

Executive Summary Table-2022														
Goal						Actual					Test Results			
2022	Electric Participants	Electric Budget	Generator kW	Generator kWh	TRC Ratio	2022	Electric Participants	Electric Budget	Generator kW	Generator kWh	Participant Test Ratio	Utility Test Ratio	Ratepayer Impact Measure Test Ratio	TRC Ratio
<b>Business Segment</b>						<b>Business Segment</b>								
Lighting Efficiency	477	\$399,900	742	5,981,518	1.05	Lighting Efficiency	201	\$486,424	840	5,215,090	2.52	4.17	0.37	0.94
Business Saver's Switch	10	\$25,250	35	48	1.00	Business Saver's Switch	24	\$17,226	29	39	INF	1.21	1.21	1.21
Peak and Energy Control	1	\$10,000	174	345	5.35	Peak and Energy Control	8	\$3,151	1,451	2,879	INF	141.61	92.86	141.61
<b>Business Segment Total</b>	<b>488</b>	<b>\$435,150</b>	<b>951</b>	<b>5,981,911</b>	<b>1.07</b>	<b>Total</b>	<b>233</b>	<b>\$506,802</b>	<b>2,320</b>	<b>5,218,008</b>	<b>2.52</b>	<b>4.92</b>	<b>0.45</b>	<b>1.11</b>
<b>Residential Segment</b>						<b>Residential Segment</b>								
Home Lighting	6,154	\$101,933	587	4,334,997	5.87	Home Lighting	4,987	\$77,304	455	3,364,441	47.40	12.33	0.27	6.65
Heat Pump Water Heaters	21	\$10,250	8	62,033	0.99	Heat Pump Water Heaters	2	\$1,494	1	5,341	5.42	1.82	0.25	0.98
Residential Demand Response	1,400	\$243,500	781	87,288	1.97	Residential Demand Response	414	\$230,026	745	110,315	13.01	1.66	1.14	1.77
Consumer Education	45,000	\$21,165	0	0	0.00	Consumer Education	45,000	\$17,844	N/A	N/A				
						<b>Residential Segment Total</b>	<b>50,403</b>	<b>\$326,668</b>	<b>1,202</b>	<b>3,480,097</b>	<b>41.94</b>	<b>1.49</b>	<b>1.48</b>	<b>0.00</b>
<b>Planning Segment</b>						<b>Planning Segment</b>								
Regulatory Affairs	0	\$10,000	0	0	0	Regulatory Affairs	0	\$5,366	0	0				
<b>Planning Segment Total</b>	<b>0</b>	<b>\$10,000</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>Total</b>	<b>0</b>	<b>\$5,366</b>	<b>0</b>	<b>0</b>				
<b>PORTFOLIO TOTAL</b>						<b>PORTFOLIO TOTAL</b>								
	<b>53,063</b>	<b>\$821,998</b>	<b>2,327</b>	<b>10,466,229</b>	<b>1.56</b>		<b>50,636</b>	<b>\$838,836</b>	<b>3,521</b>	<b>8,698,105</b>	<b>4.07</b>	<b>4.57</b>	<b>0.41</b>	<b>1.43</b>

