

LIGHTING - SMALL BUSINESS	2019 ELECTRIC	GOAL
----------------------------------	----------------------	-------------

2019 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Modified TRC Test (\$Total)
Benefits				
Avoided Revenue Requirements				
Generation Capacity	N/A	\$4,624,806	\$4,624,806	\$4,624,806
Trans. & Dist. Capacity	N/A	\$579,172	\$579,172	\$579,172
Marginal Energy	N/A	\$8,708,738	\$8,708,738	\$8,708,738
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0
Subtotal				\$13,912,716
Non-Energy Benefits Adder (20%)				\$2,782,543
Subtotal	N/A	\$13,912,716	\$13,912,716	\$16,695,259
Other Benefits				
Bill Reduction - Electric	\$28,222,611	N/A	N/A	N/A
Participant Rebates and Incentives	\$3,463,184	N/A	N/A	\$3,463,184
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0
Subtotal	\$31,685,796	N/A	N/A	\$3,463,184
Total Benefits	\$31,685,796	\$13,912,716	\$13,912,716	\$20,158,443
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$2,939,833	\$2,939,833	\$2,939,833
Advertising/Promotion/Customer Ed	N/A	\$68,545	\$68,545	\$68,545
Participant Rebates and Incentives	N/A	\$3,463,184	\$3,463,184	\$3,463,184
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$27,500	\$27,500	\$27,500
Subtotal	N/A	\$6,499,062	\$6,499,062	\$6,499,062
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$25,341,964	N/A
Subtotal	N/A	N/A	\$25,341,964	N/A
Participant Costs				
Incremental Capital Costs	\$11,265,069	N/A	N/A	\$10,122,695
Incremental O&M Costs	\$811,157	N/A	N/A	\$728,999
Subtotal	\$12,076,226	N/A	N/A	\$10,851,695
Total Costs	\$12,076,226	\$6,499,062	\$31,841,026	\$17,350,757
Net Benefit (Cost)	\$19,609,570	\$7,413,653	(\$17,928,311)	\$2,807,686
Benefit/Cost Ratio	2.62	2.14	0.44	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	12 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	65.56%
Gross Load Factor at Customer	E	50.80%
Net-to-Gross (Energy)	F	90.5%
Net-to-Gross (Demand)	G	90.5%
Transmission Loss Factor (Energy)	H	5.332%
Transmission Loss Factor (Demand)	I	7.711%
Installation Rate (Energy)	J	99.5%
Installation Rate (Demand)	K	99.5%
MTRC Net Benefit (Cost)	L	\$290
MTRC Non-Energy Benefit Adder	M	\$288
Gross Annual kWh Saved at Customer	(B x E x C)	4,451 kWh
Net Annual kWh Saved at Customer	(F x (B x E x C x J))	4,009 kWh
Net Annual kWh Saved at Generator	(F x (B x E x C x J)) / (1 - H)	4,235 kWh
Program Summary All Participants		
Total Budget	N	\$6,499,062
Net coincident kW Saved at Generator	(G x O x K) x D / (1 - I)	6,191 kW
Net Annual kWh Saved at Customer	(F x (B x E x O x J))	38,790,568 kWh
Net Annual kWh Saved at Generator	(F x (B x E x O x J)) / (1 - H)	40,975,454 kWh
TRC Net Benefits with Adder	(O x L)	\$2,807,686
TRC Net Benefits without Adder	(O x (L - M))	\$25,143
Utility Program Cost per kWh Lifetime		
Utility Program Cost per kWh at Gen		\$0.0130
		\$1,050

LIGHTING - SMALL BUSINESS	2020	ELECTRIC	GOAL
----------------------------------	-------------	-----------------	-------------

2020 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Modified TRC Test (\$Total)
Benefits				
Avoided Revenue Requirements				
Generation Capacity	N/A	\$4,604,173	\$4,604,173	\$4,604,173
Trans. & Dist. Capacity	N/A	\$582,444	\$582,444	\$582,444
Marginal Energy	N/A	\$8,665,699	\$8,665,699	\$8,665,699
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0
Subtotal				\$13,852,315
Non-Energy Benefits Adder (20%)				\$2,770,463
Subtotal	N/A	\$13,852,315	\$13,852,315	\$16,622,778
Other Benefits				
Bill Reduction - Electric	\$27,224,543	N/A	N/A	N/A
Participant Rebates and Incentives	\$3,324,720	N/A	N/A	\$3,324,720
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0
Subtotal	\$30,549,263	N/A	N/A	\$3,324,720
Total Benefits	\$30,549,263	\$13,852,315	\$13,852,315	\$19,947,499
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$2,774,253	\$2,774,253	\$2,774,253
Advertising/Promotion/Customer Ed	N/A	\$119,105	\$119,105	\$119,105
Participant Rebates and Incentives	N/A	\$3,324,720	\$3,324,720	\$3,324,720
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$27,500	\$27,500	\$27,500
Subtotal	N/A	\$6,245,579	\$6,245,579	\$6,245,579
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$24,471,006	N/A
Subtotal	N/A	N/A	\$24,471,006	N/A
Participant Costs				
Incremental Capital Costs	\$10,286,717	N/A	N/A	\$9,265,001
Incremental O&M Costs	\$800,624	N/A	N/A	\$720,157
Subtotal	\$11,087,341	N/A	N/A	\$9,985,158
Total Costs	\$11,087,341	\$6,245,579	\$30,716,584	\$16,230,736
Net Benefit (Cost)	\$19,461,923	\$7,606,736	(\$16,864,269)	\$3,716,762
Benefit/Cost Ratio	2.76	2.22	0.45	1.23

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 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	68.02%
Gross Load Factor at Customer	E	51.04%
Net-to-Gross (Energy)	F	90.6%
Net-to-Gross (Demand)	G	90.6%
Transmission Loss Factor (Energy)	H	5.332%
Transmission Loss Factor (Demand)	I	7.711%
Installation Rate (Energy)	J	99.5%
Installation Rate (Demand)	K	99.5%
MTRC Net Benefit (Cost)	L	\$404
MTRC Non-Energy Benefit Adder	M	\$301
Gross Annual kWh Saved at Customer	(B x E x C)	4,471 kWh
Net Annual kWh Saved at Customer	(F x (B x E x C x J))	4,031 kWh
Net Annual kWh Saved at Generator	(F x (B x E x C x J)) / (1 - H)	4,258 kWh
Program Summary All Participant		
Total Budget	N	\$6,245,579
Net coincident kW Saved at Generator	(G x O x K) x D / (1 - I)	6,107 kW
Net Annual kWh Saved at Customer	(F x (B x E x O x J))	37,069,689 kWh
Net Annual kWh Saved at Generator	(F x (B x E x O x J)) / (1 - H)	39,157,646 kWh
TRC Net Benefits with Adder	(O x L)	\$3,716,762
TRC Net Benefits without Adder	(O x (L - M))	\$946,299
Utility Program Cost per kWh Lifetime		
		\$0.0133
Utility Program Cost per kW at Gen		
		\$1,023