	Exec	utive Su	mmary	Table -	2021			
2021	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	591	\$414,226	591	5,181,197	2.54	5.84	0.40	1.02
Business Saver's Switch	10	\$25,250	28	39	INF	1.30	1.30	1.30
Peak and Energy Control	1	\$10,000	174	345	INF	8.37	8.05	8.37
Business Segment Total	602	\$449,476	793	5,181,582	2.54	5.64	0.42	1.04
Residential Segment								
Home Lighting	4,999	\$99,655	413	3,011,712	20.48	10.42	0.29	4.13
Heat Pump Water Heaters	21	\$12,900	9	71,574	5.94	1.65	0.23	1.00
Reidential Demand Response	1,400	\$235,500	817	99,889	3.76	3.21	2.17	3.12
Consumer Education	68,000	\$21,165	N/A	N/A	N/A	N/A	N/A	N/A
Residential Segment Total	74,420	\$369,220	1,239	3,183,176	12.71	4.92	0.45	3.34
Planning Segment								
Regulatory Affairs	N/A	\$10,000	N/A	N/A	N/A	N/A	N/A	N/A
Planning Segment Total	N/A	\$10,000	N/A	N/A	N/A	N/A	N/A	N/A
		+000 101	2.555	0.044.77	100		0.12	4 = 2
PORTFOLIO TOTAL	75,022	\$828,696	2,032	8,364,757	4.06	5.25	0.43	1.53

LIGHTING EFFICIENC	Y					2021 ELF	ECTRIC	GOAL
2021 Net Present Cost Benefit Sumn	nary Analysis For All	Participants				Input Summary and Totals		
			Rate	Total		Program "Inputs" per Customer kW		
	Participant	Utility	Impact	Resource	Societal	Lifetime (Weighted on Generator kWh)	A	18.3 years
	Test	Test	Test	Test	Test	Annual Hours	В	8760
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Gross Customer kW	С	1 kW
Benefits						Generator Peak Coincidence Factor	D	48,77%
Delicines						Gross Load Factor at Customer	E	49.23%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	4.873%
•	N/A	\$46F 202	£465.202	\$46F 202	84CF 202		G G	5.640%
Generation		\$465,293	\$465,293	\$465,293	\$465,293	Transmission Loss Factor (Demand)		
T & D	N/A	\$284,455	\$284,455	\$284,455	\$284,455	Societal Net Benefit (Cost)	Н	\$38
Marginal Energy	N/A	\$1,668,763	\$1,668,763	\$1,668,763	\$1,668,763			
Environmental Externality	N/A	N/A	N/A	N/A	\$0			
Subtotal	N/A	\$2,418,511	\$2,418,511	\$2,418,511	\$2,418,511	Program Summary per Participant		
						Gross kW Saved at Customer	I	1.93 kW
Participant Benefits						Net coincident kW Saved at Generator	(I x D) / (1 - G)	1.00 kW
Bill Reduction - Electric	\$5,557,723	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Customer	(BxExI)	8,340 kWh
Rebates from Xcel Energy	\$380,000	N/A	N/A	\$380,000	\$380,000	Net Annual kWh Saved at Generator	(BxExI)/(1-F)	8,767 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0			
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$5,937,723	N/A	N/A	\$380,000	\$380,000	Program Summary All Participants		
						Total Participants	J	591
Total Benefits	\$5,937,723	\$2,418,511	\$2,418,511	\$2,798,511	\$2,798,511	Total Budget	K	\$414,226
Costs						Gross kW Saved at Customer	(J x I)	1,142.94 kW
						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	591 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	(BxExI)xJ	4.928.744 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Gustomer	$((B \times E \times I)/(1-F))\times J$	5,181,197 kWh
Utility Administration	N/A	\$30,226	\$30,226	\$30,226	\$30,226	Societal Net Benefits	((B X B X I) / (I = I) / X J	\$43,335
Advertising & Promotion	N/A	\$4,000	\$4,000	\$4,000	\$4,000		())	7 10,000
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$380,000	\$380,000	\$380,000	\$380,000	Utility Program Cost per kWh Lifetime		\$0.0044
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		\$701
Subtotal	N/A	\$414,226	\$414,226	\$414,226	\$414,226			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$5,557,723	N/A	N/A			
Subtotal	N/A	N/A	\$5,557,723	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$2,096,461	N/A	N/A	\$2,096,461	\$2,096,461			
Incremental O&M Costs	\$244,489	N/A	N/A	\$244,489	\$244,489			
	Ψ= 1 1, 102	11/11	11/21	Ψ=11,107	9211,102			

