Full Executive Summary Table - 2017 Actual Achievements																		
	GOAL				ACTUAL										TEST RESULTS			
2017	Participants	Electric Budget	Generator kW	Generator kWh	Participants	% of Goal	Electric Spend	% of Goal	Generator kW	% of Goal	Generator kWh	Lifetime years	Lifetime kWh	% of Goal	Part Ratio	Utility Ratio	RIM Ratio	TRC Ratio
Business Segment																		
Lighting Efficiency	2,140[1]	$ 389,520	552	4,192,955	11,700	547%	$ 417,589	107%	484	88%	3,291,040	18.80	61,861,196	78%	1.78	4.55	0.63	1.09
Business Saver's Switch	12	$ 30,950	34	84	16	133%	$ 33,120	107%	92	269%	217	15.00	3,258	259%	INF	2.63	0.60	2.63
Peak and Energy Control	1	$ 10,000	102	3,707	4	400%	$ 3,911	39%	326	320%	11,825	5.00	59,125	319%	INF	36.60	2.29	36.60
Business Segment Total	**2,153**	**$ 430,470**	**689**	**4,196,747**	**11,720**	**544%**	**$ 454,620**	**106%**	**902**	**131%**	**3,303,082**	**18.75**	**61,923,579**	**79%**	**1.89**	**4.68**	**0.66**	**1.18**
Residential Segment																		
Ground Source Heat Pump	0	$ -	0	0	1	NA	$ 3,000	NA	4	NA	2,889	20.00	57,779	NA	0.35	1.81	0.86	0.40
Residential Home Lighting	3,772	$ 97,340	112	1,065,912	4,660	124%	$ 111,733	115%	288	257%	2,738,397	5.95	16,285,806	257%	14.87	7.47	0.42	3.79
Residential Saver's Switch	770	$ 181,650	565	1,486	1,406	183%	$ 196,635	108%	1,089	193%	3,136	15.00	47,039	211%	INF	5.27	0.87	5.27
Consumer Education	68,000	$ 27,165	0	0	73,472	108%	$ 32,233	119%	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-
Residential Segment Total	**72,542**	**$ 306,155**	**677**	**1,067,398**	**79,539**	**110%**	**$ 343,600**	**112%**	**1,381**	**204%**	**2,744,422**	**5.97**	**16,390,624**	**257%**	**19.69**	**5.46**	**0.58**	**3.99**
Planning Segment																		
Regulatory Affairs	0	$ 14,000	0	0	N/A	N/A	$ 11,374	81%	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-
Planning Segment Total	**0**	**$ 14,000**	**0**	**0**	N/A	N/A	$ 11,374	81%	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-
PORTFOLIO TOTAL	**74,695**	**$ 750,625**	**1,366**	**5,264,145**	**91,259**	**122%**	**$ 809,595**	**108%**	**2,282**	**167%**	**6,047,504**	**12.95**	**78,314,203**	**115%**	**3.37**	**4.95**	**0.62**	**1.71**

[1]This goal was filed at 2,140 as the number "units", not the number of participants. We have adjusted the 2017 to reflect units as well. The actual participants can be found in Table 1 of our filing at 151.
Cost Benefit Analysis is done at the participant level - which has been addressed in the Executive Summary's for the 2018 and 2019 DSM Plans to adjust for future consistency.

LIGHTING EFFICIENCY | **2017** | **ELECTRIC** | **ACTUAL**

2017 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	$315,094	$315,094	$315,094	$315,094
T & D	N/A	$190,250	$190,250	$190,250	$190,250
Marginal Energy	N/A	$1,393,420	$1,393,420	$1,393,420	$1,393,420
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$1,898,764	$1,898,764	$1,898,764	$1,898,764
Participant Benefits					
Bill Reduction - Electric	$2,587,946	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$372,265	N/A	N/A	$372,265	$372,265
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$2,960,211	N/A	N/A	$372,265	$372,265
Total Benefits	$2,960,211	$1,898,764	$1,898,764	$2,271,029	$2,271,029
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$45,324	$45,324	$45,324	$45,324
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$372,265	$372,265	$372,265	$372,265
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$417,589	$417,589	$417,589	$417,589
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$2,587,946	N/A	N/A
Subtotal	N/A	N/A	$2,587,946	N/A	N/A
Participant Costs					
Incremental Capital Costs	$1,562,496	N/A	N/A	$1,562,496	$1,562,496
Incremental O&M Costs	$98,919	N/A	N/A	$98,919	$98,919
Subtotal	$1,661,415	N/A	N/A	$1,661,415	$1,661,415
Total Costs	$1,661,415	$417,589	$3,005,535	$2,079,004	$2,079,004
Net Benefit (Cost)	$1,298,796	$1,481,175	($1,106,771)	$192,025	$192,025
Benefit/Cost Ratio	1.78	4.55	0.63	1.09	1.09

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	18.8 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	55.94%
Gross Load Factor at Customer	E	44.68%
Transmission Loss Factor (Energy)	F	4.710%
Transmission Loss Factor (Demand)	G	7.380%
Societal Net Benefit (Cost)	H	$240

Program Summary per Participant		
Gross kW Saved at Customer	I	5.31 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	3.20 kW
Gross Annual kWh Saved at Customer	(B x E x I)	20,768 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	21,795 kWh

Program Summary All Participants		
Total Participants	J	151
Total Budget	K	**$417,589**
Gross kW Saved at Customer	(J x I)	801.31 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**484 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	3,136,032 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**3,291,040 kWh**
Societal Net Benefits	(J x I x H)	**$192,025**

Utility Program Cost per kWh Lifetime	**$0.0068**
Utility Program Cost per kW at Gen	**$863**

BUSINESS SAVER'S SWITCH **2017** **ELECTRIC** **ACTUAL**

2017 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	$54,258	$54,258	$54,258	$54,258
T & D	N/A	$32,760	$32,760	$32,760	$32,760
Marginal Energy	N/A	$131	$131	$131	$131
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$87,150	$87,150	$87,150	$87,150
Participant Benefits					
Bill Reduction - Electric	$113,302	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	$113,302	N/A	N/A	$0	$0
Total Benefits	$113,302	$87,150	$87,150	$87,150	$87,150
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$33,120	$33,120	$33,120	$33,120
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	$33,120	$33,120	$33,120	$33,120
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$113,302	N/A	N/A
Subtotal	N/A	N/A	$113,302	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	$33,120	$146,422	$33,120	$33,120
Net Benefit (Cost)	$113,302	$54,030	($59,273)	$54,030	$54,030
Benefit/Cost Ratio	INF	2.63	0.60	2.63	2.63

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

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	19.75%
Gross Load Factor at Customer	E	0.01%
Transmission Loss Factor (Energy)	F	4.710%
Transmission Loss Factor (Demand)	G	7.380%
Societal Net Benefit (Cost)	H	$126

Program Summary per Participant		
Gross kW Saved at Customer	I	26.83 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	5.72 kW
Gross Annual kWh Saved at Customer	(B x E x I)	13 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	14 kWh

