

COMMERCIAL - ENERGY EFFICIENCY Energy/Demand/# Measures - Participants)

MAP Cumulative kWh Savings

Table with 22 columns (Year: 2011-2032) and multiple rows for various equipment types like Compressed Air, Lighting, Motors, and Controls. Each row lists equipment, quantity, and kWh savings for each year.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

MAP Commercial kWh Savings

Table with columns: Measure Name, Previous Name, and 17 columns for years 2011-2017. Rows include various energy efficiency measures like Fluorescent Head Pressure Control, Efficient Refrigeration Condenser, etc.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

MAP Cumulative kWh Savings

Table with columns for Measure Name, Program Name, and years 2015 through 2027. Rows list various energy efficiency measures such as AC filters, ducted variable-speed split systems, and programmable thermostats.

4 CSR 240-2.2.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with 18 columns: Measure Name, 2011-2017, and 2018-2024. Rows include categories like Water Heating, Lighting, Refrigeration, Space Cooling, and HVAC systems, with various sub-measures and their corresponding metrics over time.

Total 188,235,285 642,891,664 695,728,130 1,148,342,801 1,375,543,256 1,579,705,208 1,760,961,156 1,946,227,278 2,143,970,556 2,335,695,684 2,542,679,671 2,808,098,777 3,049,449,286 3,281,113,345 3,507,728,130 3,768,204,689 3,988,058,288 4,284,284,688

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with columns: End Use, Measure Name, Program Name, and 34 columns representing years from 2010 to 2043. The table lists various energy efficiency measures and their participation counts over time.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

MAP Incremental kW Savings

Table with columns: End Use, Measure Name, Program Name, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025. Rows include various energy efficiency measures like AC 190s, Ducted Variable-Speed Split System Heat Pump, Cool Roof, AC <18% etc.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with columns for End Use, Measure Name, Program Name, and years 2010-2037. It lists various energy efficiency measures such as Water Heating, Compressed Air, Lighting, Office Equipment, Cooking, Refrigeration, Space Cooling, Heating, and Ventilation, with associated metrics for each year.

Summary row with 'Total' and numerical values for each year from 2010 to 2037.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Incremental MAP Data

Table with columns: End Use, Measure Name, Key Form Name, and years 2010-2027. The table lists various energy efficiency measures such as Air Handling Units, Compressors, and Lighting, along with their incremental MAP values for each year.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with columns: Measure Name, Year (2010-2017), and various numerical values. The table lists numerous energy efficiency measures such as 'Boasting Heat Pressure Control', 'Efficient Refrigeration Compressor', and 'Water-Cooled Chiller Average 10% above IECC standard'.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Cumulative MAP Data

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Compressed Air	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Air-Exhausting Air Nozzles	1.6	3.7	6.0	8.2	10.4	12.6	14.8	17.0	19.2	21.4	23.6	25.8	28.0	30.2	32.4	34.6	36.8	39.0	41.2	43.4	45.6	47.8
Compressed Air-Fixed Speed Air Compressor	32.8	65.7	98.5	131.3	164.1	197.0	229.8	262.6	295.4	328.2	361.0	393.8	426.6	459.4	492.2	525.0	557.8	590.6	623.4	656.2	689.0	721.8
Air Compressor Outdoor Air Intake	106.3	212.7	319.0	425.4	531.7	638.1	744.4	850.8	957.1	1,063.5	1,169.8	1,276.2	1,382.5	1,488.8	1,595.2	1,701.5	1,807.8	1,914.1	2,020.4	2,126.7	2,233.0	2,339.3
Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	39.0	72.0	105.0	148.0	191.0	234.0	277.0	320.0	363.0	406.0	449.0	492.0	535.0	578.0	621.0	664.0	707.0	750.0	793.0	836.0	879.0	922.0
Compressed Air Storage Tank	38.4	76.8	115.2	153.6	192.0	230.4	268.8	307.2	345.6	384.0	422.4	460.8	499.2	537.6	576.0	614.4	652.8	691.2	729.6	768.0	806.4	844.8
Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	7.9	15.7	23.6	31.4	39.3	47.2	55.1	63.0	70.8	78.7	86.6	94.4	102.3	110.2	118.0	125.9	133.8	141.7	149.6	157.5	165.4	173.3
Compressed Air Replacement with Air Storage	50.9	101.7	152.5	203.3	254.1	305.0	355.9	406.8	457.7	508.6	559.5	610.4	661.3	712.2	763.1	814.0	864.9	915.8	966.7	1,017.6	1,068.5	1,119.4
Compressed Air-Fixed Speed Air Compressor	8.1	16.2	24.3	32.4	40.5	48.6	56.7	64.8	72.9	81.0	89.1	97.2	105.3	113.4	121.5	129.6	137.7	145.8	153.9	162.0	170.1	178.2
High Efficiency Air Dryers	1,729.1	3,458.2	5,187.4	6,916.6	8,645.7	10,374.9	12,104.1	13,833.3	15,562.5	17,291.7	19,020.9	20,750.1	22,479.3	24,208.5	25,937.7	27,666.9	29,396.1	31,125.3	32,854.5	34,583.7	36,312.9	38,042.1
Compressed Air Actuators & Leak Repair	5,737.9	11,475.9	17,213.9	22,951.9	28,689.9	34,427.9	40,165.9	45,903.9	51,641.9	57,379.9	63,117.9	68,855.9	74,593.9	80,331.9	86,069.9	91,807.9	97,545.9	103,283.9	109,021.9	114,759.9	120,497.9	126,235.9
High Efficiency Air Dryers	111.2	222.4	333.6	444.8	556.0	667.2	778.4	889.6	1,000.8	1,112.0	1,223.2	1,334.4	1,445.6	1,556.8	1,668.0	1,779.2	1,890.4	2,001.6	2,112.8	2,224.0	2,335.2	2,446.4
Efficient Air Compressors	114.3	228.6	342.9	457.2	571.5	685.8	800.1	914.4	1,028.7	1,143.0	1,257.3	1,371.6	1,485.9	1,600.2	1,714.5	1,828.8	1,943.1	2,057.4	2,171.7	2,286.0	2,400.3	2,514.6
Receiver Capacity Addition	4.3	8.6	13.0	17.3	21.6	25.9	30.3	34.6	38.9	43.2	47.5	51.8	56.1	60.4	64.7	69.0	73.3	77.6	81.9	86.2	90.5	94.8
Compressed Air Cycling Dryers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Air Compressor-Adding an Air Compressor to Aid Low Load Conditions	18.5	36.9	55.4	73.9	92.3	110.8	129.3	147.7	166.2	184.7	203.2	221.7	240.2	258.7	277.2	295.7	314.2	332.7	351.2	369.7	388.2	406.7
Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	70.6	141.2	211.8	282.4	353.0	423.6	494.2	564.8	635.4	706.0	776.6	847.2	917.8	988.4	1,059.0	1,129.6	1,200.2	1,270.8	1,341.4	1,412.0	1,482.6	1,553.2
Low Pressure Drop Filters	185.9	371.8	557.7	743.6	929.5	1,115.4	1,301.3	1,487.2	1,673.1	1,859.0	2,044.9	2,230.8	2,416.7	2,602.6	2,788.5	2,974.4	3,160.3	3,346.2	3,532.1	3,718.0	3,903.9	4,089.8
Automatic Drains	377.5	755.0	1,132.5	1,510.0	1,887.5	2,265.0	2,642.5	2,985.0	3,327.5	3,670.0	4,012.5	4,355.0	4,697.5	5,040.0	5,382.5	5,725.0	6,067.5	6,410.0	6,752.5	7,095.0	7,437.5	7,780.0
Compressed Air Pressure Flow Controller replacing no flow controller	150.9	301.7	452.6	603.4	754.3	905.1	1,056.0	1,206.9	1,357.8	1,508.6	1,659.5	1,810.4	1,961.3	2,112.2	2,263.1	2,414.0	2,564.9	2,715.8	2,866.7	3,017.6	3,168.5	3,319.4
Variable Displacement Air Compressor	66.8	133.6	200.4	267.3	334.1	401.0	467.9	534.8	601.7	668.6	735.5	802.4	869.3	936.2	1,003.1	1,070.0	1,136.9	1,203.8	1,270.7	1,337.6	1,404.5	1,471.4
LED Auto Traffic Signals	7,617.8	15,235.6	22,853.4	30,471.2	38,089.0	45,706.8	53,324.6	60,942.4	68,560.2	76,178.0	83,795.8	91,413.6	99,031.4	106,649.2	114,267.0	121,884.8	129,502.6	137,120.4	144,738.2	152,356.0	160,973.8	168,591.6
LED Street Lighting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
LED Flood Pump Canopy Fixtures	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior Lighting Density - Parking Garage	4.3	8.6	12.9	17.1	21.4	25.7	30.0	34.3	38.6	42.9	47.1	51.4	55.7	60.0	64.3	68.6	72.9	77.2	81.5	85.8	90.1	94.4
Lighting - Exterior Lighting Density - Other	3.8	7.6	11.4	15.2	19.0	22.8	26.6	30.4	34.2	38.0	41.8	45.6	49.4	53.2	57.0	60.8	64.6	68.4	72.2	76.0	79.8	
Lighting - Exterior Light Pole - Interior	78.2	156.4	234.6	312.8	391.0	469.2	547.4	625.6	703.8	782.0	860.2	938.4	1,016.6	1,094.8	1,173.0	1,251.2	1,329.4	1,407.6	1,485.8	1,564.0	1,642.2	1,720.4
Lighting - Exterior Exterior Ballast Controls	8.7	17.3	26.0	34.7	43.4	52.0	60.7	69.4	78.1	86.8	95.5	104.2	112.9	121.6	130.3	139.0	147.7	156.4	165.1	173.8	182.5	191.2
Lighting - Exterior Garage HID replacement with LEDs	1,627.9	3,255.8	4,883.7	6,511.6	8,139.5	9,767.4	11,395.3	13,023.2	14,651.1	16,279.0	17,906.9	19,534.8	21,162.7	22,790.6	24,418.5	26,046.4	27,674.3	29,302.2	30,930.1	32,558.0	34,185.9	35,813.8
Lighting - Exterior Garage Ballast Controls	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior Exterior Linear Fluorescent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior Sports Field Lighting Hts Control	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Interior LED Down Light - New Construction	11,114.2	22,228.4	33,342.6	44,456.8	55,571.0	66,685.2	77,799.4	88,913.6	100,027.8	111,142.0	122,256.2	133,370.4	144,484.6	155,598.8	166,713.0	177,827.2	188,941.4	200,055.6	211,169.8	222,284.0	233,398.2	244,512.4
Lighting - Interior LED Specialty (replacing incandescent)	14,117.5	28,235.0	42,352.5	56,470.0	70,587.5	84,705.0	98,822.5	112,940.0	127,057.5	141,175.0	155,292.5	169,410.0	183,527.5	197,645.0	211,762.5	225,880.0	239,997.5	254,115.0	268,232.5	282,350.0	296,467.5	310,585.0
Lighting - Interior Occupancy Sensors for LED Replacing Standard T12	1,590.4	3,180.8	4,771.2	6,361.6	7,952.0	9,542.4	11,132.8	12,723.2	14,313.6	15,904.0	17,494.4	19,084.8	20,675.2	22,265.6	23,856.0	25,446.4	27,036.8	28,627.2	30,217.6	31,808.0	33,398.4	34,988.8
Lighting - Interior LED Flood Light	39.5	79.0	118.5	158.0	197.5	237.0	276.5	316.0	355.5	395.0	434.5	474.0	513.5	553.0	592.5	632.0	671.5	711.0	750.5	790.0	829.5	869.0
Lighting - Interior LED Exit Sign	75.8	151.6	227.4	303.2	379.0	454.8	530.6	606.4	682.2	758.0	833.8	909.6	985.4	1,061.2	1,137.0	1,212.8	1,288.6	1,364.4	1,440.2	1,516.0	1,591.8	1,667.6
Lighting - Interior Switching Controls for Multilevel Lighting (Non-HID)	498.8	997.6	1,496.4	2,195.2	2,994.0	3,792.8	4,591.6	5,390.4	6,189.2	6,988.0	7,786.8	8,585.6	9,384.4	10,183.2	10,982.0	11,780.8	12,579.6	13,378.4	14,177.2	14,976.0	15,774.8	16,573.6
Lighting - Interior Interior induction Lighting	66.9	133.8	200.7	267.6	334.5	401.4	468.3	535.2	602.1	669.0	735.9	802.8	869.7	936.6	1,003.5	1,070.4	1,137.3	1,204.2	1,271.1	1,338.0	1,404.9	1,471.8
Lighting - Interior LED Specialty (replacing incandescent)	44,906.5	89,813.0	139,719.5	189,626.0	239,532.5	289,439.0	339,345.5	389,252.0	439,158.5	489,065.0	538,971.5	588,878.0	638,784.5	688,691.0	738,597.5	788,504.0	838,410.5	888,317.0	938,223.5	988,130.0	1,038,036.5	
Lighting - Interior LED Specialty (replacing incandescent)	11,114.2	22,228.4	33,342.6	44,456.8	55,571.0	66,685.2	77,799.4	88,913.6	100,027.8	111,142.0	122,256.2	133,370.4	144,484.6	155,598.8	166,713.0	177,827.2	188,941.4	200,055.6	211,169.8	222,284.0	233,398.2	
Lighting - Interior LED Specialty (replacing incandescent)	14,117.5	28,235.0	42,352.5	56,470.0	70,587.5	84,705.0	98,822.5	112,940.0	127,057.5	141,175.0	155,292.5	169,410.0	183,527.5	197,645.0	211,762.5	225,880.0	239,997.5	254,115.0	268,232.5	282,350.0	296,467.5	
Lighting - Interior LED Specialty (replacing incandescent)	44,906.5	89,813.0	139,719.5	189,626.0	239,532.5	289,439.0	339,345.5	389,252.0														

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Table with columns: Measure Name, Region Name, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030. Rows include various energy efficiency measures like Heat Pump Controls, Efficient Refrigeration Condensers, etc.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(H)1; 4 CSR 240-22.050(3)(H)4

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Cumulative MAP Data

Fac ID	Measure Name	Measures	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
and Split AC	AC 65% - 15ts	Custom	11,933.3	23,106.7	34,560.0	46,213.3	57,766.6	69,320.0	80,873.3	92,426.6	103,980.0	115,533.3	127,086.6	138,639.9	150,193.3	161,746.6	173,299.9	173,299.9	173,299.9	173,299.9
and Split AC	Ducted Variable-Speed Split System Heat Pump	Custom	1,079.8	3,159.7	5,239.6	7,319.4	9,399.2	11,479.0	13,558.8	15,638.7	17,718.5	19,798.3	21,878.1	23,957.9	26,037.8	28,117.6	30,197.4	30,197.4	30,197.4	30,197.4
and Split AC	Cool Roof	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	AC <65k	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	AC 24k - 750k	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Water Loop Heat Pump (WLHP) - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	HVAC Occupancy Sensors	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Road Trip Ther. - Evaporative Precooler	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Air Source Heat Pump - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Ductless (mini split) - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Ground Source Heat Pump - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Programmable Thermostats	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Improved Duct Heating - Cooling AC	Custom	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0	135.0	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0
and Split AC	HVAC Fan-Adding VFD Control to HVAC Fan Motor	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Zoning	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Road Trip Ther. - Maintenance	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	VRF-Variable Refrigerant Volume System	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	VRF-Variable Refrigerant Volume System	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Water-Loop Heat Pump (WLHP) - Heating	Custom	97.6	115.1	132.7	150.2	167.8	185.3	202.8	220.3	237.8	255.3	272.8	290.3	307.8	325.3	342.8	360.3	377.8	395.3
Space Heating	PTAC/PTHP - Heating	Custom	189.9	339.9	509.8	679.8	849.7	1,019.6	1,189.5	1,359.4	1,529.3	1,699.2	1,869.1	2,039.0	2,208.9	2,378.8	2,548.7	2,718.6	2,888.5	3,058.4
Space Heating	Energy Efficient Windows	Custom	71.6	143.2	214.8	286.4	358.0	429.6	501.2	572.8	644.4	716.0	787.6	859.2	930.8	1,002.4	1,074.0	1,145.6	1,217.2	1,288.8
Space Heating	Subtask with Electric Heat	Custom	147.3	394.5	441.8	589.0	736.3	883.5	1,030.8	1,178.1	1,325.3	1,472.6	1,619.9	1,767.2	1,914.5	2,061.8	2,209.1	2,356.4	2,503.7	2,651.0
Space Heating	Commercial EMS	Custom	540.5	1,081.0	1,621.5	2,162.0	2,702.5	3,243.0	3,783.5	4,324.0	4,864.5	5,405.0	5,945.5	6,486.0	7,026.5	7,567.0	8,107.5	8,648.0	9,188.5	9,729.0
Space Heating	PTAC/PTHP - Heating	Custom	1.7	3.4	5.1	6.8	8.5	10.2	11.9	13.7	15.4	17.1	18.8	20.5	22.2	23.9	25.6	27.3	29.0	30.7
Space Heating	EMS Optimization / Continuous Commissioning	Rtx	9.5	19.0	28.5	38.0	47.5	57.0	66.5	76.0	85.5	95.0	104.5	114.0	123.5	133.0	142.5	152.0	161.5	171.0
Space Heating	Building Operator Certification	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Wall Insulation	Custom	143.7	287.4	431.1	574.8	718.5	862.2	1,005.9	1,149.6	1,293.3	1,437.0	1,580.7	1,724.4	1,868.1	2,011.8	2,155.5	2,299.2	2,442.9	2,586.6
Space Heating	VFD Pumps	Custom	7.0	14.0	21.0	27.9	34.9	41.9	48.9	55.8	62.8	69.8	76.8	83.8	90.8	97.7	104.7	111.7	118.7	125.7
Space Heating	Heat-Excess Room Occupancy Control System	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Energy Efficient Windows	Custom	62.3	124.6	186.9	249.2	311.5	373.8	436.1	498.4	560.7	623.0	685.3	747.6	809.9	872.2	934.5	996.8	1,059.1	1,121.4
Space Heating	Heat-Excess Room Occupancy Control System	Rtx	231,488.0	462,976.0	694,464.0	925,952.0	1,157,440.0	1,388,928.0	1,620,416.0	1,851,904.0	2,083,392.0	2,314,880.0	2,546,368.0	2,777,856.0	3,009,344.0	3,240,832.0	3,472,320.0	3,703,808.0	3,935,296.0	4,166,784.0
Space Heating	Ground Source Heat Pump - Heating	Custom	120.9	241.9	362.8	483.8	604.7	725.6	846.6	967.5	1,088.5	1,209.4	1,330.3	1,451.3	1,572.2	1,693.1	1,814.1	1,935.0	2,056.0	2,177.0
Space Heating	Ducted Variable-Speed Split System Heat Pump	Custom	139,182.0	278,364.0	417,546.0	556,728.0	695,910.0	835,092.0	974,274.0	1,113,456.0	1,252,638.0	1,391,820.0	1,530,996.0	1,670,178.0	1,809,360.0	1,948,542.0	2,087,724.0	2,226,906.0	2,366,088.0	
Space Heating	EMS Pump Scheduling Controls	Custom	318.1	1,092.2	1,874.3	2,656.4	3,438.5	4,220.6	5,002.7	5,784.8	6,566.9	7,349.0	8,131.1	8,913.2	9,695.3	10,477.4	11,259.5	12,041.6	12,823.7	13,605.8
Space Heating	Electric Furnace	Custom	383.4	766.8	1,150.2	1,533.7	1,917.1	2,300.6	2,684.0	3,067.5	3,450.9	3,834.3	4,217.8	4,601.2	4,984.6	5,368.1	5,751.5	6,134.9	6,518.3	6,901.7
Space Heating	Road Insulation	Custom	11,462.2	22,924.4	34,386.6	45,848.8	57,311.0	68,773.2	80,235.4	91,697.6	103,159.8	114,622.0	126,084.2	137,546.4	149,008.6	160,470.8	171,933.0	183,395.2	194,857.4	206,319.6
Space Heating	Active Chilled Beam Heating and Cooling	Custom	89,827.7	179,655.4	269,483.1	359,310.8	449,138.5	538,966.2	628,793.9	718,621.6	808,449.3	898,277.0	988,104.7	1,077,932.4	1,167,760.1	1,257,587.8	1,347,415.5	1,437,243.2	1,527,070.9	1,616,898.6
Space Heating	Heat Pump Maintenance	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Ducted Variable-Speed Split System Heat Pump	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Electric Furnace	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Water Loop Heat Pump (WLHP) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Ground Source Heat Pump - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	DCM motors on furnaces	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Ceiling Insulation	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Cool Roof	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Cool Roof	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Active Chilled Beam Heating and Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Air Source Heat Pump - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	HVAC Occupancy Sensors	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Zoning	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Window Improvements	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Ductless (mini split) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Improved Duct Heating - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Ductless (mini split) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Water Loop Heat Pump (WLHP) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Heating	Air Source Heat Pump - Heating	Custom	0.0																	

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Cumulative MAP Data

Fac ID	Measuring Name	Program Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Water Heating	Electric Tankless Water Heater	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Water Heating	Heat Pump Storage Water Heater	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Behavioral	Behavior Based Efficiency (Commercial Energy Reports)	Behavioral	6,888.7	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	11,685.4	
Behavioral	In-Home Energy Use Displays	Behavioral	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	1,277.3	
Behavioral	Whole-Building Energy Monitoring	Behavioral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Compressed Air	Variable Speed Air Compressor-Reciprocating Fixed Speed Air Compressor	NC	1.7	3.3	6.0	8.8	11.6	14.4	17.2	20.0	22.8	25.6	28.4	31.2	34.0	36.8	39.6	42.4	45.2	
Compressed Air	High Efficiency Air Dryers	NC	79.3	158.6	237.9	317.2	396.4	475.7	555.0	634.3	713.5	792.8	872.1	951.4	1,030.7	1,109.9	1,189.2	1,189.2	1,189.2	1,189.2
Compressed Air	Efficient Air Compressors	NC	5.2	10.5	15.7	21.0	26.2	31.4	36.7	41.9	47.2	52.4	57.6	62.9	68.1	73.4	78.6	78.6	78.6	78.6
Compressed Air	Efficient Air Compressors	NC	8.2	16.4	24.6	32.8	41.0	49.2	57.4	65.6	73.8	82.0	90.2	98.4	106.6	114.8	123.0	123.0	123.0	123.0
Lighting - Exterior	Lighting Power Density - Exterior	NC	0.3	0.5	0.8	1.1	1.4	1.8	2.1	2.5	2.7	3.0	3.3	3.5	3.7	3.9	4.1	4.2	4.2	4.2
Lighting - Exterior	Lighting Power Density - Exterior	NC	6.3	12.6	18.9	25.2	31.5	37.8	44.1	50.4	56.7	63.0	69.3	75.7	81.9	88.2	94.4	94.4	94.4	94.4
Lighting - Exterior	Exterior Linear Fluorescent	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Interior	Daylight Sensor Controls - New Construction	NC	72.9	145.7	218.6	291.5	364.4	437.2	510.1	583.0	655.8	728.7	801.6	874.4	947.3	1,020.2	1,093.0	1,165.9	1,165.9	1,165.9
Lighting - Interior	Interior Induction Lighting	NC	1,786.0	3,572.0	5,358.0	7,144.0	8,930.0	10,716.0	12,502.0	14,288.0	16,074.0	17,860.0	19,646.0	21,432.0	23,218.0	25,004.0	26,790.0	28,576.0	28,576.0	28,576.0
Lighting - Interior	High Intensity Fluorescent Fixture (replacing HID) - New Construction	NC	0.4	0.7	1.1	1.5	1.9	2.3	2.7	3.1	3.5	3.9	4.3	4.7	5.0	5.4	5.8	6.2	6.2	6.2
Office Equipment	Energy Star office equipment including computers, monitors, copiers, NC	NC	201.5	403.0	604.5	806.0	1,007.5	1,209.0	1,410.5	1,612.0	1,813.5	2,015.0	2,216.5	2,418.0	2,619.5	2,821.0	3,022.5	3,224.0	3,224.0	3,224.0
Office Equipment	Energy Star POS Terminal	NC	6.3	12.6	18.9	25.2	31.5	37.8	44.1	50.4	56.7	63.0	69.3	75.7	81.9	88.2	94.4	94.4	94.4	94.4
Office Equipment	High Efficiency CRAC Unit	NC	219.9	439.8	659.7	879.6	1,099.5	1,319.4	1,539.3	1,759.2	1,979.1	2,199.0	2,418.9	2,638.8	2,858.7	3,078.6	3,298.5	3,298.5	3,298.5	3,298.5
Office Equipment	Energy Star Compliant Refrigerator	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Office Equipment	Energy Star UPS	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HE Conversion Ovens	NC	20.0	40.0	60.0	80.0	100.0	120.0	140.0	160.0	180.0	200.0	220.0	240.0	260.0	280.0	300.0	300.0	300.0	300.0
Cooking	HE Conversion Ovens	NC	3.7	7.4	11.1	14.8	18.5	22.2	25.9	29.6	33.3	37.0	40.7	44.4	48.1	51.8	55.5	55.5	55.5	55.5
Cooking	HE Holding Cabinet	NC	5.4	10.8	16.2	21.6	27.0	32.4	37.7	43.1	48.5	53.9	59.3	64.7	70.1	75.4	80.8	80.8	80.8	80.8
Cooking	HE Combination Oven	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HE Oven	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HE Fryer	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	Induction Cooktops	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other	NEMA Premium Transformer, three-phase	NC	1,061.9	2,123.9	3,185.8	4,247.7	5,309.7	6,371.6	7,433.5	8,495.5	9,557.4	10,619.4	11,681.3	12,743.3	13,805.2	14,867.1	15,929.1	16,991.0	16,991.0	16,991.0
Other	NEMA Premium Transformer, single-phase	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other	High Efficiency Elevators	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pools	High Efficiency Pool Pump	NC	0.5	1.1	1.6	2.2	2.7	3.2	3.8	4.3	4.8	5.4	5.9	6.4	6.9	7.4	7.9	8.4	8.4	8.4
Pools	Heat Pump Pool Heater	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pools	High Efficiency spa hot tubs	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Efficient Refrigeration Condensers	NC	1.6	3.2	4.8	6.4	8.0	9.6	11.2	12.8	14.4	16.0	17.6	19.2	20.8	22.4	24.0	24.0	24.0	24.0
Refrigeration	ECM/Permanent Magnet Synchronous Case Motors	NC	30.8	61.6	92.4	123.2	154.0	184.8	215.6	246.4	277.2	308.0	338.8	369.6	400.4	431.2	462.0	462.0	462.0	462.0
Refrigeration	ENERGY STAR Commercial Solid Door Freezers	NC	81.4	162.8	244.2	325.6	407.0	488.4	569.8	651.2	732.6	814.0	895.4	976.8	1,058.2	1,139.6	1,221.0	1,221.0	1,221.0	1,221.0
Refrigeration	ENERGY STAR Commercial Glass Door Freezers	NC	36.1	72.2	108.3	144.4	180.5	216.6	252.7	288.8	324.9	361.0	397.1	433.2	469.3	505.4	541.5	541.5	541.5	541.5
Refrigeration	Display and Scroll Compressors	NC	30.1	60.2	90.3	120.4	150.5	180.6	210.7	240.8	270.9	301.0	331.1	361.2	391.3	421.4	451.5	451.5	451.5	451.5
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	NC	76.5	153.0	229.5	306.0	382.5	459.0	535.5	612.0	688.5	765.0	841.5	918.0	994.5	1,071.0	1,147.5	1,147.5	1,147.5	1,147.5
Refrigeration	Efficient low-temp compressors	NC	3.3	6.7	10.0	13.4	16.7	20.0	23.4	26.7	30.0	33.4	36.7	40.0	43.4	46.7	50.0	50.0	50.0	50.0
Refrigeration	ENERGY STAR Commercial Solid Door Refrigerators	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Energy Star Ice Machines	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Cooling - Chillers	Water-Cooled Screw Chiller > 300 ton	NC	30.7	61.4	92.1	122.8	153.5	184.2	214.9	245.6	276.3	307.0	337.7	368.4	399.1	429.8	460.5	460.5	460.5	460.5
Space Cooling - Chillers	Water-Cooled Centrifugal Chiller > 300 ton	NC	27.1	54.2	81.3	108.4	135.5	162.6	189.7	216.8	243.9	271.0	298.1	325.2	352.3	379.4	406.5	406.5	406.5	406.5
Space Cooling - Chillers	Water-Cooled Chiller Average Minimum Qualifying 1.04 kW/ton	NC	35.1	70.2	105.3	140.4	175.5	210.6	245.7	280.8	315.9	351.0	386.1	421.2	456.3	491.4	526.5	526.5	526.5	526.5
Space Cooling - Chillers	Air-Cooled Chiller Average 0.01 kW/ton PLV Reduction	NC	10.3	20.6	30.9	41.2	51.5	61.8	72.1	82.4	92.7	103.0	113.3	123.6	133.9	144.2	154.5	154.5	154.5	154.5
Space Cooling - Chillers	Water-Cooled Chiller Average 10% above IECC standard	NC	14.4	28.8	43.2	57.6	72.0	86.4	100.8	115.2	129.6	144.0	158.4	172.8	187.2	201.6	216.0	216.0	216.0	216.0
Space Cooling - Chillers	Water-Cooled Screw Chiller	NC	9.0	18.0	27.0	36.0	45.0	54.0	63.0	72.0	81.0	90.0	99.0	108.0	117.0	126.0	135.0	135.0	135.0	135.0
Space Cooling - Chillers	Air-Cooled Screw Chiller	NC	5.3	10.6	15.9	21.2	26.5	31.8	37.1	42.4	47.7	53.0	58.3	63.6	68.9	74.2	79.5	79.5	79.5	79.5
Space Cooling - Chillers	Water-Cooled Screw Chiller 180 - 300 ton	NC	23.6	47.2	70.8	94.4	118.0	141.6	165.2	188.8	212.4	236.0	259.6	283.2	306.8	330.4	354.0	354.0	354.0	354.0
Space Cooling - Chillers	Water-Cooled Chiller Average 0.01 kW/ton PLV Reduction	NC	26.4	52.8	79.2	105.6	132.0	158.4	184.8	211.2	237.6									

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Description		RAP %WA Savings																							
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032		
Compressed Air	Air-Conditioning Air Hoses	Custom	86,130	83,440	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736	100,736
Compressed Air	Compressed Air-Fixed Speed Air Compressor	Custom	8,904	8,711	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519	10,519
Compressed Air	Air Pressure Controller/Air Intake	Custom	8,201	7,254	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448	8,448
Compressed Air	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor	Custom	45,645	57,294	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562	69,562
Compressed Air	Compressed Air Storage Tank	Custom	8,676	10,947	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318	13,318
Compressed Air	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor	Custom	8,978	12,888	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199	15,199
Compressed Air	Compressed Air-Regulation with Air Flow	Custom	100,568	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265	100,265
Compressed Air	Compressed Air-Fixed Speed Air Compressor	Custom	1,703	2,149	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595	2,595
Compressed Air	High Efficiency Air Dryers	Custom	43,813	58,411	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806	68,806
Compressed Air	Compressed Air-Auto & Leak Repair	Custom	1,088,037	1,163,960	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942	1,239,942
Compressed Air	High Efficiency Air Dryers	Custom	438	694	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950
Compressed Air	Efficient Air Compressors	Custom	46,109	68,179	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548	70,548
Compressed Air	Receiver Capacity Additions	Custom	20,377	26,711	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044	31,044
Compressed Air	Efficient Air Compressors	Custom	5,198	6,064	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014	7,014
Compressed Air	Air Compressor-Adding an Air Compressor to Aid Low Load Conditions	Custom	38,561	48,655	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748	58,748
Compressed Air	VSD Air Compressor-Install VSD Air Compressor for Trim	Custom	11,880	20,341	28,802	37,264	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226	46,226
Compressed Air	Low Pressure Drop-Fittings	Custom	8,089	8,383	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707	2,707
Compressed Air	Automatic Drains	Custom	404,602	510,511	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421	616,421
Compressed Air	Compressed Air-Pressure Flow Controller replacing no flow controller	Custom	1,895	2,978	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061	4,061
Compressed Air	Variable Displacement Air Compressor	Custom	4,487	7,882	11,277	14,672	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066	18,066
Traffic Lights	LED Auto Traffic Signals	Standard	1,130,449	1,436,609	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589	1,732,589
Traffic Lights	LED Street Lighting	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Lights	LED Pedestrian Signals	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic Lights	LED Fuel Pump Canopy Fixture	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	Lighting Power Density - Parking Garage	Custom	22,538	28,564	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590	34,590
Lighting - Exterior	Lighting Power Density - Parking Garage	Standard	2,255	2,793	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331	3,331
Lighting - Exterior	Lighting Power Density - Exterior	Custom	202,189	259,000	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010	308,010
Lighting - Exterior	Lighting Power Density - Exterior	Standard	21,010	28,110	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210	35,210
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	14,496	18,290	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083	22,083
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	1,244,978	1,520,449	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000	1,801,000
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Hal																								

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with columns: Measure Name, Program Name, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030. Rows include various energy efficiency measures like Fluorescent High Pressure Control, Efficient Refrigeration Condenser, and Water-Cooled Screw Chillers.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

RAP XWA Savings

Table with 21 columns (2018-2020, 2021-2023, 2024-2026, 2027-2029, 2030-2032, 2033-2035, 2036-2038, 2039-2041, 2042-2044, 2045-2047, 2048-2050, 2051-2053, 2054-2056, 2057-2059, 2060-2062, 2063-2065, 2066-2068, 2069-2071, 2072-2074, 2075-2077, 2078-2080) and rows listing various energy efficiency measures like AC filters, heat pumps, lighting, and HVAC systems.

