

COMMERCIAL REFRIGERATION EFFICIENCY **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	\$493,181	\$493,181	\$493,181
Trans. & Dist. Capacity	N/A	\$61,887	\$61,887	\$61,887
Marginal Energy	N/A	\$795,111	\$795,111	\$795,111
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0
Subtotal				\$1,350,179
Non-Energy Benefits Adder (20%)				\$270,036
Subtotal	N/A	\$1,350,179	\$1,350,179	\$1,620,215
Other Benefits				
Bill Reduction - Electric	\$2,079,114	N/A	N/A	N/A
Participant Rebates and Incentives	\$210,409	N/A	N/A	\$210,409
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$45,170	N/A	N/A	\$45,170
Subtotal	\$2,334,692	N/A	N/A	\$255,578
Total Benefits	\$2,334,692	\$1,350,179	\$1,350,179	\$1,875,793
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$427,207	\$427,207	\$427,207
Advertising/Promotion/Customer Ed	N/A	\$9,100	\$9,100	\$9,100
Participant Rebates and Incentives	N/A	\$210,409	\$210,409	\$210,409
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$27,000	\$27,000	\$27,000
Subtotal	N/A	\$673,716	\$673,716	\$673,716
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$2,079,114	N/A
Subtotal	N/A	N/A	\$2,079,114	N/A
Participant Costs				
Incremental Capital Costs	\$618,506	N/A	N/A	\$618,506
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$618,506	N/A	N/A	\$618,506
Total Costs	\$618,506	\$673,716	\$2,752,830	\$1,292,221
Net Benefit (Cost)	\$1,716,187	\$676,463	(\$1,402,651)	\$583,572
Benefit/Cost Ratio	3.77	2.00	0.49	1.45

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	15 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	82.84%
Gross Load Factor at Customer	E	55.46%
Net-to-Gross (Energy)	F	100.0%
Net-to-Gross (Demand)	G	100.0%
Transmission Loss Factor (Energy)	H	5.332%
Transmission Loss Factor (Demand)	I	7.711%
Installation Rate (Energy)	J	100.0%
Installation Rate (Demand)	K	100.0%
MTRC Net Benefit (Cost)	L	\$1,019
MTRC Non-Energy Benefit Adder	M	\$471
Gross Annual kWh Saved at Customer	(B x E x C)	4,858 kWh
Net Annual kWh Saved at Customer	(F x (B x E x C x J))	4,858 kWh
Net Annual kWh Saved at Generator	(F x (B x E x C x J)) / (1 - H)	5,132 kWh
Program Summary All Participants		
Total Budget	N	\$673,716
Net coincident kW Saved at Generator	(G x O x K) x D / (1 - I)	514 kW
Net Annual kWh Saved at Customer	(F x (B x E x O x J))	2,783,442 kWh
Net Annual kWh Saved at Generator	(F x (B x E x O x J)) / (1 - H)	2,940,220 kWh
TRC Net Benefits with Adder	(O x L)	\$583,572
TRC Net Benefits without Adder	(O x (L - M))	\$313,536
Utility Program Cost per kWh Lifetime		\$0.0151
Utility Program Cost per kW at Gen		\$1.310