LIGHTING EFFICIENCY						2022	ELECTRIC	ACTUAL
2022 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals		
	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)	Program "Inputs" per Customer kW		
Benefits						Lifetime (Weighted on Generator kWh)	A	17.3 years
<b>Avoided Revenue Requirements</b>						Annual Hours	B	8760
Generation	N/A	\$547,117	\$547,117	\$547,117	\$547,117	Gross Customer kW	C	1 kW
T & D	N/A	\$97,567	\$97,567	\$97,567	\$97,567	Generator Peak Coincidence Factor	D	67.23%
Marginal Energy	N/A	\$1,382,825	\$1,382,825	\$1,382,825	\$1,382,825	Gross Load Factor at Customer	E	48.04%
Environmental Externality	N/A	N/A	N/A	N/A	\$368,606	Transmission Loss Factor (Energy)	F	4.753%
Subtotal	N/A	\$2,027,509	\$2,027,509	\$2,027,509	\$2,396,115	Transmission Loss Factor (Demand)	G	5.520%
<b>Participant Benefits</b>						Societal Net Benefit (Cost)	H	\$182
Bill Reduction - Electric	\$4,981,184	N/A	N/A	N/A	N/A	<b>Program Summary per Participant</b>		
Rebates from Xcel Energy	\$467,128	N/A	N/A	\$467,128	\$467,128	Gross kW Saved at Customer	I	5.87 kW
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	
Subtotal	\$5,448,311	N/A	N/A	\$467,128	\$467,128	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	
<b>Total Benefits</b>	<b>\$5,448,311</b>	<b>\$2,027,509</b>	<b>\$2,027,509</b>	<b>\$2,494,637</b>	<b>\$2,863,243</b>	<b>Program Summary All Participants</b>		
Costs						Total Participants	J	201
<b>Utility Project Costs</b>						<b>Total Budget</b>	K	<b>\$486,424</b>
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$	
Utility Administration	N/A	\$19,296	\$19,296	\$19,296	\$19,296	<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$	
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$	
Rebates	N/A	\$467,128	\$467,128	\$467,128	\$467,128	<b>Societal Net Benefits</b>	$(J \times I \times H)$	
Other	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>		
Subtotal	N/A	\$486,424	\$486,424	\$486,424	\$486,424	<b>Utility Program Cost per kW at Gen</b>		
<b>Utility Revenue Reduction</b>								<b>\$0.0054</b>
Revenue Reduction - Electric	N/A	N/A	\$4,981,184	N/A	N/A			<b>\$579</b>
Subtotal	N/A	N/A	\$4,981,184	N/A	N/A			
<b>Participant Costs</b>								
Incremental Capital Costs	\$1,992,549	N/A	N/A	\$1,992,549	\$1,992,549			
Incremental O&M Costs	\$169,778	N/A	N/A	\$169,778	\$169,778			
Subtotal	\$2,162,327	N/A	N/A	\$2,162,327	\$2,162,327			
<b>Total Costs</b>	<b>\$2,162,327</b>	<b>\$486,424</b>	<b>\$5,467,608</b>	<b>\$2,648,751</b>	<b>\$2,648,751</b>			
<b>Net Benefit (Cost)</b>	<b>\$3,285,984</b>	<b>\$1,541,085</b>	<b>(\$3,440,099)</b>	<b>(\$154,115)</b>	<b>\$214,492</b>			
<b>Benefit/Cost Ratio</b>	<b>2.52</b>	<b>4.17</b>	<b>0.37</b>	<b>0.94</b>	<b>1.08</b>			

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

<b>BUSINESS SAVER'S SWITCH</b>						<b>2022</b>	<b>ELECTRIC</b>	<b>ACTUAL</b>
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>						<b>Input Summary and Totals</b>		
	<b>Participant Test (\$Total)</b>	<b>Utility Test (\$Total)</b>	<b>Rate Impact Test (\$Total)</b>	<b>Total Resource Test (\$Total)</b>	<b>Societal Test (\$Total)</b>	<b>Program "Inputs" per Customer kW</b>		
<b>Benefits</b>						Lifetime (Weighted on Generator kWh)	A	15.0 years
<b>Avoided Revenue Requirements</b>						Annual Hours	B	8760
Generation	N/A	\$17,760	\$17,760	\$17,760	\$17,760	Gross Customer kW	C	1 kW
T & D	N/A	\$3,157	\$3,157	\$3,157	\$3,157	Generator Peak Coincidence Factor	D	15.86%
Marginal Energy	N/A	\$12	\$12	\$12	\$12	Gross Load Factor at Customer	E	0.00%
Environmental Externality	N/A	N/A	N/A	N/A	\$2	Transmission Loss Factor (Energy)	F	4.752%
Subtotal	N/A	\$20,929	\$20,929	\$20,929	\$20,931	Transmission Loss Factor (Demand)	G	5.520%
<b>Participant Benefits</b>						Societal Net Benefit (Cost)	H	\$22
Bill Reduction - Electric	\$54	N/A	N/A	N/A	N/A	<b>Program Summary per Participant</b>		
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross kW Saved at Customer	I	7.14 kW
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	
Subtotal	\$54	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	
<b>Total Benefits</b>	<b>\$54</b>	<b>\$20,929</b>	<b>\$20,929</b>	<b>\$20,929</b>	<b>\$20,931</b>	<b>Program Summary All Participants</b>		
<b>Costs</b>						Total Participants	J	24
<b>Utility Project Costs</b>						<b>Total Budget</b>	K	<b>\$17,226</b>
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$	
Utility Administration	N/A	\$17,226	\$17,226	\$17,226	\$17,226	<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$	
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$	
Rebates	N/A	\$0	\$0	\$0	\$0	<b>Societal Net Benefits</b>	$(J \times I \times H)$	
Other	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>		
Subtotal	N/A	\$17,226	\$17,226	\$17,226	\$17,226	<b>Utility Program Cost per kW at Gen</b>		
<b>Utility Revenue Reduction</b>								\$29.5632
Revenue Reduction - Electric	N/A	N/A	\$54	N/A	N/A			\$599
Subtotal	N/A	N/A	\$54	N/A	N/A			
<b>Participant Costs</b>								
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			
<b>Total Costs</b>	<b>\$0</b>	<b>\$17,226</b>	<b>\$17,280</b>	<b>\$17,226</b>	<b>\$17,226</b>			
<b>Net Benefit (Cost)</b>	<b>\$54</b>	<b>\$3,703</b>	<b>\$3,649</b>	<b>\$3,703</b>	<b>\$3,705</b>			
<b>Benefit/Cost Ratio</b>	<b>INF</b>	<b>1.21</b>	<b>1.21</b>	<b>1.21</b>	<b>1.22</b>			

