$ 85.00	per fixture	Measure Added
LED fixture - under 60 watts	\$ 25.00	per fixture	Measure Added
LED fixture - refrigerated/freezer case lighting	\$ 10.00	per case foot	Measure Added
Compressor VSD Retrofit	\$ 15.00	per compressor HP	Measure Added
LED tubes	\$ 3.00	per tube	Measure Added

NOTE: 2017 Commercial Electric Programs have been combined for Existing and New Construction.

South Dakota Comparison Year 2 (2015-16) to 2017 Commercial Existing Construction Program-Natural Gas			
Energy Saving Measures	Rebate per Unit	Units	2017 Changes
Basement Side Wall Insulation	\$ 0.50	per sqft of basement wall	Increased rebate from \$0.40
Duct Sealing and Insulation	\$ 0.75	per sqft of duct	
Boiler Stack Economizer	\$ 0.50	per kbtu boiler	
Modulating Gas Valve	\$ 1.25	per kbtu boiler/furnace	
HVAC Controls (Thermostat)	\$ 0.020	per building sqft controlled	
High Efficiency Water Heater	\$ 1.00	per kbtu water heater	
Drainwater Heat Recovery	\$ 2.50	per gallon water heater	Increased rebate from \$1.50
Hot Water Pipe Insulation	\$ 1.00	per linear foot	Increased rebate from \$0.50
Recirculation Controls	\$ 10.00	per time clock	
Hot Water Tank Insulation	\$ 7.50	per water heater	
Hot Water Temperature Setback	\$ 0.25	per gallon water heater	
Low-Flow-Showerhead	<del>\$ 2.00</del>	per-showerhead	Measure Eliminated
Faucet Aerator (Kitchen)	\$ 2.00	per aerator	Increased rebate from \$1.50
Motion Faucet Controls	\$ 0.50	per faucet	
Multi-tank Conveyor Energy Star Dishwasher	\$ 400.00	per dishwasher	Reduced rebate from \$500
Energy Star Steam Cooker	\$ 100.00	per steam cooker	
Energy Star Fryer	\$ 375.00	per ENERGY STAR Fryer	
Energy Star Griddle	<del>\$ 150.00</del>	per ENERGY STAR Griddle	Measure Eliminated
Low-temp Door-Type Energy Star Dishwasher	<del>\$ 20.00</del>	per dishwasher	Measure Eliminated
Attic Insulation - R-49	\$ 0.40	per sqft of attic	Measure Added
Exterior Wall Insulation - R-21	\$ 0.35	per sqft of wall	Measure Added