\$2,340,950

\$2,755,176

\$43,335

1.02

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

\$2,340,950

\$2,340,950

\$3,596,773

2.54

N/A

\$414,226

\$2,004,285

5.84

N/A

0.40

\$5,971,949

(\$3,553,439)

\$2,340,950

\$2,755,176

\$43,335

1.02

Subtotal

Total Costs

Net Benefit (Cost)

BUSINESS SAVER'S SWI	TCH					2021 ELF	ECTRIC	GOAL
2021 Net Present Cost Benefit Sumr	nary Analysis For All	Participants				Input Summary and Totals		
	Participant	Utility	Rate Impact	Total Resource	Societal	Program "Inputs" per Customer kW Lifetime (Weighted on Generator kWh)	A	15.0 years
	Test	Test	Test	Test	Test	Annual Hours	В	8760
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Gross Customer kW	C	1 kW
Benefits						Generator Peak Coincidence Factor	D	16.76%
						Gross Load Factor at Customer	E	0.00%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	4.872%
Generation	N/A	\$20,358	\$20,358	\$20,358	\$20,358	Transmission Loss Factor (Demand)	G	5.640%
T & D	N/A	\$12,428	\$12,428	\$12,428	\$12,428	Societal Net Benefit (Cost)	Н	\$47
Marginal Energy	N/A	\$12,420	\$13	\$13	\$13	Societai ivet Benefit (Cost)	11)T/
Environmental Externality	N/A	N/A	N/A	N/A	\$13 \$0			
Subtotal	N/A	\$32,800	\$32,800	\$32,800	\$32,800	Program Summary per Participant		
Subtotai	N/A	\$32,800	\$32,800	\$32,800	\$32,800	Gross kW Saved at Customer	T	15.93 kW
Danisin and Danish						Net coincident kW Saved at Generator	(I - D) / (1 - C)	2.83 kW
Participant Benefits Bill Reduction - Electric	\$44	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Gustomer	(I x D) / (1 - G) (B x E x I)	2.83 kW 4 kWh
Rebates from Xcel Energy	\$44 \$0	N/A N/A	N/A N/A	N/A \$0	\$0	Net Annual kWh Saved at Customer	(BxExI) (BxExI)/(1-F)	4 kWh
Incremental Capital Savings	\$0 \$0	N/A	N/A	\$0	\$0	Net Allitual KWII Saved at Generator	(B X E X I) / (I - I ·)	† KWII
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$44	N/A	N/A	\$0	\$0	Program Summary All Participants		
	*	- 1,7	- 1,	#*	***	Total Participants	ĭ	10
Total Benefits	\$44	\$32,800	\$32,800	\$32,800	\$32,800	Total Budget	K	\$25,250
Costs	¥ · ·	¥0 2, 000	402,000	40 2, 000	¥02,000	Gross kW Saved at Customer		
Costs							(J x I)	159.27 kW
						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	28 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	(B x E x I) x J	37 kWh
Customer Services	N/A	\$15,750	\$15,750	\$15,750	\$15,750	Net Annual kWh Saved at Generator	$((B \times E \times I)/(1-F)) \times J$	39 kWh
Utility Administration	N/A	\$7,000	\$7,000	\$7,000	\$7,000	Societal Net Benefits	(J x I x H)	\$7,550
Advertising & Promotion	N/A	\$2,500	\$2,500	\$2,500	\$2,500			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0	TINE D. C. IND. VIC.		442 4446
Rebates	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime		\$43.4116
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		\$893
Subtotal	N/A	\$25,250	\$25,250	\$25,250	\$25,250			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$44	N/A	N/A			
Subtotal	N/A	N/A	\$44	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			
	90	21/21	2.1/21	90				