Program Summary All Participants		
Total Participants	J	16
Total Budget	K	**$33,120**
Gross kW Saved at Customer	(J x I)	429.31 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**92 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	207 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**217 kWh**
Societal Net Benefits	(J x I x H)	**$54,030**
Utility Program Cost per kWh Lifetime		**$10.1643**
Utility Program Cost per kW at Gen		**$362**

PEAK AND ENERGY CONTROL — 2017 — ELECTRIC — ACTUAL

2017 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	$87,239	$87,239	$87,239	$87,239
T & D	N/A	$52,665	$52,665	$52,665	$52,665
Marginal Energy	N/A	$3,245	$3,245	$3,245	$3,245
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$143,149	$143,149	$143,149	$143,149
Participant Benefits					
Bill Reduction - Electric	$58,510	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	$58,510	N/A	N/A	$0	$0
Total Benefits	$58,510	$143,149	$143,149	$143,149	$143,149
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$3,911	$3,911	$3,911	$3,911
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	$3,911	$3,911	$3,911	$3,911
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$58,510	N/A	N/A
Subtotal	N/A	N/A	$58,510	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	$3,911	$62,421	$3,911	$3,911
Net Benefit (Cost)	$58,510	$139,238	$80,728	$139,238	$139,238
Benefit/Cost Ratio	INF	36.60	2.29	36.60	36.60

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

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	47.46%
Gross Load Factor at Customer	E	0.20%
Transmission Loss Factor (Energy)	F	4.710%
Transmission Loss Factor (Demand)	G	7.380%
Societal Net Benefit (Cost)	H	$219

Program Summary per Participant		
Gross kW Saved at Customer	I	159.15 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	81.55 kW
Gross Annual kWh Saved at Customer	(B x E x I)	2,817 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	2,956 kWh

Program Summary All Participants		
Total Participants	J	4
Total Budget	K	**$3,911**
Gross kW Saved at Customer	(J x I)	636.60 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**326 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	11,268 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**11,825 kWh**
Societal Net Benefits	(J x I x H)	**$139,238**

Utility Program Cost per kWh Lifetime	**$0.0661**
Utility Program Cost per kW at Gen	**$12**

BUSINESS SEGMENT TOTAL **2017 ELECTRIC ACTUAL**

2017 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	$456,592	$456,592	$456,592	$456,592
T & D	N/A	$275,676	$275,676	$275,676	$275,676
Marginal Energy	N/A	$1,396,796	$1,396,796	$1,396,796	$1,396,796
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$2,129,063	$2,129,063	$2,129,063	$2,129,063
Participant Benefits					
Bill Reduction - Electric	$2,759,758	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$372,265	N/A	N/A	$372,265	$372,265
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$3,132,023	N/A	N/A	$372,265	$372,265
Total Benefits	$3,132,023	$2,129,063	$2,129,063	$2,501,328	$2,501,328
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$82,355	$82,355	$82,355	$82,355
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$372,265	$372,265	$372,265	$372,265
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$454,620	$454,620	$454,620	$454,620
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$2,759,758	N/A	N/A
Subtotal	N/A	N/A	$2,759,758	N/A	N/A
Participant Costs					
Incremental Capital Costs	$1,562,496	N/A	N/A	$1,562,496	$1,562,496
Incremental O&M Costs	$98,919	N/A	N/A	$98,919	$98,919
Subtotal	$1,661,415	N/A	N/A	$1,661,415	$1,661,415
Total Costs	$1,661,415	$454,620	$3,214,379	$2,116,035	$2,116,035
Net Benefit (Cost)	$1,470,609	$1,674,443	($1,085,315)	$385,293	$385,293
Benefit/Cost Ratio	1.89	4.68	0.66	1.18	1.18

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	18.7 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	44.73%
Gross Load Factor at Customer	E	19.24%
Transmission Loss Factor (Energy)	F	4.710%
Transmission Loss Factor (Demand)	G	7.380%
Societal Net Benefit (Cost)	H	$206

Program Summary per Participant		
Gross kW Saved at Customer	I	10.92 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	5.27 kW
Gross Annual kWh Saved at Customer	(B x E x I)	18,406 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	19,316 kWh

Program Summary All Participants		
Total Participants	J	171
Total Budget	K	**$454,620**
Gross kW Saved at Customer	(J x I)	1,867.22 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**902 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	3,147,507 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**3,303,082 kWh**
Societal Net Benefits	(J x I x H)	**$385,293**

Utility Program Cost per kWh Lifetime	**$0.0073**
Utility Program Cost per kW at Gen	**$504**

RESIDENTIAL HOME LIGHTING — 2017 — ELECTRIC — ACTUAL

2017 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	$110,619	$110,619	$110,619	$110,619
T & D	N/A	$66,785	$66,785	$66,785	$66,785
Marginal Energy	N/A	$656,707	$656,707	$656,707	$656,707
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$834,112	$834,112	$834,112	$834,112
Participant Benefits					
Bill Reduction - Electric	$1,885,023	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$92,997	N/A	N/A	$92,997	$92,997
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$1,978,020	N/A	N/A	$92,997	$92,997
Total Benefits	$1,978,020	$834,112	$834,112	$927,109	$927,109
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$18,736	$18,736	$18,736	$18,736
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$92,997	$92,997	$92,997	$92,997
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$111,733	$111,733	$111,733	$111,733
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$1,885,023	N/A	N/A
Subtotal	N/A	N/A	$1,885,023	N/A	N/A
Participant Costs					
Incremental Capital Costs	$132,997	N/A	N/A	$132,997	$132,997
Incremental O&M Costs	$0	N/A	N/A	$0	$0
Subtotal	$132,997	N/A	N/A	$132,997	$132,997
Total Costs	$132,997	$111,733	$1,996,756	$244,730	$244,730
Net Benefit (Cost)	$1,845,023	$722,379	($1,162,644)	$682,379	$682,379
Benefit/Cost Ratio	14.87	7.47	0.42	3.79	3.79

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	5.9 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	11.83%
Gross Load Factor at Customer	E	13.32%
Transmission Loss Factor (Energy)	F	5.088%
Transmission Loss Factor (Demand)	G	8.509%
Societal Net Benefit (Cost)	H	$306

Program Summary per Participant		
Gross kW Saved at Customer	I	0.48 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.06 kW
Gross Annual kWh Saved at Customer	(B x E x I)	558 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	588 kWh

Program Summary All Participants		
Total Participants	J	4,660
Total Budget	K	**$111,733**
Gross kW Saved at Customer	(J x I)	2,227.09 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**288 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	2,599,072 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**2,738,397 kWh**
Societal Net Benefits	(J x I x H)	**$682,379**

Utility Program Cost per kWh Lifetime	**$0.0069**
Utility Program Cost per kW at Gen	**$388**