4 CSR 240-2.2.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

RAP Cumulative kWh Savings

Category	Measure Name	Program Name	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Compressed Air	Air-Conditioning Air Heaters	Custian	66,130	149,279	202,344	332,260	471,261	622,862	652,380	754,134	882,499	986,849	1,066,841	1,127,137	1,227,803	1,308,449	1,409,406	1,494,627	1,511,339	1,511,339	1,511,339	
	Compressed Air	Air-Conditioning Air Heaters	Custian	66,130	149,279	202,344	332,260	471,261	622,862	652,380	754,134	882,499	986,849	1,066,841	1,127,137	1,227,803	1,308,449	1,409,406	1,494,627	1,511,339	1,511,339	1,511,339
Compressed Air	Compressed Air/Fixed Speed Air Compressor	Custian	8,904	18,615	28,134	38,653	47,171	67,900	68,208	77,727	89,545	98,064	98,064	110,883	120,901	131,220	141,838	167,729	177,729	177,729	177,729	177,729
	Compressed Air	Compressed Air/Fixed Speed Air Compressor	Custian	8,904	18,615	28,134	38,653	47,171	67,900	68,208	77,727	89,545	98,064	98,064	110,883	120,901	131,220	141,838	167,729	177,729	177,729	177,729
Compressed Air	Air Compressor/Outdoor Air Intake	Custian	8,201	14,028	22,473	32,921	42,369	51,817	61,264	70,711	80,159	89,607	99,055	108,503	117,951	127,399	136,847	146,295	155,743	165,191	165,191	165,191
	Compressed Air	Air Compressor/Outdoor Air Intake	Custian	8,201	14,028	22,473	32,921	42,369	51,817	61,264	70,711	80,159	89,607	99,055	108,503	117,951	127,399	136,847	146,295	155,743	165,191	165,191
Compressed Air	Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	Custian	45,845	103,239	172,821	242,323	311,824	381,326	450,828	520,330	589,832	659,334	728,836	798,338	867,840	937,342	1,006,844	1,076,346	1,145,848	1,215,350	1,284,852	1,354,354
	Compressed Air	Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	Custian	45,845	103,239	172,821	242,323	311,824	381,326	450,828	520,330	589,832	659,334	728,836	798,338	867,840	937,342	1,006,844	1,076,346	1,145,848	1,215,350	1,284,852
Compressed Air	Compressed Air Storage Tank	Custian	8,676	18,624	28,572	38,520	48,468	58,416	68,364	78,312	88,260	98,208	108,156	118,104	128,052	138,000	147,948	157,896	167,844	177,792	177,792	177,792
	Compressed Air	Compressed Air Storage Tank	Custian	8,676	18,624	28,572	38,520	48,468	58,416	68,364	78,312	88,260	98,208	108,156	118,104	128,052	138,000	147,948	157,896	167,844	177,792	177,792
Compressed Air	Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	Custian	9,976	22,964	37,952	52,940	67,928	82,916	97,904	112,892	127,880	142,868	157,856	172,844	187,832	202,820	217,808	232,796	247,784	262,772	262,772	262,772
	Compressed Air	Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	Custian	9,976	22,964	37,952	52,940	67,928	82,916	97,904	112,892	127,880	142,868	157,856	172,844	187,832	202,820	217,808	232,796	247,784	262,772	262,772
Compressed Air	Compressed Air Equipment with Air Blowers	Custian	100,648	339,372	567,914	796,456	1,025,178	1,253,720	1,482,262	1,710,804	1,939,346	2,167,888	2,396,430	2,624,972	2,853,514	3,082,056	3,310,598	3,539,140	3,767,682	3,996,224	4,224,766	4,453,308
	Compressed Air	Compressed Air Equipment with Air Blowers	Custian	100,648	339,372	567,914	796,456	1,025,178	1,253,720	1,482,262	1,710,804	1,939,346	2,167,888	2,396,430	2,624,972	2,853,514	3,082,056	3,310,598	3,539,140	3,767,682	3,996,224	4,224,766
Compressed Air	Compressed Air/Fixed Speed Air Compressor	Custian	1,703	3,852	6,001	8,150	10,299	12,448	14,597	16,746	18,895	21,044	23,193	25,342	27,491	29,640	31,789	33,938	36,087	38,236	38,236	38,236
	Compressed Air	Compressed Air/Fixed Speed Air Compressor	Custian	1,703	3,852	6,001	8,150	10,299	12,448	14,597	16,746	18,895	21,044	23,193	25,342	27,491	29,640	31,789	33,938	36,087	38,236	38,236
Compressed Air	High Efficiency Air Dryers	Custian	43,819	99,268	166,322	233,138	300,044	366,949	433,855	500,761	567,667	634,573	701,479	768,385	835,291	902,197	969,103	1,036,009	1,102,915	1,169,821	1,236,727	1,303,633
	Compressed Air	High Efficiency Air Dryers	Custian	43,819	99,268	166,322	233,138	300,044	366,949	433,855	500,761	567,667	634,573	701,479	768,385	835,291	902,197	969,103	1,036,009	1,102,915	1,169,821	1,236,727
Compressed Air	Compressed Air/Air Leak Repairs	Custian	1,068,037	1,760,989	2,453,941	3,146,893	3,839,845	4,532,797	5,225,749	5,918,701	6,611,653	7,304,605	8,000,557	8,700,509	9,400,461	10,100,413	10,800,365	11,500,317	12,200,269	12,900,221	13,600,173	14,300,125
	Compressed Air	Compressed Air/Air Leak Repairs	Custian	1,068,037	1,760,989	2,453,941	3,146,893	3,839,845	4,532,797	5,225,749	5,918,701	6,611,653	7,304,605	8,000,557	8,700,509	9,400,461	10,100,413	10,800,365	11,500,317	12,200,269	12,900,221	13,600,173
Compressed Air	High Efficiency Air Dryers	Custian	4,608	9,216	13,824	18,432	23,040	27,648	32,256	36,864	41,472	46,080	50,688	55,296	59,904	64,512	69,120	73,728	78,336	82,944	82,944	82,944
	Compressed Air	High Efficiency Air Dryers	Custian	4,608	9,216	13,824	18,432	23,040	27,648	32,256	36,864	41,472	46,080	50,688	55,296	59,904	64,512	69,120	73,728	78,336	82,944	82,944
Compressed Air	Efficient Air Compressors	Custian	46,109	104,288	174,877	245,466	316,055	386,644	457,233	527,822	598,411	668,999	739,588	810,177	880,766	951,355	1,021,944	1,092,533	1,163,122	1,233,711	1,304,300	1,374,889
	Compressed Air	Efficient Air Compressors	Custian	46,109	104,288	174,877	245,466	316,055	386,644	457,233	527,822	598,411	668,999	739,588	810,177	880,766	951,355	1,021,944	1,092,533	1,163,122	1,233,711	1,304,300
Compressed Air	Receivers Capacity Additions	Custian	20,377	46,087	77,132	108,177	139,322	170,467	201,612	232,757	263,902	295,047	326,192	357,337	388,482	419,627	450,772	481,917	513,062	544,207	544,207	544,207
	Compressed Air	Receivers Capacity Additions	Custian	20,377	46,087	77,132	108,177	139,322	170,467	201,612	232,757	263,902	295,047	326,192	357,337	388,482	419,627	450,772	481,917	513,062	544,207	544,207
Compressed Air	Efficient Air Compressors	Custian	9,198	17,479	28,963	40,447	51,931	63,415	74,899	86,383	97,867	109,351	120,835	132,319	143,803	155,287	166,771	178,255	189,739	191,223	191,223	191,223
	Compressed Air	Efficient Air Compressors	Custian	9,198	17,479	28,963	40,447	51,931	63,415	74,899	86,383	97,867	109,351	120,835	132,319	143,803	155,287	166,771	178,255	189,739	191,223	191,223
Compressed Air	Air Compressor-Adding an Air Compressor to Aid Low Load Condition	Custian	38,861	87,210	145,964	204,717	263,470	322,223	380,976	439,729	498,482	557,235	615,988	674,741	733,494	792,247	851,000	909,753	968,506	1,027,259	1,086,012	1,144,765
	Compressed Air	Air Compressor-Adding an Air Compressor to Aid Low Load Condition	Custian	38,861	87,210	145,964	204,717	263,470	322,223	380,976	439,729	498,482	557,235	615,988	674,741	733,494	792,247	851,000	909,753	968,506	1,027,259	1,086,012
Compressed Air	VSD Air Compressor-Install VSD Air Compressor for Load	Custian	11,890	13,921	16,024	18,089	14,614	16,140	17,666	19,192	20,718	22,244	23,770	25,296	26,822	28,348	29,874	31,400	32,926	34,452	34,452	34,452
	Compressed Air	VSD Air Compressor-Install VSD Air Compressor for Load	Custian	11,890	13,921	16,024	18,089	14,614	16,140	17,666	19,192	20,718	22,244	23,770	25,296	26,822	28,348	29,874	31,400	32,926	34,452	34,452
Compressed Air	Low Pressure Drop-Filters	Custian	5,059	11,442	18,149	25,056	32,063	39,070	46,077	53,084	60,091	67,098	74,105	81,112	88,119	95,126	102,133	109,140	116,147	123,154	123,154	123,154
	Compressed Air	Low Pressure Drop-Filters	Custian	5,059	11,442	18,149	25,056	32,063	39,070	46,077	53,084	60,091	67,098	74,105	81,112	88,119	95,126	102,133	109,140	116,147	123,154	123,154
Compressed Air	Automatic Drains	Custian	404,602	916,114	1,531,234	2,147,956	2,764,378	3,381,000	4,000,000	4,620,000	5,240,000	5,860,000	6,480,000	7,100,000	7,720,000	8,340,000	8,960,000	9,580,000	10,200,000	10,820,000	11,440,000	12,060,000
	Compressed Air	Automatic Drains	Custian	404,602	916,114	1,531,234	2,147,956	2,764,378	3,381,000	4,000,000	4,620,000	5,240,000	5,860,000	6,480,000	7,100,000	7,720,000	8,340,000	8,960,000	9,580,000	10,200,000	10,820,000	11,440,000
Compressed Air	Compressed Air Pressure Flow Controller replacing no flow controller	Custian	1,895	4,873	8,334	14,477	21,374	28,271	35,168	42,065	48,962	55,859	62,756	69,653	76,550	83,447	90,344	97,241	104,138	111,035	111,035	111,035
	Compressed Air	Compressed Air Pressure Flow Controller replacing no flow controller	Custian	1,895	4,873	8,334	14,477	21,374	28,271	35,168	42,065	48,962	55,859	62,756	69,653	76,550	83,447	90,344	97,241	104,138	111,035	111,035
Compressed Air	Variable Displacement Air Compressor	Custian	4,487	12,369	23,645	38,017	52,389	66,761	81,133	95,505	109,877	124,249	138,621	152,993	167,365	181,737	196,109	210,481	224,853	239,225	239,225	239,225
	Compressed Air	Variable Displacement Air Compressor	Custian	4,487	12,369	23,645	38,017	52,389	66,761	81,133	95,505	109,877	124,249	138,621	152,993	167,365	181,737	196,109	210,481	224,853	239,225	239,225

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with columns for Measure Name, Program Name, and 18 columns of values. The table lists various energy efficiency measures such as 'Fluorescent Hood Pressure Control', 'Efficient Refrigeration Condenser', 'Energy Star Commercial Solid Door Freezers', etc., with their respective program names and numerical values for each of the 18 columns.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

RAP Cumulative kWh Savings

Participants	Measure Name	Program Name	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040		
and Split AC	AC 65% - 135%	Custom	103,161	262,923	433,335	603,427	862,210	1,138,862	1,448,238	1,794,478	2,176,041	2,591,174	3,006,308	3,421,441	3,836,575	4,251,708	4,666,841	5,081,975	5,497,108	5,912,241	6,327,375	6,742,508	7,157,641	7,572,775	7,987,908	8,403,041	
and Split AC	Ducted Variable-Speed Split System Heat Pump	Custom	94	219	375	563	783	1,054	1,316	1,650	1,975	2,302	2,729	3,106	3,483	3,859	4,236	4,613	4,990	5,367	5,744	6,121	6,498	6,875	7,252	7,629	
and Split AC	Cool Roof	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	AC <65%	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	AC 240% - 700%	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Water Loop Heat Pump (WLLP) - Cooling	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	HVAC Occupancy Sensors	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Roof Top Unit - Evaporative Precooler	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Air Source Heat Pump - Cooling	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Ductless (mini split) - Cooling	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Ground Source Heat Pump - Cooling	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Programmable Thermostats	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Improved Duct Sealing - Cooling AC	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	HVAC Fan-Adding VFD Control to HVAC Fan Motor	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Zoning	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	Roof Top Unit - Maintenance	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	VVU-Variable Refrigerant Volume System	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
and Split AC	VVU-Variable Refrigerant Volume System	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Was enabled EMS with Electric Heat	Custom	131,262	297,111	497,244	897,339	1,497,513	1,997,777	2,497,777	2,997,777	3,497,777	3,997,777	4,497,777	4,997,777	5,497,777	5,997,777	6,497,777	6,997,777	7,497,777	7,997,777	8,497,777	8,997,777	9,497,777	9,997,777	10,497,777	10,997,777	
Space Heating	PTAC/PTHP - Heating	Custom	214,077	488,218	813,314	1,147,133	1,476,511	1,805,510	2,134,709	2,463,907	2,793,106	3,122,305	3,451,504	3,780,702	4,109,901	4,439,100	4,768,299	5,097,498	5,426,697	5,755,896	6,085,095	6,414,294	6,743,493	7,072,692	7,401,891	7,731,090	8,060,289
Space Heating	Energy Efficient Windows	Custom	62,012	140,296	234,732	339,208	433,684	518,160	612,636	707,112	801,588	895,564	989,540	1,083,516	1,177,492	1,271,468	1,365,444	1,459,420	1,553,396	1,647,372	1,741,348	1,835,324	1,929,300	2,023,276	2,117,252	2,211,228	2,305,204
Space Heating	Subtask with Electric Heat	Custom	97,951	200,657	369,258	511,878	669,499	818,120	963,741	1,112,362	1,260,983	1,410,003	1,558,624	1,707,245	1,855,866	2,004,487	2,153,108	2,301,729	2,450,350	2,598,971	2,747,592	2,896,213	3,044,834	3,193,455	3,342,076	3,490,697	3,639,318
Space Heating	Commercial EMS	Custom	28,524	64,619	107,672	151,428	194,986	238,243	281,201	324,458	367,716	411,274	455,031	498,788	542,545	586,302	629,860	673,617	717,374	761,131	804,888	848,645	892,402	936,159	979,916	1,023,673	1,067,430
Space Heating	PTAC/PTHP - Heating	Custom	2,102	4,754	7,956	11,158	14,360	17,562	20,764	23,966	27,168	30,370	33,572	36,774	39,976	43,178	46,380	49,582	52,784	55,986	59,188	62,390	65,592	68,794	71,996	75,198	78,400
Space Heating	EMS Optimization / Continuous Commissioning	NCA	860	1,493	2,499	3,505	4,511	5,517	6,523	7,529	8,534	9,540	10,546	11,551	12,557	13,563	14,569	15,574	16,580	17,586	18,592	19,598	20,604	21,610	22,616	23,622	
Space Heating	Building Operator Certification	Custom	10,070	22,730	46,972	63,919	82,257	98,289	116,627	135,265	153,903	172,541	191,179	209,817	228,455	247,093	265,731	284,369	303,007	321,645	340,283	358,921	377,559	396,197	414,835	433,473	452,111
Space Heating	Water	Custom	68,094	149,489	250,144	350,800	451,456	552,112	652,768	753,424	854,080	954,736	1,055,392	1,156,048	1,256,704	1,357,360	1,458,016	1,558,672	1,659,328	1,759,984	1,860,640	1,961,296	2,061,952	2,162,608	2,263,264	2,363,920	2,464,576
Space Heating	Yield Pumps	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Heat Exch Heat Pump (VLLP) - Heating	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Energy Efficient Windows	NCA	82,732	189,422	319,311	462,300	608,289	757,278	908,267	1,061,256	1,216,245	1,373,234	1,532,223	1,693,212	1,856,201	2,021,190	2,188,179	2,357,168	2,528,157	2,701,146	2,876,135	3,053,124	3,232,113	3,413,102	3,595,091	3,778,080	
Space Heating	Retrospective NCA	Custom	143,737	325,099	544,088	737,072	952,056	1,201,040	1,483,024	1,798,008	2,145,992	2,527,976	2,944,960	3,396,944	3,883,928	4,396,912	4,934,896	5,498,880	6,088,864	6,704,848	7,346,832	7,995,816	8,642,800	9,298,784	9,954,768	10,599,752	
Space Heating	Ground Source Heat Pump - Heating	Custom	8,102	14,064	23,885	34,567	46,109	58,651	72,193	86,835	102,477	119,120	136,763	155,406	174,049	192,692	211,335	230,378	249,621	269,164	288,907	308,850	328,993	349,336	369,879	390,622	411,465
Space Heating	Ducted Variable-Speed Split System Heat Pump	Custom	21,047	58,019	103,915	179,736	294,481	449,226	643,971	888,716	1,183,461	1,528,206	1,922,951	2,367,696	2,862,441	3,407,186	4,001,931	4,646,676	5,341,421	6,086,166	6,880,911	7,725,656	8,620,401	9,565,146	10,559,891	11,604,636	12,699,381
Space Heating	EMS Scheduling Controls	Custom	238,829	529,488	902,500	1,369,204	1,923,708	2,595,812	3,398,516	4,342,820	5,438,724	6,686,228	8,085,232	9,635,736	11,336,740	13,189,744	15,194,748	17,351,752	19,660,756	22,121,760	24,734,764	27,501,768	30,422,772	33,507,776	36,756,780	40,169,784	43,746,788
Space Heating	Electric Furnace	Custom	65,961	144,890	279,988	448,854	660,488	927,122	1,248,756	1,635,390	2,088,024	2,607,658	3,194,292	3,848,926	4,571,560	5,363,194	6,224,828	7,158,462	8,167,096	9,249,730	10,398,364	11,615,098	12,900,832	14,266,566	15,713,300	17,242,034	18,854,768
Space Heating	Roof Insulation	Custom	10,544	24,189	41,805	63,204	88,454	118,464	153,214	192,724	237,034	286,144	339,954	398,464	461,674	529,484	601,894	688,904	781,514	889,824	1,003,934	1,135,444	1,285,454	1,454,964	1,644,974	1,856,484	2,090,494
Space Heating	Active Chilled Beam Heating and Cooling	Custom	2,898	6,770	11,617	17,439	24,255	32,069	40,885	50,701	61,517	73,333	86,149	99,965	114,781	130,597	147,413	165,229	184,045	203,861	224,677	246,493	269,309	293,125	317,941	343,757	370,573
Space Heating	Heat Pump Maintenance	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Ducted Variable-Speed Split System Heat Pump	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Electric Furnace	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Water Loop Heat Pump (VLLP) - Heating	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Ground Source Heat Pump - Heating	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	ECM motors on furnaces	Custom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Space Heating	Ceiling Insulation	Custom	0</																								

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

RAP Cumulative kWh Savings															
Category	Measure Name	Program Name	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water Heating	Electric Tankless Water Heater	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Heating	Heat Pump Storage Water Heater	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer	Standard	0	0	0	0	0	0	0	0	0	0	0	0	0
Behavioral	Behavior Based Efficiency (Commercial Energy Reports)	Behavioral	13,891,878	13,430,116	38,692,835	42,339,195	42,339,195	42,339,195	42,339,195	42,339,195	42,339,195	42,339,195	42,339,195	42,339,195	42,339,195
Behavioral	In-Home Energy Use Displays	Behavioral	8,838,666	11,278,465	13,818,204	13,818,204	13,818,204	13,818,204	13,818,204	13,818,204	13,818,204	13,818,204	13,818,204	13,818,204	13,818,204
Behavioral	Whole-Building Energy Monitoring	Behavioral	0	0	0	0	0	0	0	0	0	0	0	0	0
Compressed Air	Variable Speed Air Compression-Replace Fixed Speed Air Compressor	NC	2,107	4,754	7,974	11,183	14,392	17,602	20,811	24,020	27,230	30,439	33,648	36,857	40,066
Compressed Air	High Efficiency Air Dryers	NC	2,054	4,668	7,812	10,956	14,100	17,244	20,388	23,532	26,676	29,820	32,965	36,109	39,253
Compressed Air	Efficient Air Compressors	NC	2,181	4,834	8,287	11,580	14,873	18,167	21,460	24,753	28,047	31,341	34,634	37,928	41,222
Compressed Air	Efficient Air Compressors	NC	2,111	4,778	7,991	11,208	14,424	17,640	20,857	24,073	27,289	30,506	33,722	36,939	40,155
Lighting - Exterior	High Efficiency Exterior Lighting	NC	1,285	2,838	4,749	6,660	8,572	10,483	12,394	14,305	16,217	18,128	20,040	21,951	23,862
Lighting - Exterior	Lighting Power Density - Exterior	NC	14,144	32,038	53,815	75,594	97,373	119,152	140,931	162,710	184,489	206,268	228,047	249,826	271,605
Lighting - Exterior	Exterior Linear Fluorescent	NC	0	0	0	0	0	0	0	0	0	0	0	0	
Lighting - Interior	Daylight Sensor Controls - New Construction	NC	394,238	891,872	1,492,203	2,092,534	2,692,864	3,293,195	3,893,526	4,493,857	5,094,188	5,694,519	6,294,850	6,895,181	7,495,512
Lighting - Interior	Interior Induction Lighting	NC	4,337	9,810	16,419	23,028	29,637	36,246	42,855	49,464	56,073	62,682	69,291	75,900	82,509
Lighting - Interior	High Intensity Fluorescent Fixtures (replacing HID) - New Construction	NC	927	2,098	3,508	4,919	6,331	7,743	9,155	10,567	11,978	13,390	14,802	16,214	17,626
Office Equipment	Energy Star office equipment including computers, monitors, copiers, NC	NC	153,417	346,992	590,726	814,440	894,778	943,936	943,936	943,936	943,936	943,936	943,936	943,936	943,936
Office Equipment	Energy Star POS Terminal	NC	6,476	14,170	23,028	44,999	46,433	61,691	61,691	61,691	61,691	61,691	61,691	61,691	61,691
Office Equipment	High Efficiency HVAC unit	NC	6,385	14,243	23,026	43,983	67,664	89,245	111,026	132,206	153,387	174,567	195,748	216,929	
Office Equipment	Energy Star Compliant Refrigerator	NC	0	0	0	0	0	0	0	0	0	0	0	0	
Office Equipment	Energy Star UPS	NC	0	0	0	0	0	0	0	0	0	0	0	0	
Office Equipment	HE Convection Ovens	NC	15,778	44,733	74,703	104,673	134,644	164,614	194,584	224,554	254,524	284,494	314,464	344,434	
HE Cooking	HE Dishwashers	NC	25,112	56,797	95,056	133,314	171,573	209,832	248,091	286,350	324,609	362,868	401,127	439,386	
Cooking	HE Hooded Cabinet	NC	14,954	33,822	56,604	79,386	102,168	124,950	147,732	170,514	193,296	216,078	238,860	261,642	
Cooking	HE Combination Ovens	NC	0	0	0	0	0	0	0	0	0	0	0		
Cooking	HE Convection Ovens	NC	0	0	0	0	0	0	0	0	0	0	0		
Cooking	HE Fryer	NC	0	0	0	0	0	0	0	0	0	0	0		
Cooking	Induction Cooktops	NC	0	0	0	0	0	0	0	0	0	0	0		
Other	NEMA Premium Transformer, three-phase	NC	1,228	2,861	4,910	7,370	10,242	13,226	17,222	21,300	25,484	30,780	37,122	43,644	
Other	NEMA Premium Transformer, single-phase	NC	0	0	0	0	0	0	0	0	0	0	0		
Other	High Efficiency Elevators	NC	0	0	0	0	0	0	0	0	0	0	0		
Pools	High Efficiency Pool Pump	NC	137	379	724	1,174	1,727	2,280	2,834	3,387	3,940	4,494	5,047	5,601	
Pools	Heat Pump Pool Heater	NC	0	0	0	0	0	0	0	0	0	0	0		
Pools	High efficiency spa/hot tubs	NC	0	0	0	0	0	0	0	0	0	0	0		
Refrigeration	Efficient Refrigeration Condenser	NC	98	222	371	520	669	819	968	1,117	1,266	1,415	1,565	1,714	
Refrigeration	ECM/Permanent Magnet Synchronous Case Motors	NC	6,366	14,388	24,956	35,734	45,493	55,191	64,889	74,587	84,285	93,983	103,681	113,379	
Refrigeration	ENERGY STAR Commercial Solid Door Freezers	NC	72,899	164,790	275,793	386,796	497,799	608,802	719,805	830,808	941,811	1,052,814	1,163,817	1,274,820	
Refrigeration	ENERGY STAR Commercial Glass Door Freezers	NC	69,121	155,238	261,642	368,046	474,450	580,854	687,258	793,662	900,066	1,006,470	1,112,874	1,219,278	
Refrigeration	Discs and Scroll Compressors	NC	4,973	13,709	23,207	32,448	41,689	50,930	60,171	69,412	78,653	87,894	97,135	106,376	
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	NC	6,284	13,749	23,207	32,448	41,689	50,930	60,171	69,412	78,653	87,894	97,135	106,376	
Refrigeration	Efficient run-stop compressor	NC	629	1,469	2,789	4,919	6,660	8,791	10,922	13,053	15,184	17,315	19,446	21,577	
Refrigeration	ENERGY STAR Commercial Solid Door Refrigerators	NC	0	0	0	0	0	0	0	0	0	0	0		
Refrigeration	Energy Star Ice Machines	NC	0	0	0	0	0	0	0	0	0	0	0		
Space Cooling - Chilliers	Water-Cooled Screw Chiller > 300 ton	NC	3,304	7,474	12,508	17,543	22,577	27,611	32,646	37,680	42,715	47,749	52,783	57,818	
Space Cooling - Chilliers	Water-Cooled Centrifugal Chiller > 300 ton	NC	5,425	12,504	20,944	29,384	37,824	46,264	54,704	63,144	71,584	80,024	88,464	96,904	
Space Cooling - Chilliers	Air-Cooled Chiller Average Minimum Quality 1.04 kW/ton	NC	1,459	3,281	5,569	7,796	10,024	12,251	14,478	16,705	18,932	21,159	23,386	25,613	
Space Cooling - Chilliers	Air-Cooled Chiller Average 0.01 kW/ton PLV Reduction	NC	106	239	401	562	723	884	1,045	1,206	1,367	1,528	1,689	1,850	
Space Cooling - Chilliers	Water-Cooled Chiller Average 0.01 kW/ton PLV standard	NC	1,898	3,838	6,420	9,004	11,588	14,172	16,756	19,340	21,924	24,508	27,092	29,676	
Space Cooling - Chilliers	Water-Cooled Chiller	NC	5,126	11,689	19,896	28,103	36,310	44,517	52,724	60,931	69,138	77,345	85,552	93,759	
Space Cooling - Chilliers	Air-Cooled Chiller	NC	4,381	9,527	15,333	20,984	26,635	32,286	37,937	43,588	49,239	54,890	60,541	66,192	
Space Cooling - Chilliers	Water-Cooled Screw Chiller 150 - 300 ton	NC	872	2,403	4,034	5,665	7,296	8,927	10,558	12,189	13,820	15,451	17,082	18,713	
Space Cooling - Chilliers	Water-Cooled Chiller Average 0.01 kW/ton PLV Reduction	NC	204	460	770	1,081	1,391	1,701	2,011	2,321	2,631	2,941	3,251	3,561	
Space Cooling - Chilliers	Water-Cooled Centrifugal Chiller 150 - 300 ton	NC	739	1,628	2,696	3,813	4,929	6,046	7,163	8,279	9,396	10,513	11,630	12,747	
Space Cooling - Chilliers	Water-Cooled Screw Chiller < 150 ton	NC	403	942	1,617	2,427	3,373	4,455	5,672	7,025	8,513	10,137	11,761	13,385	
Space Cooling - Chilliers	High Efficiency Pumps	NC	6,989	18,807	32,455	47,103	61,751	76,400	91,048	105,697	120,345	134,994	149,642	164,291	
Space Cooling - Chilliers	Water-Cooled Centrifugal Chiller < 150 ton	NC	0	0	0	0	0	0	0	0	0	0	0		
Space Cooling - Chilliers	Cool Roof	NC	0	0	0	0	0	0	0	0	0	0	0		
Space Cooling - Unitary and Split AC	PTAC/PTHP - Cooling	NC	5,182	11,720	19,814	27,908	36,002	44,097	52,191	60,285	68,379	76,473	84,567	92,661	
Space Cooling - Unitary and Split AC	Room A/C	NC	1,858	4,195	7,283	10,371	13,460	16,548	19,637	22,725	25,814	28,902	31,991	35,080	
Space Cooling - Unitary and Split AC	Water Loop Heat Pump (WLHP) - Cooling	NC	106	240	402	564	726	888	1,050	1,212	1,374	1,536	1,698	1,860	
Space Cooling - Unitary and Split AC	Ductless (mini split) - Cooling	NC	426	996	1,710	2,566	3,566	4,710	5,997	7,427	9,001	10,718	12,435	14,152	
Space Cooling - Unitary and Split AC	Air Compressor Outdoor Air Intake	NC	2,048	4,631	7,910	10,670	13,990	17,309	20,629	23,948	27,268	30,587	33,907	37,227	
Space Cooling - Unitary and Split AC	AC - 95%	NC	4,986	11,650	19,990	30,006	41,700	55,071	70,118	86,842	104,243	123,200	142,856	163,212	
Space Cooling - Unitary and Split AC	Active Chilled Beam Heating and Cooling	NC	302	832	1,491	2,379	3,795	5,611	7,846	10,462	13,268	16,244	19,381	22,679	
Space Cooling - Unitary and Split AC	AC 15%+ 240k	NC	302	832	1,491	2,379	3,795	5,611	7,846	10,462	13,268	16,244	19,381	22,679	
Space Cooling - Unitary and Split AC	AC 70%	NC	2,887	6,045	10,372	15,069	21,637	29,574	38,361	47,599	57,496	68,024	79,141	90,809	
Space Cooling - Unitary and Split AC	Ducted Variable-Speed Split System Heat Pump	NC	574	1,340	2,300	3,452	4,798	6,336	8,068	9,992	12,109	14,419	16,929	19,639	
Space Cooling - Unitary and Split AC	Ground Source Heat Pump - Cooling	NC	940	2,262	3,166	4,332	5,761	7,454	9,424	11,680	14,224	17,064	20,200	23,636	
Space Cooling - Unitary and Split AC	AC 240k - 750k	NC	4,189	9,787	16,734	25,110	34,504	44,997	56,590	69,283	83,076	97,869	113,662	130,455	
Space Cooling - Unitary and Split AC															

