

<b>SINGLE-FAMILY WEATHERIZATION</b>				
<b>2021 Net Present Cost Benefit Summary Analysis For All Participants</b>				
	<b>Participant Test (\$Total)</b>	<b>Utility Test (\$Total)</b>	<b>Rate Impact (\$Total)</b>	<b>Modified Total Resource Test (\$Total)</b>
<b>Benefits</b>				
<b>Avoided Revenue Requirements</b>				
Generation Capacity	N/A	\$3,982,537	\$3,982,537	\$3,982,537
Trans. & Dist. Capacity	N/A	\$498,761	\$498,761	\$498,761
Marginal Energy	N/A	\$6,844,294	\$6,844,294	\$6,844,294
Avoided Emissions (CO2)	N/A	N/A	N/A	\$4,999,124
Subtotal				\$16,324,716
<b>Non-Energy Benefits Adder (50.0%)</b>				
Subtotal	N/A	\$11,325,592	\$11,325,592	\$21,987,512
<b>Participant Benefits</b>				
Bill Reduction - Electric	\$37,350,015	N/A	N/A	N/A
Participant Rebates and Incentives	\$2,043,027	N/A	N/A	\$2,043,027
Incremental Capital Savings	\$404,393	N/A	N/A	\$404,393
Incremental O&M Savings	\$6,731	N/A	N/A	\$6,731
Subtotal	\$39,804,166	N/A	N/A	\$2,454,151
<b>Total Benefits</b>	<b>\$39,804,166</b>	<b>\$11,325,592</b>	<b>\$11,325,592</b>	<b>\$24,441,663</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$127,499	\$127,499	\$127,499
Advertising/Promotion/Customer Ed	N/A	\$190,000	\$190,000	\$190,000
Participant Rebates and Incentives	N/A	\$2,043,027	\$2,043,027	\$2,043,027
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$87,000	\$87,000	\$87,000
Subtotal	N/A	\$2,447,526	\$2,447,526	\$2,447,526
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Electric	N/A	N/A	\$37,350,015	N/A
Subtotal	N/A	N/A	\$37,350,015	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$1,841,880	N/A	N/A	\$1,841,880
Incremental O&M Costs	\$18,641	N/A	N/A	\$18,641
Subtotal	\$1,860,521	N/A	N/A	\$1,860,521
<b>Total Costs</b>	<b>\$1,860,521</b>	<b>\$2,447,526</b>	<b>\$39,797,540</b>	<b>\$4,308,047</b>
<b>Net Benefit (Cost)</b>	<b>\$37,943,645</b>	<b>\$8,878,066</b>	<b>(\$28,471,949)</b>	<b>\$20,133,616</b>
<b>Benefit/Cost Ratio</b>	<b>21.39</b>	<b>4.63</b>	<b>0.28</b>	<b>5.67</b>

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

<b>2021</b>	<b>ELECTRIC</b>	<b>GOAL</b>
<b>Input Summary and Totals</b>		
<b>Program "Inputs" per Customer kW and per Participant</b>		
Lifetime (Weighted on Generator kWh)	A	19.8 years
T & D Loss Factor (Energy)	B	6.38%
T & D Loss Factor (Demand)	C	9.13%
Net-to-Gross (Energy)	D	100.00%
Net-to-Gross (Demand)	E	100.00%
<b>Installation Rate (Energy)</b>	<b>F</b>	<b>99.07%</b>
<b>Installation Rate (Demand)</b>	<b>G</b>	<b>99.11%</b>
Net coincident kW Saved at Generator	H	0.01 kW
Gross Annual kWh Saved at Customer	I	45.13 kWh
Net Annual kWh Saved at Generator	J	47.76 kWh
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	<b>K</b>	<b>\$2,447,526</b>
<b>Net coincident kW Saved at Generator</b>	<b>L</b>	<b>3,222 kW</b>
Gross Annual kWh Saved at Customer	M	22,090,731 kWh
<b>Net Annual kWh Saved at Generator</b>	<b>N</b>	<b>23,376,049 kWh</b>
<b>Total MTRC Net Benefits with Adder</b>	<b>O</b>	<b>\$20,133,616</b>
<b>Total MTRC Net Benefits without Adder</b>	<b>P</b>	<b>\$14,470,820</b>
<b>Utility Program Cost per kWh Lifetime</b>	<b>K/(A x N)</b>	<b>\$0.0053</b>
<b>Utility Program Cost per kW at Gen</b>	<b>K/L</b>	<b>\$760</b>
<b>Avoided Lifetime CO2 Emissions, Total Program (tons CO2)</b>		<b>133,780</b>