GROUND SOURCE HEAT PUMP — 2017 — ELECTRIC — ACTUAL

2017 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	$2,517	$2,517	$2,517	$2,517
T & D	N/A	$1,520	$1,520	$1,520	$1,520
Marginal Energy	N/A	$1,393	$1,393	$1,393	$1,393
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$5,430	$5,430	$5,430	$5,430
Participant Benefits					
Bill Reduction - Electric	$3,341	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$3,000	N/A	N/A	$3,000	$3,000
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$6,341	N/A	N/A	$3,000	$3,000
Total Benefits	$6,341	$5,430	$5,430	$8,430	$8,430
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$0	$0	$0	$0
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$3,000	$3,000	$3,000	$3,000
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$3,000	$3,000	$3,000	$3,000
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$3,341	N/A	N/A
Subtotal	N/A	N/A	$3,341	N/A	N/A
Participant Costs					
Incremental Capital Costs	$18,290	N/A	N/A	$18,290	$18,290
Incremental O&M Costs	$0	N/A	N/A	$0	$0
Subtotal	$18,290	N/A	N/A	$18,290	$18,290
Total Costs	$18,290	$3,000	$6,341	$21,290	$21,290
Net Benefit (Cost)	($11,949)	$2,430	($910)	($12,859)	($12,859)
Benefit/Cost Ratio	0.35	1.81	0.86	0.40	0.40

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	20.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	89.99%
Gross Load Factor at Customer	E	8.41%
Transmission Loss Factor (Energy)	F	5.260%
Transmission Loss Factor (Demand)	G	8.580%
Societal Net Benefit (Cost)	H	($3,461)

Program Summary per Participant		
Gross kW Saved at Customer	I	3.72 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	3.66 kW
Gross Annual kWh Saved at Customer	(B x E x I)	2,737 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	2,889 kWh

Program Summary All Participants		
Total Participants	J	1
Total Budget	K	**$3,000**
Gross kW Saved at Customer	(J x I)	3.72 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**4 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	2,737 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**2,889 kWh**
Societal Net Benefits	(J x I x H)	**($12,859)**

Utility Program Cost per kWh Lifetime	**$0.0519**
Utility Program Cost per kW at Gen	**$820**

RESIDENTIAL SAVER'S SWITCH **2017** **ELECTRIC** **ACTUAL**

2017 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	$645,476	$645,476	$645,476	$645,476
T & D	N/A	$389,726	$389,726	$389,726	$389,726
Marginal Energy	N/A	$1,467	$1,467	$1,467	$1,467
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$1,036,669	$1,036,669	$1,036,669	$1,036,669
Participant Benefits					
Bill Reduction - Electric	$994,081	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	$994,081	N/A	N/A	$0	$0
Total Benefits	$994,081	$1,036,669	$1,036,669	$1,036,669	$1,036,669
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$196,635	$196,635	$196,635	$196,635
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	$196,635	$196,635	$196,635	$196,635
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$994,081	N/A	N/A
Subtotal	N/A	N/A	$994,081	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	$196,635	$1,190,715	$196,635	$196,635
Net Benefit (Cost)	$994,081	$840,035	($154,046)	$840,035	$840,035
Benefit/Cost Ratio	INF	5.27	0.87	5.27	5.27

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

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	27.74%
Gross Load Factor at Customer	E	0.01%
Transmission Loss Factor (Energy)	F	5.260%
Transmission Loss Factor (Demand)	G	8.580%
Societal Net Benefit (Cost)	H	$234

Program Summary per Participant		
Gross kW Saved at Customer	I	2.55 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.77 kW
Gross Annual kWh Saved at Customer	(B x E x I)	2 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	2 kWh

Program Summary All Participants		
Total Participants	J	1,406
Total Budget	K	**$196,635**
Gross kW Saved at Customer	(J x I)	3,588.80 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**1,089 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	2,971 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**3,136 kWh**
Societal Net Benefits	(J x I x H)	**$840,035**

Utility Program Cost per kWh Lifetime	**$4.1802**
Utility Program Cost per kW at Gen	**$181**

RESIDENTIAL SEGMENT TOTAL | **2017** | **ELECTRIC** | **ACTUAL**

2017 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	$758,613	$758,613	$758,613	$758,613
T & D	N/A	$458,032	$458,032	$458,032	$458,032
Marginal Energy	N/A	$659,567	$659,567	$659,567	$659,567
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$1,876,212	$1,876,212	$1,876,212	$1,876,212
Participant Benefits					
Bill Reduction - Electric	$2,882,444	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$95,997	N/A	N/A	$95,997	$95,997
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$2,978,441	N/A	N/A	$95,997	$95,997
Total Benefits	$2,978,441	$1,876,212	$1,876,212	$1,972,209	$1,972,209
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$247,603	$247,603	$247,603	$247,603
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$95,997	$95,997	$95,997	$95,997
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$343,600	$343,600	$343,600	$343,600
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$2,882,444	N/A	N/A
Subtotal	N/A	N/A	$2,882,444	N/A	N/A
Participant Costs					
Incremental Capital Costs	$151,287	N/A	N/A	$151,287	$151,287
Incremental O&M Costs	$0	N/A	N/A	$0	$0
Subtotal	$151,287	N/A	N/A	$151,287	$151,287
Total Costs	$151,287	$343,600	$3,226,044	$494,887	$494,887
Net Benefit (Cost)	$2,827,154	$1,532,611	($1,349,833)	$1,477,322	$1,477,322
Benefit/Cost Ratio	19.69	5.46	0.58	3.99	3.99

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	6.0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	21.70%
Gross Load Factor at Customer	E	5.11%
Transmission Loss Factor (Energy)	F	5.088%
Transmission Loss Factor (Demand)	G	8.553%
Societal Net Benefit (Cost)	H	$254

Program Summary per Participant		
Gross kW Saved at Customer	I	0.07 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.02 kW
Gross Annual kWh Saved at Customer	(B x E x I)	33 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	35 kWh

Program Summary All Participants		
Total Participants	J	79,539
Total Budget	K	**$343,600**
Gross kW Saved at Customer	(J x I)	5,819.61 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**1,381 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	2,604,780 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**2,744,422 kWh**
Societal Net Benefits	(J x I x H)	**$1,477,322**

Utility Program Cost per kWh Lifetime	**$0.0210**
Utility Program Cost per kW at Gen	**$249**

PORTFOLIO TOTAL **2017 ELECTRIC ACTUAL**

2017 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	$1,215,205	$1,215,205	$1,215,205	$1,215,205
T & D	N/A	$733,707	$733,707	$733,707	$733,707
Marginal Energy	N/A	$2,056,363	$2,056,363	$2,056,363	$2,056,363
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$4,005,275	$4,005,275	$4,005,275	$4,005,275
Participant Benefits					
Bill Reduction - Electric	$5,642,202	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$468,262	N/A	N/A	$468,262	$468,262
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$6,110,465	N/A	N/A	$468,262	$468,262
Total Benefits	$6,110,465	$4,005,275	$4,005,275	$4,473,537	$4,473,537
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$341,333	$341,333	$341,333	$341,333
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$468,262	$468,262	$468,262	$468,262
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$809,595	$809,595	$809,595	$809,595
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$5,642,202	N/A	N/A
Subtotal	N/A	N/A	$5,642,202	N/A	N/A
Participant Costs					
Incremental Capital Costs	$1,713,782	N/A	N/A	$1,713,782	$1,713,782
Incremental O&M Costs	$98,919	N/A	N/A	$98,919	$98,919
Subtotal	$1,812,702	N/A	N/A	$1,812,702	$1,812,702
Total Costs	$1,812,702	$809,595	$6,451,797	$2,622,296	$2,622,296
Net Benefit (Cost)	$4,297,763	$3,195,680	($2,446,522)	$1,851,241	$1,851,241
Benefit/Cost Ratio	3.37	4.95	0.62	1.71	1.71

