

<b>ENERGY EFFICIENT SHOWERHEAD</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 Test (\$Total)</b>	<b>Modified Total Resource Test (\$Total)</b>
<b>Benefits</b>				
<b>Avoided Revenue Requirements</b>				
Generation Capacity	N/A	\$30,459	\$30,459	\$30,459
Trans. & Dist. Capacity	N/A	\$3,815	\$3,815	\$3,815
Marginal Energy	N/A	\$79,703	\$79,703	\$79,703
Avoided Emissions (CO2)	N/A	N/A	N/A	N/A
Subtotal				\$113,976
<b>Non-Energy Benefits Adder</b>				
Subtotal	N/A	\$113,976	\$113,976	\$136,772
<b>Participant Benefits</b>				
Bill Reduction - Electric	\$470,359	N/A	N/A	N/A
Participant Rebates and Incentives	\$6,857	N/A	N/A	\$6,857
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$269,892	N/A	N/A	\$253,698
Subtotal	\$747,107	N/A	N/A	\$260,555
<b>Total Benefits</b>	<b>\$747,107</b>	<b>\$113,976</b>	<b>\$113,976</b>	<b>\$397,327</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$22,396	\$22,396	\$22,396
Advertising/Promotion/Customer Ed	N/A	\$50	\$50	\$50
Participant Rebates and Incentives	N/A	\$6,857	\$6,857	\$6,857
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$0	\$0	\$0
Subtotal	N/A	\$29,303	\$29,303	\$29,303
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Electric	N/A	N/A	\$470,359	N/A
Subtotal	N/A	N/A	\$470,359	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$8,069	N/A	N/A	\$7,585
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$8,069	N/A	N/A	\$7,585
<b>Total Costs</b>	<b>\$8,069</b>	<b>\$29,303</b>	<b>\$499,662</b>	<b>\$36,888</b>
<b>Net Benefit (Cost)</b>	<b>\$739,038</b>	<b>\$84,674</b>	<b>(\$385,685)</b>	<b>\$360,439</b>
<b>Benefit/Cost Ratio</b>	<b>92.59</b>	<b>3.89</b>	<b>0.23</b>	<b>10.77</b>

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

<b>2021 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	10.0 years
T & D Loss Factor (Energy)	B	6.38%
T & D Loss Factor (Demand)	C	9.13%
Net-to-Gross (Energy)	D	94.00%
Net-to-Gross (Demand)	E	94.00%
<b>Installation Rate (Energy)</b>	<b>F</b>	<b>61.15%</b>
<b>Installation Rate (Demand)</b>	<b>G</b>	<b>56.97%</b>
Net coincident kW Saved at Generator	H	0.01 kW
Gross Annual kWh Saved at Customer	I	212.75 kWh
Net Annual kWh Saved at Generator	J	130.62 kWh
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	<b>K</b>	<b>\$29,303</b>
<b>Net coincident kW Saved at Generator</b>	<b>L</b>	<b>40 kW</b>
Gross Annual kWh Saved at Customer	M	803,122 kWh
<b>Net Annual kWh Saved at Generator</b>	<b>N</b>	<b>493,080 kWh</b>
<b>Total MTRC Net Benefits with Adder</b>	<b>O</b>	<b>\$360,439</b>
<b>Total MTRC Net Benefits without Adder</b>	<b>P</b>	<b>\$337,643</b>
<b>Utility Program Cost per kWh Lifetime</b>		
	K/(A x N)	\$0.0059
<b>Utility Program Cost per kW at Gen</b>		
	K/ L	\$734
<b>Avoided Lifetime CO2 Emissions, Total Program (tons CO2)</b>		
		1,758

