

## DEEMED SAVINGS TECHNICAL ASSUMPTIONS

**Product: School Education Kit**

**Description:**

A package of home energy efficiency measures in a kit that can be distributed to 5th or 6th grade students. Each participant receives a kit containing LED bulbs, a high efficiency showerhead, and high efficiency sink aerators (kitchen and bath).

**Product References:**

Measures "Provide Efficient Showerhead"	Refer to Program "Energy Efficient Showerhead - CO" to find formulas for Customer Dth, Customer kWh, customer kW, customer PCKW, etc. for the "Efficient Showerhead" measures.
Measures "Provide Efficient Kitchen Faucet Aerator"	Refer to Program "Energy Efficient Showerhead - CO" to find formulas for Customer Dth, Customer kWh, customer kW, customer PCKW, etc. for the "Efficient Kitchen Faucet Aerator" measure.
Measures "Provide Efficient Bath Faucet Aerator"	Refer to Program "Energy Efficient Showerhead - CO" to find formulas for Customer Dth, Customer kWh, customer kW, customer PCKW, etc. for the "Efficient Bath Faucet Aerator" measure.
Measures "Replace incandescent lamps with LEDs"	Refer to Program CO Home Lighting & Recycling to find formulas for Customer kW, Customer kWh, Customer PCKW for the "LED" measure.
Measures "Bonus LEDs"	Refer to Program CO Home Lighting & Recycling to find formulas for Customer kW, Customer kWh, Customer PCKW for the "LED" measure.
Measures "Programmable Thermostat"	Refer to Program CO Home Energy Squad to find formulas for Customer kW, Customer kWh, Customer PCKW for the "LED" measure.
Measure "Provide Efficient Showerhead"	Refer to Program "Energy Efficient Showerhead - CO" to find reference table for "Gas Split Factor", "Hours", "Coincidence Factor", etc values.
Measures "Provide Efficient Kitchen Faucet Aerator"	Refer to Program "Energy Efficient Showerhead - CO" to find reference table for "Gas Split Factor", "Hours", "Coincidence Factor", etc values.
Measures "Provide Efficient Bath Faucet Aerator"	Refer to Program "Energy Efficient Showerhead - CO" to find reference table for "Gas Split Factor", "Hours", "Coincidence Factor", etc values.
Measures "Replace incandescent lamps with LEDs"	Refer to Program "Home Lighting and Recycling - CO" to find references and tables for "Hours", "Coincidence Factor", etc values.
Measures "Bonus LEDs"	Refer to Program "Home Lighting and Recycling - CO" to find references and tables for "Hours", "Coincidence Factor", etc values.
Measures "Programmable Thermostat"	Refer to Program "Home Energy Squad - CO" to find references and tables for "Hours", "Coincidence Factor", etc values.
Measure "Provide Efficient Showerhead"	Refer to Program "Energy Efficient Showerhead - CO" to find reference table for Operation and Maintenance cost savings value due to water savings, measure lifetime, etc.
Measures "Provide Efficient Kitchen Faucet Aerator"	Refer to Program "Energy Efficient Showerhead - CO" to find reference table for Operation and Maintenance cost savings value due to water savings, measure lifetime, etc.
Measures "Provide Efficient Bath Faucet Aerator"	Refer to Program "Energy Efficient Showerhead - CO" to find reference table for Operation and Maintenance cost savings value due to water savings, measure lifetime, etc.
Measures "Replace incandescent lamps with LEDs"	Refer to Program "Home Lighting and Recycling - CO" to find reference table for measure lifetime, etc.
Measures "Bonus LEDs"	Refer to Program "Home Lighting and Recycling - CO" to find reference table for measure lifetime, etc.

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**Variables:**

Incremental Costs		= costs provided by vendor.
Net-to-Gross Factor (NTG)	100%	As these kits would not be available without the product.
Install Rate (Kit LEDs)	95%	Actual Installation Rates will be collected as part of the M&V. Assumed Forecast Value for LED
Install Rate (Bonus LEDs)	99%	Actual Installation Rates will be collected as part of the M&V. Assumed Forecast Value for Bonus LED
Install Rate	45%	Actual Installation Rates will be collected as part of the M&V. Assumed Forecast Value for Showerheads & Aerators
Lighting Lifetime	Table 1	Lifetime for lamp models installed through the program. From spec sheet provided by implementer
Proposed Wattage	Table 1	Wattage of lamps provided in kit

**Table 1: Lamp Specs**

Lamp	Efficient Wattage	Lifetime
9W LED	9	25000
11W LED	11	25000
15W A19 LED	15	25000
8W Reflector LED	8	25000
6W Globe LED	6	25000
4W-8W-14W 3-WAY LED	8	25000
5W Candle LED	5	25000

**Inputs:**

Provided by Customer:	Verified during
Number of kits distributed	Yes
Was LED installed	Yes
Was showerhead installed	Yes
Was Kitchen aerator installed	Yes
Was Bath aerator installed	Yes

**Assumptions:**

Savings shown above include homes with either electric or gas water heaters. The Energy Efficient Showerhead - CO program monitors and establishes a gas split factor for use in homes where the water heater type is unknown. School Education Kits will use the Energy Efficient Showerhead - CO program's gas split factor for unknown water heater types to calculate and claim energy savings.

**Changes from 2017 / 2018 Plan**

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