<b>SINGLE-FAMILY WEATHERIZATION</b>				
<b>2022 Net Present Cost Benefit Summary Analysis For All Participants</b>				
	<b>Participant Test (\$Total)</b>	<b>Utility Test (\$Total)</b>	<b>Rate Impact Test (\$Total)</b>	<b>Modified Total Resource Test (\$Total)</b>
<b>Benefits</b>				
<b>Avoided Revenue Requirements</b>				
Generation Capacity	N/A	\$4,061,663	\$4,061,663	\$4,061,663
Trans. & Dist. Capacity	N/A	\$508,672	\$508,672	\$508,672
Marginal Energy	N/A	\$7,125,535	\$7,125,535	\$7,125,535
Avoided Emissions (CO2)	N/A	N/A	N/A	\$4,901,368
Subtotal				\$16,597,238
<b>Non-Energy Benefits Adder (50.0%)</b>				
Subtotal	N/A	\$11,695,870	\$11,695,870	\$22,445,173
<b>Participant Benefits</b>				
Bill Reduction - Electric	\$38,410,811	N/A	N/A	N/A
Participant Rebates and Incentives	\$2,043,027	N/A	N/A	\$2,043,027
Incremental Capital Savings	\$404,393	N/A	N/A	\$404,393
Incremental O&M Savings	\$6,731	N/A	N/A	\$6,731
Subtotal	\$40,864,962	N/A	N/A	\$2,454,151
<b>Total Benefits</b>	<b>\$40,864,962</b>	<b>\$11,695,870</b>	<b>\$11,695,870</b>	<b>\$24,899,324</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$128,456	\$128,456	\$128,456
Advertising/Promotion/Customer Ed	N/A	\$190,000	\$190,000	\$190,000
Participant Rebates and Incentives	N/A	\$2,043,027	\$2,043,027	\$2,043,027
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$87,000	\$87,000	\$87,000
Subtotal	N/A	\$2,448,483	\$2,448,483	\$2,448,483
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Electric	N/A	N/A	\$38,410,811	N/A
Subtotal	N/A	N/A	\$38,410,811	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$1,841,880	N/A	N/A	\$1,841,880
Incremental O&M Costs	\$18,641	N/A	N/A	\$18,641
Subtotal	\$1,860,521	N/A	N/A	\$1,860,521
<b>Total Costs</b>	<b>\$1,860,521</b>	<b>\$2,448,483</b>	<b>\$40,859,294</b>	<b>\$4,309,004</b>
<b>Net Benefit (Cost)</b>	<b>\$39,004,441</b>	<b>\$9,247,387</b>	<b>(\$29,163,424)</b>	<b>\$20,590,320</b>
<b>Benefit/Cost Ratio</b>	<b>21.96</b>	<b>4.78</b>	<b>0.29</b>	<b>5.78</b>