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

		RAP kW Savings Incremental																			
Out Line	Measure Name	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Compressed Air	Air Compressor Air Shutters	Custom	9.1	11.6	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
Compressed Air	Compressed Air-Fixed Speed Air Compressor	Custom	1.0	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Compressed Air	Air Compressor Outdoor Air Intake	Custom	0.9	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Compressed Air	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor	Custom	6.3	7.8	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
Compressed Air	Compressed Air Storage Tank	Custom	1.2	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Compressed Air	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor	Custom	1.4	1.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Compressed Air	Compressed Air Replacement with Air Blowers	Custom	20.7	26.1	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6
Compressed Air	Compressed Air-Fixed Speed Air Compressor	Custom	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Compressed Air	High Efficiency Air Dryers	Custom	6.1	7.6	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
Compressed Air	Compressed Air Audits & Leak Repair	Custom	180.0	242.8	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0	294.0
Compressed Air	High Efficiency Air Dryers	Custom	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Compressed Air	Efficient Air Compressors	Custom	6.4	8.0	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
Compressed Air	Receiver Capacity Additions	Custom	2.8	3.5	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Compressed Air	Efficient Air Compressors	Custom	0.7	0.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Compressed Air	Air Compressor-Adding an Air Compressor to Aid Low Load Conditions	Custom	5.3	6.7	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
Compressed Air	VSD Air Compressor-Install VSD Air Compressor for Trim	Custom	1.6	2.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Compressed Air	Low Pressure Drop-Filters	Custom	0.7	0.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Compressed Air	Automatic Drains	Custom	59.9	70.3	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
Compressed Air	Compressed Air Pressure Flow Controller replacing no flow controller	Custom	0.2	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Compressed Air	Variable Displacement Air Compressor	Custom	0.6	1.1	1.6	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Compressed Air	Cycling Drives	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traffic Lights	LED Auto Traffic Signals	Standard	6.3	8.0	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
Traffic Lights	LED Street Lighting	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traffic Lights	LED Pedestrian Signals	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Traffic Lights	LED Flood Pump Canopy Fixture	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lighting - Exterior	Lighting Power Density - Parking Garage	Custom	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Lighting - Exterior	Lighting Power Density - Parking Garage	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lighting - Exterior	Lighting Power Density - Exterior	Custom	1.1	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Lighting - Exterior	Lighting Power Density - Exterior	Standard	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Lighting - Exterior	Exterior Recessed Controls	Custom	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Lighting - Exterior	Exterior LED replacement with LEDs	Custom	6.8	8.6	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
Lighting - Exterior	Garage LED replacement with LEDs	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lighting - Exterior	Garage Recessed Controls	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lighting - Exterior	Control Linear Fluorescent	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lighting - Exterior	Exterior Linear Fluorescent	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lighting - Exterior	Sports Field Lighting HLD Control	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lighting - Exterior	Interior Lighting/Tasking LED Fixture	Custom	1.8	2.2	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Lighting - Interior	Lighting Power Density - Interior	Custom	420.1	530.4	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5	648.5
Lighting - Interior	Occupancy Sensors for LED Refrigerator Lighting	Custom	28.7	36.3	44.0	43.9	43.8	43.8	43.8	43.8	43.9	44.0	43.7	43.8	43.9	43.9	43.9	43.9	43.9	43.9	43.7
Lighting - Interior	LED Fixture Upgrade - Pulse Start Metal Halide	Standard	1.4	1.8	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Lighting - Interior	LED Fixture Upgrade - Pulse Start Metal Halide	Standard	782.9	968.9	1161.0	1160.3	1159.4	1158.8	1158.9	1159.1	1159.3	1159.6	1159.9	1160.2	1160.5	1160.8	1161.1	1161.4	1161.7	1162.0	1162.3
Lighting - Interior	LED Exit Signs	Custom	11.1	14.0	17.0	16.9	16.9	16.9	17.0	17.0	17.0	16.9	16.9	17.0	17.0	17.0	16.9	16.9	17.0	17.0	16.9
Lighting - Interior	Switching Controls for Multivolt Lighting (Non-HLD)	Standard	106.2	136.8	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5	168.5
Lighting - Interior	Interior Induction Lighting - New Construction	Standard	1,773.2	2,238.4	2,712.8	2,711.9	2,711.3	2,710.3	2,709.3	2,708.3	2,707.3	2,706.3	2,705.3	2,704.3	2,703.3	2,702.3	2,701.3	2,700.3	2,699.3	2,698.3	2,697.3
Lighting - Interior	Interior Induction Lighting	Standard	18.4	24.8	39.8	39.7	39.6	39.6	39.7	39.7	39.7	39.6	39.6	39.7	39.7	39.7	39.6	39.6	39.7	39.7	39.6
Lighting - Interior	LED Specialty (replacing Incandescent)	Standard	281.0	316.8	364.4	363.8	363.2	362.3	361.3	360.3	359.3	358.3	357.3	356.3	355.3	354.3	353.3	352.3	351.3	350.3	349.3
Lighting - Interior	LED Specialty (replacing Incandescent)	Standard	116.8	148.3	201.8	201.2	200.3	199.3	198.3	197.3	196.3	195.3	194.3	193.3	192.3	191.3	190.3	189.3	188.3	187.3	186.3
Lighting - Interior	LED Specialty (replacing Incandescent)	Standard	197.0	230.3	243.1	242.7	241.8	241.1	240.3	239.6	238.9	238.2	237.5	236.8	236.1	235.4	234.7	234.0	233.3	232.6	231.9
Lighting - Interior	Interior Induction Lighting	Standard	23.4	29.6	35.9	35.8	35.7	35.6	35.7	35.7	35.8	35.8	35.8	35.7	35.7	35.8	35.8	35.7	35.8	35.8	35.8
Lighting - Interior	Lamp & Ballast Retrofit (Low Wattage HPS Replacing Standard T12)	Custom	46.3	58.8	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
Lighting - Interior	Lamp & Ballast Retrofit (Low Wattage HPS Replacing Standard T12)	Standard	1,200.7	1,516.7	1,839.0	1,838.3	1,837.4	1,836.4	1,835.4	1,834.4	1,833.4	1,832.4	1,831.4	1,830.4	1,829.4	1,828.4	1,827.4	1,826.4	1,825.4	1,824.4	1,823.4
Lighting - Interior	Occupancy Sensors	Custom	1,151.9	1,454.1	1,764.2	1,763.1	1,762.4	1,761.5	1,760.5	1,759.5	1,758.5	1,757.5	1,756.5	1,755.5	1,754.5	1,753.5	1,752.5	1,751.5	1,750.5	1,749.5	1,748.5
Lighting - Interior	T5 HP Retrofit	Standard	303.1	382.6	464.2	463.6	462.9	462.2	461.5	460.7	460.0	459.2	458.5	457.7	456.9	456.2	455.4	454.6	453.8	453.0	452.2
Lighting - Interior	LED Downlight	Standard	182.1	217.7	253.2	252.5	251.8	251.1	250.4	249.7	249.0	248.3	247.6	246.9	246.2	245.5	244.8	244.1	243.4	242.7	242

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with columns: Program Name, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050. Rows include various energy efficiency measures like Energy Efficient Windows, HVAC System Upgrades, and LED Lighting.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

RAP SW Savings - Cumulative

Full Name	Measure Name	Program Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Compressed Air	Air-Introducing Air Blowers	Custom	9.1	20.4	34.4	48.5	62.4	76.1	90.2	104.1	118.0	131.8	145.8	159.7	173.5	187.0	200.5	200.2	200.6	200.0
Compressed Air	Compressed Air-Fixed Speed Air Compressor	Custom	1.0	2.1	3.6	5.1	6.5	7.9	9.4	10.9	12.3	13.7	15.2	16.7	18.1	19.5	21.0	21.8	21.7	22.7
Compressed Air	Air Compressor Outdoor Air Intake	Custom	0.9	1.9	3.2	4.5	5.8	7.1	8.5	9.8	11.1	12.3	13.7	15.0	16.3	17.6	18.9	20.2	21.5	22.7
Compressed Air	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor	Custom	6.3	14.3	23.3	33.3	43.0	52.5	62.3	71.8	81.4	90.8	100.8	110.8	120.1	129.1	138.1	147.3	146.0	149.8
Compressed Air	Compressed Air Storage Tank	Custom	1.2	2.7	4.5	6.4	8.2	10.0	11.8	13.7	15.5	17.3	19.1	21.0	22.8	24.5	26.3	28.1	30.1	31.8
Compressed Air	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor	Custom	1.4	3.1	5.2	7.3	9.4	11.5	13.6	15.7	17.8	19.8	22.0	24.1	26.2	28.2	30.4	31.1	31.5	31.4
Compressed Air	Compressed Air Replacement with Air Blowers	Custom	20.7	46.7	78.4	110.0	141.8	173.6	205.4	237.2	269.0	299.8	329.4	358.0	386.4	414.3	442.1	469.9	497.3	497.9
Compressed Air	Compressed Air-Fixed Speed Air Compressor	Custom	0.2	0.5	0.9	1.2	1.6	2.0	2.3	2.7	3.0	3.4	3.8	4.1	4.5	4.8	5.2	5.3	5.4	5.4
Compressed Air	High Efficiency Air Dryers	Custom	6.1	13.7	22.9	32.2	41.4	50.5	59.9	69.1	78.4	87.4	96.8	106.1	115.3	124.2	133.8	138.9	138.5	144.3
Compressed Air	Compressed Air Audits & Leak Repair	Custom	163.0	242.8	324.0	404.1	484.0	563.2	642.0	720.4	800.0	880.0	960.0	1040.0	1120.0	1200.0	1280.0	1360.0	1440.0	1520.0
Compressed Air	High Efficiency Air Dryer	Custom	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Compressed Air	Efficient Air Compressors	Custom	6.4	14.4	24.1	33.8	43.5	53.0	62.9	72.8	82.3	91.7	101.1	111.4	121.1	130.4	140.5	148.8	145.4	145.0
Compressed Air	Receiver Capacity Addition	Custom	2.8	6.3	10.6	14.9	19.2	23.4	27.8	32.1	36.4	40.5	44.7	48.9	52.9	49.0	49.0	49.0	49.0	49.0
Compressed Air	Efficient Air Compressors	Custom	0.7	1.6	2.7	3.8	4.9	6.0	7.1	8.2	9.3	10.3	11.3	12.3	13.3	14.2	15.2	16.2	16.3	17.1
Compressed Air	Air Compressor-Adding an Air Compressor to Add Low Lead Conditions	Custom	5.3	12.0	20.1	28.3	36.4	44.4	52.4	60.4	68.4	76.3	85.0	93.1	101.2	109.0	117.5	120.0	121.1	126.7
Compressed Air	VSD Air Compressor-Install VSD Air Compressor for Low Lead	Custom	1.8	4.4	8.4	13.7	20.1	26.4	32.6	38.8	45.1	51.3	57.5	63.7	69.9	76.1	82.3	88.5	94.7	95.1
Compressed Air	Low Pressure Drop/Filters	Custom	0.7	1.6	2.8	3.7	4.8	5.8	6.9	8.0	9.0	10.1	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Compressed Air	Automatic Drains	Custom	85.9	128.0	171.4	206.5	251.8	297.1	342.4	387.7	433.0	478.3	523.6	568.9	614.2	659.5	704.8	750.1	795.4	840.7
Compressed Air	Compressed Air Pressure Flow Controller replacing no flow controller	Custom	0.2	0.6	1.2	2.0	2.9	3.9	4.9	5.8	6.7	7.6	8.4	9.3	9.2	9.4	9.4	9.4	9.4	9.4
Compressed Air	Variable Displacement Air Compressor	Custom	0.6	1.7	3.3	5.3	7.8	10.2	12.6	15.0	17.3	20.2	22.7	25.2	27.7	29.9	31.0	32.0	32.4	32.3
Compressed Air	Cycling Dryer	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Traffic Lights	LED Auto Traffic Signals	Standard	6.8	14.4	24.3	33.8	43.3	52.8	62.3	71.8	81.3	90.8	100.3	109.8	119.3	128.8	138.3	147.8	157.3	166.8
Traffic Lights	LED Street Lighting	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Traffic Lights	LED Pedestrian Signals	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Traffic Lights	LED Fuel Pump Canopy Fixture	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior	Lighting Power Density - Parking Garage	Custom	0.1	0.3	0.5	0.7	0.9	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.3	2.3	2.3	2.3	2.3	2.3
Lighting - Exterior	Lighting Power Density - Parking Garage	Custom	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.4	1.4	1.4
Lighting - Exterior	Lighting Power Density - Exterior	Custom	1.1	2.5	4.3	6.0	7.7	9.4	11.2	13.0	14.8	16.3	18.1	19.8	20.5	20.8	20.7	20.7	20.7	20.7
Lighting - Exterior	Lighting Power Density - Exterior	Custom	0.1	0.1	0.4	0.6	0.8	1.0	1.2	1.3	1.5	1.7	1.9	2.1	2.1	2.2	2.2	2.2	2.2	2.2
Lighting - Exterior	Exterior Ballast Controls	Custom	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.3	1.5	1.7	1.9	2.1	2.1	2.2	2.2	2.2	2.2	2.2
Lighting - Exterior	Exterior Ballast Controls	Custom	6.8	15.4	25.9	36.3	46.7	57.1	67.5	77.9	88.3	98.7	109.1	119.5	129.9	140.3	150.7	161.1	171.5	181.9
Lighting - Exterior	Garage HID replacement with LEDs	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior	Garage Ballast Controls	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior	Exterior Linear Fluorescent	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior	Sports Field Lighting (Hls Control)	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior	Interior Lighting (Exterior) LED Fixtures	Standard	20.1	206.1	401.1	596.1	791.1	986.1	1181.1	1376.1	1571.1	1766.1	1961.1	2156.1	2351.1	2546.1	2741.1	2936.1	3131.1	3326.1
Lighting - Exterior	Lighting Power Density - Interior	Custom	48.1	80.7	109.8	138.9	168.0	197.1	226.2	255.3	284.4	313.5	342.6	371.7	400.8	429.9	459.0	488.1	517.2	546.3
Lighting - Exterior	Occupancy Sensors for LED Refrigerator Lighting	Custom	28.7	65.0	109.3	153.6	197.9	242.2	286.5	330.8	375.1	419.4	463.7	508.0	552.3	596.6	640.9	685.2	729.5	773.8
Lighting - Exterior	HID Fixture Upgrade - Pulse Start Metal Halide	Standard	1.4	3.2	5.3	7.5	9.6	11.7	13.8	15.9	18.0	20.1	22.2	24.3	26.4	28.5	30.6	32.7	34.8	
Lighting - Exterior	LED Exit Signs	Standard	788.0	1715.3	2848.5	4081.6	5314.7	6547.8	7780.9	8994.0	10207.1	11420.2	12633.3	13846.4	15059.5	16272.6	17485.7	18698.8	19911.9	21125.0
Lighting - Exterior	LED Exit Signs	Standard	11.1	25.1	42.3	59.5	76.7	93.9	111.1	128.3	145.5	162.7	180.0	197.2	214.4	231.6	248.8	266.0	283.2	
Lighting - Exterior	Switching Controls for Multistage Lighting (Non-HID)	Standard	10.8	23.1	35.3	47.5	59.7	71.9	84.1	96.3	108.5	120.7	132.9	145.1	157.3	169.5	181.7	193.9	206.1	
Lighting - Exterior	Daylight Harvesting Controls - New Construction	Standard	173.2	421.6	714.0	1006.4	1300.8	1600.2	1900.6	2201.0	2501.4	2801.8	3102.2	3402.6	3703.0	4003.4	4303.8	4604.2	4904.6	
Lighting - Exterior	Interior Induction Lighting	Standard	15.4	44.0	74.0	103.6	133.2	162.8	192.4	222.0	251.6	281.2	310.8	340.4	370.0	400.0	430.0	460.0	490.0	
Lighting - Exterior	LED Specialty (replacing Incandescent)	Standard	251.0	567.9	955.0	1342.3	1729.6	2116.9	2504.2	2891.5	3278.8	3666.1	4053.4	4440.7	4828.0	5215.3	5602.6	5989.9	6377.2	
Lighting - Exterior	LED Specialty (replacing Incandescent)	Standard	18.1	40.9	68.5	96.1	123.7	151.3	178.9	206.5	234.1	261.7	289.3	316.9	344.5	372.1	399.7	427.3	454.9	
Lighting - Exterior	LED Screw In (replacing Incandescent)	Standard	198.7	451.1	744.5	1037.9	1331.3	1624.7	1918.1	2211.5	2504.9	2798.3	3091.7	3385.1	3678.5	3971.9	4265.3	4558.7	4852.1	
Lighting - Exterior	Interior Induction Lighting	Standard	23.4	53.0	89.1	124.8	160.5	196.2	231.9	267.6	303.3	339.0	374.7	410.4	446.1	481.8	517.5	553.2	588.9	
Lighting - Exterior	Lamp & Ballast Retrofit (LED Replacing Standard T12)	Custom	46.0	128.8	243.5	394.1	577.6	795.7	1049.8	1349.9	1696.0	2088.1	2526.2	3016.3	3559.4	4157.5	4810.6	5518.7	6291.8	
Lighting - Exterior	LED Specialty (replacing CFL)	Standard	120.7	271.0	456.2	636.9	823.0	1014.1	1210.2	1411.3	1617.4	1823.5	2029.6	2235.7	2441.8	2647.9	2854.0	3060.1	3266.2	
Lighting - Exterior	LED Specialty (replacing CFL)	Standard	115.9	260.6	438.4	618.7	806.5	994.3	1182.1	1370.0	1557.8	1745.7	1933.6	2121.5	2309.4	2497.3	2685.2	2873.1	3061.0	
Lighting - Exterior	TR HP Retrofit	Standard	303.1	685.9	1153.4	1615.3	2077.2	2539.1	2999.7	3459.6	3919.5	4379.4	4839.3	5299.2	5759.1	6219.0	6678.9	7138.8	7598.7	
Lighting - Exterior	LED Downlight	Standard	9.3	21.0	35.3	49.6	63.9	78.2	92.5	106.8	121.1	135.4	149.7	164.0	178.3	192.6	206.9	221.2		
Lighting - Exterior	LED Downlight	Standard	10.8	24.4	41.8	59.2	76.6	94.0	111.4	128.8	146.2	163.6	181.0	198.4	215.8	233.2	250.6	268.0		
Lighting - Exterior	LED Lighting in Refrigeration	Custom	35.9	81.3	136.6	191.9	247.3	299.2	351.4	403.6	455.8	508.0	560.2	612.4	664.6	716.8	769.0	821.2	873.4	
Lighting - Exterior	LED Lighting in Refrigeration	Custom	20.0	45.3	75.6	105.9	136.2	166.5	196.8	227.1	257.4	287.7	318.0	348						

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

Table with columns: Program Name, Measure Name, Program Name, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037. Rows include various energy efficiency measures like Refrigeration, Space Cooling, and HVAC systems.

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

RAP kW Savings - Cumulative

Participant	Measure Name	Program Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
and Split AC	AC 480 - 150s	Cutout	0.0	219.8	323.9	664.1	794.1	1,043.3	1,327.3	1,638.4	1,966.7	2,366.3	2,723.3	3,134.8	3,589.9	3,947.0	4,243.3	4,627.8	4,777.8	5,245.0	
and Split AC	Ducted Variable-Speed Split System Heat Pump	Cutout	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.5	1.8	2.1	2.5	2.8	3.2	3.5	3.9	4.2	4.5	4.9	5.2
and Split AC	Cool Roof	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	AC - 480s	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	AC 240v - 700s	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Water Loop Heat Pump (WLHP) - Cooling	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	HVAC Occupancy Sensors	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Roof Top Unit - Evaporative Precooler	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Air Source Heat Pump - Cooling	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Ductless (mini split) - Cooling	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Ground Source Heat Pump - Cooling	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Programmable Thermostats	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Improved Duct Sealing - Cooling AC	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	HVAC Fan-Adding VFD Control to HVAC Fan Motor	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Zoning	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Roof Top Unit - Maintenance	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	VAV-Variable Refrigerant Volume System	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	VAV-Variable Refrigerant Volume System	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Web-enabled EMS with Electric Heat	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	PTAC/PTHP - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Energy Efficient Windows	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Subtask with Electric Heat	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Commercial EMS	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	PTAC/PTHP - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	EMS Optimization / Continuous Commissioning	RCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Building Operator Certification	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Wall Insulation	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	VFD Pumps	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Hotel Guest Room Occupancy Control System	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Energy Efficient Windows	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Retrospectively	RCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ground Source Heat Pump - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ducted Variable-Speed Split System Heat Pump	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	EMS Pump Scheduling Controls	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Electric Furnace	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Roof Insulation	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Active Chilled Beam Heating and Cooling	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Heat Pump Maintenance	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ducted Variable-Speed Split System Heat Pump	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Electric Furnace	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Water Loop Heat Pump (WLHP) - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ground Source Heat Pump - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	ECM motors on furnaces	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ceiling Insulation	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Cool Roof	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Cool Roof	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Active Chilled Beam Heating and Cooling	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Air Source Heat Pump - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	HVAC Occupancy Sensors	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Zoning	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Window Improvements	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ductless (mini split) - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Improved Duct Sealing - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ductless (mini split) - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Water Loop Heat Pump (WLHP) - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Air Source Heat Pump - Heating	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Web-enabled EMS	Cutout	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ventilation	FANWALL Technology	Cutout	8.3	12.1	20.3	28.4	36.4	44.4	52.8	61.1	69.3	76.9	85.0	93.3							