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

<b>PEAK AND ENERGY CONTROL</b>						<b>2022</b>	<b>ELECTRIC</b>	<b>ACTUAL</b>	
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>						<b>Input Summary and Totals</b>			
	<b>Participant Test (\$Total)</b>	<b>Utility Test (\$Total)</b>	<b>Rate Impact Test (\$Total)</b>	<b>Total Resource Test (\$Total)</b>	<b>Societal Test (\$Total)</b>	<b>Program "Inputs" per Customer kW</b>			
<b>Benefits</b>						Lifetime (Weighted on Generator kWh)	A	5.0 years	
<b>Avoided Revenue Requirements</b>						Annual Hours	B	8760	
Generation	N/A	\$379,442	\$379,442	\$379,442	\$379,442	Gross Customer kW	C	1 kW	
T & D	N/A	\$66,470	\$66,470	\$66,470	\$66,470	Generator Peak Coincidence Factor	D	100.00%	
Marginal Energy	N/A	\$317	\$317	\$317	\$317	Gross Load Factor at Customer	E	0.02%	
Environmental Externality	N/A	N/A	N/A	N/A	\$91	Transmission Loss Factor (Energy)	F	4.753%	
Subtotal	N/A	\$446,229	\$446,229	\$446,229	\$446,320	Transmission Loss Factor (Demand)	G	5.520%	
<b>Participant Benefits</b>						Societal Net Benefit (Cost)	H	\$323	
Bill Reduction - Electric	\$1,654	N/A	N/A	N/A	N/A	<b>Program Summary per Participant</b>			
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Gross kW Saved at Customer	I	171.38 kW	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		181.39 kW
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		343 kWh
Subtotal	\$1,654	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		360 kWh
<b>Total Benefits</b>	<b>\$1,654</b>	<b>\$446,229</b>	<b>\$446,229</b>	<b>\$446,229</b>	<b>\$446,320</b>	<b>Program Summary All Participants</b>			
<b>Costs</b>						Total Participants	J	8	
<b>Utility Project Costs</b>						<b>Total Budget</b>	K	<b>\$3,151</b>	
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$		1,371.00 kW
Utility Administration	N/A	\$3,151	\$3,151	\$3,151	\$3,151	<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$		<b>1,451 kW</b>
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		2,742 kWh
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$		<b>2,879 kWh</b>
Rebates	N/A	\$0	\$0	\$0	\$0	<b>Societal Net Benefits</b>	$(J \times I \times H)$		<b>\$443,169</b>
Other	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>			<b>\$0.2189</b>
Subtotal	N/A	\$3,151	\$3,151	\$3,151	\$3,151	<b>Utility Program Cost per kW at Gen</b>			<b>\$2</b>
<b>Utility Revenue Reduction</b>									
Revenue Reduction - Electric	N/A	N/A	\$1,654	N/A	N/A				
Subtotal	N/A	N/A	\$1,654	N/A	N/A				
<b>Participant Costs</b>									
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				
<b>Total Costs</b>	<b>\$0</b>	<b>\$3,151</b>	<b>\$4,805</b>	<b>\$3,151</b>	<b>\$3,151</b>				
<b>Net Benefit (Cost)</b>	<b>\$1,654</b>	<b>\$443,078</b>	<b>\$441,423</b>	<b>\$443,078</b>	<b>\$443,169</b>				
<b>Benefit/Cost Ratio</b>	<b>INF</b>	<b>141.61</b>	<b>92.86</b>	<b>141.61</b>	<b>141.64</b>				