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	12.9 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	27.24%
Gross Load Factor at Customer	E	8.54%
Transmission Loss Factor (Energy)	F	4.882%
Transmission Loss Factor (Demand)	G	8.271%
Societal Net Benefit (Cost)	H	$241

Program Summary per Participant		
Gross kW Saved at Customer	I	0.10 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.03 kW
Gross Annual kWh Saved at Customer	(B x E x I)	72 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	76 kWh

Program Summary All Participants		
Total Participants	J	79,710
Total Budget	K	**$809,595**
Gross kW Saved at Customer	(J x I)	7,686.83 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**2,282 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	5,752,287 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**6,047,504 kWh**
Societal Net Benefits	(J x I x H)	**$1,851,241**

Utility Program Cost per kWh Lifetime	**$0.0103**
Utility Program Cost per kW at Gen	**$355**

PUBLIC

Lighting Measures

Type	Lighting Efficiency	2017 Rebate Amount ($)	2018 Rebate Amount ($)	2019 Rebate Amount ($)	Rebate Adjustment	Justification
Retrofit	Wall mount occupancy sensor - 50 Watts to 300 Watts Controlled Load	$15	$ 15.00	$ 15.00	NA	
Retrofit	Wall mount occupancy sensor - Greater than 300 Watts Controlled Load	$25	$ 25.00	$ 25.00	NA	
Retrofit	Ceiling mount occupancy sensor - 50 Watts to 300 Watts Controlled Load	$30	$ 30.00	$ 30.00	NA	
Retrofit	Ceiling mount occupancy sensor - Greater than 300 Watts Controlled Load	$40	$ 40.00	$ 40.00	NA	
Retrofit	Occupancy Sensor - Photocell	$25	$ 25.00	$ 25.00	NA	
Retrofit	Stairwell Fixture with Integral Occupancy Sensor	$75	$ 25.00	$ 25.00	Yes - $75 in 2017	Change in incremental cost
Retrofit	LED/LEC Exit Sign	$25	$ 25.00	$ 25.00	NA	
Retrofit	LED Interior Screw In Fixture Retrofit	$15	$ 15.00	$ 15.00	NA	
Retrofit	LED Interior Fixture <= 25W	$35	$ 35.00	$ 20.00	Yes - $35 in 2017	Change in incremental cost
Retrofit	LED Interior Fixture 26W - 50W	$50	$ 50.00	$ 40.00	Yes - $50 in 2017	Change in incremental cost
Retrofit	LED Ref and Frz Cases 5' or 6' doors	$55	$ 100.00	$ 100.00	Yes - $55 in 2017	Increase in rebate to promote technology
Retrofit	LED Parking Garage Lighting 25W-60W	$135	$ 75.00	$ 75.00	Yes- $135 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Area Lighting - 45-65W	$100	$ 25.00	$ 25.00	Yes - $100 in 2017	Change in incremental cost
Retrofit	LED Area Lighting - 66-89W	$125	$ 25.00	$ 25.00	Yes- $125 in 2017	Change in incremental cost
Retrofit	LED Area Lighting - 90-119W	$150	$ 50.00	$ 50.00	Yes - $150 in 2017	Change in incremental cost
Retrofit	LED Area Lighting - 120-140W	$175	$ 50.00	$ 50.00	Yes - $175 in 2017	Change in incremental cost
Retrofit	LED Troffer Fixture 1X4	$50	$ 20.00	$ 20.00	Yes - $50 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Troffer Fixture 2X2	$50	$ 20.00	$ 20.00	Yes - $50 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Troffer Fixture 2X4	$50	$ 30.00	$ 30.00	Yes - $50 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Troffer Retrofit Kit 1X4	$30	$ 15.00	$ 15.00	Yes - $30 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Troffer Retrofit Kit 2X2	$30	$ 15.00	$ 15.00	Yes - $30 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Troffer Retrofit Kit 2X4	$30	$ 25.00	$ 25.00	Yes - $30 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Exterior Wall Pack <= 25W	$35	$ 35.00	$ 25.00	Yes - $35 in 2017	Change in incremental cost
Retrofit	LED Exterior Wall Pack 26W - 60W	$75	$ 75.00	$ 50.00	Yes - $75 in 2017	Change in incremental cost
Retrofit	LED Exterior Wall Pack 61W - 150W	$100	$ 100.00	$ 80.00	Yes - $100 in 2017	Change in incremental cost
Retrofit	LED Parking Garage Wall Pack <= 25W	$35	$ 35.00	$ 35.00	NA	
Retrofit	LED Parking Garage Wall Pack 26W - 60W	$75	$ 75.00	$ 75.00	NA	
Retrofit	LED Parking Garage Wall Pack 61W - 150W	$100	$ 100.00	$ 100.00	NA	
Retrofit	LED Outdoor Canopy or Soffit lighting 25W - 60W	$150	$ 75.00	$ 75.00	Yes- $150 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Outdoor Canopy or Soffit lighting 61W - 150W	$200	$ 100.00	$ 100.00	Yes - $200 in 2017; changed in Supplement	Change in incremental cost
Retrofit	LED Interior Lamp <= 5W	$7	$ 7.00	$ 4.00	Yes - $7 in 2017	Change in incremental cost
Retrofit	LED Interior Lamp 6W - 10W	$12	$ 12.00	$ 6.00	Yes - $12 in 2017	Change in incremental cost
Retrofit	LED Interior Lamp 11W - 20W	$15	$ 15.00	$ 8.00	Yes - $15 in 2017	Change in incremental cost
Retrofit	LED Tube Type A 2 foot	$ -	$ 2.00	$ 2.00	New Rebate in Supplement	New Technology
Retrofit	LED Tube Type C 2 foot	$ -	$ 5.00	$ 5.00	New Rebate in Supplement	New Technology
Retrofit	LED Tube Type A 4 foot	$ -	$ 2.00	$ 2.00	New Rebate in Supplement	New Technology
Retrofit	LED Tube Type C 4 foot	$ -	$ 5.00	$ 5.00	New Rebate in Supplement	New Technology
Retrofit	LED Tube Type B 4 foot	$ -	$ 3.00	$ 3.00	New Rebate in Supplement	New Technology
Retrofit	LED High Bay Fixture - 95-189W	$ -	$ -	$ 100.00	New in 2019	New Technology
Retrofit	LED High Bay Fixture - 190-290W	$ -	$ -	$ 120.00	New in 2019	New Technology
Retrofit	LED High Bay Fixture - 291-464W	$ -	$ -	$ 150.00	New in 2019	New Technology
Retrofit	LED High Bay Fixture - 465-625W	$ -	$ -	$ 200.00	New in 2019	New Technology
New Construction	LED Interior Lamp <= 5W	$7	$ 7.00	$ 4.00	Yes - $7 in 2017	Change in incremental cost
New Construction	LED Interior Lamp 6W - 10W	$12	$ 12.00	$ 6.00	Yes - $12 in 2017	Change in incremental cost
New Construction	LED Interior Lamp 11W - 20W	$15	$ 15.00	$ 8.00	Yes - $15 in 2017	Change in incremental cost
New Construction	LED Interior Fixture <= 25W	$25	$ 25.00	$ 15.00	Yes - $25 in 2017	Change in incremental cost
New Construction	LED Interior Fixture 26W - 50W	$40	$ 40.00	$ 20.00	Yes - $40 in 2017	Change in incremental cost
New Construction	LED Ref and Frz Cases 5' or 6' doors	$55	$ 70.00	$ 70.00		
New Construction	LED Parking Garage Lighting 25W-60W	$25	$ 35.00	$ 35.00	Yes, $25 in 2017	Increase in rebate to promote technology
New Construction	LED Area Lighting - 45-65W	$55	$ 15.00	$ 15.00	Yes, $55 in 2017	Change in incremental cost
New Construction	LED Area Lighting - 66-89W	$65	$ 15.00	$ 15.00	Yes, $65 in 2017	Change in incremental cost
New Construction	LED Area Lighting - 90-119W	$75	$ 30.00	$ 30.00	Yes, $75 in 2017	Change in incremental cost
New Construction	LED Area Lighting - 120-140W	$85	$ 30.00	$ 30.00	Yes, $85 in 2017	Change in incremental cost
New Construction	LED Troffer Fixture 1X4	$30	$ 15.00	$ 15.00	Yes - $30 in 2017; changed in Supplement	Change in incremental cost
New Construction	LED Troffer Fixture 2X2	$30	$ 15.00	$ 15.00	Yes - $30 in 2017; changed in Supplement	Change in incremental cost
New Construction	LED Troffer Fixture 2X4	$30	$ 25.00	$ 25.00	Yes - $30 in 2017; changed in Supplement	Change in incremental cost
New Construction	LED Exterior Wall Pack <= 25W	$15	$ 15.00	$ 15.00	NA	
New Construction	LED Exterior Wall Pack 26W - 60W	$30	$ 30.00	$ 30.00	NA	
New Construction	LED Exterior Wall Pack 61W - 150W	$50	$ 50.00	$ 50.00	NA	
New Construction	LED Parking Garage Wall Pack <= 25W	$15	$ 15.00	$ 15.00	NA	
New Construction	LED Parking Garage Wall Pack 26W - 60W	$30	$ 30.00	$ 30.00	NA	
New Construction	LED Parking Garage Wall Pack 61W - 150W	$50	$ 50.00	$ 50.00	NA	
New Construction	LED Outdoor Canopy or Soffit lighting 25W - 60W	$50	$ 50.00	$ 50.00	NA	
New Construction	LED Outdoor Canopy or Soffit lighting 61W - 150W	$100	$ 90.00	$ 90.00	Yes- $100 in 2017; changed in Supplement	Change in incremental cost