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

<b>2022</b>	<b>ELECTRIC</b>	<b>GOAL</b>
<b>Input Summary and Totals</b>		
<b>Program "Inputs" per Customer kW and per Participant</b>		
Lifetime (Weighted on Generator kWh)	A	19.8 years
T & D Loss Factor (Energy)	B	6.38%
T & D Loss Factor (Demand)	C	9.13%
Net-to-Gross (Energy)	D	100.00%
Net-to-Gross (Demand)	E	100.00%
<b>Installation Rate (Energy)</b>	<b>F</b>	<b>99.07%</b>
<b>Installation Rate (Demand)</b>	<b>G</b>	<b>99.11%</b>
Net coincident kW Saved at Generator	H	0.01 kW
Gross Annual kWh Saved at Customer	I	45.12 kWh
Net Annual kWh Saved at Generator	J	47.74 kWh
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	<b>K</b>	<b>\$2,448,483</b>
<b>Net coincident kW Saved at Generator</b>	<b>L</b>	<b>3,221 kW</b>
Gross Annual kWh Saved at Customer	M	22,083,521 kWh
<b>Net Annual kWh Saved at Generator</b>	<b>N</b>	<b>23,368,347 kWh</b>
<b>Total MTRC Net Benefits with Adder</b>	<b>O</b>	<b>\$20,590,320</b>
<b>Total MTRC Net Benefits without Adder</b>	<b>P</b>	<b>\$14,742,385</b>
<b>Utility Program Cost per kWh Lifetime</b>	<b>K/(A x N)</b>	<b>\$0.0053</b>
<b>Utility Program Cost per kW at Gen</b>	<b>K/ L</b>	<b>\$760</b>
<b>Avoided Lifetime CO2 Emissions, Total Program (tons CO2)</b>		<b>126,315</b>

**SINGLE-FAMILY WEATHERIZATION**

2021 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Modified Total Resource Test (\$Total)
<b>Benefits</b>				
<b>Avoided Revenue Requirements</b>				
Commodity Cost Reduction	N/A	\$1,766,639	\$1,766,639	\$1,766,639
Variable O&M Savings	N/A	\$29,441	\$29,441	\$29,441
Demand Savings	N/A	\$206,215	\$206,215	\$206,215
Subtotal				\$2,002,294
Non-Energy Benefits Adder (50.0%)				\$1,001,147
Subtotal	N/A	\$2,002,294	\$2,002,294	\$3,003,441
<b>Participant Benefits</b>				
Bill Reduction - Gas	\$3,148,933	N/A	N/A	N/A
Participant Rebates and Incentives	\$4,103,572	N/A	N/A	\$4,103,572
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$210,052	N/A	N/A	\$210,052
Subtotal	\$7,462,557	N/A	N/A	\$4,313,624
<b>Total Benefits</b>	<b>\$7,462,557</b>	<b>\$2,002,294</b>	<b>\$2,002,294</b>	<b>\$7,317,066</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$180,204	\$180,204	\$180,204
Advertising/Promotion/Customer Ed	N/A	\$60,000	\$60,000	\$60,000
Participant Rebates and Incentives	N/A	\$4,103,572	\$4,103,572	\$4,103,572
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$115,600	\$115,600	\$115,600
Subtotal	N/A	\$4,459,376	\$4,459,376	\$4,459,376
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Gas	N/A	N/A	\$3,148,933	N/A
Subtotal	N/A	N/A	\$3,148,933	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$3,819,388	N/A	N/A	\$3,819,388
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$3,819,388	N/A	N/A	\$3,819,388
<b>Total Costs</b>	<b>\$3,819,388</b>	<b>\$4,459,376</b>	<b>\$7,608,309</b>	<b>\$8,278,764</b>
<b>Net Benefit (Cost)</b>	<b>\$3,643,169</b>	<b>(\$2,457,082)</b>	<b>(\$5,606,014)</b>	<b>(\$961,698)</b>
<b>Benefit/Cost Ratio</b>	<b>1.95</b>	<b>0.45</b>	<b>0.26</b>	<b>0.88</b>