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

<b>BUSINESS SEGMENT TOTAL</b>						<b>2022</b>	<b>ELECTRIC</b>	<b>ACTUAL</b>
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>						<b>Input Summary and Totals</b>		
	<b>Participant</b>	<b>Utility</b>	<b>Rate</b>	<b>Total</b>	<b>Societal</b>	<b>Program "Inputs" per Customer kW</b>		
	<b>Test</b>	<b>Test</b>	<b>Impact</b>	<b>Resource</b>	<b>Test</b>	Lifetime (Weighted on Generator kWh)	A	17.3 years
	<b>(\$Total)</b>	<b>(\$Total)</b>	<b>(\$Total)</b>	<b>(\$Total)</b>	<b>(\$Total)</b>	Annual Hours	B	8760
<b>Benefits</b>						Gross Customer kW	C	1 kW
<b>Avoided Revenue Requirements</b>						Generator Peak Coincidence Factor	D	80.50%
Generation	N/A	\$944,319	\$944,319	\$944,319	\$944,319	Gross Load Factor at Customer	E	20.84%
T & D	N/A	\$167,193	\$167,193	\$167,193	\$167,193	Transmission Loss Factor (Energy)	F	4.753%
Marginal Energy	N/A	\$1,383,154	\$1,383,154	\$1,383,154	\$1,383,154	Transmission Loss Factor (Demand)	G	5.520%
Environmental Externality	N/A	N/A	N/A	N/A	\$368,700	Societal Net Benefit (Cost)	H	\$243
Subtotal	N/A	\$2,494,667	\$2,494,667	\$2,494,667	\$2,863,367	<b>Program Summary per Participant</b>		
<b>Participant Benefits</b>						Gross kW Saved at Customer	I	11.68 kW
Bill Reduction - Electric	\$4,982,892	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	9.96 kW
Rebates from Xcel Energy	\$467,128	N/A	N/A	\$467,128	\$467,128	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	21,331 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	22,395 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	<b>Program Summary All Participants</b>		
Subtotal	\$5,450,019	N/A	N/A	\$467,128	\$467,128	Total Participants	J	233
<b>Total Benefits</b>						<b>Total Budget</b>	K	<b>\$506,802</b>
Total Benefits	\$5,450,019	\$2,494,667	\$2,494,667	\$2,961,795	\$3,330,495	Gross kW Saved at Customer	$(J \times I)$	2,722.58 kW
<b>Costs</b>						<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$	<b>2,320 kW</b>
<b>Utility Project Costs</b>						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	4,970,022 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$	<b>5,218,008 kWh</b>
Utility Administration	N/A	\$39,674	\$39,674	\$39,674	\$39,674	<b>Societal Net Benefits</b>	$(J \times I \times H)$	<b>\$661,366</b>
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>		
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		<b>\$218</b>
Rebates	N/A	\$467,128	\$467,128	\$467,128	\$467,128	<b>Utility Revenue Reduction</b>		
Other	N/A	\$0	\$0	\$0	\$0	Revenue Reduction - Electric	N/A	N/A
Subtotal	N/A	\$506,802	\$506,802	\$506,802	\$506,802	Subtotal	N/A	N/A
<b>Utility Revenue Reduction</b>						<b>Participant Costs</b>		
Revenue Reduction - Electric	N/A	N/A	\$4,982,892	N/A	N/A	Incremental Capital Costs	\$1,992,549	N/A
Subtotal	N/A	N/A	\$4,982,892	N/A	N/A	Incremental O&M Costs	\$169,778	N/A
<b>Participant Costs</b>						Subtotal	\$2,162,327	N/A
Incremental Capital Costs	\$1,992,549	N/A	N/A	\$1,992,549	\$1,992,549	<b>Total Costs</b>		
Incremental O&M Costs	\$169,778	N/A	N/A	\$169,778	\$169,778	Total Costs	\$2,162,327	\$506,802
Subtotal	\$2,162,327	N/A	N/A	\$2,162,327	\$2,162,327	Net Benefit (Cost)	\$3,287,692	\$1,987,865
<b>Total Costs</b>						Benefit/Cost Ratio	2.52	4.92
Total Costs	\$2,162,327	\$506,802	\$5,489,693	\$2,669,129	\$2,669,129			0.45
<b>Net Benefit (Cost)</b>								1.11
<b>Benefit/Cost Ratio</b>								1.25