<b>ENERGY EFFICIENT SHOWERHEAD</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	\$31,068	\$31,068	\$31,068
Trans. & Dist. Capacity	N/A	\$3,891	\$3,891	\$3,891
Marginal Energy	N/A	\$81,077	\$81,077	\$81,077
Avoided Emissions (CO2)	N/A	N/A	N/A	N/A
Subtotal				\$116,036
<b>Non-Energy Benefits Adder</b>				
Subtotal	N/A	\$116,036	\$116,036	\$139,244
<b>Participant Benefits</b>				
Bill Reduction - Electric	\$480,941	N/A	N/A	N/A
Participant Rebates and Incentives	\$6,857	N/A	N/A	\$6,857
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$269,892	N/A	N/A	\$253,698
Subtotal	\$757,690	N/A	N/A	\$260,555
<b>Total Benefits</b>	<b>\$757,690</b>	<b>\$116,036</b>	<b>\$116,036</b>	<b>\$399,799</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$23,253	\$23,253	\$23,253
Advertising/Promotion/Customer Ed	N/A	\$52	\$52	\$52
Participant Rebates and Incentives	N/A	\$6,857	\$6,857	\$6,857
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$0	\$0	\$0
Subtotal	N/A	\$30,162	\$30,162	\$30,162
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Electric	N/A	N/A	\$480,941	N/A
Subtotal	N/A	N/A	\$480,941	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$8,069	N/A	N/A	\$7,585
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$8,069	N/A	N/A	\$7,585
<b>Total Costs</b>	<b>\$8,069</b>	<b>\$30,162</b>	<b>\$511,103</b>	<b>\$37,747</b>
<b>Net Benefit (Cost)</b>	<b>\$749,620</b>	<b>\$85,874</b>	<b>(\$395,067)</b>	<b>\$362,051</b>
<b>Benefit/Cost Ratio</b>	<b>93.90</b>	<b>3.85</b>	<b>0.23</b>	<b>10.59</b>

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

<b>2022 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	10.0 years
T & D Loss Factor (Energy)	B	6.38%
T & D Loss Factor (Demand)	C	9.13%
Net-to-Gross (Energy)	D	94.00%
Net-to-Gross (Demand)	E	94.00%
<b>Installation Rate (Energy)</b>	<b>F</b>	<b>61.15%</b>
<b>Installation Rate (Demand)</b>	<b>G</b>	<b>56.97%</b>
Net coincident kW Saved at Generator	H	0.01 kW
Gross Annual kWh Saved at Customer	I	212.75 kWh
Net Annual kWh Saved at Generator	J	130.62 kWh
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	<b>K</b>	<b>\$30,162</b>
<b>Net coincident kW Saved at Generator</b>	<b>L</b>	<b>40 kW</b>
Gross Annual kWh Saved at Customer	M	803,122 kWh
<b>Net Annual kWh Saved at Generator</b>	<b>N</b>	<b>493,080 kWh</b>
<b>Total MTRC Net Benefits with Adder</b>	<b>O</b>	<b>\$362,051</b>
<b>Total MTRC Net Benefits without Adder</b>	<b>P</b>	<b>\$338,844</b>
<b>Utility Program Cost per kWh Lifetime</b>	<b>K/(A x N)</b>	<b>\$0.0061</b>
<b>Utility Program Cost per kW at Gen</b>	<b>K/ L</b>	<b>\$755</b>
<b>Avoided Lifetime CO2 Emissions, Total Program (tons CO2)</b>		<b>1,591</b>

**ENERGY EFFICIENT SHOWERHEAD**

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	\$623,835	\$623,835	\$623,835
Variable O&M Savings	N/A	\$11,745	\$11,745	\$11,745
Demand Savings	N/A	\$82,266	\$82,266	\$82,266
Subtotal				\$717,846
Non-Energy Benefits Adder (20.0%)				\$143,569
Subtotal	N/A	\$717,846	\$717,846	\$861,415
<b>Participant Benefits</b>				
Bill Reduction - Gas	\$1,111,949	N/A	N/A	N/A
Participant Rebates and Incentives	\$109,422	N/A	N/A	\$109,422
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$4,215,488	N/A	N/A	\$3,962,559
Subtotal	\$5,436,860	N/A	N/A	\$4,071,981
<b>Total Benefits</b>	<b>\$5,436,860</b>	<b>\$717,846</b>	<b>\$717,846</b>	<b>\$4,933,396</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$219,583	\$219,583	\$219,583
Advertising/Promotion/Customer Ed	N/A	\$650	\$650	\$650
Participant Rebates and Incentives	N/A	\$109,422	\$109,422	\$109,422
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$0	\$0	\$0
Subtotal	N/A	\$329,655	\$329,655	\$329,655
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Gas	N/A	N/A	\$1,111,949	N/A
Subtotal	N/A	N/A	\$1,111,949	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$129,627	N/A	N/A	\$121,849
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$129,627	N/A	N/A	\$121,849
<b>Total Costs</b>	<b>\$129,627</b>	<b>\$329,655</b>	<b>\$1,441,604</b>	<b>\$451,504</b>
<b>Net Benefit (Cost)</b>	<b>\$5,307,233</b>	<b>\$388,191</b>	<b>(\$723,758)</b>	<b>\$4,481,892</b>
<b>Benefit/Cost Ratio</b>	<b>41.94</b>	<b>2.18</b>	<b>0.50</b>	<b>10.93</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	10.0 years
Net-to-Gross (Weighted on Dth)	B	94.00%
Install Rate (Weighted on Dth)	C	60.45%
<b>Program Summary per Participant</b>		
Gross Annual Dth Saved	D	0.9
Net Annual Dth Saved	E	0.5
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	F	<b>\$329,655</b>
Gross Annual Dth Saved	G	<b>53,816 Dth</b>
Net Annual Dth Saved	H	<b>30,578 Dth</b>
Total MTRC Net Benefits with Adder	I	<b>\$4,481,892</b>
Total MTRC Net Benefits without Adder	J	<b>\$4,338,323</b>
<b>Utility Program Cost per Dth Lifetime</b>	F / (A x H)	<b>\$1.0781</b>