\$25,250 \$7,550

1.30

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

\$44

INF

N/A

\$25,250

\$7,550

1.30

N/A

\$25,250

\$7,550

1.30

\$25,294

\$7,506

1.30

Subtotal

Total Costs

Net Benefit (Cost)
Benefit/Cost Ratio

PEAK AND ENERGY CO	NTROL					2021 ELF	ECTRIC	GOAL
2021 Net Present Cost Benefit Summ	nary Analysis For All	Participants				Input Summary and Totals		
	Participant	Utility	Rate Impact	Total Resource	Societal	Program "Inputs" per Customer kW Lifetime (Weighted on Generator kWh)	A	5.0 years
	Test	Test	Test	Test	Test	Annual Hours Gross Customer kW	B C	8760 1 kW
D C	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)			
Benefits						Generator Peak Coincidence Factor	D	100.00%
						Gross Load Factor at Customer	Е	0.02%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	4.873%
Generation	N/A	\$52,045	\$52,045	\$52,045	\$52,045	Transmission Loss Factor (Demand)	G	5.640%
T & D	N/A	\$31,612	\$31,612	\$31,612	\$31,612	Societal Net Benefit (Cost)	Н	\$449
Marginal Energy	N/A	\$40	\$40	\$40	\$40			
Environmental Externality	N/A	N/A	N/A	N/A	\$0			
Subtotal	N/A	\$83,696	\$83,696	\$83,696	\$83,696	Program Summary per Participant		
						Gross kW Saved at Customer	I	164.29 kW
Participant Benefits						Net coincident kW Saved at Generator	(IxD)/(1-G)	174.11 kW
Bill Reduction - Electric	\$392	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Customer	(BxExI)	329 kWh
Rebates from Xcel Energy	\$0	N/A	N/A	\$0	\$0	Net Annual kWh Saved at Generator	(BxExI)/(1-F)	345 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0			
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$392	N/A	N/A	\$0	\$0	Program Summary All Participants		
						Total Participants	J	1
Total Benefits	\$392	\$83,696	\$83,696	\$83,696	\$83,696	Total Budget	K	\$10,000
Costs						Gross kW Saved at Customer	(J x I)	164.29 kW
						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	174 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	(BxExI)xI	329 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I)/(1-F)) \times J$	345 kWh
Utility Administration	N/A	\$10,000	\$10,000	\$10,000	\$10,000	Societal Net Benefits	(J x I x H)	\$73,696
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0			
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kWh Lifetime		\$5.7902
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		\$57
Subtotal	N/A	\$10,000	\$10,000	\$10,000	\$10,000			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$392	N/A	N/A			
Subtotal	N/A	N/A	\$392	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			

\$10,000 \$73,696

8.37

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

\$0

\$392

INF

N/A

\$10,000

\$73,696

8.37

N/A

\$10,000

\$73,696

8.37

\$10,392

\$73,304

Subtotal

Total Costs

Net Benefit (Cost)
Benefit/Cost Ratio

BUSINESS SEGMENT T	OTAL					2021 ELE	CTRIC	GOAL
2021 Net Present Cost Benefit Sumn	nary 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 Lifetime (Weighted on Generator kWh) Annual Hours Gross Customer kW	A B C	18.3 years 8760 1 kW
Benefits						Generator Peak Coincidence Factor	D	51.03%
Avoided Revenue Requirements	27/4	2525 (0)	9595 (0)	2525 (0)	9595 (0)	Gross Load Factor at Customer Transmission Loss Factor (Energy)	E F	38.37% 4.873%
Generation	N/A	\$537,696	\$537,696	\$537,696	\$537,696	Transmission Loss Factor (Demand) Societal Net Benefit (Cost)	G H	5.640%
T&D	N/A	\$328,495	\$328,495	\$328,495	\$328,495	Societal Net Benefit (Cost)	Н	\$85
Marginal Energy Environmental Externality	N/A N/A	\$1,668,816 N/A	\$1,668,816 N/A	\$1,668,816 N/A	\$1,668,816			
Subtotal Subtotal	N/A N/A	\$2,535,007	\$2,535,007	\$2,535,007	\$0 \$2,535,007	Program Summary per Participant		
						Gross kW Saved at Customer	I	2.44 kW
Participant Benefits Bill Reduction - Electric Rebates from Xcel Energy Incremental Capital Savings	\$5,558,159 \$380,000 \$0	N/A N/A N/A	N/A N/A N/A	N/A \$380,000 \$0	N/A \$380,000 \$0	Net coincident kW Saved at Generator Gross Annual kWh Saved at Customer Net Annual kWh Saved at Generator	(IxD)/(1-G) (BxExI) (BxExI)/(1-F)	1.32 kW 8,188 kWh 8,607 kWh
Incremental O&M Savings	\$0 \$0	N/A	N/A	\$0	\$0			
Subtotal	\$5,938,159	N/A	N/A	\$380,000	\$380,000	Program Summary All Participants		
						Total Participants	J	602
Total Benefits	\$5,938,159	\$2,535,007	\$2,535,007	\$2,915,007	\$2,915,007	Total Budget	K	\$449,476
Costs						Gross kW Saved at Customer	(J x I)	1,466.50 kW
Utility Project Costs Customer Services Utility Administration	N/A N/A	\$15,750 \$47,226	\$15,750 \$47,226	\$15,750 \$47,226	\$15,750 \$47,226	Net coincident kW Saved at Generator Gross Annual kWh Saved at Customer Net Annual kWh Saved at Generator Societal Net Benefits	(IxD)/(1-G)xJ (BxExI)xJ ((BxExI)/(1-F))xJ (JxIxH)	793 kW 4,929,109 kWh 5,181,582 kWh \$124,581
Advertising & Promotion	N/A	\$6,500	\$6,500	\$6,500	\$6,500			
Measurement & Verification Rebates	N/A N/A	\$0 \$380,000	\$0 \$380,000	\$0 \$380,000	\$0 \$380,000	Utility Program Cost per kWh Lifetime		\$0.0047
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		\$567
Subtotal	N/A	\$449,476	\$449,476	\$449,476	\$449,476			
Utility Revenue Reduction Revenue Reduction - Electric	N/A	N1/A	\$5,558,159	N/A	NT / A			
Subtotal Reduction - Electric	N/A N/A	N/A N/A	\$5,558,159	N/A N/A	N/A N/A			
	14/11	14/11	95,550,157	14/11	14/11			
Participant Costs								
Incremental Capital Costs	\$2,096,461	N/A	N/A	\$2,096,461	\$2,096,461			
Incremental O&M Costs	\$244,489	N/A	N/A	\$244,489	\$244,489			
0.11	60 240 050	3 T / A	> T / A	@O 240 0F0	60 240 050			