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

HOME LIGHTING						2022	ELECTRIC	ACTUAL
2022 Net Present Cost Benefit Summary Analysis For All Participants						Input Summary and Totals		
	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Total Resource Test (\$Total)	Societal Test (\$Total)	Program "Inputs" per Customer kW		
Benefits						Lifetime (Weighted on Generator kWh)	A	12.4 years
<b>Avoided Revenue Requirements</b>						Annual Hours	B	8760
Generation	N/A	\$220,869	\$220,869	\$220,869	\$220,869	Gross Customer kW	C	1 kW
T & D	N/A	\$39,228	\$39,228	\$39,228	\$39,228	Generator Peak Coincidence Factor	D	16.73%
Marginal Energy	N/A	\$692,984	\$692,984	\$692,984	\$692,984	Gross Load Factor at Customer	E	14.33%
Environmental Externality	N/A	N/A	N/A	N/A	\$183,779	Transmission Loss Factor (Energy)	F	5.549%
Subtotal	N/A	\$953,080	\$953,080	\$953,080	\$1,136,859	Transmission Loss Factor (Demand)	G	7.004%
<b>Participant Benefits</b>						Societal Net Benefit (Cost)	H	\$413
Bill Reduction - Electric	\$3,497,683	N/A	N/A	N/A	N/A	<b>Program Summary per Participant</b>		
Rebates from Xcel Energy	\$60,858	N/A	N/A	\$60,858	\$60,858	Gross kW Saved at Customer	I	0.51 kW
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	
Subtotal	\$3,558,540	N/A	N/A	\$60,858	\$60,858	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	
<b>Total Benefits</b>	<b>\$3,558,540</b>	<b>\$953,080</b>	<b>\$953,080</b>	<b>\$1,013,938</b>	<b>\$1,197,717</b>	<b>Program Summary All Participants</b>		
Costs						Total Participants	J	4,987
<b>Utility Project Costs</b>						<b>Total Budget</b>	K	<b>\$77,304</b>
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$	
Utility Administration	N/A	\$14,380	\$14,380	\$14,380	\$14,380	<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$	
Advertising & Promotion	N/A	\$2,067	\$2,067	\$2,067	\$2,067	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$	
Rebates	N/A	\$60,858	\$60,858	\$60,858	\$60,858	<b>Societal Net Benefits</b>	$(J \times I \times H)$	
Other	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>		
Subtotal	N/A	\$77,304	\$77,304	\$77,304	\$77,304	<b>Utility Program Cost per kW at Gen</b>		
<b>Utility Revenue Reduction</b>								<b>\$0.0019</b>
Revenue Reduction - Electric	N/A	N/A	\$3,497,683	N/A	N/A			<b>\$170</b>
Subtotal	N/A	N/A	\$3,497,683	N/A	N/A			
<b>Participant Costs</b>								
Incremental Capital Costs	\$75,073	N/A	N/A	\$75,073	\$75,073			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$75,073	N/A	N/A	\$75,073	\$75,073			
<b>Total Costs</b>	<b>\$75,073</b>	<b>\$77,304</b>	<b>\$3,574,987</b>	<b>\$152,378</b>	<b>\$152,378</b>			
<b>Net Benefit (Cost)</b>	<b>\$3,483,467</b>	<b>\$875,776</b>	<b>(\$2,621,907)</b>	<b>\$861,560</b>	<b>\$1,045,339</b>			
<b>Benefit/Cost Ratio</b>	<b>47.40</b>	<b>12.33</b>	<b>0.27</b>	<b>6.65</b>	<b>7.86</b>			

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

<b>HEAT PUMP WATER HEATERS</b>						<b>2022</b>	<b>ELECTRIC</b>	<b>ACTUAL</b>
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>						<b>Input Summary and Totals</b>		
	<b>Participant Test (\$Total)</b>	<b>Utility Test (\$Total)</b>	<b>Rate Impact Test (\$Total)</b>	<b>Total Resource Test (\$Total)</b>	<b>Societal Test (\$Total)</b>	<b>Program "Inputs" per Customer kW</b>		
<b>Benefits</b>						Lifetime (Weighted on Generator kWh)	A	19.7 years
<b>Avoided Revenue Requirements</b>						Annual Hours	B	8760
Generation	N/A	\$679	\$679	\$679	\$679	Gross Customer kW	C	1 kW
T & D	N/A	\$120	\$120	\$120	\$120	Generator Peak Coincidence Factor	D	-0.09%
Marginal Energy	N/A	\$1,913	\$1,913	\$1,913	\$1,913	Gross Load Factor at Customer	E	-0.04%
Environmental Externality	N/A	N/A	N/A	N/A	\$440	Transmission Loss Factor (Energy)	F	8.845%
Subtotal	N/A	\$2,712	\$2,712	\$2,712	\$3,152	Transmission Loss Factor (Demand)	G	-0.006%
<b>Participant Benefits</b>						Societal Net Benefit (Cost)	H	(\$0)
Bill Reduction - Electric	\$9,566	N/A	N/A	N/A	N/A	<b>Program Summary per Participant</b>		
Rebates from Xcel Energy	\$600	N/A	N/A	\$600	\$600	Gross kW Saved at Customer	I	-689.94 kW
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	
Subtotal	\$10,166	N/A	N/A	\$600	\$600	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	
<b>Total Benefits</b>	<b>\$10,166</b>	<b>\$2,712</b>	<b>\$2,712</b>	<b>\$3,312</b>	<b>\$3,752</b>	<b>Program Summary All Participants</b>		
<b>Costs</b>						Total Participants	J	2
<b>Utility Project Costs</b>						<b>Total Budget</b>	K	<b>\$1,494</b>
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$	
Utility Administration	N/A	\$894	\$894	\$894	\$894	<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$	
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$	
Rebates	N/A	\$600	\$600	\$600	\$600	<b>Societal Net Benefits</b>	$(J \times I \times H)$	
Other	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>		
Subtotal	N/A	\$1,494	\$1,494	\$1,494	\$1,494	<b>Utility Program Cost per kW at Gen</b>		
<b>Utility Revenue Reduction</b>								<b>\$0.0142</b>
Revenue Reduction - Electric	N/A	N/A	\$9,566	N/A	N/A			<b>\$1,233</b>
Subtotal	N/A	N/A	\$9,566	N/A	N/A			
<b>Participant Costs</b>								
Incremental Capital Costs	\$1,223	N/A	N/A	\$1,223	\$1,223			
Incremental O&M Costs	\$651	N/A	N/A	\$651	\$651			
Subtotal	\$1,874	N/A	N/A	\$1,874	\$1,874			
<b>Total Costs</b>	<b>\$1,874</b>	<b>\$1,494</b>	<b>\$11,060</b>	<b>\$3,368</b>	<b>\$3,368</b>			
<b>Net Benefit (Cost)</b>	<b>\$8,292</b>	<b>\$1,218</b>	<b>(\$8,348)</b>	<b>(\$56)</b>	<b>\$384</b>			
<b>Benefit/Cost Ratio</b>	<b>5.42</b>	<b>1.82</b>	<b>0.25</b>	<b>0.98</b>	<b>1.11</b>			