**ENERGY EFFICIENT SHOWERHEAD**

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	\$651,092	\$651,092	\$651,092
Variable O&M Savings	N/A	\$11,745	\$11,745	\$11,745
Demand Savings	N/A	\$82,266	\$82,266	\$82,266
Subtotal				\$745,104
Non-Energy Benefits Adder (20.0%)				\$149,021
Subtotal	N/A	\$745,104	\$745,104	\$894,124
<b>Participant Benefits</b>				
Bill Reduction - Gas	\$1,160,535	N/A	N/A	N/A
Participant Rebates and Incentives	\$109,422	N/A	N/A	\$109,422
Incremental Capital Savings	\$0	N/A	N/A	\$0
Incremental O&M Savings	\$4,215,488	N/A	N/A	\$3,962,559
Subtotal	\$5,485,445	N/A	N/A	\$4,071,981
<b>Total Benefits</b>	<b>\$5,485,445</b>	<b>\$745,104</b>	<b>\$745,104</b>	<b>\$4,966,105</b>
<b>Costs</b>				
<b>Utility Project Costs</b>				
Program Planning & Design	N/A	\$0	\$0	\$0
Administration & Program Delivery	N/A	\$229,297	\$229,297	\$229,297
Advertising/Promotion/Customer Ed	N/A	\$676	\$676	\$676
Participant Rebates and Incentives	N/A	\$109,422	\$109,422	\$109,422
Equipment & Installation	N/A	\$0	\$0	\$0
Measurement and Verification	N/A	\$0	\$0	\$0
Subtotal	N/A	\$339,395	\$339,395	\$339,395
<b>Utility Revenue Reduction</b>				
Revenue Reduction - Gas	N/A	N/A	\$1,160,535	N/A
Subtotal	N/A	N/A	\$1,160,535	N/A
<b>Participant Costs</b>				
Incremental Capital Costs	\$129,627	N/A	N/A	\$121,849
Incremental O&M Costs	\$0	N/A	N/A	\$0
Subtotal	\$129,627	N/A	N/A	\$121,849
<b>Total Costs</b>	<b>\$129,627</b>	<b>\$339,395</b>	<b>\$1,499,930</b>	<b>\$461,245</b>
<b>Net Benefit (Cost)</b>	<b>\$5,355,818</b>	<b>\$405,708</b>	<b>(\$754,826)</b>	<b>\$4,504,861</b>
<b>Benefit/Cost Ratio</b>	<b>42.32</b>	<b>2.20</b>	<b>0.50</b>	<b>10.77</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	10.0 years
Net-to-Gross (Weighted on Dth)	B	94.00%
Install Rate (Weighted on Dth)	C	60.45%
<b>Program Summary per Participant</b>		
Gross Annual Dth Saved	D	0.9
Net Annual Dth Saved	E	0.5
<b>Program Summary All Participants</b>		
<b>Total Budget</b>	F	<b>\$339,395</b>
Gross Annual Dth Saved	G	<b>53,816 Dth</b>
Net Annual Dth Saved	H	<b>30,578 Dth</b>
<b>Total MTRC Net Benefits with Adder</b>	I	<b>\$4,504,861</b>
<b>Total MTRC Net Benefits without Adder</b>	J	<b>\$4,355,840</b>
<b>Utility Program Cost per Dth Lifetime</b>	F / (A x H)	<b>\$1.1099</b>