

LIGHTING EFFICIENCY					2020 ELECTRIC			GOAL
2020 Net Present Cost Benefit Summary Analysis For All Participants					Input Summary and Totals			
	Participant	Utility	Rate	Modified	Program Inputs per Customer kW			
	Test	Test	Impact	TRC	Lifetime (Weighted on Generator kWh)	A		15 years
	(\$Total)	(\$Total)	(\$Total)	(\$Total)	Annual Hours	B		8760
Benefits					Gross Customer kW	C		1 kW
<b>Avoided Revenue Requirements</b>					Generator Peak Coincidence Factor	D		70.32%
Generation Capacity	N/A	\$21,726,481	\$21,726,481	\$21,726,481	Gross Load Factor at Customer	E		59.55%
Trans. & Dist. Capacity	N/A	\$2,752,906	\$2,752,906	\$2,752,906	Net-to-Gross (Energy)	F		82.6%
Marginal Energy	N/A	\$46,387,058	\$46,387,058	\$46,387,058	Net-to-Gross (Demand)	G		83.2%
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0	Transmission Loss Factor (Energy)	H		5.332%
Subtotal				\$70,866,444	Transmission Loss Factor (Demand)	I		7.711%
Non-Energy Benefits Adder (20%)				\$14,173,289	<b>Installation Rate (Energy)</b>	<b>J</b>		<b>99.5%</b>
Subtotal	N/A	\$70,866,444	\$70,866,444	\$85,039,733	<b>Installation Rate (Demand)</b>	<b>K</b>		<b>99.4%</b>
<b>Other Benefits</b>					MTRC Net Benefit (Cost)	<b>L</b>		\$913
Bill Reduction - Electric	\$155,658,334	N/A	N/A	N/A	MTRC Non-Energy Benefit Adder	<b>M</b>		\$356
Participant Rebates and Incentives	\$16,869,991	N/A	N/A	\$16,869,991	Gross Annual kWh Saved at Customer	( B x E x C )		5,217 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 ) )		4,288 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 )		4,530 kWh
Subtotal	\$172,528,325	N/A	N/A	\$16,869,991	<b>Program Summary All Participants</b>			
<b>Total Benefits</b>	<b>\$172,528,325</b>	<b>\$70,866,444</b>	<b>\$70,866,444</b>	<b>\$101,909,724</b>	<b>Total Budget</b>	<b>N</b>		<b>\$20,842,164</b>
<b>Utility Project Costs</b>					<b>Net coincident kW Saved at Generator</b>	( G x O x K ) x D / ( 1 - I )		<b>25,119 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 ) )		170,895,308 kWh
Administration & Program Delivery	N/A	\$3,225,108	\$3,225,108	\$3,225,108	<b>Net Annual kWh Saved at Generator</b>	( F x ( B x E x O x J ) ) / ( 1 - H )		<b>180,521,019 kWh</b>
Advertising/Promotion/Customer Ed	N/A	\$692,065	\$692,065	\$692,065	<b>TRC Net Benefits with Adder</b>	( O x L )		<b>\$36,396,596</b>
Participant Rebates and Incentives	N/A	\$16,869,991	\$16,869,991	\$16,869,991	<b>TRC Net Benefits without Adder</b>	( O x ( L - M ) )		<b>\$22,223,307</b>
Equipment & Installation	N/A	\$0	\$0	\$0	<b>Utility Program Cost per kWh Lifetime</b>			
Measurement and Verification	N/A	\$55,000	\$55,000	\$55,000	<b>Utility Program Cost per kW at Gen</b>			
Subtotal	N/A	\$20,842,164	\$20,842,164	\$20,842,164				<b>\$0.0079</b>
<b>Utility Revenue Reduction</b>								<b>\$830</b>
Revenue Reduction - Electric	N/A	N/A	\$124,561,877	N/A				
Subtotal	N/A	N/A	\$124,561,877	N/A				
<b>Participant Costs</b>								
Incremental Capital Costs	\$51,112,644	N/A	N/A	\$40,310,852				
Incremental O&M Costs	\$5,391,883	N/A	N/A	\$4,360,112				
Subtotal	\$56,504,527	N/A	N/A	\$44,670,964				
<b>Total Costs</b>	<b>\$56,504,527</b>	<b>\$20,842,164</b>	<b>\$145,404,041</b>	<b>\$65,513,128</b>				
<b>Net Benefit (Cost)</b>	<b>\$116,023,798</b>	<b>\$50,024,281</b>	<b>(\$74,537,596)</b>	<b>\$36,396,596</b>				
<b>Benefit/Cost Ratio</b>	<b>3.05</b>	<b>3.40</b>	<b>0.49</b>	<b>1.56</b>				