Home Lighting	Rebate Amount ($)	Rebate Adjustment	Justification
LED Bulb	$ 2.10	Yes - $2.40 in 2018	Change in incremental cost

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:		**Percent**	**Cost**	**Weighted Cost**	
	[CONFIDENTIAL DATA BEGINS HERE				
Long-term Debt					
Short-term Debt					
Perferred Stock					
Common Equity					CONFIDENTIAL DATA ENDS HERE]
				7.22%	

Weighted Cost of Capital			
	[CONFIDENTIAL DATA BEGINS HERE		
Equity			
Debt			CONFIDENTIAL DATA ENDS HERE]
Total			
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 =	28.1100%	
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]

Northern States Power Company
State of South Dakota- Electric Utility
DSM Cost Recovery & Incentive Mechanism - Total
2017 Actual

2017	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**	**Total**
EXPENSES	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)													
RECOVERY													
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 35%)													
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. Pages 6-9 of this attachment include 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 2017-2018 timeframe, as well as recover all forecasted 2019 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 May 1 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 21, 2017Order,[1] Xcel Energy implemented the approved rate of $0.000510 per kWh effective January 1, 2018.

[1] Docket No. EL 16-018

(6) Proposed rate;

Xcel Energy requests a new DSM Cost Adjustment Factor of $0.000486 per customer kWh.

(7) Proposed effective date of modified rate;

Xcel Energy requests this new DSM Cost Adjustment Factor of $0.000486 per customer kWh become effective with the first billing cycle of January 2019. We request this rate remain in effect through December 2019 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 $0.000486 per customer kWh is an decrease of $0.000024 per kWh or five 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 93,397 electric customers in 36 communities in eastern South Dakota.

(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. The following pages of this attachment include the forecasted 2018 and 2019 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
2018 Forecast

	2018	January	February	March	April	May	June	July	August	September	October	November	December	Total
	EXPENSES	Actual	Actual	Actual	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 (Line 5*6)													
8.	Sub-Balance (Over/Under Recovery) (Line 1 + 4 - 7)													
9.	Accum Deferred Tax (Line 8 *21%)													
10.	Net Investment (Line 8 - 9)													
11.	Carrying Charge Rate													
12.	Carrying Charge (Line 10 * carrying charge)													
13.	13. End of Month Balance (over)/under recovered (Line 8 + 12)											CONFIDENTIAL DATA ENDS]		

Table 1: 2018 DSM Tracker Forecast, With Cost Recovery in 2019

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CONFIDENTIAL DATA ENDS]

Northern States Power Company
State of South Dakota- Electric Utility
DSM Cost Recovery & Incentive Mechanism - Total
2019 Forecast

	2019	January	February	March	April	May	June	July	August	September	October	November	December	Total
	EXPENSES													
	[CONFIDENTIAL DATA BEGINS													
1.	Balance													
2.	DSM Program Expenditures													
3.	Total Incentive (Line 2 * 30%)													
4.	Total Expenditures + Incentive (Line 2 + 3)													
	RECOVERY													
5.	DSM Adjustment Factor ($/MWh)													
6.	Calendar Month Sales Volume Forecast (MWh)													
7.	Total Cost Recovery													
8.	Sub-Balance (Over)/Under Recovery (Line 1 + 4 - 7)													
9.	Accum Deferred Tax (Line 8 * 21%)													
10.	Net Investment (Line 8 - 9)													
11.	Carrying Charge Rate													
12.	Carrying Charge (Line 10 * carrying charge)													
13.	End of Month Balance (Line 8 + 12)													
													CONFIDENTIAL DATA ENDS]	

Table 2: 2018 DSM Tracker Forecast, With Cost Recovery in 2018

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CONFIDENTIAL DATA ENDS]

Proposed Customer Bill Onsert Language

DSM Cost Adjustment Factor Increase
Effective January 1, 2019

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 (DSM) 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, 2019, the rate factor will decrease from $0.000510 per kWh to $0.000486 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.