\$2,340,950

\$2,790,426

\$124,581

1.04

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

\$2,340,950

\$2,340,950

\$3,597,209

2.54

N/A

5.64

\$449,476

\$2,085,531

N/A

0.42

\$6,007,635

(\$3,472,629)

\$2,340,950

\$2,790,426

\$124,581

1.04

Subtotal

Total Costs

Net Benefit (Cost)

HOME LIGHTING						2021 ELE	CTRIC	GOAL
2021 Net Present Cost Benefit Summ	ary Analysis For All	Participants				Input Summary and Totals		<u>'</u>
	Participant Test	Utility Test	Rate Impact Test	Total Resource Test	Societal Test	Program "Inputs" per Customer kW Lifetime (Weighted on Generator kWh) Annual Hours	A B	12.0 years 8760
D. C.	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Gross Customer kW	С	1 kW
Benefits						Generator Peak Coincidence Factor	D	18.14%
A 11 1D D						Gross Load Factor at Customer	E F	15.36%
Avoided Revenue Requirements	NT / A	6220.250	6220.250	\$220.250	6220.250	Transmission Loss Factor (Energy)	1	5.600%
Generation	N/A	\$229,359	\$229,359	\$229,359	\$229,359	Transmission Loss Factor (Demand)	G H	7.092%
T & D Marginal Energy	N/A N/A	\$139,934	\$139,934	\$139,934	\$139,934	Societal Net Benefit (Cost)	Н	\$401
Marginal Energy Environmental Externality	N/A N/A	\$669,305 N/A	\$669,305 N/A	\$669,305 N/A	\$669,305 \$0			
Subtotal Subtotal	N/A N/A	\$1,038,598	\$1,038,598	\$1,038,598	\$1,038,598	Program Summary per Participant		
oubtour .	11/11	¥1,000,070	¥1,000,070	¥1,000,070	¥1,000,000	Gross kW Saved at Customer	Ĭ	0.42 kW
Participant Benefits						Net coincident kW Saved at Generator	(IxD)/(1-G)	0.08 kW
Bill Reduction - Electric	\$3,430,236	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Customer	(B x E x I)	569 kWh
Rebates from Xcel Energy	\$79,944	N/A	N/A	\$79,944	\$79,944	Net Annual kWh Saved at Generator	(BxExI)/(1-F)	602 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0			
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$3,510,180	N/A	N/A	\$79,944	\$79,944	Program Summary All Participants		
						Total Participants	J	4,999
Total Benefits	\$3,510,180	\$1,038,598	\$1,038,598	\$1,118,542	\$1,118,542	Total Budget	K	\$99,655
Costs						Gross kW Saved at Customer	(J x I)	2,113.06 kW
Utility Project Costs Customer Services Utility Administration Advertising & Promotion	N/A N/A N/A	\$6,608 \$10,190 \$2,471	\$6,608 \$10,190 \$2,471	\$6,608 \$10,190 \$2,471	\$6,608 \$10,190 \$2,471	Net coincident kW Saved at Generator Gross Annual kWh Saved at Customer Net Annual kWh Saved at Generator Societal Net Benefits	(IxD)/(1-G)xJ (BxExI)xJ ((BxExI)/(1-F))xJ (JxIxH)	413 kW 2,843,067 kWh 3,011,712 kWh \$847,458
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$79,944	\$79,944	\$79,944	\$79,944	Utility Program Cost per kWh Lifetime		\$0.0028
Other	N/A	\$442	\$442	\$442	\$442	Utility Program Cost per kW at Gen		\$242
Subtotal	N/A	\$99,655	\$99,655	\$99,655	\$99,655			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$3,430,236	N/A	N/A			
Subtotal	N/A	N/A	\$3,430,236	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$171,429	N/A	N/A	\$171,429	\$171,429			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$171,429	N/A	N/A	\$171,429	\$171,429			