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

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**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	\$0	\$0	\$0
Trans. & Dist. Capacity	N/A	\$0	\$0	\$0
Marginal Energy	N/A	\$0	\$0	\$0
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0
Subtotal				\$0
#DIV/0!				\$0
Subtotal	N/A	\$0	\$0	\$0
<b>Other Benefits</b>				
Bill Reduction - Electric	\$0	N/A	N/A	N/A
Participant Rebates and Incentives	\$0	N/A	N/A	\$0
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0
Subtotal	\$0	N/A	N/A	\$0
<b>Total Benefits</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$0	\$0	\$0
Advertising/Promotion/Customer Ed	N/A	\$0	\$0	\$0
Participant Rebates and Incentives	N/A	\$0	\$0	\$0
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$0	\$0	\$0
Subtotal	N/A	\$0	\$0	\$0
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Electric	N/A	N/A	\$0	N/A
Subtotal	N/A	N/A	\$0	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$0	N/A	N/A	\$0
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$0	N/A	N/A	\$0
<b>Total Costs</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Net Benefit (Cost)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Benefit/Cost Ratio</b>	<b>INF</b>	<b>INF</b>	<b>INF</b>	<b>INF</b>

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

**Input Summary and Totals**

<b>Program Inputs per Customer kW</b>		
Lifetime (Weighted on Generator kWh)	A	0 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	#DIV/0!
Gross Load Factor at Customer	E	#DIV/0!
Net-to-Gross (Energy)	F	0.0%
Net-to-Gross (Demand)	G	0.0%
Transmission Loss Factor (Energy)	H	0.000%
Transmission Loss Factor (Demand)	I	0.000%
<b>Installation Rate (Energy)</b>	<b>J</b>	<b>0.0%</b>
<b>Installation Rate (Demand)</b>	<b>K</b>	<b>0.0%</b>
MTRC Net Benefit (Cost)	L	#DIV/0!
MTRC Non-Energy Benefit Adder	M	#DIV/0!
Gross Annual kWh Saved at Customer	( B x E x C )	#DIV/0!
Net Annual kWh Saved at Customer	( F x ( B x E x C x J ) )	#DIV/0!
Net Annual kWh Saved at Generator	( F x ( B x E x C x J ) ) / ( 1 - H )	#DIV/0!

**Program Summary All Participant**

<b>Total Budget</b>	N	<b>\$0</b>
<b>Net coincident kW Saved at Generator</b>	( G x O x K ) x D / ( 1 - I )	#DIV/0!
Net Annual kWh Saved at Customer	( F x ( B x E x O x J ) )	#DIV/0!
<b>Net Annual kWh Saved at Generator</b>	( F x ( B x E x O x J ) ) / ( 1 - H )	#DIV/0!
<b>TRC Net Benefits with Adder</b>	( O x L )	#DIV/0!
<b>TRC Net Benefits without Adder</b>	( O x ( L - M ) )	#DIV/0!
<b>Utility Program Cost per kWh Lifetime</b>		#DIV/0!
<b>Utility Program Cost per kW at Gen</b>		#DIV/0!