

MULTIFAMILY BUILDINGS	2019 ELECTRIC	GOAL
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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	\$1,019,132	\$1,019,132	\$1,019,132
Trans. & Dist. Capacity	N/A	\$127,628	\$127,628	\$127,628
Marginal Energy	N/A	\$2,595,167	\$2,595,167	\$2,595,167
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0
Subtotal				\$3,741,927
Non-Energy Benefits Adder (20%)				\$748,385
Subtotal	N/A	\$3,741,927	\$3,741,927	\$4,490,312
Other Benefits				
Bill Reduction - Electric	\$6,410,463	N/A	N/A	N/A
Participant Rebates and Incentives	\$1,626,051	N/A	N/A	\$1,626,051
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0
Subtotal	\$8,036,514	N/A	N/A	\$1,626,051
Total Benefits	\$8,036,514	\$3,741,927	\$3,741,927	\$6,116,363
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$471,657	\$471,657	\$471,657
Advertising/Promotion/Customer Ed	N/A	\$100,000	\$100,000	\$100,000
Participant Rebates and Incentives	N/A	\$1,626,051	\$1,626,051	\$1,626,051
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$0	\$0	\$0
Subtotal	N/A	\$2,197,708	\$2,197,708	\$2,197,708
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$6,410,463	N/A
Subtotal	N/A	N/A	\$6,410,463	N/A
Participant Costs				
Incremental Capital Costs	\$2,232,716	N/A	N/A	\$2,232,716
Incremental O&M Costs	\$63,051	N/A	N/A	\$63,051
Subtotal	\$2,295,767	N/A	N/A	\$2,295,767
Total Costs	\$2,295,767	\$2,197,708	\$8,608,171	\$4,493,475
Net Benefit (Cost)	\$5,740,747	\$1,544,219	(\$4,866,244)	\$1,622,889
Benefit/Cost Ratio	3.50	1.70	0.43	1.36

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	14 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	22.83%
Gross Load Factor at Customer	E	23.40%
Net-to-Gross (Energy)	F	100.0%
Net-to-Gross (Demand)	G	100.0%
Transmission Loss Factor (Energy)	H	5.764%
Transmission Loss Factor (Demand)	I	8.876%
Installation Rate (Energy)	J	100.0%
Installation Rate (Demand)	K	100.0%
MTRC Net Benefit (Cost)	L	\$314
MTRC Non-Energy Benefit Adder	M	\$145
Gross Annual kWh Saved at Customer	(B x E x C)	2,050 kWh
Net Annual kWh Saved at Customer	(F x (B x E x C x J))	2,050 kWh
Net Annual kWh Saved at Generator	(F x (B x E x C x J)) / (1 - H)	2,175 kWh
Program Summary All Participants		
Total Budget	N	\$2,197,708
Net coincident kW Saved at Generator	(G x O x K) x D / (1 - I)	1,293 kW
Net Annual kWh Saved at Customer	(F x (B x E x O x J))	10,582,750 kWh
Net Annual kWh Saved at Generator	(F x (B x E x O x J)) / (1 - H)	11,230,063 kWh
TRC Net Benefits with Adder	(O x L)	\$1,622,889
TRC Net Benefits without Adder	(O x (L - M))	\$874,503
Utility Program Cost per kWh Lifetime		
Utility Program Cost per kWh at Gen		\$0.0141
		\$1,699

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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	\$1,040,814	\$1,040,814	\$1,040,814
Trans. & Dist. Capacity	N/A	\$133,194	\$133,194	\$133,194
Marginal Energy	N/A	\$2,821,987	\$2,821,987	\$2,821,987
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0
Subtotal				\$3,995,996
Non-Energy Benefits Adder (20%)				\$799,199
Subtotal	N/A	\$3,995,996	\$3,995,996	\$4,795,195
Other Benefits				
Bill Reduction - Electric	\$6,687,363	N/A	N/A	N/A
Participant Rebates and Incentives	\$1,448,889	N/A	N/A	\$1,448,889
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$0	N/A	N/A	\$0
Subtotal	\$8,136,252	N/A	N/A	\$1,448,889
Total Benefits	\$8,136,252	\$3,995,996	\$3,995,996	\$6,244,084
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$548,130	\$548,130	\$548,130
Advertising/Promotion/Customer Ed	N/A	\$200,000	\$200,000	\$200,000
Participant Rebates and Incentives	N/A	\$1,448,889	\$1,448,889	\$1,448,889
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$0	\$0	\$0
Subtotal	N/A	\$2,197,019	\$2,197,019	\$2,197,019
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$6,687,363	N/A
Subtotal	N/A	N/A	\$6,687,363	N/A
Participant Costs				
Incremental Capital Costs	\$2,334,930	N/A	N/A	\$2,334,930
Incremental O&M Costs	\$61,307	N/A	N/A	\$61,307
Subtotal	\$2,396,237	N/A	N/A	\$2,396,237
Total Costs	\$2,396,237	\$2,197,019	\$8,884,382	\$4,593,256
Net Benefit (Cost)	\$5,740,014	\$1,798,977	(\$4,888,386)	\$1,650,828
Benefit/Cost Ratio	3.40	1.82	0.45	1.36

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	14 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	22.06%
Gross Load Factor at Customer	E	22.49%
Net-to-Gross (Energy)	F	100.0%
Net-to-Gross (Demand)	G	100.0%
Transmission Loss Factor (Energy)	H	5.788%
Transmission Loss Factor (Demand)	I	8.895%
Installation Rate (Energy)	J	100.0%
Installation Rate (Demand)	K	100.0%
MTRC Net Benefit (Cost)	L	\$296
MTRC Non-Energy Benefit Adder	M	\$143
Gross Annual kWh Saved at Customer	(B x E x C)	1,970 kWh
Net Annual kWh Saved at Customer	(F x (B x E x C x J))	1,970 kWh
Net Annual kWh Saved at Generator	(F x (B x E x C x J)) / (1 - H)	2,091 kWh
Program Summary All Participant		
Total Budget	N	\$2,197,019
Net coincident kW Saved at Generator	(G x O x K) x D / (1 - I)	1,352 kW
Net Annual kWh Saved at Customer	(F x (B x E x O x J))	11,002,349 kWh
Net Annual kWh Saved at Generator	(F x (B x E x O x J)) / (1 - H)	11,678,254 kWh
TRC Net Benefits with Adder	(O x L)	\$1,650,828
TRC Net Benefits without Adder	(O x (L - M))	\$851,629
Utility Program Cost per kWh Lifetime		
Utility Program Cost per kWh at Gen		\$0.0139
		\$1,625