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

<b>RESIDENTIAL DEMAND RESPONSE</b>						<b>2022</b>	<b>ELECTRIC</b>	<b>ACTUAL</b>
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>						<b>Input Summary and Totals</b>		
	<b>Participant Test (\$Total)</b>	<b>Utility Test (\$Total)</b>	<b>Rate Impact Test (\$Total)</b>	<b>Total Resource Test (\$Total)</b>	<b>Societal Test (\$Total)</b>	<b>Program "Inputs" per Customer kW</b>		
<b>Benefits</b>						Lifetime (Weighted on Generator kWh)	A	10.0 years
<b>Avoided Revenue Requirements</b>						Annual Hours	B	8760
Generation	N/A	\$307,060	\$307,060	\$307,060	\$307,060	Gross Customer kW	C	1 kW
T & D	N/A	\$54,290	\$54,290	\$54,290	\$54,290	Generator Peak Coincidence Factor	D	37.45%
Marginal Energy	N/A	\$20,121	\$20,121	\$20,121	\$20,121	Gross Load Factor at Customer	E	0.64%
Environmental Externality	N/A	N/A	N/A	N/A	\$4,993	Transmission Loss Factor (Energy)	F	5.830%
Subtotal	N/A	\$381,470	\$381,470	\$381,470	\$386,463	Transmission Loss Factor (Demand)	G	7.100%
<b>Participant Benefits</b>						Societal Net Benefit (Cost)	H	\$104
Bill Reduction - Electric	\$105,924	N/A	N/A	N/A	N/A	<b>Program Summary per Participant</b>		
Rebates from Xcel Energy	\$47,565	N/A	N/A	\$47,565	\$47,565	Gross kW Saved at Customer	I	4.46 kW
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	
Subtotal	\$153,489	N/A	N/A	\$47,565	\$47,565	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	
<b>Total Benefits</b>	<b>\$153,489</b>	<b>\$381,470</b>	<b>\$381,470</b>	<b>\$429,035</b>	<b>\$434,028</b>	<b>Program Summary All Participants</b>		
<b>Costs</b>						Total Participants	J	414
<b>Utility Project Costs</b>						<b>Total Budget</b>	K	<b>\$230,026</b>
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$	
Utility Administration	N/A	\$182,461	\$182,461	\$182,461	\$182,461	<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$	
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$	
Rebates	N/A	\$47,565	\$47,565	\$47,565	\$47,565	<b>Societal Net Benefits</b>	$(J \times I \times H)$	
Other	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>		
Subtotal	N/A	\$230,026	\$230,026	\$230,026	\$230,026	<b>Utility Program Cost per kW at Gen</b>		
<b>Utility Revenue Reduction</b>								<b>\$0.2088</b>
Revenue Reduction - Electric	N/A	N/A	\$105,924	N/A	N/A			<b>\$309</b>
Subtotal	N/A	N/A	\$105,924	N/A	N/A			
<b>Participant Costs</b>								
Incremental Capital Costs	\$11,800	N/A	N/A	\$11,800	\$11,800			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$11,800	N/A	N/A	\$11,800	\$11,800			
<b>Total Costs</b>	<b>\$11,800</b>	<b>\$230,026</b>	<b>\$335,950</b>	<b>\$241,826</b>	<b>\$241,826</b>			
<b>Net Benefit (Cost)</b>	<b>\$141,689</b>	<b>\$151,444</b>	<b>\$45,520</b>	<b>\$187,209</b>	<b>\$192,202</b>			
<b>Benefit/Cost Ratio</b>	<b>13.01</b>	<b>1.66</b>	<b>1.14</b>	<b>1.77</b>	<b>1.79</b>			