	Prior Rates				New Rates				Amount of Bill Decrease	Percent Decrease
Usage (kWh)	Other Rates	Prior DSM Factor	Prior DSM	Prior Bill	Other Rates	New DSM Factor	New DSM	New Bill		
400	$53.41	$0.000510	**$0.20**	$53.61	$53.41	$0.000486	**$0.19**	$53.60	(0.01)	-0.02%
500	$64.71	$0.000510	**$0.26**	$64.97	$64.71	$0.000486	**$0.24**	$64.95	(0.02)	-0.03%
600	$76.00	$0.000510	**$0.31**	$76.31	$76.00	$0.000486	**$0.29**	$76.29	(0.02)	-0.03%
750	$92.93	$0.000510	**$0.38**	$93.31	$92.93	$0.000486	**$0.36**	$93.29	(0.02)	-0.02%
1000	$121.16	$0.000510	**$0.51**	$121.67	$121.16	$0.000486	**$0.49**	$121.65	(0.02)	-0.02%
2000	$234.07	$0.000510	**$1.02**	$235.09	$234.07	$0.000486	**$0.97**	$235.04	(0.05)	-0.02%

For more information

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

Legislative

Northern States Power Company, a Minnesota corporation
Minneapolis, MN 55401
SOUTH DAKOTA ELECTRIC RATE BOOK - SDPUC NO. 2

PROPOSED

DEMAND SIDE MANAGEMENT COST ADJUSTMENT FACTOR

Section No. 5
~~5th~~6th Revised Sheet No. 73
Cancelling ~~4th~~5th 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	~~$0.000510~~$0.000486 per kWh	~~I~~R

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

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

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

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

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

Non-Legislative

Northern States Power Company, a Minnesota corporation
Minneapolis, MN 55401
SOUTH DAKOTA ELECTRIC RATE BOOK - SDPUC NO. 2

PROPOSED

DEMAND SIDE MANAGEMENT COST ADJUSTMENT FACTOR

Section No. 5
6th Revised Sheet No. 73
Cancelling 5th Revised Sheet No. 73

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All Customers	$0.000486 per kWh	R

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Executive Summary Table - 2019

2019	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	334	$389,320	484	3,985,513	2.47	5.78	0.49	1.16
Business Saver's Switch	12	$37,213	42	107	INF	1.26	0.65	1.26
Peak and Energy Control	1	$10,000	99	3,695	INF	4.66	1.15	4.66
Business Segment Total	**347**	**$436,533**	**626**	**3,989,315**	**2.51**	**5.37**	**0.50**	**1.17**
Residential Segment								
Home Lighting	2,635	$93,412	154	1,508,018	8.02	3.15	0.36	1.91
Residential Saver's Switch	770	$187,913	546	1,651	INF	3.24	0.86	3.24
Consumer Education	68,000	$21,165	N/A	N/A				
Residential Segment Total	**71,405**	**$302,490**	**700**	**1,509,669**	**13.31**	**2.99**	**0.58**	**2.43**
Planning Segment								
Regulatory Affairs	0	$13,000	N/A	N/A				
Planning Segment Total	**0**	**$13,000**	**N/A**	**N/A**				
PORTFOLIO TOTAL	**71,752**	**$752,023**	**1,326**	**5,498,983**	**3.07**	**4.32**	**0.52**	**1.36**

LIGHTING EFFICIENCY — 2019 ELECTRIC — GOAL

2019 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	$364,323	$364,323	$364,323	$364,323
T & D	N/A	$222,200	$222,200	$222,200	$222,200
Marginal Energy	N/A	$1,663,806	$1,663,806	$1,663,806	$1,663,806
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$2,250,329	$2,250,329	$2,250,329	$2,250,329
Participant Benefits					
Bill Reduction - Electric	$4,174,756	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$284,320	N/A	N/A	$284,320	$284,320
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$4,459,076	N/A	N/A	$284,320	$284,320
Total Benefits	$4,459,076	$2,250,329	$2,250,329	$2,534,649	$2,534,649
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$105,000	$105,000	$105,000	$105,000
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$284,320	$284,320	$284,320	$284,320
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$389,320	$389,320	$389,320	$389,320
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$4,174,756	N/A	N/A
Subtotal	N/A	N/A	$4,174,756	N/A	N/A
Participant Costs					
Incremental Capital Costs	$1,717,744	N/A	N/A	$1,717,744	$1,717,744
Incremental O&M Costs	$85,539	N/A	N/A	$85,539	$85,539
Subtotal	$1,803,283	N/A	N/A	$1,803,283	$1,803,283
Total Costs	$1,803,283	$389,320	$4,564,076	$2,192,603	$2,192,603
Net Benefit (Cost)	$2,655,793	$1,861,009	($2,313,747)	$342,046	$342,046
Benefit/Cost Ratio	2.47	5.78	0.49	1.16	1.16

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	18.1 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	54.30%
Gross Load Factor at Customer	E	50.96%
Transmission Loss Factor (Energy)	F	4.420%
Transmission Loss Factor (Demand)	G	4.310%
Societal Net Benefit (Cost)	H	$401

Program Summary per Participant		
Gross kW Saved at Customer	I	2.56 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	1.45 kW
Gross Annual kWh Saved at Customer	(B x E x I)	11,405 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	11,933 kWh

Program Summary All Participants		
Total Participants	J	334
Total Budget	K	**$389,320**
Gross kW Saved at Customer	(J x I)	853.38 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**484 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	3,809,353 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**3,985,513 kWh**
Societal Net Benefits	(J x I x H)	**$342,046**

Utility Program Cost per kWh Lifetime	**$0.0054**
Utility Program Cost per kW at Gen	**$804**

BUSINESS SAVER'S SWITCH **2019** **ELECTRIC** **GOAL**

2019 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	$29,168	$29,168	$29,168	$29,168
T & D	N/A	$17,765	$17,765	$17,765	$17,765
Marginal Energy	N/A	$60	$60	$60	$60
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$46,992	$46,992	$46,992	$46,992
Participant Benefits					
Bill Reduction - Electric	$34,908	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	$34,908	N/A	N/A	$0	$0
Total Benefits	$34,908	$46,992	$46,992	$46,992	$46,992
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$37,213	$37,213	$37,213	$37,213
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	$37,213	$37,213	$37,213	$37,213
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$34,908	N/A	N/A
Subtotal	N/A	N/A	$34,908	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	$37,213	$72,121	$37,213	$37,213
Net Benefit (Cost)	$34,908	$9,779	($25,128)	$9,779	$9,779
Benefit/Cost Ratio	INF	1.26	0.65	1.26	1.26

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

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	20.00%
Gross Load Factor at Customer	E	0.01%
Transmission Loss Factor (Energy)	F	4.420%
Transmission Loss Factor (Demand)	G	4.310%
Societal Net Benefit (Cost)	H	$49

Program Summary per Participant		
Gross kW Saved at Customer	I	16.79 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	3.51 kW
Gross Annual kWh Saved at Customer	(B x E x I)	8 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	9 kWh