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

RAP kW Savings - Cumulative

Building	Measure Name	Program Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		
Water Heating	Electric Tankless Water Heater	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Heat Pump Storage Water Heater	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Behavioral	Behavior Based Efficiency (Commercial Energy Reports)	Behavioral	6,201.7	13,821.7	17,781.6	18,778.8	18,812.6	18,824.4	18,970.1	18,817.0	18,886.8	18,741.4	18,751.9	18,877.1	18,839.7	18,778.6	18,751.9	18,804.6	18,817.0	
Behavioral	In-Home Energy Use Displays	Behavioral	3,999.5	6,001.2	6,010.0	6,041.6	6,052.5	6,056.6	6,100.1	6,059.9	6,010.0	6,028.5	6,038.6	6,079.6	6,100.1	6,096.8	6,082.5	6,052.5	6,082.0	6,059.9
Behavioral	Whole-Building Energy Monitoring	Behavioral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Compressed Air	Variable Speed Air Compressor-Replaces Fixed Speed Air Compressor	NC	0.3	0.7	1.1	1.5	2.0	2.4	2.9	3.3	3.8	4.2	4.6	5.1	5.5	6.0	6.4	6.8	6.9	6.9
Compressed Air	High Efficiency Air Dryers	NC	0.3	0.6	1.1	1.5	1.9	2.4	2.8	3.2	3.7	4.1	4.5	5.0	5.4	5.8	6.3	6.4	6.5	6.5
Compressed Air	Efficient Air Compressors	NC	0.3	0.7	1.1	1.6	2.1	2.5	3.0	3.4	3.9	4.3	4.8	5.3	5.7	6.2	6.6	6.8	6.9	6.9
Compressed Air	Efficient Air Compressors	NC	0.3	0.7	1.1	1.6	2.0	2.4	2.9	3.3	3.8	4.2	4.7	5.1	5.5	6.0	6.4	6.6	6.7	6.6
Lighting - Exterior	Lighting Power Density - Parking Garage	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Exterior	Lighting Power Density - Exterior	NC	0.1	0.2	0.3	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.3	1.4	1.5	1.6	1.8	1.8	1.8	1.8
Lighting - Exterior	Exterior Linear Fluorescent	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lighting - Interior	Daylight Sensor Controls - New Construction	NC	74.8	169.3	284.7	386.7	511.1	623.5	740.4	866.4	972.3	1079.4	1193.1	1309.1	1390.6	1470.5	1571.1	1677.7	1665.8	1665.8
Lighting - Interior	Interior induction Lighting	NC	1.8	1.8	3.1	4.4	5.6	6.8	8.1	9.4	10.7	11.9	13.1	14.4	15.7	16.9	18.2	19.4	19.8	20.0
Lighting - Interior	High Intensity Fluorescent Fixture (replacing HID) - New Construction	NC	0.2	0.4	0.7	0.9	1.2	1.5	1.7	2.0	2.3	2.5	2.8	3.1	3.2	3.2	3.2	3.2	3.2	3.2
Office Equipment	Energy Star office equipment including computers, monitors, copiers, NC	NC	22.9	51.7	87.0	121.8	133.3	138.9	139.5	139.8	140.0	139.0	139.0	139.3	139.5	139.5	139.8	139.2	139.0	139.2
Office Equipment	Energy Star POS Terminal	NC	1.3	2.9	4.8	6.7	7.4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Office Equipment	High Efficiency Copier	NC	0.8	2.2	4.2	6.8	10.1	13.3	16.6	19.8	23.1	26.2	29.4	32.7	36.0	39.2	42.5	44.5	46.5	47.5
Office Equipment	Energy Star Compliant Refrigerator	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Office Equipment	Energy Star UPS	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HE Convection Ovens	NC	4.0	8.9	17.0	26.7	34.3	41.8	49.6	57.3	64.9	72.4	80.2	87.9	95.8	103.6	111.9	119.8	118.8	118.8
Cooking	HE Holding Cabinet	NC	3.0	6.7	11.3	15.9	20.9	24.9	29.8	34.1	38.7	43.1	47.8	52.3	56.9	61.4	64.7	64.7	64.7	64.7
Cooking	HE Combination Oven	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HE Convection	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HE Fryer	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	Induction Cooktops	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other	NEMA Premium Transformer, three-phase	NC	0.2	0.4	0.7	1.0	1.4	1.9	2.4	2.9	3.6	4.2	4.9	5.6	6.3	7.0	7.7	8.3	9.0	9.7
Other	NEMA Premium Transformer, single-phase	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other	High Efficiency Elevators	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pools	High Efficiency Spa/Hot tubs	NC	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Pools	Heat Pump Pool Heater	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pools	High efficiency spa/hot tubs	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Efficient Refrigeration Condenser	NC	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	
Refrigeration	ECM Permanent Magnet Synchronous Case Motors	NC	0.9	2.0	3.3	4.6	5.9	7.2	8.5	9.9	11.2	12.5	13.8	15.1	16.4	17.7	19.1	19.5	19.8	19.7
Refrigeration	ENERGY STAR Commercial Solid Door Freezers	NC	8.9	22.3	37.6	52.5	67.6	82.5	97.8	112.9	127.9	142.6	158.1	173.2	178.3	180.4	180.9	180.9	180.9	180.9
Refrigeration	ENERGY STAR Commercial Glass Door Freezers	NC	8.4	21.2	35.5	49.8	64.1	78.2	92.3	107.1	121.4	135.3	150.0	164.3	169.2	171.2	171.6	171.7	171.8	
Refrigeration	Discus and Scroll Compressors	NC	0.7	1.8	3.8	5.8	8.8	11.2	13.9	16.6	19.4	22.0	24.8	27.5	30.2	32.2	33.8	34.8	35.4	35.3
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	NC	0.9	2.4	4.5	7.3	10.7	14.1	17.6	21.1	24.5	27.9	31.4	34.8	37.2	39.3	40.7	41.3	41.3	41.2
Refrigeration	Efficient Iceberg Compressor	NC	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.8	2.1	2.3	2.6	2.9	3.2	3.4	3.6	3.7	3.8	3.9
Refrigeration	ENERGY STAR Commercial Solid Door Refrigerators	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Energy Star Ice Machines	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Cooling - Chillers	Water-Cooled Screw Chiller > 300 ton	NC	3.0	6.8	11.3	16.0	20.5	25.3	30.1	34.4	38.6	43.4	47.8	53.0	58.0	61.4	66.3	70.9	75.1	81.2
Space Cooling - Chillers	Water-Cooled Centrifugal Chiller > 300 ton	NC	3.1	7.1	11.7	16.8	21.2	26.1	31.2	36.4	41.6	47.4	53.4	59.4	64.4	69.4	74.4	77.7	84.0	87.9
Space Cooling - Chillers	Air-Cooled Chiller Average Minimum Qualifying 1.04 kW/ton	NC	1.8	3.0	5.0	7.1	9.0	11.2	13.4	15.8	17.2	19.3	21.2	23.5	25.8	27.3	28.5	28.4	28.1	27.7
Space Cooling - Chillers	Air-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	NC	0.1	0.2	0.4	0.6	0.7	0.8	1.0	1.1	1.2	1.4	1.5	1.7	1.9	2.0	2.1	2.3	2.4	2.6
Space Cooling - Chillers	Water-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	NC	1.8	3.9	5.8	8.2	10.5	13.0	15.5	17.8	19.8	22.3	24.8	27.2	29.8	31.5	34.0	36.4	38.6	41.7
Space Cooling - Chillers	Air-Cooled Chiller	NC	1.9	4.0	7.0	10.3	13.2	16.3	19.4	22.1	24.9	27.9	30.7	33.1	35.2	36.5	36.5	35.2	34.0	32.8
Space Cooling - Chillers	Air-Cooled Screw Chiller	NC	1.8	4.0	6.8	9.4	12.0	14.8	17.7	20.2	22.7	25.5	28.0	31.1	34.0	36.0	38.9	41.8	44.0	47.8
Space Cooling - Chillers	Water-Cooled Screw Chiller 150 - 300 ton	NC	0.8	2.2	4.2	6.8	10.0	13.3	16.8	19.8	22.8	25.9	29.0	32.5	36.0	38.5	41.9	45.1	48.0	52.8
Space Cooling - Chillers	Water-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	NC	0.2	0.4	0.7	1.0	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.3	3.6	3.8	4.1	4.4	4.6	5.0
Space Cooling - Chillers	Water-Cooled Chiller	NC	0.7	1.9	3.5	5.7	8.1	10.4	12.8	15.1	17.6	19.9	22.5	24.9	27.5	29.5	31.5	33.5	35.2	37.8
Space Cooling - Chillers	Water-Cooled Screw Chiller < 150 ton	NC	0.4	0.9	1.5	2.2	3.1	4.1	5.2	6.4	7.7	9.2	10.6	12.3	13.8	15.1	16.6	18.1	19.5	21.3
Space Cooling - Chillers	High Efficiency Pumps	NC	6.4	14.4	23.9	33.7	43.4	53.6	63.7	73.7	81.7	91.8	101.1	112.0	122.6	129.9	140.2	143.6	144.6	147.3

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

MAP kW Savings - Cumulative

End Use	Measure Name	Program Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Refrigeration	Floating Head Pressure Control	Standard	31.20	62.4	93.6	124.8	156.0	187.2	218.4	249.6	280.8	312.0	343.2	374.4	405.6	436.8	468.0	499.2	530.4	561.6	592.8	624.0	655.2	686.4
Refrigeration	Efficient Refrigeration Condenser	Custom	0.4	0.9	1.3	1.8	2.2	2.6	3.1	3.5	4.0	4.4	4.8	5.3	5.7	6.1	6.6	7.0	7.5	7.9	8.4	8.8	9.3	9.7
Refrigeration	Efficient Refrigeration Condenser	Custom	4.35	8.69	13.03	17.37	21.71	26.05	30.39	34.73	39.07	43.41	47.75	52.09	56.43	60.77	65.11	69.45	73.79	78.13	82.47	86.81	91.15	95.49
Refrigeration	ECM Permanent Magnet Synchronous Case Motors	Standard	29.2	58.3	87.4	116.5	145.6	174.7	203.8	232.9	262.0	291.1	320.2	349.3	378.4	407.5	436.6	465.7	494.8	523.9	553.0	582.1	611.2	640.3
Refrigeration	Anti Sweat Heater Controls	Standard	7.2	14.4	21.6	28.8	36.0	43.2	50.4	57.6	64.8	72.0	79.2	86.4	93.6	100.8	108.0	115.2	122.4	129.6	136.8	144.0	151.2	158.4
Refrigeration	Automatic Door Closers for Refrigerated Walk-in Coolers/Freezers	Standard	133.4	266.8	400.2	533.6	667.0	800.4	933.8	1067.2	1200.6	1334.0	1467.4	1600.8	1734.2	1867.6	2001.0	2134.4	2267.8	2401.2	2534.6	2668.0	2801.4	2934.8
Refrigeration	ECM Permanent Magnet Synchronous Walk-in Coolers/Freezers	Standard	788.9	1,577.8	2,366.7	3,155.6	3,944.5	4,733.4	5,522.3	6,311.2	7,100.1	7,889.0	8,677.9	9,466.8	10,255.7	11,044.6	11,833.5	12,622.4	13,411.3	14,200.2	14,989.1	15,778.0	16,566.9	17,355.8
Refrigeration	Automatic High Speed Doors	Custom	118.9	237.8	356.7	475.6	594.5	713.4	832.3	951.2	1,070.1	1,189.0	1,307.9	1,426.8	1,545.7	1,664.6	1,783.5	1,902.4	2,021.3	2,140.2	2,259.1	2,378.0	2,496.9	2,615.8
Refrigeration	Strip Curtains - Walk-In Freezer	Custom	1,040.6	2,081.2	3,161.8	4,242.4	5,323.0	6,403.6	7,484.2	8,564.8	9,645.4	10,726.0	11,806.6	12,887.2	13,967.8	15,048.4	16,129.0	17,209.6	18,290.2	19,370.8	20,451.4	21,532.0	22,612.6	23,693.2
Refrigeration	Refrigeration charging correction	Custom	906.9	1,813.8	2,720.7	3,627.6	4,534.5	5,441.4	6,348.3	7,255.2	8,162.1	9,069.0	9,975.9	10,882.8	11,789.7	12,696.6	13,603.5	14,510.4	15,417.3	16,324.2	17,231.1	18,138.0	19,044.9	19,951.8
Refrigeration	ENERGY STAR Commercial Solid Door Freezers	Standard	342.8	685.6	1,028.4	1,371.2	1,714.0	2,056.8	2,399.6	2,742.4	3,085.2	3,428.0	3,770.8	4,113.6	4,456.4	4,799.2	5,142.0	5,484.8	5,827.6	6,170.4	6,513.2	6,856.0	7,198.8	7,541.6
Refrigeration	Zero-Energy Doors	Custom	25.2	50.3	75.4	100.5	125.6	150.7	175.8	200.9	226.0	251.1	276.2	301.3	326.4	351.5	376.6	401.7	426.8	451.9	477.0	502.1	527.2	552.3
Refrigeration	ENERGY STAR Commercial Glass Door Freezers	Standard	346.6	693.2	1,039.8	1,386.4	1,733.0	2,079.6	2,426.2	2,772.8	3,119.4	3,466.0	3,812.6	4,159.2	4,505.8	4,852.4	5,199.0	5,545.6	5,892.2	6,238.8	6,585.4	6,932.0	7,278.6	7,625.2
Refrigeration	Refrigeration Section Line Insulation	Custom	200.7	401.4	602.1	802.8	1,003.5	1,204.2	1,404.9	1,605.6	1,806.3	2,007.0	2,207.7	2,408.4	2,609.1	2,809.8	3,010.5	3,211.2	3,411.9	3,612.6	3,813.3	4,014.0	4,214.7	4,415.4
Refrigeration	Discus and Scroll Compressors	Custom	67.9	135.8	203.7	271.6	339.5	407.4	475.3	543.2	611.1	679.0	746.9	814.8	882.7	950.6	1,018.5	1,086.4	1,154.3	1,222.2	1,290.1	1,358.0	1,425.9	1,493.8
Refrigeration	ENERGY STAR Commercial Glass Door Freezers	Standard	40.8	81.6	122.4	163.2	204.0	244.8	285.6	326.4	367.2	408.0	448.8	489.6	530.4	571.2	612.0	652.8	693.6	734.4	775.2	816.0	856.8	897.6
Refrigeration	Discus and Scroll Compressors	Custom	0.9	1.7	2.6	3.5	4.4	5.2	6.1	7.0	7.9	8.7	9.6	10.5	11.4	12.2	13.1	14.0	14.9	15.8	16.7	17.6	18.5	19.4
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	Standard	139.0	277.9	416.9	555.8	694.7	833.6	972.5	1,111.4	1,250.3	1,389.2	1,528.1	1,667.0	1,805.9	1,944.8	2,083.7	2,222.6	2,361.5	2,500.4	2,639.3	2,778.2	2,917.1	3,056.0
Refrigeration	Efficient low-vamp compressor	Custom	7.4	14.7	22.1	29.4	36.7	44.0	51.3	58.6	65.9	73.2	80.5	87.8	95.1	102.4	109.7	117.0	124.3	131.6	138.9	146.2	153.5	160.8
Refrigeration	Walk-In Cooler Evaporator Motor Reduction	Custom	226.1	452.2	678.3	904.4	1,130.5	1,356.6	1,582.7	1,808.8	2,034.9	2,261.0	2,487.1	2,713.2	2,939.3	3,165.4	3,391.5	3,617.6	3,843.7	4,069.8	4,295.9	4,522.0	4,748.1	4,974.2
Refrigeration	Efficient low-vamp compressor	Standard	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.3
Refrigeration	ENERGY STAR Commercial Solid Door Freezers	Standard	3.5	6.9	10.4	13.8	17.3	20.7	24.2	27.7	31.1	34.6	38.1	41.5	45.0	48.5	52.0	55.5	59.0	62.5	66.0	69.5	73.0	76.5
Refrigeration	Vending Mixer for Refrigerated Vending Machines	Standard	2,089.9	4,179.7	6,269.6	8,359.5	10,449.4	12,539.3	14,629.2	16,719.1	18,809.0	20,898.9	22,988.8	25,078.7	27,168.6	29,258.5	31,348.4	33,438.3	35,528.2	37,618.1	39,708.0	41,797.9	43,887.8	45,977.7
Refrigeration	Refrigeration Drive due to Lighting Savings	Standard	92.3	184.6	276.9	369.2	461.5	553.8	646.1	738.4	830.7	923.0	1,015.3	1,107.6	1,200.0	1,292.3	1,384.6	1,476.9	1,569.2	1,661.5	1,753.8	1,846.1	1,938.4	2,030.7
Refrigeration	Refrigerator - eCube	Custom	77.9	155.7	233.6	311.5	389.4	467.3	545.2	623.1	701.0	778.9	856.8	934.7	1,012.6	1,090.5	1,168.4	1,246.3	1,324.2	1,402.1	1,480.0	1,557.9	1,635.8	1,713.7
Refrigeration	Reach-In Refrigerated display case door retrofit	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Reach-In Refrigerated display case door retrofit	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Strip Curtains - Walk-In Cooler	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Evaporator Fan Motor Controls	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	High Efficiency Fans	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Refrigerator - Demand Defrost	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Cooling - Chillers	Setback with Electric Heat	Custom	267.4	534.8	802.1	1,069.4	1,336.7	1,604.0	1,871.3	2,138.6	2,405.9	2,673.2	2,940.5	3,207.8	3,475.1	3,742.4	4,009.7	4,277.0	4,544.3	4,811.6	5,078.9	5,346.2	5,613.5	5,880.8
Space Cooling - Chillers	Setback with Electric Heat	Standard	339.3	678.6	1,017.9	1,357.2	1,696.5	2,035.8	2,375.1	2,714.4	3,053.7	3,393.0	3,732.3	4,071.6	4,410.9	4,750.2	5,089.5	5,428.8	5,768.1	6,107.4	6,446.7	6,786.0	7,125.3	7,464.6
Space Cooling - Chillers	Chiller Time Up	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Cooling - Chillers	Energy Efficient Windows	Standard	880.8	1,761.6	2,642.4	3,523.2	4,404.0	5,284.8	6,165.6	7,046.4	7,927.2	8,808.0	9,688.8	10,569.6	11,450.4	12,331.2	13,212.0	14,092.8	14,973.6	15,854.4	16,735.2	17,616.0	18,496.8	19,377.6
Space Cooling - Chillers	Efficient Chilled Water Pump	Custom	940.9	1,881.8	2,822.7	3,763.6	4,704.5	5,645.4	6,586.3	7,527.2	8,468.1	9,409.0	10,349.9	11,290.8	12,231.7	13,172.6	14,113.5	15,054.4	15,995.3	16,936.2	17,877.1	18,818.0	19,758.9	20,700.0
Space Cooling - Chillers	Water Cooled Chiller Average 0.1 kW/ton RLV Reduction	Standard	140.0	280.0	420.0	560.0	700.0	840.0	980.0	1,120.0	1,260.0	1,400.0	1,540.0	1,680.0	1,820.0	1,960.0	2,100.0	2,240.0	2,380.0	2,520.0	2,660.0	2,800.0	2,940.0	3,080.0
Space Cooling - Chillers	Web enabled EMS	Custom	140.0	280.0	420.0	560.0	700.0	840.0	980.0	1,120.0	1,260.0	1,400.0	1,540.0	1,680.0	1,820.0	1,960.0	2,100.0	2,240.0	2,380.0	2,520.0	2,660.0	2,800.0	2,940.0	3,080.0
Space Cooling - Chillers	EMS Optimization / Continuous Commissioning	ICx	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
Space Cooling - Chillers	Water Cooled Screw Chiller > 300 ton	Standard	4,282.5	8,565.0	12,847.5	17,130.0	21,412.5	25,695.0	30,000.0	34,305.0	38,610.0	42,915.0												

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

MAP kW Savings - Cumulative

End Use	Measure Name	Program Name	2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
and Split AC	AC 486 - 486	Custom	1,010.0	2,193.0	3,261.6	4,305.6	5,464.2	6,606.1	7,799.3	8,771.9	9,764.8	10,927.7	11,969.3	13,212.3	14,410.1	15,222.3	16,389.5	16,362.5	16,316.4	16,854.4	16,865.9
and Split AC	Ducted Variable-Speed Split System Heat Pump	Custom	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	8.9	9.9	10.9	12.0	13.1	13.8	14.9	15.9	16.8	18.1	18.9
and Split AC	Cool Roof	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	AC <186	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	AC 2409 - 1609	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Water Loop Heat Pump (WLHP) - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	HVAC Occupancy Sensors	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Roof Top Unit - Evaporative Precooler	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Air Source Heat Pump - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Ductless (mini split) - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Ground Source Heat Pump - Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Programmable Thermostats	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Improved Duct Sealing - Cooling AC	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	HVAC Fan-Adding VFD Control to HVAC Fan Motor	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Zoning	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	Roof Top Unit - Maintenance	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	VRF-Variable Refrigerant Volume System	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and Split AC	VRF-Variable Refrigerant Volume System	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Web enabled EMS with Electric Heat	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	PTAC/PTHP - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Energy Efficient Windows	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Setback with Electric Heat	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Commercial EMS	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	PTAC/PTHP - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	EMS Optimization / Continuous Commissioning	ICs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Building Operator Certification	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Wall Insulation	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	VFD Pumps	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Hotel Guest Room Occupancy Control System	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Energy Efficient Windows	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Retrosimulation	ICs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ground Source Heat Pump - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ducted Variable-Speed Split System Heat Pump	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	EMS Pump Scheduling Controls	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Electric Furnace	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Roof Insulation	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Active Chilled Beam Heating and Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Heat Pump Maintenance	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ducted Variable-Speed Split System Heat Pump	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Electric Furnace	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Water Loop Heat Pump (WLHP) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ground Source Heat Pump - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	ECM motors on furnaces	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ceiling Insulation	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Cool Roof	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Cool Roof	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Active Chilled Beam Heating and Cooling	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Air Source Heat Pump - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	HVAC Occupancy Sensors	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Zoning	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Window Improvements	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ductless (mini split) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Improved Duct Sealing - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Ductless (mini split) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Water Loop Heat Pump (WLHP) - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Air Source Heat Pump - Heating	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Space Heating	Web enabled EMS	Custom	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ventilation	FANWALL Technology	Custom	17.2	34.4	51.8	69.0	85.9	102.8	120.5	138.0	155.5	171.4	188.7	206.2	223.9	241.1</					

COMMERCIAL - ENERGY EFFICIENCY (Energy/Demand/# Measures - Participants)

MAP kW Savings - Cumulative

End Use	Measure Name	Program Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Water Heating	Electric Tankless Water Heater	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Heat Pump Storage Water Heater	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Water Heating	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer	Standard	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Behavioral	Behavior Based Efficiency (Commercial Energy Reports)	Behavioral	19,987.1	39,706.0	39,528.7	39,734.3	39,796.3	39,823.1	40,126.2	39,805.3	39,528.7	39,645.3	39,671.8	39,674.7	40,126.2	39,430.0	39,734.3	39,796.3	39,823.1	39,671.8	39,528.7	39,805.3	39,990.2	39,805.3	
Behavioral	In-Home Energy Use Displays	Behavioral	12,860.6	12,774.3	12,717.6	12,780.2	12,804.4	12,810.0	12,910.5	12,794.8	12,783.2	12,860.6	12,783.2	12,860.6	12,783.2	12,860.6	12,783.2	12,860.6	12,783.2	12,860.6	12,783.2	12,860.6	12,783.2	12,860.6	12,860.6
Behavioral	Whole-Building Energy Monitoring	Behavioral	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Compressed Air	Variable Speed Air Compressor/Replace Fixed Speed Air Compressor	NC	0.5	1.1	1.6	2.2	2.7	3.2	3.8	4.3	4.8	5.4	6.0	6.5	7.1	7.6	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	
Compressed Air	Efficient Air Compressors	NC	0.5	1.1	1.7	2.2	2.8	3.4	3.9	4.5	5.1	5.6	6.2	6.7	7.3	7.8	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	
Compressed Air	Efficient Air Compressors	NC	0.5	1.1	1.6	2.2	2.7	3.2	3.8	4.3	4.8	5.4	6.0	6.5	7.1	7.6	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	
Lighting - Exterior	Lighting Power Density - Parking Garage	NC	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Lighting - Exterior	Lighting Power Density - Exterior	NC	0.1	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.3	1.5	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	
Lighting - Exterior	Exterior Linear Fluorescent	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Lighting - Interior	Daylight Sensor Controls - New Construction	NC	119.3	238.6	399.6	478.8	696.2	713.6	896.2	907.7	1,079.9	1,190.6	1,309.5	1,431.0	1,433.5	1,433.5	1,436.5	1,436.5	1,436.5	1,436.5	1,436.5	1,436.5	1,436.5	1,436.5	
Lighting - Interior	Inverter Induction Lighting	NC	1.3	2.6	4.0	5.3	6.6	7.9	9.2	10.5	11.9	13.1	14.4	15.7	17.1	18.4	19.8	21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Lighting - Interior	High Intensity Fluorescent Fixtures (replacing HID) - New Construction	NC	0.3	0.8	0.8	1.1	1.4	1.7	2.0	2.3	2.5	2.8	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	
Office Equipment	Energy Star office equipment including computers, monitors, copiers, etc.	NC	42.7	85.5	128.8	171.5	170.8	170.4	171.1	171.5	171.7	170.5	170.5	170.8	171.1	171.2	171.5	170.8	170.5	170.7	171.5	170.8	170.5	171.5	
Office Equipment	Energy Star PDU Terminal	NC	2.0	4.0	6.1	8.1	8.0	8.0	8.1	8.1	8.1	8.0	8.0	8.1	8.1	8.1	8.1	8.0	8.0	8.1	8.1	8.1	8.0	8.0	
Office Equipment	High Efficiency Copier	NC	5.0	10.0	15.1	20.0	25.0	29.9	35.0	40.1	45.2	49.5	54.5	59.9	65.0	70.0	75.2	74.9	74.7	74.5	74.5	74.5	74.5	74.5	
Office Equipment	Energy Star Compliant Refrigerator	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Office Equipment	Energy Star UPS	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HC Convection Ovens	NC	7.1	14.7	22.3	29.9	37.5	45.1	52.6	60.2	67.8	75.4	83.0	90.6	98.2	105.8	113.4	121.0	128.6	136.2	143.8	151.4	159.0	166.6	
Cooking	HC Range	NC	5.2	10.4	15.6	20.8	26.0	31.2	36.4	41.6	46.8	52.0	57.2	62.4	67.6	72.8	78.0	83.2	88.4	93.6	98.8	104.0	109.2	114.4	
Cooking	HC Holding Cabinet	NC	9.6	11.1	16.7	22.3	27.9	33.5	39.1	44.7	50.3	55.9	61.5	67.1	72.7	78.3	83.9	89.5	95.1	100.7	106.3	111.9	117.5	123.1	
Cooking	HC Combination Oven	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HC Griddle	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	HC Fryer	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cooking	Induction Cooktop	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other	NEMA Premium Transformer, three-phase	NC	1.4	2.8	4.2	5.6	7.0	8.4	9.8	11.2	12.6	14.0	15.4	16.8	18.2	19.6	21.0	22.4	23.8	25.2	26.6	28.0	29.4	30.8	
Other	NEMA Premium Transformer, single-phase	NC	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Other	High Efficiency Elevators	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pools	High Efficiency Pool Pump	NC	0.1	0.2	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	
Pools	Heat Pump Pool Heater	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Pools	High efficiency spa/hot tubs	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Efficient Refrigeration Condensers	NC	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Refrigeration	ECM/Permanent Magnet Synchronous Case Motors	NC	1.8	3.2	4.8	6.5	8.1	9.7	11.3	12.9	14.5	16.1	17.8	19.4	21.0	22.6	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	
Refrigeration	ENERGY STAR Commercial Solid Door Freezers	NC	18.5	36.9	55.3	73.7	92.1	110.5	128.9	147.3	165.7	184.1	202.5	220.9	239.3	257.7	276.1	294.5	312.9	331.3	349.7	368.1	386.5	404.9	
Refrigeration	ENERGY STAR Commercial Glass Door Freezers	NC	17.4	34.8	52.2	69.6	87.0	104.4	121.8	139.2	156.6	174.0	191.4	208.8	226.2	243.6	261.0	278.4	295.8	313.2	330.6	348.0	365.4	382.8	
Refrigeration	Discus and Scroll Compressors	NC	5.2	11.0	16.6	22.2	27.8	33.4	39.0	44.6	50.2	55.8	61.4	67.0	72.6	78.2	83.8	89.4	95.0	100.6	106.2	111.8	117.4	123.0	
Refrigeration	ENERGY STAR Commercial Glass Door Refrigerators	NC	7.0	14.0	21.0	28.0	35.0	42.0	49.0	56.0	63.0	70.0	77.0	84.0	91.0	98.0	105.0	112.0	119.0	126.0	133.0	140.0	147.0	154.0	
Refrigeration	Efficient low-temp compressor	NC	0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	3.5	3.8	4.2	4.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	
Refrigeration	ENERGY STAR Commercial Solid Door Refrigerators	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refrigeration	Energy Star Ice Machines	NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Space Cooling - Chillers	Water-Cooled Screw Chiller > 300 ton	NC	8.7	11.3	16.8	22.6	28.2	34.1	40.1	45.3	50.5	56.4	61.8	68.2	74.4	78.6	84.6	90.3	95.5	100.0	107.5	114.5	121.5	128.5	
Space Cooling - Chillers	Water-Cooled Centrifugal Chiller > 300 ton	NC	5.2	10.4	15.6	20.8	26.0	31.2	36.4	41.6	46.8	52.0	57.2	62.4	67.6	72.8	78.0	83.2	88.4	93.6	98.8	104.0	109.2	114.4	
Space Cooling - Chillers	Air-Cooled Chiller Average Minimum Quality 1.04 kW/ton	NC	2.2	4.5	6.8	9.1	11.4	13.7	16.0	1															

COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL©

INPUT WORKSHEET

1.18

PRAP

Measure Name		Measure Type	Total	Per Unit Total of Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
*MAP level Incentives equalled 100% of Measure/Incremental Cost													
Measure Level Ratios													
1	Air Compressor Outdoor Air Intake	A- Compressed Air	1,519	\$250	\$250	\$250	\$250	\$250	\$250	\$3.82	67.64	0.50	67.64
2	Air Compressor-Adding an Air Compressor to Aid Low Load Conditions	A- Compressed Air	284	\$1,482	\$741	\$741	\$1,482	\$741	\$741	3.58	7.16	0.50	7.16
3	Air-Entraining Air Nozzles	A- Compressed Air	241	\$98	\$49	\$49	\$98	\$49	\$49	114.74	229.48	0.50	229.48
4	Automatic Drains	A- Compressed Air	5,387	\$355	\$178	\$178	\$355	\$178	\$178	2.48	4.96	0.50	4.96
5	Compressed Air Audits & Leak Repair	A- Compressed Air	76,744	\$4	\$2	\$2	\$4	\$2	\$2	11.54	23.08	0.50	23.08
6	Compressed Air Pressure Flow Controller replacing no flow controller	A- Compressed Air	1,576	\$37	\$19	\$19	\$37	\$19	\$19	1.67	3.33	0.50	3.33
7	Compressed Air Replacement with Air Blowers	A- Compressed Air	726	\$930	\$465	\$465	\$930	\$465	\$465	14.82	29.63	0.50	29.63
8	Compressed Air Storage Tank	A- Compressed Air	549	\$36	\$18	\$18	\$36	\$18	\$18	21.25	42.50	0.50	42.50
9	Compressed Air Fixed Speed Air Compressor	A- Compressed Air	469	\$30	\$15	\$15	\$30	\$15	\$15	43.74	87.48	0.50	87.48
10	Compressed Air Fixed Speed Air Compressor	A- Compressed Air	116	\$82	\$41	\$41	\$82	\$41	\$41	16.03	32.05	0.50	32.05
11	Cycling Dryers	A- Compressed Air	0	\$30	\$15	\$15	\$30	\$15	\$15	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	Efficient Air Compressors	A- Compressed Air	1,782	\$150	\$75	\$75	\$150	\$75	\$75	5.84	11.68	0.50	11.68
13	Efficient Air Compressors	A- Compressed Air	184	\$230	\$115	\$115	\$230	\$115	\$115	3.79	7.58	0.50	7.58
14	High Efficiency Air Dryers	A- Compressed Air	25,823	\$4	\$2	\$2	\$4	\$2	\$2	14.54	29.08	0.50	29.08
15	High Efficiency Air Dryers	A- Compressed Air	249	\$7	\$3	\$3	\$7	\$3	\$3	8.41	16.82	0.50	16.82
16	Low Pressure Drop-Filters	A- Compressed Air	2,183	\$22	\$11	\$11	\$22	\$11	\$11	2.40	4.79	0.50	4.79
17	Receiver Capacity Addition	A- Compressed Air	62	\$2,000	\$1,000	\$1,000	\$2,000	\$1,000	\$1,000	4.52	9.04	0.50	9.04
18	Variable Displacement Air Compressor	A- Compressed Air	698	\$340	\$170	\$170	\$340	\$170	\$170	1.37	2.75	0.50	2.75
19	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor with Variable Speed	A- Compressed Air	538	\$190	\$95	\$95	\$190	\$95	\$95	23.51	47.03	0.50	47.03
20	Variable Speed Air Compressor-Replace Fixed Speed Air Compressor with Variable Speed	A- Compressed Air	112	\$242	\$121	\$121	\$242	\$121	\$121	18.47	36.94	0.50	36.94
21	VSD Air Compressor-Install VSD Air Compressor for Trim	A- Compressed Air	738	\$699	\$335	\$335	\$699	\$335	\$335	2.95	5.91	0.50	5.91
22	Add New Measure		0	0	0	0	0	0	0				
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.48	6.72	0.50	6.72

1 Inc

Measure Name		Measure Type	Total	Per Unit Total of Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
0													
Measure Level Ratios													
1	HE Combination Oven	B- Cooking	0	\$16,884	\$8,442	\$8,442	\$16,884	\$8,442	\$8,442	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	HE Combination Oven	B- Cooking	0	\$16,247	\$9,123	\$9,123	\$16,247	\$9,123	\$9,123	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	HE Connection Ovens	B- Cooking	6,703	\$471	\$236	\$236	\$471	\$236	\$236	4.48	8.95	0.50	8.95
4	HE Connection Ovens	B- Cooking	138	\$15	\$26	\$26	\$15	\$26	\$26	4.08	8.18	0.50	8.18
5	HE Fryer	B- Cooking	0	\$1,706	\$853	\$853	\$1,706	\$853	\$853	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	HE Fryer	B- Cooking	0	\$2,223	\$1,111	\$1,111	\$2,223	\$1,111	\$1,111	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	HE Griddle	B- Cooking	0	\$3,604	\$1,802	\$1,802	\$3,604	\$1,802	\$1,802	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	HE Griddle	B- Cooking	0	\$3,714	\$1,857	\$1,857	\$3,714	\$1,857	\$1,857	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	HE Holding Cabinet	B- Cooking	1,804	\$1,783	\$892	\$892	\$1,783	\$892	\$892	3.08	6.17	0.50	6.17
10	HE Holding Cabinet	B- Cooking	1,727	\$2,065	\$1,032	\$1,032	\$2,065	\$1,032	\$1,032	2.66	5.32	0.50	5.32
11	HE Steamer	B- Cooking	1,006	\$4,150	\$2,075	\$2,075	\$4,150	\$2,075	\$2,075	3.52	7.03	0.50	7.03
12	HE Steamer	B- Cooking	10	\$6,011	\$3,006	\$3,006	\$6,011	\$3,006	\$3,006	2.43	4.85	0.50	4.85
13	Induction Cooktops	B- Cooking	0	\$300	\$150	\$150	\$300	\$150	\$150	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
14	Induction Cooktops	B- Cooking	0	\$381	\$190	\$190	\$381	\$190	\$190	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	Add New Measure		0	0	0	0	0	0	0				
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.28	3.42	0.50	3.42

2 Inc

Measure Name		Measure Type	Total	Per Unit Total of Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
0													
Measure Level Ratios													
1	Exterior HID replacement with LEDs	C- Exterior Lighting	25,535	\$603	\$301	\$301	\$603	\$301	\$301	1.46	2.92	0.50	2.92
2	Garage BILevel Controls	C- Exterior Lighting	0	\$500	\$250	\$250	\$500	\$250	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	Garage HID replacement with LEDs	C- Exterior Lighting	0	\$567	\$283	\$283	\$567	\$283	\$283	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	Lighting Power Density - Exterior	C- Exterior Lighting	1,395	\$220	\$110	\$110	\$220	\$110	\$110	13.06	26.12	0.50	26.12
5	Lighting Power Density - Exterior	C- Exterior Lighting	143	\$234	\$117	\$117	\$234	\$117	\$117	11.66	23.31	0.50	23.31
6	Lighting Power Density - Parking Garage	C- Exterior Lighting	78	\$220	\$110	\$110	\$220	\$110	\$110	26.66	53.33	0.50	53.33
7	Lighting Power Density - Parking Garage	C- Exterior Lighting	8	\$234	\$117	\$117	\$234	\$117	\$117	24.96	49.92	0.50	49.92
8	Sports Field Lighting H/L Control	C- Exterior Lighting	0	\$400	\$200	\$200	\$400	\$200	\$200	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	Exterior BILevel Controls	C- Exterior Lighting	31	\$3,700	\$1,850	\$1,850	\$3,700	\$1,850	\$1,850	2.32	4.64	0.50	4.64
10	Exterior Linear Fluorescent	C- Exterior Lighting	0	\$567	\$283	\$283	\$567	\$283	\$283	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
11	Exterior Linear Fluorescent	C- Exterior Lighting	0	\$830	\$415	\$415	\$830	\$415	\$415	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	Add New Measure		0	0	0	0	0	0	0				
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.16	1.74	0.50	1.74

3 Inc

Measure Name		Measure Type	Total	Per Unit Total of Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
0													
Measure Level Ratios													
1	LED Auto Traffic Signals	C- Exterior Lighting	108,589	\$50	\$25	\$25	\$50	\$25	\$25	1.98	3.95	0.50	3.95
2	LED Fuel Pump Canopy Fixture	C- Exterior Lighting	0	\$343	\$172	\$172	\$343	\$172	\$172	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	LED Pedestrian Signals	C- Exterior Lighting	0	\$100	\$50	\$50	\$100	\$50	\$50	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	LED Street Lighting	C- Exterior Lighting	0	\$290	\$145	\$145	\$290	\$145	\$145	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5	Add New Measure		0	0	0	0	0	0	0				
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.32	1.98	0.50	1.98

4 Inc

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL©

INPUT WORKSHEET										Measure Level Ratios			
#	Lighting - Interior	Ratio TRC								TRC	Direct Utility	Participant	RIM
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive					
1	Control Lighting Control	D - Interior Lighting	33,464	0	\$2,700	\$1,350	\$1,350	\$2,700	\$1,350	1.99	3.98	0.50	3.98
2	Ceramic Metal Halide	D - Interior Lighting	0	0	\$75	\$38	\$38	\$75	\$38	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	Daylight Sensor Controls	D - Interior Lighting	11,509	\$3,000	\$1,500	\$1,500	\$3,000	\$1,500	3.45	6.91	0.50	6.91	
4	Daylight Sensor Controls - New Construction	D - Interior Lighting	34,690	\$3,000	\$1,500	\$1,500	\$3,000	\$1,500	2.83	5.65	0.50	5.65	
5	HID Fixture Upgrade - Pulse Start Metal Halide	D - Interior Lighting	288	\$162	\$81	\$81	\$162	\$81	5.90	11.81	0.50	11.81	
6	High Intensity Fluorescent Fixture (replacing HID)	D - Interior Lighting	0	\$284	\$142	\$142	\$284	\$142	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
7	High Intensity Fluorescent Fixture (replacing HID) - New Construction	D - Interior Lighting	0	\$1,491	\$746	\$746	\$1,491	\$746	0.00	0.00	0.50	0.00	
8	Illuminated Signs to LED	D - Interior Lighting	180,487	\$4	\$2	\$2	\$4	\$2	0.83	1.65	0.50	1.65	
9	Interior Induction Lighting	D - Interior Lighting	878,634	\$2	\$1	\$1	\$2	\$1	4.08	8.15	0.50	8.15	
10	Interior Induction Lighting	D - Interior Lighting	793,545	\$2	\$1	\$1	\$2	\$1	3.68	7.35	0.50	7.35	
11	Interior Non Highbay/Lowbay LED Fixtures	D - Interior Lighting	462	\$3	\$1	\$1	\$3	\$1	975.63	1,951.27	0.50	1,951.27	
12	Lamp & Ballast Retrofit (HPT8 Replacing Standard T12)	D - Interior Lighting	388,171	\$11	\$6	\$6	\$11	\$6	2.22	4.44	0.50	4.44	
13	Lamp & Ballast Retrofit (HPT8 Replacing Standard T8)	D - Interior Lighting	199,363	\$11	\$6	\$6	\$11	\$6	2.31	4.61	0.50	4.61	
14	Lamp & Ballast Retrofit (Low Wattage HPT8 Replacing Standard T12)	D - Interior Lighting	61,667	\$37	\$19	\$19	\$37	\$19	2.60	5.19	0.50	5.19	
15	Lamp & Ballast Retrofit (Low Wattage HPT8 Replacing Standard T8)	D - Interior Lighting	71,753	\$37	\$19	\$19	\$37	\$19	1.52	3.05	0.50	3.05	
16	LED Downlight	D - Interior Lighting	19,162	\$61	\$31	\$31	\$61	\$31	3.08	6.16	0.50	6.16	
17	LED Exit Sign	D - Interior Lighting	2,007	\$64	\$32	\$32	\$64	\$32	4.80	9.60	0.50	9.60	
18	LED Grow Light	D - Interior Lighting	295,067	\$2	\$1	\$1	\$2	\$1	3.11	6.21	0.50	6.21	
19	LED High Bay Lighting	D - Interior Lighting	0	\$2,900	\$1,450	\$1,450	\$2,900	\$1,450	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
20	LED Lighting in Refrigeration	D - Interior Lighting	44,644	\$36	\$18	\$18	\$36	\$18	3.63	7.25	0.50	7.25	
21	LED low bay lighting	D - Interior Lighting	850	\$2,900	\$1,450	\$1,450	\$2,900	\$1,450	1.44	2.87	0.50	2.87	
22	LED Screw In (replacing CFL)	D - Interior Lighting	0	\$12	\$6	\$6	\$12	\$6	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
23	LED Screw In (replacing Incandescent)	D - Interior Lighting	47,351	\$28	\$14	\$14	\$28	\$14	4.03	8.06	0.50	8.06	
24	LED Specialty (replacing CFL)	D - Interior Lighting	1,012,173	\$10	\$5	\$5	\$10	\$5	1.31	2.62	0.50	2.62	
25	LED Specialty (replacing Incandescent)	D - Interior Lighting	170,379	\$23	\$11	\$11	\$23	\$11	4.40	8.79	0.50	8.79	
26	LED Troffer	D - Interior Lighting	0	\$125	\$63	\$63	\$125	\$63	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
27	LED Tube Lighting	D - Interior Lighting	237,130	\$30	\$15	\$15	\$30	\$15	2.05	4.11	0.50	4.11	
28	Light Tube	D - Interior Lighting	0	\$500	\$250	\$250	\$500	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
29	Lighting Power Density - Interior	D - Interior Lighting	23,017	\$220	\$110	\$110	\$220	\$110	15.10	30.19	0.50	30.19	
30	Occupancy Sensor	D - Interior Lighting	187,576	\$98	\$49	\$49	\$98	\$49	1.77	3.54	0.50	3.54	
31	Occupancy Sensor & Daylight Sensor	D - Interior Lighting	175,608	\$278	\$139	\$139	\$278	\$139	0.84	1.69	0.50	1.69	
32	Occupancy Sensors for LED Refrigerator Lighting	D - Interior Lighting	22,729	\$20	\$10	\$10	\$20	\$10	10.16	20.32	0.50	20.32	
33	Stairwell Bi-Level Control	D - Interior Lighting	8,667	\$625	\$413	\$413	\$625	\$413	2.76	5.52	0.50	5.52	
34	Switching Controls for Multilevel Lighting (Non-HID)	D - Interior Lighting	6,915	\$3,000	\$1,500	\$1,500	\$3,000	\$1,500	2.95	5.90	0.50	5.90	
35	TS HP Retrofits	D - Interior Lighting	37,742	\$367	\$183	\$183	\$367	\$183	3.23	6.45	0.50	6.45	
36	Add New Measure		0					\$0					
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a	1.67	2.50	0.50	2.50	

5 Inc

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL©

INPUT WORKSHEET										1.18 PRAP			
#6	Office Equipment	Ratio: TRC	0					Measure Level Ratios					
	Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Computer Room Air Conditioner Economizer	F-Office	51,709	\$92	\$41	\$41	\$92	\$41		3.80	7.61	0.50	7.63
2	Computer Room Air Side Economizer	F-Office	63,227	\$25	\$13	\$13	\$25	\$13		10.70	21.40	0.50	21.40
3	Computer Room Hot Aisle Cold Aisle Configuration	F-Office	0	\$156	\$78	\$78	\$156	\$78		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	Desktop Virtualization/Thin Client Commercial Computer Networks	F-Office	40,778	\$118	\$58	\$58	\$118	\$58		1.98	3.96	0.50	3.96
5	Electrically Commutated Plug Fans in data centers	F-Office	4,266	\$718	\$359	\$359	\$718	\$359		2.38	4.76	0.50	4.76
6	Energy Star Compliant Refrigerator	F-Office	0	\$750	\$375	\$375	\$750	\$375		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	Energy Star Compliant Refrigerator	F-Office	0	\$802	\$401	\$401	\$802	\$401		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	Energy Star office equipment including computers, monitors, copiers, multi-function machines.	F-Office	46,826	\$137	\$68	\$68	\$137	\$68		3.55	7.10	0.50	7.10
9	Energy Star office equipment including computers, monitors, copiers, multi-function machines.	F-Office	54,129	\$227	\$113	\$113	\$227	\$113		1.74	3.48	0.50	3.48
10	Energy Star UPS	F-Office	0	\$1,303	\$652	\$652	\$1,303	\$652		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
11	Energy Star UPS	F-Office	0	\$1,407	\$704	\$704	\$1,407	\$704		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	High Efficiency CRAC unit	F-Office	43,633	\$83	\$41	\$41	\$83	\$41		2.40	4.80	0.50	4.80
13	High Efficiency CRAC unit	F-Office	28,349	\$113	\$56	\$56	\$113	\$56		1.76	3.52	0.50	3.52
14	Ongoing Commissioning of Economizers in a Data Center	F-Office	0	\$7	\$4	\$4	\$7	\$4		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	PC Network Energy Management Controls replacing no central control	F-Office	1,618,304	\$20	\$10	\$10	\$20	\$10		3.02	6.05	0.50	6.05
16	VFD for Process Fans -CRAC units	F-Office	7,451	\$200	\$100	\$100	\$200	\$100		13.06	26.11	0.50	26.11
17	Energy Star POS Terminal	F-Office	2,082	\$293	\$146	\$146	\$293	\$146		2.62	5.24	0.50	5.24
18	Energy Star POS Terminal	F-Office	327	\$318	\$159	\$159	\$318	\$159		2.41	4.83	0.50	4.83
19	High Efficiency Hand Dryer	F-Office	4,688	\$450	\$225	\$225	\$450	\$225		1.59	3.18	0.50	3.18
20	Smart Strip plug outlet	F-Office	0	\$40	\$20	\$20	\$40	\$20		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
21	Vendor Miser for Non Refrig Equipment	F-Office	0	\$80	\$40	\$40	\$80	\$40		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Add New Measure		0	\$0	\$0	\$0	\$0	\$0					
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a		2.06	3.10	0.50	3.10

#7	Other	Ratio: TRC	0					Measure Level Ratios					
	Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Engine Block Heater Timer	J - Other	133,060	\$35	\$18	\$18	\$35	\$18		10.13	20.26	0.50	20.26
2	High Efficiency Elevators	J - Other	0	\$54,690	\$27,345	\$27,345	\$54,690	\$27,345		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	High Efficiency Elevators	J - Other	0	\$76,748	\$38,374	\$38,374	\$76,748	\$38,374		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	High Efficiency Transformer, single-phase	J - Other	681,878	\$2	\$1	\$1	\$2	\$1		2.98	5.97	0.50	5.97
5	High Efficiency Transformer, single-phase	J - Other	6,888	\$2	\$1	\$1	\$2	\$1		2.98	5.97	0.50	5.97
6	High Efficiency Transformer, three-phase	J - Other	168,387	\$6	\$3	\$3	\$6	\$3		2.87	5.73	0.50	5.73
7	High Efficiency Transformer, three-phase	J - Other	1,670	\$6	\$3	\$3	\$6	\$3		2.87	5.73	0.50	5.73
8	NEMA Premium Transformer, single-phase	J - Other	0	\$12	\$6	\$6	\$12	\$6		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	NEMA Premium Transformer, single-phase	J - Other	0	\$12	\$6	\$6	\$12	\$6		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10	NEMA Premium Transformer, three-phase	J - Other	133,459	\$10	\$5	\$5	\$10	\$5		2.00	4.00	0.50	4.00
11	NEMA Premium Transformer, three-phase	J - Other	0	\$35	\$18	\$18	\$35	\$18		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	Optimized Snow and Ice Melt Controls (electric)	J - Other	0	\$42	\$21	\$21	\$42	\$21		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
13	Parking Garage Exhaust Fan CO Control	J - Other	9,587	\$1,194	\$597	\$597	\$1,194	\$597		2.33	4.66	0.50	4.66
14	Add New Measure		0	\$0	\$0	\$0	\$0	\$0					
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a		2.86	4.29	0.50	4.29

#8	Pools	Ratio: TRC	0					Measure Level Ratios					
	Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Heat Pump Pool Heater	E-Pool	0	\$1,790	\$895	\$895	\$1,790	\$895		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	Heat Pump Pool Heater	E-Pool	65	\$375	\$188	\$188	\$375	\$188		5.80	11.60	0.50	11.60
3	High Efficiency Pool Pump	E-Pool	137	\$1,077	\$538	\$538	\$1,077	\$538		3.51	7.02	0.50	7.02
4	High Efficiency Pool Pump	E-Pool	2	\$450	\$225	\$225	\$450	\$225		8.21	16.41	0.50	16.41
5	High efficiency spas/hot tubs	E-Pool	0	\$1,046	\$523	\$523	\$1,046	\$523		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	High efficiency spas/hot tubs	E-Pool	0	\$600	\$300	\$300	\$600	\$300		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	Pool Pump Timer	E-Pool	2	\$1,136	\$568	\$568	\$1,136	\$568		1.95	3.91	0.50	3.91
8	VFDs on Commercial Swimming Pool Pumps	E-Pool	233	\$286	\$143	\$143	\$286	\$143		10.54	21.09	0.50	21.09
9	Add New Measure		0	\$0	\$0	\$0	\$0	\$0					
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a		3.83	5.75	0.50	5.75

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COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL©

INPUT WORKSHEET		1.18	PRAP						Measure Level Ratios				
#9	Refrigeration		Ratio TRC										
	Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Anti Sweat Heater Controls	I - Refrigeration	\$15	\$151	\$76	\$76	\$151	\$76		9.37	18.74	0.50	18.74
2	Automatic Door Closers for Refrigerated Walk-in Coolers/Freezers	I - Refrigeration	9,577	\$157	\$76	\$76	\$157	\$76		7.40	14.80	0.50	14.80
3	Automatic High Speed Doors	I - Refrigeration	14,287	\$150	\$76	\$76	\$150	\$76		6.22	12.45	0.50	12.45
4	Discus and Scroll Compressors	I - Refrigeration	4,761	\$825	\$413	\$413	\$825	\$413		1.57	3.14	0.50	3.14
5	Discus and Scroll Compressors	I - Refrigeration	46	\$893	\$447	\$447	\$893	\$447		1.43	2.86	0.50	2.86
6	ECM/Permanent Magnet Synchronous Case Motors	I - Refrigeration	9,139	\$50	\$25	\$25	\$50	\$25		9.26	18.52	0.50	18.52
7	ECM/Permanent Magnet Synchronous Case Motors	I - Refrigeration	220,682	\$69	\$35	\$35	\$69	\$35		6.88	13.75	0.50	13.75
8	Efficient low temp compressor	I - Refrigeration	713	\$552	\$276	\$276	\$552	\$276		1.30	2.60	0.50	2.60
9	Efficient low temp compressor	I - Refrigeration	18	\$589	\$294	\$294	\$589	\$294		1.18	2.36	0.50	2.36
10	Efficient Refrigeration Condenser	I - Refrigeration	470	\$35	\$18	\$18	\$35	\$18		9.95	19.90	0.50	19.90
11	Efficient Refrigeration Condenser	I - Refrigeration	44,274	\$42	\$21	\$21	\$42	\$21		8.25	16.51	0.50	16.51
12	ENERGY STAR Commercial Glass Door Freezers	I - Refrigeration	11,537	\$1,194	\$597	\$597	\$1,194	\$597		3.16	6.36	0.50	6.36
13	ENERGY STAR Commercial Glass Door Freezers	I - Refrigeration	640	\$1,790	\$895	\$895	\$1,790	\$895		2.19	4.38	0.50	4.38
14	ENERGY STAR Commercial Glass Door Refrigerators	I - Refrigeration	12,139	\$375	\$188	\$188	\$375	\$188		1.98	3.96	0.50	3.96
15	ENERGY STAR Commercial Glass Door Refrigerators	I - Refrigeration	0	\$1,077	\$538	\$538	\$1,077	\$538	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16	ENERGY STAR Commercial Solid Door Freezers	I - Refrigeration	24,165	\$450	\$225	\$225	\$450	\$225		4.00	7.99	0.50	7.99
17	ENERGY STAR Commercial Solid Door Freezers	I - Refrigeration	115	\$1,048	\$523	\$523	\$1,048	\$523		1.77	3.55	0.50	3.55
18	ENERGY STAR Commercial Solid Door Refrigerators	I - Refrigeration	0	\$600	\$300	\$300	\$600	\$300	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19	ENERGY STAR Commercial Solid Door Refrigerators	I - Refrigeration	0	\$1,136	\$568	\$568	\$1,136	\$568	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20	Energy Star Ice Machines	I - Refrigeration	0	\$1,367	\$683	\$683	\$1,367	\$683	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
21	Energy Star Ice Machines	I - Refrigeration	0	\$1,871	\$935	\$935	\$1,871	\$935	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Evaporator Fan Motor Controls	I - Refrigeration	0	\$621	\$311	\$311	\$621	\$311	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23	Floating Head Pressure Control	I - Refrigeration	28,809	\$120	\$60	\$60	\$120	\$60		10.10	20.21	0.50	20.21
24	Light Covers	I - Refrigeration	0	\$34	\$17	\$17	\$34	\$17	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
25	Reach-in Refrigerated display case door retrofit	I - Refrigeration	0	\$1,010	\$505	\$505	\$1,010	\$505	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26	Refrigerant charging correction	I - Refrigeration	836,162	\$10	\$5	\$5	\$10	\$5		3.04	6.08	0.50	6.08
27	Refrigeration Savings due to Lighting Savings	I - Refrigeration	8,229,901	\$1	\$1	\$1	\$1	\$1		1.07	2.14	0.50	2.14
28	Refrigeration Suction Line Insulation	I - Refrigeration	3,681,018	\$4	\$2	\$2	\$4	\$2		2.27	4.55	0.50	4.55
29	Refrigerator - Demand Defrost	I - Refrigeration	0	\$114,640	\$57,320	\$57,320	\$114,640	\$57,320	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
30	Refrigerator - eCube	I - Refrigeration	5,214	\$814	\$407	\$407	\$814	\$407		1.08	2.15	0.50	2.15
31	Strip Curtains - Walk-In Cooler	I - Refrigeration	0	\$286	\$143	\$143	\$286	\$143	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
32	Strip Curtains - Walk-In Freezer	I - Refrigeration	47,480	\$286	\$143	\$143	\$286	\$143		4.61	9.22	0.50	9.22
33	Vending Miser for Refrigerated Vending Machines	I - Refrigeration	303,549	\$216	\$108	\$108	\$216	\$108		1.69	3.37	0.50	3.37
34	Walk-in Cooler Evaporator Motor Reduction	I - Refrigeration	12,401	\$1,000	\$500	\$500	\$1,000	\$500		1.29	2.57	0.50	2.57
35	Zero-Energy Doors	I - Refrigeration	2,214	\$290	\$145	\$145	\$290	\$145		3.71	7.41	0.50	7.41
36		F-Non-Electric						\$0					
37		F-Non-Electric						\$0					
38	Add New Measure		0										
Program Totals:			n/a	n/a	n/a	n/a	n/a	n/a	1.99	2.99	0.50	2.99	

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COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL©