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



<b>RESIDENTIAL SEGMENT TOTAL</b>						<b>2022</b>	<b>ELECTRIC</b>	<b>ACTUAL</b>
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>						<b>Input Summary and Totals</b>		
	<b>Participant</b>	<b>Utility</b>	<b>Rate</b>	<b>Total</b>	<b>Societal</b>	<b>Program "Inputs" per Customer kW</b>		
	<b>Test</b>	<b>Test</b>	<b>Impact</b>	<b>Resource</b>	<b>Test</b>	Lifetime (Weighted on Generator kWh)	A	12.3 years
	<b>(\$Total)</b>	<b>(\$Total)</b>	<b>(\$Total)</b>	<b>(\$Total)</b>	<b>(\$Total)</b>	Annual Hours	B	8760
<b>Benefits</b>						Gross Customer kW	C	1 kW
<b>Avoided Revenue Requirements</b>						Generator Peak Coincidence Factor	D	36.06%
Generation	N/A	\$528,608	\$528,608	\$528,608	\$528,608	Gross Load Factor at Customer	E	12.50%
T & D	N/A	\$93,638	\$93,638	\$93,638	\$93,638	Transmission Loss Factor (Energy)	F	5.563%
Marginal Energy	N/A	\$715,017	\$715,017	\$715,017	\$715,017	Transmission Loss Factor (Demand)	G	9.964%
Environmental Externality	N/A	N/A	N/A	N/A	\$189,211	Societal Net Benefit (Cost)	H	\$407
Subtotal	N/A	\$1,337,263	\$1,337,263	\$1,337,263	\$1,526,474	<b>Program Summary per Participant</b>		
<b>Participant Benefits</b>						Gross kW Saved at Customer	I	0.06 kW
Bill Reduction - Electric	\$3,613,173	N/A	N/A	N/A	N/A	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$	0.02 kW
Rebates from Xcel Energy	\$109,022	N/A	N/A	\$109,022	\$109,022	Gross Annual kWh Saved at Customer	$(B \times E \times I)$	65 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$	69 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	<b>Program Summary All Participants</b>		
Subtotal	\$3,722,195	N/A	N/A	\$109,022	\$109,022	Total Participants	J	50,403
<b>Total Benefits</b>						<b>Total Budget</b>	K	\$326,668
	\$3,722,195	\$1,337,263	\$1,337,263	\$1,446,285	\$1,635,496	Gross kW Saved at Customer	$(J \times I)$	3,000.43 kW
<b>Costs</b>						<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$	1,202 kW
<b>Utility Project Costs</b>						Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$	3,286,495 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$	3,480,097 kWh
Utility Administration	N/A	\$202,097	\$202,097	\$202,097	\$202,097	<b>Societal Net Benefits</b>	$(J \times I \times H)$	\$1,220,081
Advertising & Promotion	N/A	\$15,549	\$15,549	\$15,549	\$15,549	<b>Utility Program Cost per kWh Lifetime</b>		
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kW at Gen</b>		
Rebates	N/A	\$109,022	\$109,022	\$109,022	\$109,022			\$0.0076
Other	N/A	\$0	\$0	\$0	\$0			\$272
Subtotal	N/A	\$326,668	\$326,668	\$326,668	\$326,668	<b>Utility Revenue Reduction</b>		
<b>Utility Revenue Reduction</b>						Revenue Reduction - Electric	N/A	N/A
Subtotal	N/A	N/A	\$3,613,173	N/A	N/A	<b>Participant Costs</b>		
<b>Participant Costs</b>						Incremental Capital Costs	\$88,096	N/A
Incremental Capital Costs	\$88,096	N/A	N/A	\$88,096	\$88,096	Incremental O&M Costs	\$651	N/A
Incremental O&M Costs	\$651	N/A	N/A	\$651	\$651	Subtotal	\$88,747	N/A
Subtotal	\$88,747	N/A	N/A	\$88,747	\$88,747	<b>Total Costs</b>		
<b>Total Costs</b>							\$88,747	\$326,668
	\$88,747	\$326,668	\$3,939,841	\$415,415	\$415,415		\$3,939,841	\$415,415
<b>Net Benefit (Cost)</b>							\$3,633,448	\$1,010,595
	\$3,633,448	\$1,010,595	(\$2,602,578)	\$1,030,870	\$1,220,081		41.94	4.09
<b>Benefit/Cost Ratio</b>							4.09	0.34
	41.94	4.09	0.34	3.48	3.94			

