

ENERGY STAR NEW HOMES

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	\$1,347,060	\$1,347,060	\$1,347,060
Trans. & Dist. Capacity	N/A	\$173,164	\$173,164	\$173,164
Marginal Energy	N/A	\$1,632,022	\$1,632,022	\$1,632,022
Avoided Emissions (CO2)	N/A	N/A	N/A	\$0
Subtotal				\$3,152,247
Non-Energy Benefits Adder (20%)				\$630,449
Subtotal	N/A	\$3,152,247	\$3,152,247	\$3,782,696
Other Benefits				
Bill Reduction - Electric	\$7,313,982	N/A	N/A	N/A
Participant Rebates and Incentives	\$780,916	N/A	N/A	\$780,916
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$13,315	N/A	N/A	\$12,250
Subtotal	\$8,108,213	N/A	N/A	\$793,166
Total Benefits	\$8,108,213	\$3,152,247	\$3,152,247	\$4,575,861
Utility Project Costs				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$197,478	\$197,478	\$197,478
Advertising/Promotion/ Customer Ed	N/A	\$300,861	\$300,861	\$300,861
Participant Rebates and Incentives	N/A	\$780,916	\$780,916	\$780,916
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$196,632	\$196,632	\$196,632
Subtotal	N/A	\$1,475,887	\$1,475,887	\$1,475,887
Utility Revenue Reduction				
Revenue Reduction - Electric	N/A	N/A	\$6,728,863	N/A
Subtotal	N/A	N/A	\$6,728,863	N/A
Participant Costs				
Incremental Capital Costs	\$3,170,591	N/A	N/A	\$2,916,944
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$3,170,591	N/A	N/A	\$2,916,944
Total Costs	\$3,170,591	\$1,475,887	\$8,204,750	\$4,392,830
Net Benefit (Cost)	\$4,937,622	\$1,676,360	(\$5,052,503)	\$183,031
Benefit/Cost Ratio	2.56	2.14	0.38	1.04

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	19 years
Annual Hours	B	8760
Gross Customer kW	C	1 kW
Generator Peak Coincidence Factor	D	62.05%
Gross Load Factor at Customer	E	22.73%
Net-to-Gross (Energy)	F	92.0%
Net-to-Gross (Demand)	G	92.0%
Transmission Loss Factor (Energy)	H	6.380%
Transmission Loss Factor (Demand)	I	9.129%
Installation Rate (Energy)	J	100.0%
Installation Rate (Demand)	K	100.0%
MTRC Net Benefit (Cost)	L	\$90
MTRC Non-Energy Benefit Adder	M	\$308
Gross Annual kWh Saved at Customer	(B x E x C)	1,991 kWh
Net Annual kWh Saved at Customer	(F x (B x E x C x J))	1,832 kWh
Net Annual kWh Saved at Generator	(F x (B x E x C x J)) / (1 - H)	1,956 kWh

Program Summary All Participants

Total Budget	N	\$1,475,887
Gross kW Saved at Customer	O	2,044 kW
Net coincident kW Saved at Generator	(G x O x K) x D / (1 - I)	1,284 kW
Net Annual kWh Saved at Customer	(F x (B x E x O x J))	3,744,409 kWh
Net Annual kWh Saved at Generator	(F x (B x E x O x J)) / (1 - H)	3,999,564 kWh
TRC Net Benefits with Adder	(O x L)	\$183,031
TRC Net Benefits without Adder	(O x (L - M))	(\$447,418)
Utility Program Cost per kWh Lifetime		\$0.0192
Utility Program Cost per kW at Gen		\$1,149