INPUT WORKSHEET		1.10	PRAP												
#10	Space Cooling - Chillers	Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Air-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	2,085	\$4.38	\$2.18	\$2.18	\$4.38	\$2	7.50	15.00	0.50	15.00			
2	Air-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	19	\$4.56	\$2.28	\$2.28	\$4.56	\$2	7.18	14.35	0.50	14.35			
3	Air-Cooled Chiller Average Minimum Qualifying 1.04 kW/ton	G - Space Cooling	1,806	\$87	\$33	\$33	\$87	\$33	9.78	19.56	0.50	19.56			
4	Air-Cooled Chiller Average Minimum Qualifying 1.04 kW/ton	G - Space Cooling	126	\$165	\$62	\$62	\$165	\$62	3.61	7.23	0.50	7.23			
5	Air-Cooled Recip Chiller	G - Space Cooling	1,681	\$141	\$71	\$71	\$141	\$71	5.60	11.20	0.50	11.20			
6	Air-Cooled Recip Chiller	G - Space Cooling	133	\$260	\$130	\$130	\$260	\$130	1.72	3.45	0.50	3.45			
7	Air-Cooled Screw Chiller	G - Space Cooling	1,721	\$144	\$72	\$72	\$144	\$72	5.60	11.20	0.50	11.20			
8	Air-Cooled Screw Chiller	G - Space Cooling	102	\$203	\$102	\$102	\$203	\$102	2.11	4.23	0.50	4.23			
9	Building Operator Certification	G - Space Cooling	193	\$430	\$215	\$215	\$430	\$215	6.59	13.18	0.50	13.18			
10	Ceiling Insulation	G - Space Cooling	16,447	\$300	\$150	\$150	\$300	\$150	0.45	0.90	0.50	0.90			
11	Chilled Hot Water Reset	G - Space Cooling	215,504	\$5	\$3	\$3	\$5	\$3	16.41	32.82	0.50	32.82			
12	Chiller Tune Up	G - Space Cooling	0	\$3	\$1	\$1	\$3	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
13	Chiller-Adding VFD Control to Chillers	G - Space Cooling	4,410	\$2,085	\$1,043	\$1,043	\$2,085	\$1,043	1.31	2.63	0.50	2.63			
14	Commercial EMS	G - Space Cooling	9,690	\$4	\$2	\$2	\$4	\$2	123.66	247.33	0.50	247.33			
15	Commissioning	G - Space Cooling	0	\$1	\$1	\$1	\$1	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
16	Cool Roof	G - Space Cooling	0	\$754	\$377	\$377	\$754	\$377	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
17	Cool Roof	G - Space Cooling	0	\$754	\$377	\$377	\$754	\$377	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
18	Efficient Chilled Water Pump	G - Space Cooling	957	\$198	\$99	\$99	\$198	\$99	44.79	89.58	0.50	89.58			
19	EMS Optimization / Continuous Commissioning	G - Space Cooling	48	\$25	\$13	\$13	\$25	\$13	-NPV(\$104,888	54.40	0.50	54.40			
20	EMS Pump Scheduling Controls	G - Space Cooling	2,780	\$598	\$299	\$299	\$598	\$299	3.36	6.71	0.50	6.71			
21	Energy Efficient Windows	G - Space Cooling	1,690	\$75	\$38	\$38	\$75	\$38	52.51	105.02	0.50	105.02			
22	Energy Efficient Windows	G - Space Cooling	19	\$877	\$438	\$438	\$877	\$438	2.43	4.85	0.50	4.85			
23	Foundation Insulation	G - Space Cooling	0	\$1	\$1	\$1	\$1	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
24	High Efficiency Pumps	G - Space Cooling	14,057	\$97	\$48	\$48	\$97	\$48	0.81	1.62	0.50	1.62			
25	High Efficiency Pumps	G - Space Cooling	1,820	\$161	\$80	\$80	\$161	\$80	0.48	0.96	0.50	0.96			
26	HVAC Occupancy Sensors	G - Space Cooling	0	\$250	\$125	\$125	\$250	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
27	Improved Duct Sealing - Cooling Chiller	G - Space Cooling	0	\$54	\$27	\$27	\$54	\$27	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
28	Integrated Building Design	G - Space Cooling	0	\$74,099	\$37,050	\$37,050	\$74,099	\$37,050	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
29	Motor Bell Replacement	G - Space Cooling	6,247	\$21	\$11	\$11	\$21	\$11	2.94	5.89	0.50	5.89			
30	Retrocommissioning	G - Space Cooling	1,869,243	\$0	\$0	\$0	\$0	\$0	1.67	3.34	0.50	3.34			
31	Roof Insulation	G - Space Cooling	19,509	\$111	\$56	\$56	\$111	\$56	1.25	2.51	0.50	2.51			
32	Setback with Electric Heat	G - Space Cooling	365	\$25	\$12	\$12	\$25	\$12	139.30	278.61	0.50	278.61			
33	VAV System Conversion	G - Space Cooling	167	\$2,000	\$1,000	\$1,000	\$2,000	\$1,000	5.02	10.05	0.50	10.05			
34	Wall Insulation	G - Space Cooling	769	\$50	\$25	\$25	\$50	\$25	13.94	27.88	0.50	27.88			
35	Water-Cooled Centrifugal Chiller < 150 ton	G - Space Cooling	0	\$411	\$206	\$206	\$411	\$206	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
36	Water-Cooled Centrifugal Chiller < 150 ton	G - Space Cooling	0	\$495	\$247	\$247	\$495	\$247	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
37	Water-Cooled Centrifugal Chiller > 300 ton	G - Space Cooling	5,493	\$27	\$14	\$14	\$27	\$14	14.87	29.75	0.50	29.75			
38	Water-Cooled Centrifugal Chiller > 300 ton	G - Space Cooling	38	\$208	\$104	\$104	\$208	\$104	1.62	3.25	0.50	3.25			
39	Water-Cooled Centrifugal Chiller 150 - 300 ton	G - Space Cooling	4,515	\$128	\$63	\$63	\$128	\$63	3.59	7.18	0.50	7.18			
40	Water-Cooled Centrifugal Chiller 150 - 300 ton	G - Space Cooling	68	\$94	\$47	\$47	\$94	\$47	3.10	6.20	0.50	6.20			
41	Water-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	4,639	\$5	\$3	\$3	\$5	\$3	3.77	7.53	0.50	7.53			
42	Water-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	59	\$6	\$3	\$3	\$6	\$3	2.70	5.40	0.50	5.40			
43	Water-Cooled Chiller Average 10% above IECC standard	G - Space Cooling	2,530	\$101	\$51	\$51	\$101	\$51	5.31	10.61	0.50	10.61			
44	Water-Cooled Chiller Average 10% above IECC standard	G - Space Cooling	18	\$185	\$92	\$92	\$185	\$92	2.21	4.43	0.50	4.43			
45	Water-Cooled Screw Chiller < 150 ton	G - Space Cooling	1,343	\$388	\$194	\$194	\$388	\$194	2.61	5.22	0.50	5.22			
46	Water-Cooled Screw Chiller < 150 ton	G - Space Cooling	0	\$493	\$247	\$247	\$493	\$247	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
47	Water-Cooled Screw Chiller > 300 ton	G - Space Cooling	5,398	\$27	\$14	\$14	\$27	\$14	17.16	34.32	0.50	34.32			
48	Water-Cooled Screw Chiller > 300 ton	G - Space Cooling	61	\$97	\$48	\$48	\$97	\$48	2.31	4.62	0.50	4.62			
49	Water-Cooled Screw Chiller 150 - 300 ton	G - Space Cooling	3,739	\$129	\$65	\$65	\$129	\$65	3.92	7.83	0.50	7.83			
50	Water-Cooled Screw Chiller 150 - 300 ton	G - Space Cooling	29	\$218	\$109	\$109	\$218	\$109	1.72	3.44	0.50	3.44			
51	Water-Side Economizer	G - Space Cooling	3,222	\$50	\$25	\$25	\$50	\$25	18.04	36.08	0.50	36.08			
52	Web enabled EMS	G - Space Cooling	1,179	\$25	\$12	\$12	\$25	\$12	24.24	48.47	0.50	48.47			
53	Window Improvements	G - Space Cooling	29,623	\$192	\$96	\$96	\$192	\$96	0.62	1.24	0.50	1.24			
54	Add New Measure		0												
Program Totals			n/a	n/a	n/a	n/a	n/a	n/a	1.97	2.96	0.50	2.96			

10 Inc

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COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL®

INPUT WORKSHEET		1.18	PRAP	0					Measure Level Ratios			
#11 Space Cooling - Unitary and Split AC		Ratio: TRC										
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate Incentive	TRC	Direct Utility	Participant	RIM	
1 Zoning	G - Space Cooling	0	\$500	\$250	\$250	\$500	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
2 AC <65k	G - Space Cooling	84,448	\$56	\$28	\$28	\$56	\$28	3.30	6.59	0.50	6.59	
3 AC <65k	G - Space Cooling	0	\$272	\$136	\$136	\$272	\$136	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
4 AC >760k	G - Space Cooling	28,764	\$98	\$49	\$49	\$98	\$49	2.63	5.26	0.50	5.26	
5 AC >760k	G - Space Cooling	14	\$210	\$105	\$105	\$210	\$105	1.77	3.55	0.50	3.55	
6 AC 135k - 240k	G - Space Cooling	33,569	\$111	\$55	\$55	\$111	\$55	3.02	6.03	0.50	6.03	
7 AC 135k - 240k	G - Space Cooling	0	\$333	\$167	\$167	\$333	\$167	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
8 AC 240k - 760k	G - Space Cooling	48,316	\$115	\$58	\$58	\$115	\$58	1.52	3.04	0.50	3.04	
9 AC 240k - 760k	G - Space Cooling	0	\$272	\$136	\$136	\$272	\$136	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
10 AC 65k - 135k	G - Space Cooling	62,053	\$324	\$162	\$162	\$324	\$162	1.06	2.12	0.50	2.12	
11 AC 65k - 135k	G - Space Cooling	67	\$443	\$221	\$221	\$443	\$221	1.13	2.25	0.50	2.25	
12 Active Chilled Beam Heating and Cooling	G - Space Cooling	384,603	\$1	\$0	\$0	\$1	\$0	3.12	6.23	0.50	6.23	
13 Active Chilled Beam Heating and Cooling	G - Space Cooling	2,223	\$2	\$1	\$1	\$2	\$1	1.48	2.97	0.50	2.97	
14 Air Source Heat Pump - Cooling	G - Space Cooling	2,073	\$52	\$26	\$26	\$52	\$26	5.38	10.78	0.50	10.78	
15 Air Source Heat Pump - Cooling	G - Space Cooling	0	\$375	\$187	\$187	\$375	\$187	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
16 Building Operator Certification	G - Space Cooling	697	\$430	\$215	\$215	\$430	\$215	7.80	15.60	0.50	15.60	
17 Ceiling Insulation	G - Space Cooling	4,524	\$300	\$150	\$150	\$300	\$150	0.58	1.15	0.50	1.15	
18 Commercial EMS	G - Space Cooling	10,837	\$4	\$2	\$2	\$4	\$2	125.45	250.91	0.50	250.91	
19 Commissioning	G - Space Cooling	8,469,410	\$1	\$1	\$1	\$1	\$1	0.00	0.00	0.50	0.00	
20 Cool Roof	G - Space Cooling	0	\$750	\$375	\$375	\$750	\$375	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
21 Cool Roof	G - Space Cooling	0	\$754	\$377	\$377	\$754	\$377	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
22 Ducted Variable-Speed Split System Heat Pump	G - Space Cooling	817,772	\$1	\$0	\$0	\$1	\$0	1.92	3.84	0.50	3.84	
23 Ducted Variable-Speed Split System Heat Pump	G - Space Cooling	7,773	\$1	\$0	\$0	\$1	\$0	1.37	2.74	0.50	2.74	
24 Ductless (mini split) - Cooling	G - Space Cooling	4,628	\$160	\$80	\$80	\$160	\$80	3.48	6.95	0.50	6.95	
25 Ductless (mini split) - Cooling	G - Space Cooling	0	\$907	\$454	\$454	\$907	\$454	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
26 DX Condenser Coil Cleaning	G - Space Cooling	34,310	\$6	\$3	\$3	\$6	\$3	7.54	15.28	0.50	15.28	
27 EMS Optimization / Continuous Commissioning	G - Space Cooling	4,888	\$25	\$13	\$13	\$25	\$13	30.26	60.53	0.50	60.53	
28 EMS Pump Scheduling Controls	G - Space Cooling	9,701	\$508	\$254	\$254	\$508	\$254	3.51	7.03	0.50	7.03	
29 Energy Efficient Windows	G - Space Cooling	6,591	\$75	\$38	\$38	\$75	\$38	54.03	108.06	0.50	108.06	
30 Energy Efficient Windows	G - Space Cooling	67	\$877	\$438	\$438	\$877	\$438	2.72	5.43	0.50	5.43	
31 Foundation Insulation	G - Space Cooling	0	\$1	\$1	\$1	\$1	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
32 Ground Source Heat Pump - Cooling	G - Space Cooling	7,129	\$180	\$90	\$90	\$180	\$90	1.67	3.35	0.50	3.35	
33 Ground Source Heat Pump - Cooling	G - Space Cooling	0	\$274	\$137	\$137	\$274	\$137	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
34 Hotel Guest Room Occupancy Control System	G - Space Cooling	3,665	\$125	\$63	\$63	\$125	\$63	1.04	2.08	0.50	2.08	
35 HVAC Fan-Adding VFD Control to HVAC Fan Motor	G - Space Cooling	0	\$2,085	\$1,043	\$1,043	\$2,085	\$1,043	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
36 HVAC Occupancy Sensors	G - Space Cooling	0	\$250	\$125	\$125	\$250	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
37 Air Compressor Outdoor Air Intake	G - Space Cooling	701	\$276	\$138	\$138	\$276	\$138	4.43	8.85	0.50	8.85	
38 HVAC System-Low Velocity HVAC System	G - Space Cooling	6	\$694	\$347	\$347	\$694	\$347	1.69	3.39	0.50	3.39	
39 Improved Duct Sealing - Cooling AC	G - Space Cooling	0	\$54	\$27	\$27	\$54	\$27	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
40 Integrated Building Design	G - Space Cooling	422	\$74,099	\$37,050	\$37,050	\$74,099	\$37,050	0.00	0.00	0.50	0.00	
41 Programmable Thermostats	G - Space Cooling	0	\$50	\$25	\$25	\$50	\$25	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
42 PTAC/PTHP - Cooling	G - Space Cooling	3,855	\$8	\$4	\$4	\$8	\$4	147.59	295.19	0.50	295.19	
43 PTAC/PTHP - Cooling	G - Space Cooling	959	\$58	\$29	\$29	\$58	\$29	8.08	16.17	0.50	16.17	
44 Retrocommissioning	G - Space Cooling	11,288,339	\$0	\$0	\$0	\$0	\$0	1.87	3.75	0.50	3.75	
45 Roof Insulation	G - Space Cooling	16,069	\$56	\$28	\$28	\$56	\$28	1.44	2.88	0.50	2.88	
46 Roof Top Unit - Controls	G - Space Cooling	45,187	\$188	\$94	\$94	\$188	\$94	17.39	34.77	0.50	34.77	
47 Roof Top Unit - Evaporative Precooler	G - Space Cooling	0	\$3,450	\$1,725	\$1,725	\$3,450	\$1,725	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
48 Roof Top Unit - Maintenance	G - Space Cooling	0	\$1,100	\$550	\$550	\$1,100	\$550	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
49 Room AC	G - Space Cooling	1,821	\$76	\$37	\$37	\$76	\$37	7.55	15.20	0.50	15.20	
50 Room AC	G - Space Cooling	2,052	\$112	\$56	\$56	\$112	\$56	5.13	10.26	0.50	10.26	
51 Setback with Electric Heat	G - Space Cooling	1,996	\$25	\$12	\$12	\$25	\$12	136.63	273.24	0.50	273.24	
52 Setback with Electric Heat	G - Space Cooling	7	\$53	\$27	\$27	\$53	\$27	62.58	125.16	0.50	125.16	
53 VRV-Variable Refrigerant Volume System	G - Space Cooling	0	\$10,864	\$5,432	\$5,432	\$10,864	\$5,432	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
54 VRV-Variable Refrigerant Volume System	G - Space Cooling	0	\$11,076	\$5,538	\$5,538	\$11,076	\$5,538	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
55 Wall Insulation	G - Space Cooling	2,869	\$50	\$25	\$25	\$50	\$25	26.64	53.28	0.50	53.28	
56 Water Loop Heat Pump (WLHP) - Cooling	G - Space Cooling	575	\$25	\$13	\$13	\$25	\$13	3.65	7.30	0.50	7.30	
57 Water Loop Heat Pump (WLHP) - Cooling	G - Space Cooling	0	\$119	\$59	\$59	\$119	\$59	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
58 Web enabled EMS	G - Space Cooling	4,374	\$25	\$12	\$12	\$25	\$12	26.37	52.75	0.50	52.75	
59 Window Improvements	G - Space Cooling	62,933	\$192	\$96	\$96	\$192	\$96	0.72	1.44	0.50	1.44	
60 WLHP System (Cooling) New Construction	G - Space Cooling	0	\$1,000	\$500	\$500	\$1,000	\$500	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
61 Zoning	G - Space Cooling	0	\$500	\$250	\$250	\$500	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
62 Add New Measure		0				\$0						
Program Totals:		n/a	n/a	n/a	n/a	n/a	n/a	1.85	2.77	0.50	2.77	

11 Inc

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL©

INPUT WORKSHEET		1.18	PRAP	0				Measure Level Ratios			
#12 Space Heating		Rate TRC									
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1 Active Chilled Beam Heating and Cooling	D - Space Heat	293,080	\$1	\$0	\$0	\$1	\$0	1.37	2.73	0.50	2.73
2 Active Chilled Beam Heating and Cooling	D - Space Heat	0	\$2	\$1	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3 Air Source Heat Pump - Heating	D - Space Heat	0	\$210	\$105	\$105	\$210	\$105	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4 Air Source Heat Pump - Heating	D - Space Heat	0	\$513	\$256	\$256	\$513	\$256	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5 Building Operator Certification	D - Space Heat	35	\$430	\$215	\$215	\$430	\$215	9.45	18.91	0.50	18.91
6 Ceiling Insulation	D - Space Heat	0	\$300	\$150	\$150	\$300	\$150	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7 Commercial EMS	D - Space Heat	4,335	\$3.54	\$1.77	\$1.77	\$3.54	\$2	45.94	91.89	0.50	91.89
8 Commissioning	D - Space Heat	0	\$1	\$1	\$1	\$1	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9 Cool Roof	D - Space Heat	0	\$750	\$375	\$375	\$750	\$375	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10 Cool Roof	D - Space Heat	0	\$754	\$377	\$377	\$754	\$377	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
11 Ducted Variable-Speed Split System Heat Pump	D - Space Heat	1,446,804	\$1	\$0	\$0	\$1	\$0	2.68	5.37	0.50	5.37
12 Ducted Variable-Speed Split System Heat Pump	D - Space Heat	0	\$1	\$1	\$1	\$1	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
13 Ductless (mini split) - Heating	D - Space Heat	0	\$641	\$321	\$321	\$641	\$321	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
14 Ductless (mini split) - Heating	D - Space Heat	0	\$207	\$104	\$104	\$207	\$104	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15 ECM motors on furnaces	D - Space Heat	0	\$1,250	\$625	\$625	\$1,250	\$625	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16 Electric Furnace	D - Space Heat	3,061	\$668	\$334	\$334	\$668	\$334	2.10	4.20	0.50	4.20
17 Electric Furnace	D - Space Heat	0	\$1,238	\$619	\$619	\$1,238	\$619	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
18 EMS Optimization / Continuous Commissioning	D - Space Heat	76	\$25	\$13	\$13	\$25	\$13	11.94	23.87	0.50	23.87
19 EMS Pump Scheduling Controls	D - Space Heat	7,204	\$508	\$254	\$254	\$508	\$254	1.89	3.78	0.50	3.78
20 Energy Efficient Windows	D - Space Heat	575	\$75	\$38	\$38	\$75	\$38	51.63	103.26	0.50	103.26
21 Energy Efficient Windows	D - Space Heat	536	\$877	\$438	\$438	\$877	\$438	4.03	8.06	0.50	8.06
22 Foundation Insulation	D - Space Heat	0	\$1	\$1	\$1	\$1	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23 Ground Source Heat Pump - Heating	D - Space Heat	1,297	\$180	\$90	\$90	\$180	\$90	2.75	5.51	0.50	5.51
24 Ground Source Heat Pump - Heating	D - Space Heat	0	\$274	\$137	\$137	\$274	\$137	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
25 Heat Pump Maintenance	D - Space Heat	0	\$396	\$198	\$198	\$396	\$198	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26 Hotel Guest Room Occupancy Control System	D - Space Heat	0	\$125	\$63	\$63	\$125	\$63	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
27 HVAC Occupancy Sensors	D - Space Heat	0	\$250	\$125	\$125	\$250	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
28 Integrated Building Design	D - Space Heat	0	\$74,099	\$37,050	\$37,050	\$74,099	\$37,050	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
29 PTAC/PTHP - Heating	D - Space Heat	1,453	\$76	\$38	\$38	\$76	\$38	58.49	116.98	0.50	116.98
30 PTAC/PTHP - Heating	D - Space Heat	14	\$114	\$57	\$57	\$114	\$57	38.94	77.87	0.50	77.87
31 Retrocommissioning	D - Space Heat	1,847,877	\$0	\$0	\$0	\$0	\$0	3.02	6.04	0.50	6.04
32 Roof Insulation	D - Space Heat	52,300	\$56	\$28	\$28	\$56	\$28	0.74	1.49	0.50	1.49
33 Setback with Electric Heat	D - Space Heat	1,128	\$25	\$12	\$12	\$25	\$12	51.34	102.68	0.50	102.68
34 VFD Pumps	D - Space Heat	96	\$4,535	\$2,268	\$2,268	\$4,535	\$2,268	4.80	9.61	0.50	9.61
35 Wall Insulation	D - Space Heat	1,149	\$100	\$50	\$50	\$100	\$50	5.13	10.25	0.50	10.25
36 Improved Duct Sealing - Heating	D - Space Heat	0	\$54	\$27	\$27	\$54	\$27	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
37 Water Loop Heat Pump (WLHP) - Heating	D - Space Heat	0	\$20	\$10	\$10	\$20	\$10	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
38 Water Loop Heat Pump (WLHP) - Heating	D - Space Heat	0	\$116	\$58	\$58	\$116	\$58	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
39 Web enabled EMS	D - Space Heat	0	\$175	\$87	\$87	\$175	\$87	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
40 Web enabled EMS with Electric Heat	D - Space Heat	660	\$50	\$25	\$25	\$50	\$25	128.15	256.30	0.50	256.30
41 Window Improvements	D - Space Heat	0	\$545	\$273	\$273	\$545	\$273	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
42 WLHP System (Heating) New Construction	D - Space Heat	0	\$20	\$10	\$10	\$20	\$10	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
43 Zoning	D - Space Heat	0	\$500	\$250	\$250	\$500	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
44 Demand-Controlled Ventilation	D - Space Heat	0	\$75	\$38	\$38	\$75	\$38	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
45 Demand-Controlled Ventilation	D - Space Heat	0	\$75	\$38	\$38	\$75	\$38	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
46 Add New Measure		0				\$0					
Program Totals:		n/a	n/a	n/a	n/a	n/a	n/a	2.20	3.30	0.50	3.30

12 Inc

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL®

INPUT WORKSHEET

2.18

PRAP

Ratio: TRC		*MAP level incentives equal 100% of Measure/Incremental Cost						Measure Level Ratios			
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Economizer	0	\$101	\$50	\$50	\$101	\$50	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	Engineered CKV hood	1,626	\$316	\$158	\$158	\$316	\$158	2.40	4.80	0.50	4.80
3	FANWALL Technology	57,245	\$3	\$1	\$1	\$3	\$1	9.68	19.37	0.50	19.37
4	High Speed Fans	0	\$675	\$338	\$338	\$675	\$338	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5	High Volume Low Speed Fans	0	\$375	\$188	\$188	\$375	\$188	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	Variable Speed Drive Control, 15 HP	7,252	\$3,690	\$1,845	\$1,845	\$3,690	\$1,845	6.22	12.43	0.50	12.43
7	Variable Speed Drive Control, 40 HP	0	\$9,840	\$4,920	\$4,920	\$9,840	\$4,920	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	Variable Speed Drive Control, 5 HP	7,172	\$1,230	\$615	\$615	\$1,230	\$615	6.22	12.43	0.50	12.43
9											
10											
11	Add New Measure	0									
Program Totals		n/a	n/a	n/a	n/a	n/a	n/a	4.12	6.18	0.50	6.18

2 Inc

Ratio: TRC		*MAP level incentives equal 100% of Measure/Incremental Cost						Measure Level Ratios			
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	COINES WASHER ENERGY STAR, Electric Water Heater, Electric Dryer	5	\$250	\$125	\$125	\$250	\$125	1.59	3.17	0.50	3.17
2	COINES WASHER ENERGY STAR, Electric Water heater, Electric Dryer	0	\$317	\$158	\$158	\$317	\$158	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	COINES WASHER ENERGY STAR, Electric Water heater, Gas Dryer	0	\$250	\$125	\$125	\$250	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	COINES WASHER ENERGY STAR, Electric Water heater, Gas Dryer	0	\$317	\$158	\$158	\$317	\$158	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5	COINES WASHER ENERGY STAR, Gas water heater, Electric Dryer	0	\$250	\$125	\$125	\$250	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	COINES WASHER ENERGY STAR, Gas water heater, Gas Dryer	0	\$317	\$158	\$158	\$317	\$158	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	COINES WASHER ENERGY STAR, Gas water heater, Gas Dryer	0	\$250	\$125	\$125	\$250	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	COINES WASHER ENERGY STAR, Gas water heater, Gas Dryer	0	\$317	\$158	\$158	\$317	\$158	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	Drain water Heat Recovery Water Heater	10	\$631	\$316	\$316	\$631	\$316	0.93	1.86	0.50	1.86
10	ICM Circulator Pump	1,364	\$2,267	\$1,133	\$1,133	\$2,267	\$1,133	1.48	2.96	0.50	2.96
11	Efficient Hot Water Pump	2,878	\$33	\$17	\$17	\$33	\$17	15.19	30.39	0.50	30.39
12	Efficient Hot Water Pump	29	\$91	\$31	\$31	\$91	\$31	7.86	15.72	0.50	15.72
13	Electric Tankless Water Heater	104	\$466	\$233	\$233	\$466	\$233	1.67	3.35	0.50	3.35
14	Electric Tankless Water Heater	0	\$681	\$341	\$341	\$681	\$341	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	ES Dishwasher, High Temp, Elec Heat, Elec Booster	17	\$978	\$489	\$489	\$978	\$489	13.62	27.24	0.50	27.24
16	ES Dishwasher, High Temp, Elec Heat, Elec Booster	16	\$1,629	\$815	\$815	\$1,629	\$815	8.17	16.34	0.50	16.34
17	ES Dishwasher, High Temp, Gas Heat, Elec Booster	35	\$978	\$489	\$489	\$978	\$489	6.08	12.15	0.50	12.15
18	ES Dishwasher, High Temp, Gas Heat, Elec Booster	33	\$1,629	\$815	\$815	\$1,629	\$815	3.65	7.29	0.50	7.29
19	ES Dishwasher, Low Temp, Elec Heat	19	\$255	\$128	\$128	\$255	\$128	45.67	103.35	0.50	103.35
20	ES Dishwasher, Low Temp, Elec Heat	19	\$322	\$161	\$161	\$322	\$161	40.93	81.87	0.50	81.87
21	Heat Pump Storage Water Heater	0	\$319	\$159	\$159	\$319	\$159	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Heat Pump Storage Water Heater	0	\$231	\$116	\$116	\$231	\$116	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23	Heat Pump Water Heater	3	\$10,600	\$5,300	\$5,300	\$10,600	\$5,300	16.78	33.56	0.50	33.56
24	Heat Pump Water Heater	0	\$13,846	\$6,923	\$6,923	\$13,846	\$6,923	12.85	25.69	0.50	25.69
25	Hot Water (DHW) Pipe Insulation	2,485	\$10	\$5	\$5	\$10	\$5	4.18	8.35	0.50	8.35
26	RP Water Heater - Residential unit in Commercial Application	90	\$1,000	\$500	\$500	\$1,000	\$500	5.32	10.65	0.50	10.65
27	RP Water Heater - Residential unit in Commercial Application	1	\$1,087	\$543	\$543	\$1,087	\$543	4.90	9.80	0.50	9.80
28	WVAC Condenser Heater Recovery Water Heating	5	\$254	\$127	\$127	\$254	\$127	14.74	29.49	0.50	29.49
29	Low Flow Faucet Aerator	3,338	\$3	\$1	\$1	\$3	\$1	235.21	470.43	0.50	470.43
30	Low Flow Showerhead	532	\$25	\$13	\$13	\$25	\$13	4.19	8.39	0.50	8.39
31	Stone Laundry	0	\$60	\$40	\$40	\$60	\$40	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
32	Pile Rinse Sprayers (electric)	1,121	\$35	\$18	\$18	\$35	\$18	10.18	20.36	0.50	20.36
33	Tank Insulation (electric)	190	\$2	\$1	\$1	\$2	\$1	174.65	349.31	0.50	349.31
34	Water Heater - Desuperheater	1	\$128	\$64	\$64	\$128	\$64	32.84	65.68	0.50	65.68
35	Water Heater Timer	200	\$132	\$66	\$66	\$132	\$66	6.15	12.29	0.50	12.29
36	Add New Measure	0									
Program Totals		n/a	n/a	n/a	n/a	n/a	n/a	2.07	3.10	0.50	3.10

2 Inc

Ratio: TRC		*MAP level incentives equal 100% of Measure/Incremental Cost						Measure Level Ratios			
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Behavior Based Efficiency (Commercial Energy Reports)	622,824	\$8.88	\$8.88	\$8.88	\$8.88	\$8	13.77	13.77	1.00	13.77
2	Whole-Building Energy Monitoring	0	\$1.00	\$1.00	\$1.00	\$1.00	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	In-Home Energy Use Displays	12,080	\$250.00	\$125.00	\$125.00	\$250.00	\$125	8.13	16.27	0.50	16.27
4	Add New Measure	0									
Program Totals		n/a	n/a	n/a	n/a	n/a	n/a	6.46	7.15	0.82	7.15

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PRAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL®

INPUT WORKSHEET

3.18 PRAP

4. Measure-Specific Program Inputs: (Additional measure specific detail can be entered in the individual program tabs)

1# Ventilation		Ratio: TRC						MAP level incentives equal 100% of Measure/Incremental Cost				Measure Level Ratios			
Measure Name	Measure Type	Total	Per Unit Total of Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	TRC	Direct Utility	Participant	RIM					
1 Economizer	A- Ventilation	0	\$101	\$50	\$50	\$101	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
2 Engineered CMV Inlet	A- Ventilation	1,656	\$316	\$158	\$158	\$316	2.40	4.80	0.50	4.80					
3 FANWALL Technology	A- Ventilation	57,745	\$3	\$1	\$1	\$3	9.68	19.37	0.50	19.37					
4 High Speed Fans	A- Ventilation	0	\$675	\$338	\$338	\$675	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5 High Volume Low Speed Fans	A- Ventilation	0	\$375	\$188	\$188	\$375	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
6 Variable Speed Drive Control, 15 HP	A- Ventilation	7,252	\$3,690	\$1,845	\$1,845	\$3,690	6.22	12.43	0.50	12.43					
7 Variable Speed Drive Control, 40 HP	A- Ventilation	0	\$9,840	\$4,920	\$4,920	\$9,840	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
8 Variable Speed Drive Control, 5 HP	A- Ventilation	7,172	\$1,230	\$615	\$615	\$1,230	6.22	12.43	0.50	12.43					
9	F-Non-Electric														
10	F-Non-Electric														
11 Add New Measure		0													
Program Totals:		n/a	n/a	n/a	n/a	n/a	4.12	6.18	0.50	6.18					