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

<b>PORTFOLIO TOTAL</b>						<b>2022</b>	<b>ELECTRIC</b>	<b>ACTUAL</b>	
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>						<b>Input Summary and Totals</b>			
	<b>Participant Test (\$Total)</b>	<b>Utility Test (\$Total)</b>	<b>Rate Impact Test (\$Total)</b>	<b>Total Resource Test (\$Total)</b>	<b>Societal Test (\$Total)</b>	<b>Program "Inputs" per Customer kW</b>			
<b>Benefits</b>						Lifetime (Weighted on Generator kWh)	A	15.3 years	
<b>Avoided Revenue Requirements</b>						Annual Hours	B	8760	
Generation	N/A	\$1,472,927	\$1,472,927	\$1,472,927	\$1,472,927	Gross Customer kW	C	1 kW	
T & D	N/A	\$260,831	\$260,831	\$260,831	\$260,831	Generator Peak Coincidence Factor	D	56.67%	
Marginal Energy	N/A	\$2,098,172	\$2,098,172	\$2,098,172	\$2,098,172	Gross Load Factor at Customer	E	16.47%	
Environmental Externality	N/A	N/A	N/A	N/A	\$557,912	Transmission Loss Factor (Energy)	F	5.077%	
Subtotal	N/A	\$3,831,930	\$3,831,930	\$3,831,930	\$4,389,841	Transmission Loss Factor (Demand)	G	7.903%	
<b>Participant Benefits</b>						Societal Net Benefit (Cost)	H	\$328	
Bill Reduction - Electric	\$8,596,064	N/A	N/A	N/A	N/A	<b>Program Summary per Participant</b>			
Rebates from Xcel Energy	\$576,150	N/A	N/A	\$576,150	\$576,150	Gross kW Saved at Customer	I	0.11 kW	
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0	Net coincident kW Saved at Generator	$(I \times D) / (1 - G)$		0.07 kW
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0	Gross Annual kWh Saved at Customer	$(B \times E \times I)$		163 kWh
Subtotal	\$9,172,214	N/A	N/A	\$576,150	\$576,150	Net Annual kWh Saved at Generator	$(B \times E \times I) / (1 - F)$		172 kWh
<b>Total Benefits</b>	<b>\$9,172,214</b>	<b>\$3,831,930</b>	<b>\$3,831,930</b>	<b>\$4,408,080</b>	<b>\$4,965,991</b>	<b>Program Summary All Participants</b>			
<b>Costs</b>						Total Participants	J	50,636	
<b>Utility Project Costs</b>						<b>Total Budget</b>	K	<b>\$838,836</b>	
Customer Services	N/A	\$0	\$0	\$0	\$0	Gross kW Saved at Customer	$(J \times I)$		5,723.01 kW
Utility Administration	N/A	\$245,956	\$245,956	\$245,956	\$245,956	<b>Net coincident kW Saved at Generator</b>	$(I \times D) / (1 - G) \times J$		<b>3,521 kW</b>
Advertising & Promotion	N/A	\$16,729	\$16,729	\$16,729	\$16,729	Gross Annual kWh Saved at Customer	$(B \times E \times I) \times J$		8,256,517 kWh
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	<b>Net Annual kWh Saved at Generator</b>	$((B \times E \times I) / (1 - F)) \times J$		<b>8,698,105 kWh</b>
Rebates	N/A	\$576,150	\$576,150	\$576,150	\$576,150	<b>Societal Net Benefits</b>	$(J \times I \times H)$		<b>\$1,876,081</b>
Other	N/A	\$0	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>			<b>\$0.0063</b>
Subtotal	N/A	\$838,836	\$838,836	\$838,836	\$838,836	<b>Utility Program Cost per kW at Gen</b>			<b>\$238</b>
<b>Utility Revenue Reduction</b>									
Revenue Reduction - Electric	N/A	N/A	\$8,596,064	N/A	N/A				
Subtotal	N/A	N/A	\$8,596,064	N/A	N/A				
<b>Participant Costs</b>									
Incremental Capital Costs	\$2,080,645	N/A	N/A	\$2,080,645	\$2,080,645				
Incremental O&M Costs	\$170,429	N/A	N/A	\$170,429	\$170,429				
Subtotal	\$2,251,075	N/A	N/A	\$2,251,075	\$2,251,075				
<b>Total Costs</b>	<b>\$2,251,075</b>	<b>\$838,836</b>	<b>\$9,434,900</b>	<b>\$3,089,910</b>	<b>\$3,089,910</b>				
<b>Net Benefit (Cost)</b>	<b>\$6,921,140</b>	<b>\$2,993,094</b>	<b>(\$5,602,970)</b>	<b>\$1,318,169</b>	<b>\$1,876,081</b>				
<b>Benefit/Cost Ratio</b>	<b>4.07</b>	<b>4.57</b>	<b>0.41</b>	<b>1.43</b>	<b>1.61</b>				

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