\$271,084

\$847,458

4.13

\$271,084

\$847,458

4.13

\$3,529,891

(\$2,491,293)

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

Total Costs

Net Benefit (Cost)

Benefit/Cost Ratio

\$171,429

\$3,338,750

20.48

\$99,655

\$938,943

10.42

HEAT PUMP WATER H	EATERS					2021 ELE	ECTRIC	GOAL
2021 Net Present Cost Benefit Summ	nary Analysis For All	l Participants				Input Summary and Totals		
			Rate	Total		Program "Inputs" per Customer kW Lifetime (Weighted on Generator kWh)		40.0
	Participant	Utility	Impact	Resource	Societal	Annual Hours	A	10.0 years
	Test	Test	Test	Test	Test	Annual Hours Gross Customer kW	B C	8760 1 kW
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Gross Customer kW	C	1 KW
Benefits						Generator Peak Coincidence Factor	D	100.00%
						Gross Load Factor at Customer	E	88.69%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	5.950%
Generation	N/A	\$4,990	\$4,990	\$4,990	\$4,990	Transmission Loss Factor (Demand)	G	7.220%
T & D	N/A	\$3,039	\$3,039	\$3,039	\$3,039	Societal Net Benefit (Cost)	Н	(\$11)
Marginal Energy	N/A	\$13,312	\$13,312	\$13,312	\$13,312			\" /
Environmental Externality	N/A	N/A	N/A	N/A	\$0			
Subtotal	N/A	\$21,341	\$21,341	\$21,341	\$21,341	Program Summary per Participant		
out our	11/11	Q21,511	Ψ21,0 11	Ψ=1,511	¥21,011	Gross kW Saved at Customer	Ţ	0.41 kW
Participant Benefits						Net coincident kW Saved at Generator	(I x D) / (1 - G)	0.44 kW
Bill Reduction - Electric	\$81,818	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Customer	(BxExI)	3,206 kWh
Rebates from Xcel Energy	\$6,300	N/A	N/A	\$6,300	\$6,300	Net Annual kWh Saved at Generator	(BxExI)/(1-F)	3,408 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0		// /	-,
Incremental O&M Savings	\$0	N/A	N/A	\$0	\$0			
Subtotal	\$88,118	N/A	N/A	\$6,300	\$6,300	Program Summary All Participants		
						Total Participants	Ţ	21
Total Benefits	\$88,118	\$21,341	\$21,341	\$27,641	\$27,641	Total Budget	K	\$12,900
Costs						Gross kW Saved at Customer	(J x I)	8.66 kW
						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	9 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	(Bx E x I) x J	67,316 kWh
Customer Services	N/A	\$0	\$0	\$0	\$0	Net Annual kWh Saved at Generator	$((B \times E \times I)/(1-F))\times J$	71,574 kWh
Utility Administration	N/A	\$6,600	\$6,600	\$6,600	\$6,600	Societal Net Benefits	([xIxH)	(\$95)
Advertising & Promotion	N/A	\$0	\$0	\$0	\$0			(- /
Measurement & Verification	N/A	\$0	\$0	\$0	\$0			
Rebates	N/A	\$6,300	\$6,300	\$6,300	\$6,300	Utility Program Cost per kWh Lifetime		\$0.0180
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		\$1,381
Subtotal	N/A	\$12,900	\$12,900	\$12,900	\$12,900			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$81,818	N/A	N/A			
Subtotal	N/A	N/A	\$81,818	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$12,841	N/A	N/A	\$12,841	\$12,841			
Incremental O&M Costs	\$1,995	N/A	N/A	\$1,995	\$1,995			

