

<b>LIGHTING - SMALL BUSINESS</b>					<b>2019 ELECTRIC</b>			<b>GOAL</b>
<b>2019 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>Modified</b>	<b>Program Inputs per Customer kW</b>			
	<b>Test</b>	<b>Test</b>	<b>Impact</b>	<b>TRC</b>	Lifetime (Weighted on Generator kWh)	A		12 years
	<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		65.56%
Generation Capacity	N/A	\$4,624,806	\$4,624,806	\$4,624,806	Gross Load Factor at Customer	E		50.80%
Trans. & Dist. Capacity	N/A	\$579,172	\$579,172	\$579,172	Net-to-Gross (Energy)	F		90.5%
Marginal Energy	N/A	\$8,708,738	\$8,708,738	\$8,708,738	Net-to-Gross (Demand)	G		90.5%
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0	Transmission Loss Factor (Energy)	H		5.332%
Subtotal				\$13,912,716	Transmission Loss Factor (Demand)	I		7.711%
Non-Energy Benefits Adder (20%)				\$2,782,543	<b>Installation Rate (Energy)</b>	<b>J</b>		<b>99.5%</b>
Subtotal	N/A	\$13,912,716	\$13,912,716	\$16,695,259	<b>Installation Rate (Demand)</b>	<b>K</b>		<b>99.5%</b>
<b>Other Benefits</b>					MTRC Net Benefit (Cost)	<b>L</b>		\$290
Bill Reduction - Electric	\$28,222,611	N/A	N/A	N/A	MTRC Non-Energy Benefit Adder	<b>M</b>		\$288
Participant Rebates and Incentives	\$3,463,184	N/A	N/A	\$3,463,184	Gross Annual kWh Saved at Customer	( B x E x C )		4,451 kWh
Incremental Capital Savings	\$0	N/A	N/A	\$0	Net Annual kWh Saved at Customer	( F x ( B x E x C x J ) )		4,009 kWh
Incremental O&M Savings	\$0	N/A	N/A	\$0	Net Annual kWh Saved at Generator	( F x ( B x E x C x J ) ) / ( 1 - H )		4,235 kWh
Subtotal	\$31,685,796	N/A	N/A	\$3,463,184	<b>Program Summary All Participants</b>			
<b>Total Benefits</b>	<b>\$31,685,796</b>	<b>\$13,912,716</b>	<b>\$13,912,716</b>	<b>\$20,158,443</b>	<b>Total Budget</b>	<b>N</b>		<b>\$6,499,062</b>
<b>Utility Project Costs</b>					<b>Net coincident kW Saved at Generator</b>	( G x O x K ) x D / ( 1 - I )		<b>6,191 kW</b>
Program Planning & Design	N/A	\$0	\$0	\$0	Net Annual kWh Saved at Customer	( F x ( B x E x O x J ) )		38,790,568 kWh
Administration & Program Delivery	N/A	\$2,939,833	\$2,939,833	\$2,939,833	<b>Net Annual kWh Saved at Generator</b>	( F x ( B x E x O x J ) ) / ( 1 - H )		<b>40,975,454 kWh</b>
Advertising/Promotion/Customer Ed	N/A	\$68,545	\$68,545	\$68,545	<b>TRC Net Benefits with Adder</b>	( O x L )		\$2,805,163
Participant Rebates and Incentives	N/A	\$3,463,184	\$3,463,184	\$3,463,184	<b>TRC Net Benefits without Adder</b>	( O x ( L - M ) )		\$22,620
Equipment & Installation	N/A	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>			
Measurement and Verification	N/A	\$27,500	\$27,500	\$27,500	<b>Utility Program Cost per kW at Gen</b>			
Subtotal	N/A	\$6,499,062	\$6,499,062	\$6,499,062				\$0.130
<b>Utility Revenue Reduction</b>								\$1,050
Revenue Reduction - Electric	N/A	N/A	\$25,341,964	N/A				
Subtotal	N/A	N/A	\$25,341,964	N/A				
<b>Participant Costs</b>								
Incremental Capital Costs	\$11,267,903	N/A	N/A	\$10,125,218				
Incremental O&M Costs	\$811,157	N/A	N/A	\$728,999				
Subtotal	\$12,079,060	N/A	N/A	\$10,854,218				
<b>Total Costs</b>	<b>\$12,079,060</b>	<b>\$6,499,062</b>	<b>\$31,841,026</b>	<b>\$17,353,280</b>				
<b>Net Benefit (Cost)</b>	<b>\$19,606,735</b>	<b>\$7,413,653</b>	<b>(\$17,928,311)</b>	<b>\$2,805,163</b>				
<b>Benefit/Cost Ratio</b>	<b>2.62</b>	<b>2.14</b>	<b>0.44</b>	<b>1.16</b>				

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

**LIGHTING - SMALL BUSINESS**

2020 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Modified TRC Test (\$Total)
<b>Benefits</b>				
<b>Avoided Revenue Requirements</b>				
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
<b>Other Benefits</b>				
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
<b>Total Benefits</b>	<b>\$30,549,263</b>	<b>\$13,852,315</b>	<b>\$13,852,315</b>	<b>\$19,947,499</b>
<b>Utility Project Costs</b>				
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
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Electric	N/A	N/A	\$24,471,006	N/A
Subtotal	N/A	N/A	\$24,471,006	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$10,280,107	N/A	N/A	\$9,259,117
Incremental O&M Costs	\$800,624	N/A	N/A	\$720,157
Subtotal	\$11,080,730	N/A	N/A	\$9,979,274
<b>Total Costs</b>	<b>\$11,080,730</b>	<b>\$6,245,579</b>	<b>\$30,716,584</b>	<b>\$16,224,853</b>
<b>Net Benefit (Cost)</b>	<b>\$19,468,533</b>	<b>\$7,606,736</b>	<b>(\$16,864,269)</b>	<b>\$3,722,646</b>
<b>Benefit/Cost Ratio</b>	<b>2.76</b>	<b>2.22</b>	<b>0.45</b>	<b>1.23</b>

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

**2020**

**ELECTRIC**

**GOAL**

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%
<b>Installation Rate (Energy)</b>	<b>J</b>	<b>99.5%</b>
<b>Installation Rate (Demand)</b>	<b>K</b>	<b>99.5%</b>
MITRC Net Benefit (Cost)	L	\$405
MITRC 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

<b>Total Budget</b>	N	<b>\$6,245,579</b>
<b>Net coincident kW Saved at Generator</b>	(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
<b>Net Annual kWh Saved at Generator</b>	(F x (B x E x O x J)) / (1 - H)	<b>39,157,646 kWh</b>
<b>TRC Net Benefits with Adder</b>	(O x L)	<b>\$3,722,646</b>
<b>TRC Net Benefits without Adder</b>	(O x (L - M))	<b>\$952,183</b>
<b>Utility Program Cost per kWh Lifetime</b>		<b>\$0.133</b>
<b>Utility Program Cost per kW at Gen</b>		<b>\$1,023</b>