Program Summary All Participants		
Total Participants	J	12
Total Budget	K	**$37,213**
Gross kW Saved at Customer	(J x I)	201.50 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**42 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	102 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**107 kWh**
Societal Net Benefits	(J x I x H)	**$9,779**

Utility Program Cost per kWh Lifetime	**$23.2865**
Utility Program Cost per kW at Gen	**$884**

PEAK AND ENERGY CONTROL — 2019 — ELECTRIC — GOAL

2019 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	$28,419	$28,419	$28,419	$28,419
T & D	N/A	$17,221	$17,221	$17,221	$17,221
Marginal Energy	N/A	$961	$961	$961	$961
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$46,601	$46,601	$46,601	$46,601
Participant Benefits					
Bill Reduction - Electric	$30,671	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	$30,671	N/A	N/A	$0	$0
Total Benefits	$30,671	$46,601	$46,601	$46,601	$46,601
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	$30,671	N/A	N/A
Subtotal	N/A	N/A	$30,671	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	$40,671	$10,000	$10,000
Net Benefit (Cost)	$30,671	$36,601	$5,930	$36,601	$36,601
Benefit/Cost Ratio	INF	4.66	1.15	4.66	4.66

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

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	47.46%
Gross Load Factor at Customer	E	0.20%
Transmission Loss Factor (Energy)	F	4.420%
Transmission Loss Factor (Demand)	G	4.310%
Societal Net Benefit (Cost)	H	$183

Program Summary per Participant		
Gross kW Saved at Customer	I	200.00 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	99.20 kW
Gross Annual kWh Saved at Customer	(B x E x I)	3,532 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	3,695 kWh

Program Summary All Participants		
Total Participants	J	1
Total Budget	K	**$10,000**
Gross kW Saved at Customer	(J x I)	200.00 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**99 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	3,532 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**3,695 kWh**
Societal Net Benefits	(J x I x H)	**$36,601**

Utility Program Cost per kWh Lifetime	**$0.5412**
Utility Program Cost per kW at Gen	**$101**

2019 SD DSM Plan Cost-Effectiveness Analysis

BUSINESS SEGMENT TOTAL **2019** **ELECTRIC** **GOAL**

2019 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	$421,909	$421,909	$421,909	$421,909
T & D	N/A	$257,186	$257,186	$257,186	$257,186
Marginal Energy	N/A	$1,664,828	$1,664,828	$1,664,828	$1,664,828
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$2,343,922	$2,343,922	$2,343,922	$2,343,922
Participant Benefits					
Bill Reduction - Electric	$4,240,334	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$284,320	N/A	N/A	$284,320	$284,320
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$4,524,654	N/A	N/A	$284,320	$284,320
Total Benefits	$4,524,654	$2,343,922	$2,343,922	$2,628,242	$2,628,242
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$152,213	$152,213	$152,213	$152,213
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$284,320	$284,320	$284,320	$284,320
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$436,533	$436,533	$436,533	$436,533
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$4,240,334	N/A	N/A
Subtotal	N/A	N/A	$4,240,334	N/A	N/A
Participant Costs					
Incremental Capital Costs	$1,717,744	N/A	N/A	$1,717,744	$1,717,744
Incremental O&M Costs	$85,539	N/A	N/A	$85,539	$85,539
Subtotal	$1,803,283	N/A	N/A	$1,803,283	$1,803,283
Total Costs	$1,803,283	$436,533	$4,676,867	$2,239,816	$2,239,816
Net Benefit (Cost)	$2,721,371	$1,907,389	($2,332,945)	$388,426	$388,426
Benefit/Cost Ratio	2.51	5.37	0.50	1.17	1.17

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	18.1 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	47.70%
Gross Load Factor at Customer	E	34.69%
Transmission Loss Factor (Energy)	F	4.420%
Transmission Loss Factor (Demand)	G	4.310%
Societal Net Benefit (Cost)	H	$310

Program Summary per Participant		
Gross kW Saved at Customer	I	3.62 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	1.80 kW
Gross Annual kWh Saved at Customer	(B x E x I)	10,988 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	11,497 kWh

Program Summary All Participants		
Total Participants	J	347
Total Budget	K	**$436,533**
Gross kW Saved at Customer	(J x I)	1,254.88 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**626 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	3,812,987 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**3,989,315 kWh**
Societal Net Benefits	(J x I x H)	**$388,426**
Utility Program Cost per kWh Lifetime		**$0.0060**
Utility Program Cost per kW at Gen		**$698**

2019 SD DSM Plan Cost-Effectiveness Analysis

HOME LIGHTING — 2019 ELECTRIC — GOAL

2019 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	$39,061	$39,061	$39,061	$39,061
T & D	N/A	$23,664	$23,664	$23,664	$23,664
Marginal Energy	N/A	$231,235	$231,235	$231,235	$231,235
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$293,960	$293,960	$293,960	$293,960
Participant Benefits					
Bill Reduction - Electric	$722,035	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$74,162	N/A	N/A	$74,162	$74,162
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$796,196	N/A	N/A	$74,162	$74,162
Total Benefits	$796,196	$293,960	$293,960	$368,121	$368,121
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$19,251	$19,251	$19,251	$19,251
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$74,162	$74,162	$74,162	$74,162
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$93,412	$93,412	$93,412	$93,412
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$722,035	N/A	N/A
Subtotal	N/A	N/A	$722,035	N/A	N/A
Participant Costs					
Incremental Capital Costs	$99,293	N/A	N/A	$99,293	$99,293
Incremental O&M Costs	$0	N/A	N/A	$0	$0
Subtotal	$99,293	N/A	N/A	$99,293	$99,293
Total Costs	$99,293	$93,412	$815,447	$192,705	$192,705
Net Benefit (Cost)	$696,903	$200,548	($521,487)	$175,416	$175,416
Benefit/Cost Ratio	8.02	3.15	0.36	1.91	1.91

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	4.6 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	11.67%
Gross Load Factor at Customer	E	13.08%
Transmission Loss Factor (Energy)	F	5.227%
Transmission Loss Factor (Demand)	G	5.453%
Societal Net Benefit (Cost)	H	$141

Program Summary per Participant		
Gross kW Saved at Customer	I	0.47 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.06 kW
Gross Annual kWh Saved at Customer	(B x E x I)	542 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	572 kWh

Program Summary All Participants		
Total Participants	J	2,635
Total Budget	K	**$93,412**
Gross kW Saved at Customer	(J x I)	1,246.97 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**154 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	1,429,187 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**1,508,018 kWh**
Societal Net Benefits	(J x I x H)	**$175,416**
Utility Program Cost per kWh Lifetime		**$0.0135**
Utility Program Cost per kW at Gen		**$607**

RESIDENTIAL SAVER'S SWITCH | **2019** | **ELECTRIC** | **GOAL**

2019 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	$378,415	$378,415	$378,415	$378,415
T & D	N/A	$230,475	$230,475	$230,475	$230,475
Marginal Energy	N/A	$781	$781	$781	$781
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$609,671	$609,671	$609,671	$609,671
Participant Benefits					
Bill Reduction - Electric	$525,107	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	$525,107	N/A	N/A	$0	$0
Total Benefits	$525,107	$609,671	$609,671	$609,671	$609,671
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$187,913	$187,913	$187,913	$187,913
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	$187,913	$187,913	$187,913	$187,913
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$525,107	N/A	N/A
Subtotal	N/A	N/A	$525,107	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	$187,913	$713,020	$187,913	$187,913
Net Benefit (Cost)	$525,107	$421,758	($103,350)	$421,758	$421,758
Benefit/Cost Ratio	INF	3.24	0.86	3.24	3.24