\$14,836

\$27,736

1.00

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

\$14,836

\$14,836

\$73,282

N/A

\$12,900

\$8,441

1.65

N/A

\$94,718

(\$73,377)

0.23

\$14,836

\$27,736

(\$95)

1.00

Subtotal

Total Costs

Net Benefit (Cost)

RESIDENTIAL DEMAN	D RESPONSE					2021 ELF	ECTRIC	GOAL
2021 Net Present Cost Benefit Sumn	nary Analysis For All	Participants				Input Summary and Totals		
			Rate	Total		Program "Inputs" per Customer kW		
	Participant	Utility	Impact	Resource	Societal	Lifetime (Weighted on Generator kWh)	A	10.0 years
	Test	Test	Test	Test	Test	Annual Hours	В	8760
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Gross Customer kW	С	1 kW
Benefits						Generator Peak Coincidence Factor	D	37.93%
						Gross Load Factor at Customer	E	0.54%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	5,950%
Generation	N/A	\$455,486	\$455,486	\$455,486	\$455,486	Transmission Loss Factor (Demand)	G	7.220%
T & D	N/A	\$277,708	\$277,708	\$277,708	\$277,708	Societal Net Benefit (Cost)	Н	\$398
Marginal Energy	N/A	\$23,849	\$23,849	\$23,849	\$23,849	Societai Net Beliefit (Cost)	11	\$370
Environmental Externality	N/A N/A	\$23,049 N/A	\$23,649 N/A	\$25,649 N/A	\$23,049			
Subtotal Externality	N/A N/A	\$757,043	\$757,043	\$757,043	\$757,043	Program Summary per Participant		
Subtotai	IN/A	\$737,043	\$757,045	\$737,043	\$737,043	Gross kW Saved at Customer	Y.	1.43 kW
D D . C.						Net coincident kW Saved at Generator	(1, D) / (1, C)	0.58 kW
Participant Benefits Bill Reduction - Electric	\$113,016	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Customer	(I x D) / (1 - G) (B x E x I)	0.58 kW 67 kWh
Rebates from Xcel Energy	\$50,000	N/A N/A	N/A N/A	\$50,000	\$50,000	Net Annual kWh Saved at Customer	(BxExI) (BxExI)/(1-F)	71 kWh
Incremental Capital Savings	\$30,000	N/A	N/A	\$30,000	\$30,000	Net Allifual Kwii Saved at Generator	(B X E X I) / (I - I ·)	/1 KWII
Incremental O&M Savings	\$363,741	N/A	N/A	\$363,741	\$363,741			
Subtotal	\$526,757	N/A	N/A	\$413,741	\$413,741	Program Summary All Participants		
	,	,	,			Total Participants	Ţ	1,400
Total Benefits	\$526,757	\$757,043	\$757,043	\$1,170,783	\$1,170,783	Total Budget	K	\$235,500
Costs						Gross kW Saved at Customer	(J x I)	1,998.47 kW
						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	817 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	(Bx E x I) x J	93,946 kWh
Customer Services	N/A	\$131,000	\$131,000	\$131,000	\$131,000	Net Annual kWh Saved at Generator	$((B \times E \times I)/(1-F))\times J$	99,889 kWh
Utility Administration	N/A	\$37,500	\$37,500	\$37,500	\$37,500	Societal Net Benefits	([xIxH)	\$795,283
Advertising & Promotion	N/A	\$7,000	\$7,000	\$7,000	\$7,000			•
Measurement & Verification	N/A	\$10,000	\$10,000	\$10,000	\$10,000			
Rebates	N/A	\$50,000	\$50,000	\$50,000	\$50,000	Utility Program Cost per kWh Lifetime		\$0.2355
Other	N/A	\$0	\$0	\$0	\$0	Utility Program Cost per kW at Gen		\$288
Subtotal	N/A	\$235,500	\$235,500	\$235,500	\$235,500			
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$113,016	N/A	N/A			
Subtotal	N/A	N/A	\$113,016	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$140,000	N/A	N/A	\$140,000	\$140,000			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			