1 inc

2# Small Business - Direct Install		Ratio: TRC						Measure Level Ratios			
Measure Name	Measure Type	Total	Per Unit Total of Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	TRC	Direct Utility	Participant	RIM	
1 Interior Non High/Bay/Canopy LED Fixtures	Lighting - CI	1,166	\$3	\$3	\$3	\$3	986.26	986.26	1.00	986.26	
2 Lamp & Ballast Retrofit (HP78 Replacing Standard T12)	Lighting - CI	978,626	\$11	\$11	\$11	\$11	2.22	2.22	1.00	2.22	
3 Lamp & Ballast Retrofit (HP78 Replacing Standard T8)	Lighting - CI	502,619	\$11	\$11	\$11	\$11	2.31	2.31	1.00	2.31	
4 Standard T12	Lighting - CI	156,226	\$37	\$37	\$37	\$37	2.60	2.60	1.00	2.60	
5 Standard T8	Lighting - CI	185,900	\$37	\$37	\$37	\$37	1.52	1.52	1.00	1.52	
6 LED Downlight	Lighting - CI	48,310	\$61	\$61	\$61	\$61	3.08	3.08	1.00	3.08	
7 LED Exit Sign	Lighting - CI	5,060	\$64	\$64	\$64	\$64	4.80	4.80	1.00	4.80	
8 LED Screw In (replacing Incandescent)	Lighting - CI	119,377	\$28	\$28	\$28	\$28	4.03	4.03	1.00	4.03	
9 LED Tube Lighting	Lighting - CI	567,834	\$30	\$30	\$30	\$30	2.17	2.17	1.00	2.17	
10 Occupancy Sensor	Lighting - CI	472,503	\$98	\$98	\$98	\$98	1.77	1.77	1.00	1.77	
11 Efficient Hot Water Pump	B- Water Heating	0	\$23	\$17	\$17	\$23	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
12 Efficient Hot Water Pump	B- Water Heating	0	\$61	\$31	\$31	\$61	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
13 Electric Tankless Water Heater	B- Water Heating	0	\$466	\$233	\$233	\$466	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
14 Electric Tankless Water Heater	B- Water Heating	0	\$681	\$341	\$341	\$681	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
15 ES Dishwasher, High Temp, Elec Heat, Elec Booster	B- Water Heating	0	\$978	\$489	\$489	\$978	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
16 ES Dishwasher, High Temp, Gas Heat, Elec Booster	B- Water Heating	0	\$1,629	\$815	\$815	\$1,629	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
17 ES Dishwasher, High Temp, Gas Heat, Elec Booster	B- Water Heating	0	\$978	\$489	\$489	\$978	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
18 ES Dishwasher, High Temp, Gas Heat, Elec Booster	B- Water Heating	0	\$1,629	\$815	\$815	\$1,629	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
19 ES Dishwasher, Low Temp, Elec Heat	B- Water Heating	0	\$295	\$128	\$128	\$295	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
20 ES Dishwasher, Low Temp, Elec Heat	B- Water Heating	0	\$322	\$161	\$161	\$322	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
21 Heat Pump Storage Water Heater	B- Water Heating	0	\$319	\$159	\$159	\$319	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
22 Heat Pump Storage Water Heater	B- Water Heating	0	\$231	\$116	\$116	\$231	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
23 Heat Pump Water Heater	B- Water Heating	0	\$10,600	\$5,300	\$5,300	\$10,600	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
24 Heat Pump Water Heater	B- Water Heating	0	\$13,846	\$6,923	\$6,923	\$13,846	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
25 Hot Water (DHW) Pipe Insulation	B- Water Heating	0	\$10	\$5	\$5	\$10	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
26 HP Water Heater - Residential unit in Commercial Application	B- Water Heating	0	\$1,000	\$500	\$500	\$1,000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
27 HP Water Heater - Residential unit in Commercial Application	B- Water Heating	0	\$1,087	\$543	\$543	\$1,087	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
28 HVAC Condenser Heater Recovery Water Heating	B- Water Heating	0	\$254	\$127	\$127	\$254	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
29 Low Flow Faucet Aerator	B- Water Heating	0	\$3	\$1	\$1	\$3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
30 Low Flow Showerhead	B- Water Heating	0	\$25	\$13	\$13	\$25	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
31 Coome Laundry	B- Water Heating	0	\$80	\$40	\$40	\$80	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
32 Pie Rise Sprayers (electric)	B- Water Heating	0	\$35	\$18	\$18	\$35	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
33 Tank Insulation (electric)	B- Water Heating	0	\$2	\$1	\$1	\$2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
34 Water Heater - Desuperheater	B- Water Heating	0	\$128	\$64	\$64	\$128	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
35 Water Heater Timer	B- Water Heating	0	\$132	\$66	\$66	\$132	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
36 Add New Measure		0									
Program Totals:		n/a	n/a	n/a	n/a	n/a	1.00	1.00	1.00	1.00	

2 inc

3# Behavioral		Ratio: TRC						Measure Level Ratios			
Measure Name	Measure Type	Total	Per Unit Total of Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	TRC	Direct Utility	Participant	RIM	
1 Behavior Based Efficiency (Commercial Energy Reports)	Shell Measures (Heat & Cool) - CI	544,197	\$8.88	\$4.44	\$4.44	\$8.88	13.77	27.54	0.50	27.54	
2 Whole-Building Energy Monitoring	Shell Measures (Heat & Cool) - CI	0	\$1.00	\$0.50	\$0.50	\$1.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
3 In-Home Energy Use Displays	Shell Measures (Heat & Cool) - CI	23,429	\$250.00	\$125.00	\$125.00	\$250.00	8.00	16.01	0.50	16.01	
4 Add New Measure		0									
Program Totals:		n/a	n/a	n/a	n/a	n/a	7.06	10.59	0.50	10.59	

3 inc

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PMAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL©

INPUT WORKSHEET

1.18 PMAP

20

		Ratio: TRC					Measure Level Ratios				
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM	
1	Air Compressor Outdoor Air Intake	A- Compressed Air	\$5.00	\$0.00	\$2.50	\$7.50	\$5.00	33.43	33.43	1.00	33.43
2	Air Compressor Adding an Air Compressor to All Low Load Conditions	A- Compressed Air	\$1,482	\$0	\$741	\$2,223	\$1,482	1.54	1.54	1.00	1.54
3	Air-Entraining Air Nozzles	A- Compressed Air	\$98	\$0	\$49	\$147	\$98	113.42	113.42	1.00	113.42
4	Automatic Drains	A- Compressed Air	\$355	\$0	\$178	\$533	\$355	2.45	2.45	1.00	2.45
5	Compressed Air Audits & Leak Repair	A- Compressed Air	\$4	\$0	\$2	\$6	\$4	11.33	11.33	1.00	11.33
6	Compressed Air Pressure Flow Controller replacing no flow controller	A- Compressed Air	\$37	\$0	\$19	\$56	\$37	1.59	1.59	1.00	1.59
7	Compressed Air Replacement with Air Blowers	A- Compressed Air	\$930	\$0	\$465	\$1,395	\$930	14.67	14.67	1.00	14.67
8	Compressed Air Storage Tank	A- Compressed Air	\$36	\$0	\$18	\$54	\$36	21.07	21.07	1.00	21.07
9	Compressed Air Fixed Speed Air Compressor	A- Compressed Air	\$30	\$0	\$15	\$45	\$30	43.34	43.34	1.00	43.34
10	Compressed Air Fixed Speed Air Compressor	A- Compressed Air	\$62	\$0	\$31	\$93	\$62	15.88	15.88	1.00	15.88
11	Cycling Dryers	A- Compressed Air	\$30	\$0	\$15	\$45	\$30	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	Efficient Air Compressors	A- Compressed Air	\$150	\$0	\$75	\$225	\$150	5.76	5.76	1.00	5.76
13	Efficient Air Compressors	A- Compressed Air	\$230	\$0	\$115	\$345	\$230	3.74	3.74	1.00	3.74
14	High Efficiency Air Dryers	A- Compressed Air	\$4	\$0	\$2	\$6	\$4	14.36	14.36	1.00	14.36
15	High Efficiency Air Dryers	A- Compressed Air	\$7	\$0	\$3	\$10	\$7	8.30	8.30	1.00	8.30
16	Low Pressure Drop-Filters	A- Compressed Air	\$22	\$0	\$11	\$33	\$22	2.36	2.36	1.00	2.36
17	Receiver Capacity Addition	A- Compressed Air	\$2,000	\$0	\$1,000	\$3,000	\$2,000	4.46	4.46	1.00	4.46
18	Variable Displacement Air Compressor	A- Compressed Air	\$340	\$0	\$170	\$510	\$340	1.31	1.31	1.00	1.31
19	Speed	A- Compressed Air	\$190	\$0	\$95	\$285	\$190	23.26	23.26	1.00	23.26
20	Speed	A- Compressed Air	\$242	\$0	\$121	\$363	\$242	18.27	18.27	1.00	18.27
21	VSD Air Compressor-Install VSD Air Compressor for Trim	A- Compressed Air	\$669	\$0	\$335	\$1,004	\$669	2.84	2.84	1.00	2.84
22	Add New Measure										
Program Totals		n/a	n/a	n/a	n/a	n/a	4.24	4.24	1.00	4.24	

1 Inc

		Ratio: TRC					Measure Level Ratios				
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM	
1	HE Combination Oven	B- Cooking	\$16,884	\$0	\$8,442	\$25,326	\$16,884	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	HE Combination Oven	B- Cooking	\$18,247	\$0	\$9,123	\$27,370	\$18,247	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	HE Connection Ovens	B- Cooking	\$471	\$0	\$236	\$707	\$471	4.42	4.42	1.00	4.42
4	HE Connection Ovens	B- Cooking	\$515	\$0	\$258	\$773	\$515	4.04	4.04	1.00	4.04
5	HE Fryer	B- Cooking	\$1,706	\$0	\$853	\$2,559	\$1,706	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	HE Fryer	B- Cooking	\$2,223	\$0	\$1,111	\$3,334	\$2,223	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	HE Griddle	B- Cooking	\$3,604	\$0	\$1,802	\$5,406	\$3,604	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	HE Griddle	B- Cooking	\$3,714	\$0	\$1,857	\$5,570	\$3,714	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	HE Holding Cabinet	B- Cooking	\$1,783	\$0	\$892	\$2,675	\$1,783	3.05	3.05	1.00	3.05
10	HE Holding Cabinet	B- Cooking	\$2,065	\$0	\$1,032	\$3,097	\$2,065	2.63	2.63	1.00	2.63
11	HE Steamer	B- Cooking	\$4,150	\$0	\$2,075	\$6,225	\$4,150	3.47	3.47	1.00	3.47
12	HE Steamer	B- Cooking	\$6,011	\$0	\$3,006	\$9,017	\$6,011	2.40	2.40	1.00	2.40
13	Induction Cooktops	B- Cooking	\$300	\$0	\$150	\$450	\$300	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
14	Induction Cooktops	B- Cooking	\$381	\$0	\$190	\$571	\$381	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	Add New Measure										
Program Totals		n/a	n/a	n/a	n/a	n/a	2.25	2.25	1.00	2.25	

2 Inc

		Ratio: TRC					Measure Level Ratios				
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM	
1	Exterior HID replacement with LEDs	C- Exterior Lighting	\$603	\$0	\$301	\$904	\$603	1.44	1.44	1.00	1.44
2	Garage BiLevel Controls	C- Exterior Lighting	\$500	\$0	\$250	\$750	\$500	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	Garage HID replacement with LEDs	C- Exterior Lighting	\$567	\$0	\$283	\$850	\$567	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	Lighting Power Density - Exterior	C- Exterior Lighting	\$220	\$0	\$110	\$330	\$220	12.88	12.88	1.00	12.88
5	Lighting Power Density - Exterior	C- Exterior Lighting	\$234	\$0	\$117	\$350	\$234	11.50	11.50	1.00	11.50
6	Lighting Power Density - Parking Garage	C- Exterior Lighting	\$220	\$0	\$110	\$330	\$220	26.30	26.30	1.00	26.30
7	Lighting Power Density - Parking Garage	C- Exterior Lighting	\$234	\$0	\$117	\$350	\$234	24.62	24.62	1.00	24.62
8	Sports Field Lighting H/Lu Control	C- Exterior Lighting	\$400	\$0	\$200	\$600	\$400	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	Exterior BiLevel Controls	C- Exterior Lighting	\$3,700	\$0	\$1,850	\$5,550	\$3,700	2.29	2.29	1.00	2.29
10	Exterior Linear Fluorescent	C- Exterior Lighting	\$597	\$0	\$298	\$895	\$597	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
11	Exterior Linear Fluorescent	C- Exterior Lighting	\$830	\$0	\$415	\$1,245	\$830	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	Add New Measure										
Program Totals		n/a	n/a	n/a	n/a	n/a	1.15	1.15	1.00	1.15	

3 Inc

		Ratio: TRC					Measure Level Ratios				
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM	
1	LED Auto Traffic Signals	C- Exterior Lighting	\$50	\$0	\$25	\$75	\$50	1.95	1.95	1.00	1.95
2	LED Fuel Pump Canopy Fixture	C- Exterior Lighting	\$343	\$0	\$172	\$515	\$343	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	LED Pedestrian Signals	C- Exterior Lighting	\$100	\$0	\$50	\$150	\$100	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	LED Street Lighting	C- Exterior Lighting	\$290	\$0	\$145	\$435	\$290	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5	Add New Measure										
Program Totals		n/a	n/a	n/a	n/a	n/a	1.30	1.30	1.00	1.30	

4 Inc

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PMAP (Incremental/Utility admin./Cost Effectiveness)

#5 Lighting - Interior		Ratio: TRC					Measure Level Ratios			
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1 Central Lighting Control	D - Interior Lighting	\$2,700	\$0	\$1,350	\$4,050	\$2,700	1.97	1.97	1.00	1.97
2 Ceramic Metal Halide	D - Interior Lighting	\$75	\$0	\$38	\$113	\$75	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3 Daylight Sensor Controls	D - Interior Lighting	\$3,000	\$0	\$1,500	\$4,500	\$3,000	3.41	3.41	1.00	3.41
4 Daylight Sensor Controls - New Construction	D - Interior Lighting	\$3,000	\$0	\$1,500	\$4,500	\$3,000	2.79	2.79	1.00	2.79
5 HID Fixture Upgrade - Pulse Start Metal Halide	D - Interior Lighting	\$162	\$0	\$81	\$243	\$162	5.84	5.84	1.00	5.84
6 High Intensity Fluorescent Fixture (replacing HID)	D - Interior Lighting	\$284	\$0	\$142	\$426	\$284	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7 High Intensity Fluorescent Fixture (replacing HID) - New Construction	D - Interior Lighting	\$1,491	\$0	\$746	\$2,237	\$1,491	0.00	0.00	1.00	0.00
8 Illuminated Signs to LED	D - Interior Lighting	\$4	\$0	\$2	\$6	\$4	0.77	0.77	1.00	0.77
9 Interior induction Lighting	D - Interior Lighting	\$2	\$0	\$1	\$2	\$2	4.03	4.03	1.00	4.03
10 Interior induction Lighting	D - Interior Lighting	\$2	\$0	\$1	\$3	\$2	3.63	3.63	1.00	3.63
11 Interior Non Highway/Lowbay LED Fixtures	D - Interior Lighting	\$3	\$0	\$1	\$4	\$3	962.81	962.81	1.00	962.81
12 Lamp & Ballast Retrofit (HPT8 Replacing Standard T12)	D - Interior Lighting	\$11	\$0	\$6	\$17	\$11	2.19	2.19	1.00	2.19
13 Lamp & Ballast Retrofit (HPT8 Replacing Standard T8)	D - Interior Lighting	\$11	\$0	\$6	\$17	\$11	2.28	2.28	1.00	2.28
14 Lamp & Ballast Retrofit (Low Wattage HPT8 Replacing Standard T12)	D - Interior Lighting	\$37	\$0	\$19	\$56	\$37	2.49	2.49	1.00	2.49
15 Lamp & Ballast Retrofit (Low Wattage HPT8 Replacing Standard T8)	D - Interior Lighting	\$37	\$0	\$19	\$56	\$37	1.42	1.42	1.00	1.42
16 LED Downlight	D - Interior Lighting	\$61	\$0	\$31	\$92	\$61	3.04	3.04	1.00	3.04
17 LED Exit Sign	D - Interior Lighting	\$64	\$0	\$32	\$96	\$64	4.74	4.74	1.00	4.74
18 LED Grow Light	D - Interior Lighting	\$2	\$0	\$1	\$2	\$2	3.07	3.07	1.00	3.07
19 LED High bay lighting	D - Interior Lighting	\$2,900	\$0	\$1,450	\$4,350	\$2,900	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20 LED Lighting in Refrigeration	D - Interior Lighting	\$36	\$0	\$18	\$54	\$36	3.58	3.58	1.00	3.58
21 LED low bay lighting	D - Interior Lighting	\$2,900	\$0	\$1,450	\$4,350	\$2,900	1.34	1.34	1.00	1.34
22 LED Screw in (replacing CFL)	D - Interior Lighting	\$12	\$0	\$6	\$17	\$12	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23 LED Screw in (replacing Incandescent)	D - Interior Lighting	\$28	\$0	\$14	\$42	\$28	3.98	3.98	1.00	3.98
24 LED Specialty (replacing CFL)	D - Interior Lighting	\$10	\$0	\$5	\$15	\$10	1.25	1.25	1.00	1.25
25 LED Specialty (replacing Incandescent)	D - Interior Lighting	\$23	\$0	\$11	\$34	\$23	4.34	4.34	1.00	4.34
26 LED Troffer	D - Interior Lighting	\$125	\$0	\$63	\$188	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
27 LED Tube Lighting	D - Interior Lighting	\$30	\$0	\$15	\$44	\$30	1.97	1.97	1.00	1.97
28 Light Tube	D - Interior Lighting	\$500	\$0	\$250	\$750	\$500	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
29 Lighting Power Density - Interior	D - Interior Lighting	\$200	\$0	\$100	\$300	\$200	14.92	14.92	1.00	14.92
30 Occupancy Sensor	D - Interior Lighting	\$68	\$0	\$34	\$102	\$68	1.74	1.74	1.00	1.74
31 Occupancy Sensor & Daylight Sensor	D - Interior Lighting	\$278	\$0	\$139	\$416	\$278	0.83	0.83	1.00	0.83
32 Occupancy Sensors for LED Refrigerator Lighting	D - Interior Lighting	\$20	\$0	\$10	\$30	\$20	10.03	10.03	1.00	10.03
33 Stairwell Bi-Level Control	D - Interior Lighting	\$825	\$0	\$413	\$1,238	\$825	2.73	2.73	1.00	2.73
34 Switching Controls for Multilevel Lighting (Non-HID)	D - Interior Lighting	\$3,000	\$0	\$1,500	\$4,500	\$3,000	2.45	2.45	1.00	2.45
35 T5 HP Retrofits	D - Interior Lighting	\$367	\$0	\$183	\$550	\$367	3.19	3.19	1.00	3.19
36 Add New Measure										
Program Totals	n/a	n/a	n/a	n/a	n/a	n/a	1.62	1.62	1.00	1.62

#6 Office Equipment		Ratio: TRC					Measure Level Ratios			
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1 Computer Room Air Conditioner Economizer	F-Office	\$82	\$0	\$41	\$123	\$82	3.75	3.75	1.00	3.75
2 Computer Room Air Side Economizer	F-Office	\$25	\$0	\$13	\$38	\$25	10.54	10.54	1.00	10.54
3 Computer Room Hot Aisle Cold Aisle Configuration	F-Office	\$156	\$0	\$78	\$234	\$156	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4 Desktop Virtualization/Thin Client Commercial Computer Networks	F-Office	\$116	\$0	\$58	\$174	\$116	1.95	1.95	1.00	1.95
5 Electrically Commutated Plug Fans in data centers	F-Office	\$718	\$0	\$359	\$1,077	\$718	2.28	2.28	1.00	2.28
6 Energy Star Refrigerator	F-Office	\$375	\$0	\$188	\$563	\$375	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7 Energy Star Compliant Refrigerator	F-Office	\$802	\$0	\$401	\$1,203	\$802	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8 Freezers	F-Office	\$137	\$0	\$69	\$205	\$137	3.50	3.50	1.00	3.50
9 Freezers	F-Office	\$227	\$0	\$114	\$341	\$227	1.72	1.72	1.00	1.72
10 Energy Star UPS	F-Office	\$1,303	\$0	\$652	\$1,955	\$1,303	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
11 Energy Star UPS	F-Office	\$1,407	\$0	\$704	\$2,111	\$1,407	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12 High Efficiency CRAC unit	F-Office	\$93	\$0	\$47	\$140	\$93	2.30	2.30	1.00	2.30
13 High Efficiency CRAC unit	F-Office	\$113	\$0	\$57	\$169	\$113	1.69	1.69	1.00	1.69
14 Ongoing Commissioning of Economizers in a Data Center	F-Office	\$7	\$0	\$4	\$11	\$7	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15 PC Network Energy Management Controls replacing no central control	F-Office	\$20	\$0	\$10	\$30	\$20	2.98	2.98	1.00	2.98
16 VFD for Process Fans -CRAC units	F-Office	\$200	\$0	\$100	\$300	\$200	12.90	12.90	1.00	12.90
17 Energy Star POS Terminal	F-Office	\$293	\$0	\$147	\$439	\$293	2.58	2.58	1.00	2.58
18 Energy Star POS Terminal	F-Office	\$318	\$0	\$159	\$477	\$318	2.38	2.38	1.00	2.38
19 High Efficiency Hand Dryer	F-Office	\$450	\$0	\$225	\$675	\$450	1.57	1.57	1.00	1.57
20 Smart Strip plug outlet	F-Office	\$40	\$0	\$20	\$60	\$40	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
21 Vendor Mixer for Non-Refrig Equipment	F-Office	\$80	\$0	\$40	\$120	\$80	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22 Add New Measure										
Program Totals	n/a	n/a	0	n/a	n/a	n/a	1.97	1.97	1.00	1.97

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PMAP (Incremental/Utility admin./Cost Effectiveness)

Measure Name		Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
<p>#7 Other Ratio: TRC 0.00</p>											
1	Engine Block Heater Timer	J - Other	\$35	\$0	\$18	\$53	\$35	9.98	9.98	1.00	9.98
2	High Efficiency Elevators	J - Other	\$54,690	\$0	\$27,345	\$82,035	\$54,690	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	High Efficiency Elevators	J - Other	\$76,748	\$0	\$38,374	\$115,122	\$76,748	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	High Efficiency Transformer, single-phase	J - Other	\$2	\$0	\$1	\$2	\$2	2.84	2.84	1.00	2.84
5	High Efficiency Transformer, single-phase	J - Other	\$2	\$0	\$1	\$2	\$2	2.84	2.84	1.00	2.84
6	High Efficiency Transformer, three-phase	J - Other	\$6	\$0	\$3	\$9	\$6	2.73	2.73	1.00	2.73
7	High Efficiency Transformer, three-phase	J - Other	\$6	\$0	\$3	\$9	\$6	2.73	2.73	1.00	2.73
8	NEMA Premium Transformer, single-phase	J - Other	\$12	\$0	\$6	\$18	\$12	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	NEMA Premium Transformer, single-phase	J - Other	\$12	\$0	\$6	\$18	\$12	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10	NEMA Premium Transformer, three-phase	J - Other	\$10	\$0	\$5	\$16	\$10	1.90	1.90	1.00	1.90
11	NEMA Premium Transformer, three-phase	J - Other	\$35	\$0	\$18	\$53	\$35	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
12	Optimized Snow and Ice Melt Controls (electric)	J - Other	\$42	\$0	\$21	\$63	\$42	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
13	Parking Garage Exhaust Fan CO Control	J - Other	\$1,194	\$0	\$597	\$1,791	\$1,194	2.23	2.23	1.00	2.23
14	Add New Measure										
Program Totals			n/a	0	n/a	n/a	n/a	2.28	2.28	1.00	2.28
<p>#8 Pools Ratio: TRC 0.00</p>											
1	Heat Pump Pool Heater	E-Pool	\$1,790	\$0	\$895	\$2,686	\$1,790	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	Heat Pump Pool Heater	E-Pool	\$375	\$0	\$188	\$563	\$375	5.73	5.73	1.00	5.73
3	High Efficiency Pool Pump	E-Pool	\$1,077	\$0	\$538	\$1,615	\$1,077	3.40	3.40	1.00	3.40
4	High Efficiency Pool Pump	E-Pool	\$450	\$0	\$225	\$675	\$450	8.13	8.13	1.00	8.13
5	High efficiency spa/hot tubs	E-Pool	\$1,046	\$0	\$523	\$1,569	\$1,046	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	High efficiency spa/hot tubs	E-Pool	\$900	\$0	\$450	\$900	\$900	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	Pool Pump Timer	E-Pool	\$1,136	\$0	\$568	\$1,704	\$1,136	1.93	1.93	1.00	1.93
8	VFDs on Commercial Swimming Pool Pumps	E-Pool	\$288	\$0	\$143	\$429	\$288	10.42	10.42	1.00	10.42
9	Add New Measure										
Program Totals			n/a	n/a	n/a	n/a	n/a	3.46	3.46	1.00	3.46
<p>#9 Refrigeration Ratio: TRC 0.00</p>											
1	Airt Swept Heater Controls	I - Refrigeration	\$151	\$0	\$76	\$227	\$151	9.25	9.25	1.00	9.25
2	Automatic Door Closers for Refrigerated Walk-in Coolers/Freezers	I - Refrigeration	\$157	\$0	\$79	\$236	\$157	7.30	7.30	1.00	7.30
3	Automatic High Speed Doors	I - Refrigeration	\$150	\$0	\$75	\$225	\$150	6.15	6.15	1.00	6.15
4	Discus and Scroll Compressors	I - Refrigeration	\$825	\$0	\$413	\$1,238	\$825	1.50	1.50	1.00	1.50
5	Discus and Scroll Compressors	I - Refrigeration	\$893	\$0	\$447	\$1,340	\$893	1.37	1.37	1.00	1.37
6	ECM/Permanent Magnet Synchronous Case Motors	I - Refrigeration	\$50	\$0	\$25	\$75	\$50	9.15	9.15	1.00	9.15
7	ECM/Permanent Magnet Synchronous Case Motors	I - Refrigeration	\$69	\$0	\$35	\$104	\$69	6.79	6.79	1.00	6.79
8	Efficient low temp compressor	I - Refrigeration	\$552	\$0	\$276	\$828	\$552	1.24	1.24	1.00	1.24
9	Efficient low temp compressor	I - Refrigeration	\$589	\$0	\$294	\$883	\$589	1.13	1.13	1.00	1.13
10	Efficient Refrigeration Condenser	I - Refrigeration	\$35	\$0	\$18	\$53	\$35	9.86	9.86	1.00	9.86
11	Efficient Refrigeration Condenser	I - Refrigeration	\$42	\$0	\$21	\$63	\$42	8.18	8.18	1.00	8.18
12	ENERGY STAR Commercial Glass Door Freezers	I - Refrigeration	\$1,194	\$0	\$597	\$1,791	\$1,194	3.14	3.14	1.00	3.14
13	ENERGY STAR Commercial Glass Door Freezers	I - Refrigeration	\$1,790	\$0	\$895	\$2,686	\$1,790	2.10	2.10	1.00	2.10
14	ENERGY STAR Commercial Glass Door Refrigerators	I - Refrigeration	\$375	\$0	\$188	\$563	\$375	1.89	1.89	1.00	1.89
15	ENERGY STAR Commercial Glass Door Refrigerators	I - Refrigeration	\$1,077	\$0	\$538	\$1,615	\$1,077	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16	ENERGY STAR Commercial Solid Door Freezers	I - Refrigeration	\$450	\$0	\$225	\$675	\$450	3.95	3.95	1.00	3.95
17	ENERGY STAR Commercial Solid Door Freezers	I - Refrigeration	\$1,046	\$0	\$523	\$1,569	\$1,046	1.70	1.70	1.00	1.70
18	ENERGY STAR Commercial Solid Door Refrigerators	I - Refrigeration	\$600	\$0	\$300	\$900	\$600	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
19	ENERGY STAR Commercial Solid Door Refrigerators	I - Refrigeration	\$1,136	\$0	\$568	\$1,704	\$1,136	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20	Energy Star Ice Machines	I - Refrigeration	\$1,367	\$0	\$683	\$2,050	\$1,367	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
21	Energy Star Ice Machines	I - Refrigeration	\$1,871	\$0	\$935	\$2,806	\$1,871	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Evaporator Fan Motor Controls	I - Refrigeration	\$621	\$0	\$311	\$932	\$621	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23	Floating Head Pressure Control	I - Refrigeration	\$120	\$0	\$60	\$180	\$120	9.97	9.97	1.00	9.97
24	High Covers	I - Refrigeration	\$34	\$0	\$17	\$51	\$34	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
25	Reach-in Refrigerated display case door retrofit	I - Refrigeration	\$1,010	\$0	\$505	\$1,515	\$1,010	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26	Refrigerant charging correction	I - Refrigeration	\$10	\$0	\$5	\$16	\$10	3.00	3.00	1.00	3.00
27	Refrigeration Savings due to Lighting Savings	I - Refrigeration	\$1	\$0	\$1	\$2	\$1	1.03	1.03	1.00	1.03
28	Refrigeration Suction Line Insulation	I - Refrigeration	\$4	\$0	\$2	\$6	\$4	2.25	2.25	1.00	2.25
29	Refrigerator - Demand Defrost	I - Refrigeration	\$114,640	\$0	\$57,320	\$171,960	\$114,640	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
30	Refrigerator - eCube	I - Refrigeration	\$814	\$0	\$407	\$1,221	\$814	1.03	1.03	1.00	1.03
31	Strip Curtains - Walk-In Cooler	I - Refrigeration	\$286	\$0	\$143	\$429	\$286	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
32	Strip Curtains - Walk-In Freezer	I - Refrigeration	\$286	\$0	\$143	\$429	\$286	4.55	4.55	1.00	4.55
33	Vending Miser for Refrigerated Vending Machines	I - Refrigeration	\$216	\$0	\$108	\$324	\$216	1.66	1.66	1.00	1.66
34	Walk-in Cooler Evaporator Motor Reduction	I - Refrigeration	\$1,000	\$0	\$500	\$1,500	\$1,000	1.23	1.23	1.00	1.23
35	Zero-Energy Doors	I - Refrigeration	\$290	\$0	\$145	\$435	\$290	3.66	3.66	1.00	3.66
36		F-Non-Electric									
37		F-Non-Electric									
38	Add New Measure										
Program Totals			n/a	n/a	n/a	n/a	n/a	1.79	1.79	1.00	1.79

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PMAP (Incremental/Utility admin./Cost Effectiveness)