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

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	27.29%
Gross Load Factor at Customer	E	0.01%
Transmission Loss Factor (Energy)	F	5.500%
Transmission Loss Factor (Demand)	G	5.525%
Societal Net Benefit (Cost)	H	$223

Program Summary per Participant		
Gross kW Saved at Customer	I	2.46 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.71 kW
Gross Annual kWh Saved at Customer	(B x E x I)	2 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	2 kWh

Program Summary All Participants		
Total Participants	J	770
Total Budget	K	**$187,913**
Gross kW Saved at Customer	(J x I)	1,891.50 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**546 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	1,560 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**1,651 kWh**
Societal Net Benefits	(J x I x H)	**$421,758**
Utility Program Cost per kWh Lifetime		**$7.5888**
Utility Program Cost per kW at Gen		**$344**

2019 SD DSM Plan Cost-Effectiveness Analysis

RESIDENTIAL SEGMENT TOTAL — 2019 ELECTRIC — GOAL

2019 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	$417,475	$417,475	$417,475	$417,475
T & D	N/A	$254,139	$254,139	$254,139	$254,139
Marginal Energy	N/A	$232,016	$232,016	$232,016	$232,016
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$903,631	$903,631	$903,631	$903,631
Participant Benefits					
Bill Reduction - Electric	$1,247,142	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$74,162	N/A	N/A	$74,162	$74,162
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$1,321,304	N/A	N/A	$74,162	$74,162
Total Benefits	$1,321,304	$903,631	$903,631	$977,792	$977,792
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$228,329	$228,329	$228,329	$228,329
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$74,162	$74,162	$74,162	$74,162
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$302,490	$302,490	$302,490	$302,490
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$1,247,142	N/A	N/A
Subtotal	N/A	N/A	$1,247,142	N/A	N/A
Participant Costs					
Incremental Capital Costs	$99,293	N/A	N/A	$99,293	$99,293
Incremental O&M Costs	$0	N/A	N/A	$0	$0
Subtotal	$99,293	N/A	N/A	$99,293	$99,293
Total Costs	$99,293	$302,490	$1,549,632	$401,783	$401,783
Net Benefit (Cost)	$1,222,010	$601,141	($646,001)	$576,009	$576,009
Benefit/Cost Ratio	13.31	2.99	0.58	2.43	2.43

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

Input Summary and Totals

Program "Inputs" per Customer kW		
Lifetime (Weighted on Generator kWh)	A	4.6 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	21.09%
Gross Load Factor at Customer	E	5.20%
Transmission Loss Factor (Energy)	F	5.228%
Transmission Loss Factor (Demand)	G	5.496%
Societal Net Benefit (Cost)	H	$184

Program Summary per Participant		
Gross kW Saved at Customer	I	0.04 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.01 kW
Gross Annual kWh Saved at Customer	(B x E x I)	20 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	21 kWh

Program Summary All Participants		
Total Participants	J	71,405
Total Budget	K	**$302,490**
Gross kW Saved at Customer	(J x I)	3,138.47 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**700 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	1,430,747 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**1,509,669 kWh**
Societal Net Benefits	(J x I x H)	**$576,009**

Utility Program Cost per kWh Lifetime	**$0.0435**
Utility Program Cost per kW at Gen	**$432**

2019 SD DSM Plan Cost-Effectiveness Analysis

PORTFOLIO TOTAL **2019 ELECTRIC** **GOAL**

2019 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	$839,384	$839,384	$839,384	$839,384
T & D	N/A	$511,325	$511,325	$511,325	$511,325
Marginal Energy	N/A	$1,896,844	$1,896,844	$1,896,844	$1,896,844
Environmental Externality	N/A	N/A	N/A	N/A	$0
Subtotal	N/A	$3,247,553	$3,247,553	$3,247,553	$3,247,553
Participant Benefits					
Bill Reduction - Electric	$5,487,476	N/A	N/A	N/A	N/A
Rebates from Xcel Energy	$358,482	N/A	N/A	$358,482	$358,482
Incremental Capital Savings	$0	N/A	N/A	$0	$0
Incremental O&M Savings	$0	N/A	N/A	$0	$0
Subtotal	$5,845,958	N/A	N/A	$358,482	$358,482
Total Benefits	$5,845,958	$3,247,553	$3,247,553	$3,606,034	$3,606,034
Costs					
Utility Project Costs					
Customer Services	N/A	$0	$0	$0	$0
Utility Administration	N/A	$393,542	$393,542	$393,542	$393,542
Advertising & Promotion	N/A	$0	$0	$0	$0
Measurement & Verification	N/A	$0	$0	$0	$0
Rebates	N/A	$358,482	$358,482	$358,482	$358,482
Other	N/A	$0	$0	$0	$0
Subtotal	N/A	$752,023	$752,023	$752,023	$752,023
Utility Revenue Reduction					
Revenue Reduction - Electric	N/A	N/A	$5,487,476	N/A	N/A
Subtotal	N/A	N/A	$5,487,476	N/A	N/A
Participant Costs					
Incremental Capital Costs	$1,817,037	N/A	N/A	$1,817,037	$1,817,037
Incremental O&M Costs	$85,539	N/A	N/A	$85,539	$85,539
Subtotal	$1,902,576	N/A	N/A	$1,902,576	$1,902,576
Total Costs	$1,902,576	$752,023	$6,239,499	$2,654,599	$2,654,599
Net Benefit (Cost)	$3,943,382	$2,495,530	($2,991,946)	$951,435	$951,435
Benefit/Cost Ratio	3.07	4.32	0.52	1.36	1.36

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

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	28.62%
Gross Load Factor at Customer	E	13.63%
Transmission Loss Factor (Energy)	F	4.642%
Transmission Loss Factor (Demand)	G	5.161%
Societal Net Benefit (Cost)	H	$217

Program Summary per Participant		
Gross kW Saved at Customer	I	0.06 kW
Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.02 kW
Gross Annual kWh Saved at Customer	(B x E x I)	73 kWh
Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	77 kWh

Program Summary All Participants		
Total Participants	J	71,752
Total Budget	K	**$752,023**
Gross kW Saved at Customer	(J x I)	4,393.35 kW
Net coincident kW Saved at Generator	**(I x D) / (1 - G) x J**	**1,326 kW**
Gross Annual kWh Saved at Customer	(B x E x I) x J	5,243,734 kWh
Net Annual kWh Saved at Generator	**((B x E x I) / (1 - F)) x J**	**5,498,983 kWh**
Societal Net Benefits	(J x I x H)	**$951,435**

Utility Program Cost per kWh Lifetime	**$0.0095**
Utility Program Cost per kW at Gen	**$567**