\$140,000

\$375,500

\$795,283

3.12

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

\$140,000

\$140,000

\$386,757

3.76

N/A

\$235,500

\$521,543

3.21

N/A

\$348,516

\$408,527

2.17

\$140,000

\$375,500

\$795,283

3.12

Subtotal

Total Costs

Net Benefit (Cost)
Benefit/Cost Ratio

RESIDENTIAL SEGMEN	T TOTAL					2021 ELEC	CTRIC	GOAL
2021 Net Present Cost Benefit Summ	ary Analysis For All	Participants				Input Summary and Totals		
			Rate	Total		Program "Inputs" per Customer kW		
	Participant	Utility	Impact	Resource	Societal	Lifetime (Weighted on Generator kWh)	A	11.8 years
	Test	Test	Test	Test	Test	Annual Hours	В	8760
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Gross Customer kW	C	1 kW
Benefits						Generator Peak Coincidence Factor	D	27.92%
						Gross Load Factor at Customer	E	8.32%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	5.619%
Generation	N/A	\$689,835	\$689,835	\$689,835	\$689,835	Transmission Loss Factor (Demand)	G	7.154%
T & D	N/A	\$420,681	\$420,681	\$420,681	\$420,681	Societal Net Benefit (Cost)	Н	\$394
Marginal Energy	N/A	\$706,466	\$706,466	\$706,466	\$706,466			
Environmental Externality	N/A	N/A	N/A	N/A	\$0			
Subtotal	N/A	\$1,816,982	\$1,816,982	\$1,816,982	\$1,816,982	Program Summary per Participant		
						Gross kW Saved at Customer	I	0.06 kW
Participant Benefits						Net coincident kW Saved at Generator	(IxD)/(1-G)	0.02 kW
Bill Reduction - Electric	\$3,625,069	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Customer	(BxExI)	40 kWh
Rebates from Xcel Energy	\$136,244	N/A	N/A	\$136,244	\$136,244	Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	43 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0			
Incremental O&M Savings	\$361,745	N/A	N/A	\$361,745	\$361,745			
Subtotal	\$4,123,059	N/A	N/A	\$497,989	\$497,989	Program Summary All Participants		7.1.100
						Total Participants	J	74,420
Total Benefits	\$4,123,059	\$1,816,982	\$1,816,982	\$2,314,971	\$2,314,971	Total Budget	K	\$369,220
Costs						Gross kW Saved at Customer	(J x I)	4,120.20 kW
						Net coincident kW Saved at Generator	$(I \times D) / (1 - G) \times J$	1,239 kW
Utility Project Costs						Gross Annual kWh Saved at Customer	(BxExI)xJ	3,004,328 kWh
Customer Services	N/A	\$158,773	\$158,773	\$158,773	\$158,773	Net Annual kWh Saved at Generator	$((B \times E \times I)/(1-F)) \times J$	3,183,176 kWh
Utility Administration	N/A	\$54,290	\$54,290	\$54,290	\$54,290	Societal Net Benefits	(J x I x H)	\$1,621,481
Advertising & Promotion	N/A	\$9,471	\$9,471	\$9,471	\$9,471			
Measurement & Verification	N/A	\$10,000	\$10,000	\$10,000	\$10,000	TINE D. C. IND. T.C.		***
Rebates Other	N/A	\$136,244	\$136,244	\$136,244	\$136,244	Utility Program Cost per kWh Lifetime		\$0.0098 \$298
Subtotal	N/A N/A	\$442 \$369,220	\$442 \$369,220	\$442 \$369,220	\$442 \$369,220	Utility Program Cost per kW at Gen		\$298
	,							
Utility Revenue Reduction								
Revenue Reduction - Electric	N/A	N/A	\$3,625,069	N/A	N/A			
Subtotal	N/A	N/A	\$3,625,069	N/A	N/A			
Participant Costs								
Incremental Capital Costs	\$324,270	N/A	N/A	\$324,270	\$324,270			
Incremental O&M Costs	\$0	N/A	N/A	\$0	\$0			
		N/A	N/A		\$324,270			

\$693,490

\$1,621,481

3.34

\$693,490

3.34

\$1,621,481

0.45

\$3,994,289

(\$2,177,308)

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

Total Costs

Net Benefit (Cost)