#10	Space Cooling - Chillers	Rate: TRC	Measure Level					Measure Level Ratios			
			Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RM
1	Air-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	\$436	\$0	\$2	\$7	\$4	7.42	7.42	1.00	7.42
2	Air-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	\$425	\$0	\$2	\$7	\$5	7.10	7.10	1.00	7.10
3	Air-Cooled Chiller Average Minimum Qualifying 1.04 kW/ton	G - Space Cooling	\$67	\$0	\$33	\$100	\$67	9.68	9.68	1.00	9.68
4	Air-Cooled Chiller Average Minimum Qualifying 1.04 kW/ton	G - Space Cooling	\$185	\$0	\$92	\$277	\$185	3.49	3.49	1.00	3.49
5	Air-Cooled Recip Chiller	G - Space Cooling	\$141	\$0	\$71	\$242	\$141	5.54	5.54	1.00	5.54
6	Air-Cooled Recip Chiller	G - Space Cooling	\$200	\$0	\$100	\$301	\$200	1.63	1.63	1.00	1.63
7	Air-Cooled Screw Chiller	G - Space Cooling	\$144	\$0	\$71	\$216	\$144	5.54	5.54	1.00	5.54
8	Air-Cooled Screw Chiller	G - Space Cooling	\$283	\$0	\$132	\$395	\$283	2.18	2.18	1.00	2.18
9	Building Operator Certification	G - Space Cooling	\$430	\$0	\$215	\$645	\$430	6.50	6.50	1.00	6.50
10	Ceiling Insulation	G - Space Cooling	\$300	\$0	\$150	\$450	\$300	0.43	0.43	1.00	0.43
11	Chilled Hot Water Reset	G - Space Cooling	\$5	\$0	\$3	\$8	\$5	16.19	16.19	1.00	16.19
12	Chiller Tune Up	G - Space Cooling	\$3	\$0	\$1	\$4	\$3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
13	Chiller Adding VFD Control to Chillers)	G - Space Cooling	\$2,085	\$0	\$1,043	\$3,128	\$2,085	1.26	1.26	1.00	1.26
14	Commercial EMS	G - Space Cooling	\$4	\$0	\$2	\$5	\$4	121.95	121.95	1.00	121.95
15	Commissioning	G - Space Cooling	\$1	\$0	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16	Cool Roof	G - Space Cooling	\$750	\$0	\$375	\$1,125	\$750	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
17	Cool Roof	G - Space Cooling	\$754	\$0	\$377	\$1,131	\$754	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
18	Efficient Chilled Water Pump	G - Space Cooling	\$198	\$0	\$99	\$297	\$198	44.31	44.31	1.00	44.31
19	EMS Optimization / Continuous Commissioning	G - Space Cooling	\$25	\$0	\$13	\$38	\$25	-NPV(\$5104,8R13)	26.87	1.00	26.87
20	EMS Pump Scheduling Controls	G - Space Cooling	\$508	\$0	\$254	\$761	\$508	3.31	3.31	1.00	3.31
21	Energy Efficient Windows	G - Space Cooling	\$75	\$0	\$38	\$113	\$75	51.90	51.90	1.00	51.90
22	Energy Efficient Windows	G - Space Cooling	\$877	\$0	\$438	\$1,315	\$877	2.40	2.40	1.00	2.40
23	Foundation Insulation	G - Space Cooling	\$1	\$0	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
24	High Efficiency Pumps	G - Space Cooling	\$67	\$0	\$48	\$145	\$67	0.80	0.80	1.00	0.80
25	High Efficiency Pumps	G - Space Cooling	\$181	\$0	\$90	\$241	\$181	0.46	0.46	1.00	0.46
26	HVAC Occupancy Sensors	G - Space Cooling	\$250	\$0	\$125	\$375	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
27	Improved Duct Sealing - Cooling Chiller	G - Space Cooling	\$54	\$0	\$27	\$81	\$54	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
28	Integrated Building Design	G - Space Cooling	\$74,099	\$0	\$37,050	\$111,149	\$74,099	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
29	Motor Belt Replacement	G - Space Cooling	\$21	\$0	\$11	\$32	\$21	2.91	2.91	1.00	2.91
30	Retrocommissioning	G - Space Cooling	\$0	\$0	\$0	\$0	\$0	1.65	1.65	1.00	1.65
31	Roof Insulation	G - Space Cooling	\$111	\$0	\$56	\$167	\$111	1.20	1.20	1.00	1.20
32	Setback with Electric Heat	G - Space Cooling	\$25	\$0	\$12	\$37	\$25	137.22	137.22	1.00	137.22
33	VAV System Conversion	G - Space Cooling	\$2,000	\$0	\$1,000	\$3,000	\$2,000	4.96	4.96	1.00	4.96
34	Wall Insulation	G - Space Cooling	\$50	\$0	\$25	\$75	\$50	23.73	23.73	1.00	23.73
35	Water-Cooled Centrifugal Chiller < 150 ton	G - Space Cooling	\$411	\$0	\$205	\$617	\$411	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
36	Water-Cooled Centrifugal Chiller < 150 ton	G - Space Cooling	\$495	\$0	\$247	\$742	\$495	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
37	Water-Cooled Centrifugal Chiller > 300 ton	G - Space Cooling	\$27	\$0	\$14	\$41	\$27	14.72	14.72	1.00	14.72
38	Water-Cooled Centrifugal Chiller > 300 ton	G - Space Cooling	\$208	\$0	\$104	\$312	\$208	1.53	1.53	1.00	1.53
39	Water-Cooled Centrifugal Chiller 150 - 300 ton	G - Space Cooling	\$126	\$0	\$63	\$189	\$126	3.46	3.46	1.00	3.46
40	Water-Cooled Centrifugal Chiller 150 - 300 ton	G - Space Cooling	\$94	\$0	\$47	\$142	\$94	2.99	2.99	1.00	2.99
41	Water-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	\$5	\$0	\$3	\$8	\$5	3.72	3.72	1.00	3.72
42	Water-Cooled Chiller Average 0.01 kW/ton IPLV Reduction	G - Space Cooling	\$6	\$0	\$3	\$9	\$6	2.59	2.59	1.00	2.59
43	Water-Cooled Chiller Average 10% above IECC standard	G - Space Cooling	\$101	\$0	\$51	\$152	\$101	5.26	5.26	1.00	5.26
44	Water-Cooled Chiller Average 10% above IECC standard	G - Space Cooling	\$185	\$0	\$92	\$277	\$185	2.10	2.10	1.00	2.10
45	Water-Cooled Screw Chiller < 150 ton	G - Space Cooling	\$388	\$0	\$194	\$582	\$388	2.48	2.48	1.00	2.48
46	Water-Cooled Screw Chiller < 150 ton	G - Space Cooling	\$493	\$0	\$247	\$740	\$493	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
47	Water-Cooled Screw Chiller > 300 ton	G - Space Cooling	\$27	\$0	\$14	\$41	\$27	16.99	16.99	1.00	16.99
48	Water-Cooled Screw Chiller > 300 ton	G - Space Cooling	\$97	\$0	\$48	\$145	\$97	2.19	2.19	1.00	2.19
49	Water-Cooled Screw Chiller 150 - 300 ton	G - Space Cooling	\$129	\$0	\$65	\$194	\$129	3.78	3.78	1.00	3.78
50	Water-Cooled Screw Chiller 150 - 300 ton	G - Space Cooling	\$218	\$0	\$109	\$327	\$218	1.62	1.62	1.00	1.62
51	Water-Side Economizer	G - Space Cooling	\$50	\$0	\$25	\$75	\$50	17.78	17.78	1.00	17.78
52	Web enabled EMS	G - Space Cooling	\$55	\$0	\$27	\$82	\$55	23.81	23.81	1.00	23.81
53	Window Improvements	G - Space Cooling	\$192	\$0	\$96	\$288	\$192	0.58	0.58	1.00	0.58
54	Add New Measure										
Program Totals		n/a	n/a	n/a	n/a	n/a	n/a	1.70	1.70	1.00	1.70

10 Inc

COMMERCIAL - ENERGY EFFICIENCY - PMAP (Incremental/Utility admin./Cost Effectiveness)

#11 Space Cooling - Unitary and Split AC		Rate: TRC					Measure Level Rates			
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
Zoning	G - Space Cooling	\$500	\$0	\$250	\$750	\$500	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
AC <65k	G - Space Cooling	\$58	\$0	\$28	\$83	\$56	3.13	3.13	1.00	3.13
AC <65k	G - Space Cooling	\$272	\$0	\$136	\$408	\$272	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
AC >760k	G - Space Cooling	\$98	\$0	\$49	\$148	\$98	2.50	2.50	1.00	2.50
AC >760k	G - Space Cooling	\$210	\$0	\$105	\$314	\$210	1.68	1.68	1.00	1.68
AC 135k - 240k	G - Space Cooling	\$111	\$0	\$55	\$166	\$111	2.86	2.86	1.00	2.86
AC 135k - 240k	G - Space Cooling	\$333	\$0	\$167	\$500	\$333	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
AC 240k - 760k	G - Space Cooling	\$115	\$0	\$58	\$173	\$115	1.44	1.44	1.00	1.44
AC 240k - 760k	G - Space Cooling	\$272	\$0	\$136	\$408	\$272	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
AC 65k - 135k	G - Space Cooling	\$324	\$0	\$162	\$486	\$324	1.01	1.01	1.00	1.01
AC 65k - 135k	G - Space Cooling	\$443	\$0	\$221	\$664	\$443	1.07	1.07	1.00	1.07
Active Chilled Beam Heating and Cooling	G - Space Cooling	\$1	\$0	\$0	\$1	\$1	3.00	3.00	1.00	3.00
Active Chilled Beam Heating and Cooling	G - Space Cooling	\$2	\$0	\$1	\$3	\$2	1.40	1.40	1.00	1.40
Air Source Heat Pump - Cooling	G - Space Cooling	\$52	\$0	\$26	\$79	\$52	5.15	5.15	1.00	5.15
Air Source Heat Pump - Cooling	G - Space Cooling	\$375	\$0	\$187	\$562	\$375	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Building Operator Certification	G - Space Cooling	\$430	\$0	\$215	\$645	\$430	7.69	7.69	1.00	7.69
Building Operator Certification	G - Space Cooling	\$300	\$0	\$150	\$450	\$300	0.55	0.55	1.00	0.55
Commercial EMS	G - Space Cooling	\$4	\$0	\$2	\$5	\$4	123.71	123.71	1.00	123.71
Commissioning	G - Space Cooling	\$1	\$0	\$1	\$2	\$1	0.00	0.00	1.00	0.00
Cool Roof	G - Space Cooling	\$750	\$0	\$375	\$1,125	\$750	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Cool Roof	G - Space Cooling	\$754	\$0	\$377	\$1,131	\$754	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Ducted Variable-Speed Split System Heat Pump	G - Space Cooling	\$1	\$0	\$0	\$1	\$1	1.81	1.81	1.00	1.81
Ducted Variable-Speed Split System Heat Pump	G - Space Cooling	\$1	\$0	\$0	\$1	\$1	1.29	1.29	1.00	1.29
Ductless (mini split) - Cooling	G - Space Cooling	\$160	\$0	\$80	\$241	\$160	3.32	3.32	1.00	3.32
Ductless (mini split) - Cooling	G - Space Cooling	\$907	\$0	\$454	\$1,361	\$907	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
DX Condenser Coil Cleaning	G - Space Cooling	\$6	\$0	\$3	\$10	\$6	7.54	7.54	1.00	7.54
EMS Optimization / Continuous Commissioning	G - Space Cooling	\$25	\$0	\$13	\$38	\$25	29.90	29.90	1.00	29.90
EMS Pump Scheduling Controls	G - Space Cooling	\$506	\$0	\$254	\$761	\$506	3.47	3.47	1.00	3.47
Energy Efficient Windows	G - Space Cooling	\$75	\$0	\$38	\$113	\$75	53.41	53.41	1.00	53.41
Energy Efficient Windows	G - Space Cooling	\$377	\$0	\$189	\$567	\$377	2.68	2.68	1.00	2.68
Foundation Insulation	G - Space Cooling	\$1	\$0	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Ground Source Heat Pump - Cooling	G - Space Cooling	\$180	\$0	\$90	\$270	\$180	1.60	1.60	1.00	1.60
Ground Source Heat Pump - Cooling	G - Space Cooling	\$274	\$0	\$137	\$411	\$274	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Hotel Guest Room Occupancy Control System	G - Space Cooling	\$125	\$0	\$63	\$188	\$125	1.00	1.00	1.00	1.00
HVAC Fan-Adding VFD Control to HVAC Fan Motor	G - Space Cooling	\$2,085	\$0	\$1,043	\$3,128	\$2,085	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HVAC Occupancy Sensors	G - Space Cooling	\$250	\$0	\$125	\$375	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Air Compressor Outdoor Air Intake	G - Space Cooling	\$276	\$0	\$138	\$414	\$276	4.07	4.07	1.00	4.07
HVAC-System Low Velocity HVAC System	G - Space Cooling	\$694	\$0	\$347	\$1,041	\$694	1.62	1.62	1.00	1.62
Improved Duct Sealing - Cooling AC	G - Space Cooling	\$54	\$0	\$27	\$81	\$54	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Integrated Building Design	G - Space Cooling	\$74,099	\$0	\$37,050	\$111,149	\$74,099	0.00	0.00	1.00	0.00
Programmable Thermostats	G - Space Cooling	\$50	\$0	\$25	\$75	\$50	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
PTAC/PTHP - Cooling	G - Space Cooling	\$8	\$0	\$4	\$13	\$8	146.18	146.18	1.00	146.18
PTAC/PTHP - Cooling	G - Space Cooling	\$58	\$0	\$29	\$86	\$58	8.01	8.01	1.00	8.01
Retrocommissioning	G - Space Cooling	\$0	\$0	\$0	\$0	\$0	1.85	1.85	1.00	1.85
Roof Insulation	G - Space Cooling	\$66	\$0	\$33	\$99	\$66	1.38	1.38	1.00	1.38
Roof Top Unit - Controls	G - Space Cooling	\$188	\$0	\$94	\$281	\$188	17.14	17.14	1.00	17.14
Roof Top Unit - Evaporative Precooler	G - Space Cooling	\$3,450	\$0	\$1,725	\$5,175	\$3,450	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Roof Top Unit - Maintenance	G - Space Cooling	\$1,100	\$0	\$550	\$1,650	\$1,100	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Room A/C	G - Space Cooling	\$75	\$0	\$37	\$112	\$75	7.48	7.48	1.00	7.48
Room A/C	G - Space Cooling	\$112	\$0	\$56	\$169	\$112	4.97	4.97	1.00	4.97
Setback with Electric Heat	G - Space Cooling	\$25	\$0	\$12	\$37	\$25	134.57	134.57	1.00	134.57
Setback with Electric Heat	G - Space Cooling	\$53	\$0	\$27	\$80	\$53	61.64	61.64	1.00	61.64
VRF-Variable Refrigerant Volume System	G - Space Cooling	\$10,864	\$0	\$5,432	\$16,296	\$10,864	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
VRF-Variable Refrigerant Volume System	G - Space Cooling	\$11,076	\$0	\$5,538	\$16,614	\$11,076	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Wall Insulation	G - Space Cooling	\$50	\$0	\$25	\$75	\$50	26.40	26.40	1.00	26.40
Water Loop Heat Pump (WLHP) - Cooling	G - Space Cooling	\$25	\$0	\$13	\$38	\$25	3.61	3.61	1.00	3.61
Water Loop Heat Pump (WLHP) - Cooling	G - Space Cooling	\$119	\$0	\$59	\$178	\$119	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Web enabled EMS	G - Space Cooling	\$25	\$0	\$12	\$37	\$25	25.91	25.91	1.00	25.91
Window Improvements	G - Space Cooling	\$192	\$0	\$96	\$288	\$192	0.68	0.68	1.00	0.68
WLHP System (Cooling) New Construction	G - Space Cooling	\$1,000	\$0	\$500	\$1,500	\$1,000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Zoning	G - Space Cooling	\$500	\$0	\$250	\$750	\$500	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Add New Measure										
Program Totals		n/a	n/a	n/a	n/a	n/a	1.34	1.34	1.00	1.34

T1 Inc

COMMERCIAL - ENERGY EFFICIENCY - PMAP (Incremental/Utility admin./Cost Effectiveness)

#12 Space Heating		Ratio: TRC					Measure Level Ratios			
Measure Name	Measure Type	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1 Active Chilled Beam Heating and Cooling	D - Space Heat	\$1	\$0	\$0	\$1	\$1	1.29	1.29	1.00	1.29
2 Active Chilled Beam Heating and Cooling	D - Space Heat	\$2	\$0	\$1	\$4	\$2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3 Air Source Heat Pump - Heating	D - Space Heat	\$210	\$0	\$105	\$315	\$210	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4 Air Source Heat Pump - Heating	D - Space Heat	\$513	\$0	\$256	\$769	\$513	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5 Building Operator Certification	D - Space Heat	\$430	\$0	\$215	\$645	\$430	9.32	9.32	1.00	9.32
6 Ceiling Insulation	D - Space Heat	\$300	\$0	\$150	\$450	\$300	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7 Commercial EMS	D - Space Heat	\$354	\$0	\$2	\$5	\$4	45.32	45.32	1.00	45.32
8 Commissioning	D - Space Heat	\$1	\$0	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9 Cool Roof	D - Space Heat	\$750	\$0	\$375	\$1,125	\$750	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10 Cool Roof	D - Space Heat	\$754	\$0	\$377	\$1,131	\$754	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
11 Ducted Variable-Speed Split System Heat Pump	D - Space Heat	\$1	\$0	\$0	\$1	\$1	2.59	2.59	1.00	2.59
12 Ducted Variable-Speed Split System Heat Pump	D - Space Heat	\$1	\$0	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
13 Ductless (mini split) - Heating	D - Space Heat	\$641	\$0	\$321	\$962	\$641	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
14 Ductless (mini split) - Heating	D - Space Heat	\$907	\$0	\$454	\$1,361	\$907	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15 ECM motors on furnaces	D - Space Heat	\$1,250	\$0	\$625	\$1,875	\$1,250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
16 Electric Furnace	D - Space Heat	\$698	\$0	\$349	\$1,047	\$698	2.01	2.01	1.00	2.01
17 Electric Furnace	D - Space Heat	\$1,238	\$0	\$619	\$1,857	\$1,238	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
18 EMS Optimization / Continuous Commissioning	D - Space Heat	\$25	\$0	\$13	\$38	\$25	11.79	11.79	1.00	11.79
19 EMS Pump Scheduling Controls	D - Space Heat	\$508	\$0	\$254	\$761	\$508	1.87	1.87	1.00	1.87
20 Energy Efficient Windows	D - Space Heat	\$75	\$0	\$38	\$113	\$75	51.04	51.04	1.00	51.04
21 Energy Efficient Windows	D - Space Heat	\$877	\$0	\$438	\$1,315	\$877	3.99	3.99	1.00	3.99
22 Foundation Insulation	D - Space Heat	\$1	\$0	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23 Ground Source Heat Pump - Heating	D - Space Heat	\$180	\$0	\$90	\$270	\$180	2.65	2.65	1.00	2.65
24 Ground Source Heat Pump - Heating	D - Space Heat	\$274	\$0	\$137	\$411	\$274	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
25 Heat Pump Maintenance	D - Space Heat	\$880	\$0	\$440	\$1,320	\$880	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
26 Hotel Guest Room Occupancy Control System	D - Space Heat	\$125	\$0	\$63	\$188	\$125	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
27 HVAC Occupancy Sensors	D - Space Heat	\$250	\$0	\$125	\$375	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
28 Integrated Building Design	D - Space Heat	\$74,099	\$0	\$37,050	\$111,149	\$74,099	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
29 PTAC/PTHP - Heating	D - Space Heat	\$76	\$0	\$38	\$113	\$76	57.75	57.75	1.00	57.75
30 PTAC/PTHP - Heating	D - Space Heat	\$114	\$0	\$57	\$170	\$114	38.44	38.44	1.00	38.44
31 Retrocommissioning	D - Space Heat	\$0	\$0	\$0	\$0	\$0	2.98	2.98	1.00	2.98
32 Roof Insulation	D - Space Heat	\$56	\$0	\$28	\$83	\$56	0.71	0.71	1.00	0.71
33 Setback with Electric Heat	D - Space Heat	\$25	\$0	\$12	\$37	\$25	50.59	50.59	1.00	50.59
34 VFD Pumps	D - Space Heat	\$4,535	\$0	\$2,268	\$6,803	\$4,535	4.74	4.74	1.00	4.74
35 Wall Insulation	D - Space Heat	\$100	\$0	\$50	\$150	\$100	5.08	5.08	1.00	5.08
36 Improved Duct Sealing - Heating	D - Space Heat	\$54	\$0	\$27	\$81	\$54	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
37 Water Loop Heat Pump (WLHP) - Heating	D - Space Heat	\$20	\$0	\$10	\$30	\$20	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
38 Water Loop Heat Pump (WLHP) - Heating	D - Space Heat	\$116	\$0	\$58	\$174	\$116	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
39 Web enabled EMS	D - Space Heat	\$175	\$0	\$87	\$262	\$175				
40 Web enabled EMS with Electric Heat	D - Space Heat	\$50	\$0	\$25	\$75	\$50	126.37	126.37	1.00	126.37
41 Window Improvements	D - Space Heat	\$545	\$0	\$273	\$818	\$545	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
42 WLHP System (Heating) New Construction	D - Space Heat	\$20	\$0	\$10	\$30	\$20	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
43 Zoning	D - Space Heat	\$500	\$0	\$250	\$750	\$500	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
44 Demand-Controlled Ventilation	D - Space Heat	\$75	\$0	\$38	\$113	\$75	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
45 Demand-Controlled Ventilation	D - Space Heat	\$75	\$0	\$38	\$113	\$75	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
46 Add New Measure										
Program Totals		n/a	n/a	n/a	n/a	n/a	1.81	1.81	1.00	1.81

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

COMMERCIAL - ENERGY EFFICIENCY - PMAP (Incremental/Utility admin./Cost Effectiveness)

GDS ASSOCIATES - COST EFFECTIVENESS SCREENING TOOL®

INPUT WORKSHEET

2.18 MAP 3

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Ratio: TRC		Measure Level Ratios									
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Economizer	0	\$101	\$0	\$50	\$151	\$70	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	Engineered CKV hood	3,682	\$316	\$0	\$158	\$474	\$316	2.30	2.30	1.00	2.30
3	FANWALL Technology	125,754	\$3	\$0	\$1	\$4	\$3	9.57	9.57	1.00	9.57
4	High Speed Fans	0	\$675	\$0	\$338	\$1,013	\$675	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5	High Volume Low Speed Fans	0	\$375	\$0	\$188	\$563	\$375	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	Variable Speed Drive Control, 15 HP	11,344	\$3,690	\$0	\$1,845	\$5,535	\$3,690	6.14	6.14	1.00	6.14
7	Variable Speed Drive Control, 40 HP	0	\$9,840	\$0	\$4,920	\$14,760	\$9,840	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	Variable Speed Drive Control, 5 HP	15,618	\$1,230	\$0	\$615	\$1,845	\$1,230	6.14	6.14	1.00	6.14
9											
10											
11	Add New Measure	0									
Program Totals		n/a	n/a	n/a			n/a	4.06	4.06	1.00	4.06

Ratio: TRC		Measure Level Ratios									
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Clothes Washer ENERGY STAR, Electric Water heater, Electric Dryer	10	\$250	\$0	\$125	\$375	\$250	1.56	1.56	1.00	1.56
2	Clothes Washer ENERGY STAR, Electric Water heater, Electric Dryer	0	\$317	\$1	\$158	\$475	\$317	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	0	\$250	\$2	\$125	\$375	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
4	Clothes Washer ENERGY STAR, Electric Water heater, Gas Dryer	0	\$317	\$3	\$158	\$475	\$317	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	0	\$250	\$4	\$125	\$375	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
6	Clothes Washer ENERGY STAR, Gas water heater, Electric dryer	0	\$317	\$5	\$158	\$475	\$317	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
7	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer	0	\$250	\$6	\$125	\$375	\$250	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
8	Clothes Washer ENERGY STAR, Gas water heater, Gas dryer	0	\$317	\$7	\$158	\$475	\$317	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
9	Drain water Heat Recovery Water Heater	39	\$631	\$8	\$316	\$947	\$631	0.87	0.87	1.00	0.87
10	ECM Circulator Pump	2,871	\$2,287	\$9	\$1,133	\$3,400	\$2,287	1.46	1.46	1.00	1.46
11	Efficient Hot Water Pump	6,020	\$33	\$10	\$17	\$50	\$33	14.98	14.98	1.00	14.98
12	Efficient Hot Water Pump	61	\$61	\$11	\$31	\$92	\$61	7.75	7.75	1.00	7.75
13	Electric Tankless Water Heater	244	\$466	\$12	\$233	\$699	\$466	1.60	1.60	1.00	1.60
14	Electric Tankless Water Heater	0	\$681	\$13	\$341	\$1,022	\$681	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15	ES Dishwasher, High Temp, Elec Heat, Elec Booster	38	\$978	\$14	\$489	\$1,466	\$978	13.43	13.43	1.00	13.43
16	ES Dishwasher, High Temp, Elec Heat, Elec Booster	34	\$1,629	\$15	\$815	\$2,444	\$1,629	8.06	8.06	1.00	8.06
17	ES Dishwasher, High Temp, Gas Heat, Elec Booster	74	\$978	\$16	\$489	\$1,466	\$978	5.99	5.99	1.00	5.99
18	ES Dishwasher, High Temp, Gas Heat, Elec Booster	71	\$1,629	\$17	\$815	\$2,444	\$1,629	3.60	3.60	1.00	3.60
19	ES Dishwasher, Low Temp, Elec Heat	41	\$255	\$18	\$128	\$383	\$255	50.98	50.98	1.00	50.98
20	ES Dishwasher, Low Temp, Elec Heat	41	\$322	\$19	\$161	\$483	\$322	40.38	40.38	1.00	40.38
21	Heat Pump Storage Water Heater	0	\$319	\$20	\$159	\$478	\$319	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
22	Heat Pump Storage Water Heater	0	\$231	\$21	\$116	\$347	\$231	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
23	Heat Pump Water Heater	6	\$10,000	\$22	\$5,300	\$15,000	\$10,000	16.55	16.55	1.00	16.55
24	Heat Pump Water Heater	0	\$13,846	\$23	\$6,923	\$20,769	\$13,846	12.67	12.67	1.00	12.67
25	Hot Water (DHW) Pipe Insulation	5,411	\$10	\$24	\$5	\$15	\$10	4.12	4.12	1.00	4.12
26	PP Water Heater - Residential unit in Commercial Application	189	\$1,000	\$25	\$500	\$1,500	\$1,000	5.25	5.25	1.00	5.25
27	PP Water Heater - Residential unit in Commercial Application	2	\$1,087	\$26	\$543	\$1,630	\$1,087	4.83	4.83	1.00	4.83
28	PWAC Condenser Heater Recovery Water Heating	11	\$254	\$27	\$127	\$381	\$254	14.56	14.56	1.00	14.56
29	Low Flow Faucet Aerator	4,171	\$3	\$26	\$1	\$4	\$3	231.79	231.79	1.00	231.79
30	Low Flow Showerhead	1,156	\$25	\$26	\$13	\$38	\$25	4.13	4.13	1.00	4.13
31	Onsite Laundry	0	\$80	\$30	\$40	\$120	\$80	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
32	Pine Rinse Sprayers (electric)	2,442	\$35	\$31	\$18	\$53	\$35	10.02	10.02	1.00	10.02
33	Blank insulation (electric)	414	\$2	\$32	\$1	\$4	\$2	172.23	172.23	1.00	172.23
34	Water Heater - Desuperheater	2	\$128	\$33	\$64	\$192	\$128	32.43	32.43	1.00	32.43
35	Water Heater Timer	435	\$132	\$34	\$66	\$198	\$132	6.05	6.05	1.00	6.05
36	Add New Measure	0									
Program Totals		n/a	n/a	n/a			n/a	1.87	1.87	1.00	1.87

Ratio: TRC		Measure Level Ratios									
Measure Name	Measure Type	Total	Per Unit Total or Incremental Cost	Per Unit Total Participant Cost	Per Unit Total Utility Admin Cost	Per Unit Total Utility Cost	Per Unit Rebate - Incentive	TRC	Direct Utility	Participant	RIM
1	Behavior Based Efficiency (Commercial Energy Reports)	1,185,122	\$8.88	\$34	\$4	\$13	\$9	13.56	13.56	1.00	13.56
2	Whole-Building Energy Monitoring	0	\$1.00	\$35	\$1	\$2	\$1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3	In-Home Energy Use Displays	23,429	\$250.00	\$36	\$125	\$375	\$250	8.00	8.00	1.00	8.00
4	Add New Measure	0									
Program Totals		n/a	n/a	n/a			n/a	7.72	7.72	1.00	7.72

4 CSR 240-22.050(3)(G)1; 4 CSR 240-22.050(3)(G)3; 4 CSR 240-22.050(3)(G)4; 4 CSR 240-22.050(3)(H)

Compliance References

4 CSR 240-22.050(3)(G)1	1-44
4 CSR 240-22.050(3)(G)3	1-44
4 CSR 240-22.050(3)(G)4	1-44
4 CSR 240-22.050(3)(H)	1-44
4 CSR 240-22.050(3)(G)5A through 5F	45-60
4 CSR 240-22.050(3)(H)	45-60