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

**2021 GAS**

**GOAL**

<b>Input Summary and Totals</b>		
<b>Program "Inputs" per Dth</b>		
Lifetime (Weighted on Dth)	A	15.2 years
Net-to-Gross (Weighted on Dth)	B	100.00%
Install Rate (Weighted on Dth)	C	100.00%
<b>Program Summary per Participant</b>		
Gross Annual Dth Saved	D	8.0
Net Annual Dth Saved	E	8.0
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	F	<b>\$4,459,376</b>
Gross Annual Dth Saved	G	59,798 Dth
Net Annual Dth Saved	H	59,798 Dth
<b>Total MTRC Net Benefits with Adder</b>	I	<b>(\$961,698)</b>
<b>Total MTRC Net Benefits without Adder</b>	J	<b>(\$1,962,845)</b>
<b>Utility Program Cost per Dth Lifetime</b>	F / (A x H)	<b>\$4.8953</b>

**SINGLE-FAMILY WEATHERIZATION**

2022 Net Present Cost Benefit Summary Analysis For All Participants

	Participant Test (\$Total)	Utility Test (\$Total)	Rate Impact Test (\$Total)	Modified Total Resource Test (\$Total)
<b>Benefits</b>				
<b>Avoided Revenue Requirements</b>				
Commodity Cost Reduction	N/A	\$1,842,850	\$1,842,850	\$1,842,850
Variable O&M Savings	N/A	\$29,462	\$29,462	\$29,462
Demand Savings	N/A	\$206,365	\$206,365	\$206,365
Subtotal				\$2,078,678
Non-Energy Benefits Adder (50.0%)				\$1,039,339
Subtotal	N/A	\$2,078,678	\$2,078,678	\$3,118,016
<b>Participant Benefits</b>				
Bill Reduction - Gas	\$3,284,775	N/A	N/A	N/A
Participant Rebates and Incentives	\$4,105,072	N/A	N/A	\$4,105,072
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$210,052	N/A	N/A	\$210,052
Subtotal	\$7,599,900	N/A	N/A	\$4,315,124
<b>Total Benefits</b>	<b>\$7,599,900</b>	<b>\$2,078,678</b>	<b>\$2,078,678</b>	<b>\$7,433,141</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$180,924	\$180,924	\$180,924
Advertising/Promotion/ Customer Ed	N/A	\$60,000	\$60,000	\$60,000
Participant Rebates and Incentives	N/A	\$4,105,072	\$4,105,072	\$4,105,072
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$115,600	\$115,600	\$115,600
Subtotal	N/A	\$4,461,596	\$4,461,596	\$4,461,596
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Gas	N/A	N/A	\$3,284,775	N/A
Subtotal	N/A	N/A	\$3,284,775	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$3,824,889	N/A	N/A	\$3,824,889
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$3,824,889	N/A	N/A	\$3,824,889
<b>Total Costs</b>	<b>\$3,824,889</b>	<b>\$4,461,596</b>	<b>\$7,746,371</b>	<b>\$8,286,485</b>
<b>Net Benefit (Cost)</b>	<b>\$3,775,011</b>	<b>(\$2,382,918)</b>	<b>(\$5,667,694)</b>	<b>(\$853,344)</b>
<b>Benefit/Cost Ratio</b>	<b>1.99</b>	<b>0.47</b>	<b>0.27</b>	<b>0.90</b>

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

**2022**

**GAS**

**GOAL**

<b>Input Summary and Totals</b>		
<b>Program "Inputs" per Dth</b>		
Lifetime (Weighted on Dth)	A	15.2 years
Net-to-Gross (Weighted on Dth)	B	100.00%
Install Rate (Weighted on Dth)	C	100.00%
<b>Program Summary per Participant</b>		
Gross Annual Dth Saved	D	8.0
Net Annual Dth Saved	E	8.0
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	F	<b>\$4,461,596</b>
Gross Annual Dth Saved	G	<b>59,834 Dth</b>
Net Annual Dth Saved	H	<b>59,834 Dth</b>
<b>Total MTRC Net Benefits with Adder</b>	I	<b>(\$853,344)</b>
<b>Total MTRC Net Benefits without Adder</b>	J	<b>(\$1,892,683)</b>
<b>Utility Program Cost per Dth Lifetime</b>	F / (A x H)	<b>\$4.8938</b>