Benefit/Cost Ratio

\$324,270

\$3,798,789

12.71

\$369,220

\$1,447,762

4.92

PORTFOLIO TOTAL						2021 ELE	CTRIC	GOAL
2021 Net Present Cost Benefit Summ	ary 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 Lifetime (Weighted on Generator kWh) Annual Hours Gross Customer kW	A B C	15.9 years 8760 1 kW
Benefits	(, , , , , ,	(, , , , ,	(,,	(,,	(, , , , , , , , , , , , , , , , , , ,	Generator Peak Coincidence Factor	P	33.91%
Belletito						Gross Load Factor at Customer	E	16.21%
Avoided Revenue Requirements						Transmission Loss Factor (Energy)	F	5.156%
Generation	N/A	\$1,227,531	\$1,227,531	\$1,227,531	\$1,227,531	Transmission Loss Factor (Demand)	G	6.761%
T & D	N/A	\$749,176	\$749,176	\$749,176	\$749,176	Societal Net Benefit (Cost)	Н	\$311
Marginal Energy	N/A	\$2,375,281	\$2,375,281	\$2,375,281	\$2,375,281			
Environmental Externality	N/A	N/A	N/A	N/A	\$0			
Subtotal	N/A	\$4,351,988	\$4,351,988	\$4,351,988	\$4,351,988	Program Summary per Participant		
						Gross kW Saved at Customer	I	0.07 kW
Participant Benefits						Net coincident kW Saved at Generator	(IxD)/(1-G)	0.03 kW
Bill Reduction - Electric	\$9,183,229	N/A	N/A	N/A	N/A	Gross Annual kWh Saved at Customer	(BxExI)	106 kWh
Rebates from Xcel Energy	\$516,244	N/A	N/A	\$516,244	\$516,244	Net Annual kWh Saved at Generator	(B x E x I) / (1 - F)	111 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	\$0			
Incremental O&M Savings	\$117,257	N/A	N/A	\$117,257	\$117,257	D C AND C		
Subtotal	\$9,816,729	N/A	N/A	\$633,501	\$633,501	Program Summary All Participants Total Participants	ĭ	75,022
77 . 1D . C.	00.044.500	****		0.4.00 F 400	A	1	J	*
Total Benefits	\$9,816,729	\$4,351,988	\$4,351,988	\$4,985,489	\$4,985,489	Total Budget	K	\$828,696
Costs						Gross kW Saved at Customer	(J x I)	5,586.70 kW
Utility Project Costs Customer Services Utility Administration Advertising & Promotion	N/A N/A N/A	\$174,523 \$111,516 \$15,971	\$174,523 \$111,516 \$15,971	\$174,523 \$111,516 \$15,971	\$174,523 \$111,516 \$15,971	Net coincident kW Saved at Generator Gross Annual kWh Saved at Customer Net Annual kWh Saved at Generator Societal Net Benefits	(IxD)/(1-G)xJ (BxExI)xJ ((BxExI)/(1-F))xJ (JxIxH)	2,032 kW 7,933,437 kWh 8,364,757 kWh \$1,736,062
Measurement & Verification Rebates	N/A N/A	\$10,000	\$10,000	\$10,000	\$10,000	Utility Program Cost per kWh Lifetime		\$0.0062
Other	N/A N/A	\$516,244 \$442	\$516,244 \$442	\$516,244 \$442	\$516,244 \$442	Utility Program Cost per kWi Lifetime Utility Program Cost per kW at Gen		\$408
Subtotal	N/A	\$828,696	\$828,696	\$828,696	\$828,696	etinty Frogram Gost per kw at Gen		Ψ100
Utility Revenue Reduction Revenue Reduction - Electric Subtotal	N/A N/A	N/A N/A	\$9,183,229 \$9,183,229	N/A N/A	N/A N/A			
Participant Costs								
Incremental Capital Costs	\$2,420,731	N/A	N/A	\$2,420,731	\$2,420,731			
Incremental O&M Costs	\$2,420,731	N/A	N/A	\$2,420,731	\$2,420,731			
Subtotal	\$2,420,731	N/A	N/A	\$2,420,731	\$2,420,731			

\$3,249,427

\$1,736,062

\$3,249,427

\$1,736,062

1.53

\$10,011,925

(\$5,659,936)

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

\$2,420,731

\$7,395,998

4.06

\$828,696

\$3,523,292

5.25

Total Costs

Net Benefit (Cost)