| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Ventilation and Circulation | New | High Efficiency Ventilation Hoods | High Efficiency Ventilation Hoods | Standard Ventilation Hood | Per Kitchen Exhaust Hood HP | 392.53 | 15 | $173.95 | 25% | 45% | $0.06 | 1.6 | 0 |
| Lodging | Ventilation and Circulation | Existing | VFD on HVAC Fan | VFD on HVAC Fan | Standard Motor | Per HVAC Fan Motor VFD (assuming 50 HP average) | 2637.91 | 13 | $291.39 | 75% | 98% | $0.02 | 5.8 | 407 |
| Lodging | Ventilation and Circulation | Existing | VFD on HVAC Pump | VFD on HVAC Pump | Standard Motor | Per HVAC Pump Motor VFD (assuming 50 HP average) | 894.21 | 13 | $96.26 | 75% | 98% | $0.02 | 6.0 | 158 |
| Lodging | Water Heat GT 55 Gal | Existing | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 77.13 | 12 | $100.49 | 50% | 95% | $0.21 | 0.5 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 77.13 | 12 | $100.49 | 50% | 95% | $0.21 | 0.5 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 77.13 | 12 | $100.49 | 50% | 78% | $0.21 | 0.5 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 77.13 | 12 | $100.49 | 50% | 78% | $0.21 | 0.5 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 14679.75 | 25 | $16,515.48 | 5% | 100% | $0.13 | 0.9 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 6408.42 | 25 | $16,515.48 | 25% | 100% | $0.29 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 222.24 | 11 | $254.34 | 100% | 34% | $0.19 | 0.5 | 0 |
| Lodging | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 222.24 | 11 | $254.34 | 100% | 34% | $0.19 | 0.5 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 437.81 | 11 | $617.68 | 100% | 95% | $0.24 | 0.4 | 0 |
| Lodging | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 437.81 | 11 | $617.68 | 100% | 95% | $0.24 | 0.4 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 225.62 | 11 | $363.34 | 100% | 95% | $0.27 | 0.4 | 0 |
| Lodging | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 225.62 | 11 | $363.34 | 100% | 95% | $0.27 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat GT 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 20.00 | 10 | $16.67 | 100% | 25% | $0.15 | 0.6 | 0 |
| Lodging | Water Heat GT 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 20.00 | 10 | $16.67 | 100% | 55% | $0.15 | 0.6 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 36919.58 | 14 | ###### | 50% | 95% | $0.07 | 1.3 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 16117.18 | 14 | ###### | 50% | 95% | $0.17 | 0.6 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 2207.97 | 8 | $2,328.64 | 50% | 75% | $0.22 | 0.4 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 3925.38 | 7 | $1,279.14 | 95% | 80% | $0.08 | 1.2 | 0 |
| Lodging | Water Heat GT 55 Gal | New | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 3925.38 | 7 | $1,279.14 | 95% | 80% | $0.08 | 1.2 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 1474.47 | 14 | $430.81 | 100% | 14% | $0.04 | 2.3 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 366.99 | 15 | $224.27 | 75% | 90% | $0.09 | 1.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 35922.19 | 7 | $1,250.53 | 95% | 100% | $0.01 | 11.1 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 15681.77 | 7 | $1,250.53 | 75% | 100% | $0.02 | 4.8 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 26272.53 | 7 | $990.91 | 95% | 90% | $0.01 | 10.2 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 11469.23 | 7 | $990.91 | 75% | 90% | $0.02 | 4.5 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 2551.29 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 2551.29 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1800.91 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1800.91 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1050.53 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1050.53 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 1200.61 | 12 | $111.32 | 95% | 25% | $0.01 | 6.5 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Existing Low-flow Pre-Rinse Spray Valve | Per Pre-Rinse Spray Valve | 5.50 | 5 | $7.38 | 95% | 25% | $0.40 | 0.2 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 49.87 | 5 | $5.27 | 95% | 90% | $0.03 | 2.7 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 49.87 | 5 | $5.27 | 95% | 90% | $0.03 | 2.7 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 2412.51 | 9 | $276.57 | 75% | 85% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 2412.51 | 9 | $276.57 | 75% | 85% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 1809.38 | 9 | $207.43 | 75% | 75% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 1809.38 | 9 | $207.43 | 75% | 75% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 1206.26 | 9 | $138.29 | 75% | 50% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 1206.26 | 9 | $138.29 | 75% | 50% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 1206.26 | 9 | $138.29 | 75% | 35% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 1206.26 | 9 | $138.29 | 75% | 35% | $0.02 | 4.1 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 44406.26 | 10 | $5,412.44 | 2% | 98% | $0.02 | 4.2 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 19385.47 | 10 | $5,412.44 | 2% | 98% | $0.05 | 1.9 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.32 | 15 | $4.24 | 100% | 100% | $6.91 | 0.0 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.32 | 15 | $4.24 | 100% | 100% | $6.91 | 0.0 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 1650.84 | 12 | ###### | 75% | 85% | $1.31 | 0.1 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 1650.84 | 12 | ###### | 75% | 85% | $1.31 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat GT 55 Gal | Existing | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.10 | 10 | $0.06 | 90% | 100% | $0.11 | 0.9 | 0 |
| Lodging | Water Heat GT 55 Gal | New | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.10 | 10 | $0.06 | 90% | 100% | $0.11 | 0.9 | 0 |
| Lodging | Water Heat GT 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 10275.83 | 2 | $336.91 | 75% | 94% | $0.02 | 3.8 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 163.66 | 12 | $100.49 | 50% | 95% | $0.10 | 1.0 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 163.66 | 12 | $100.49 | 50% | 95% | $0.10 | 1.0 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 163.66 | 12 | $100.49 | 50% | 78% | $0.10 | 1.0 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 163.66 | 12 | $100.49 | 50% | 78% | $0.10 | 1.0 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 13341.89 | 25 | $16,515.48 | 5% | 100% | $0.14 | 0.8 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 13289.04 | 25 | $16,515.48 | 25% | 100% | $0.14 | 0.8 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 222.24 | 11 | $254.34 | 100% | 34% | $0.19 | 0.5 | 0 |
| Lodging | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 222.24 | 11 | $254.34 | 100% | 34% | $0.19 | 0.5 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 437.81 | 11 | $617.68 | 100% | 95% | $0.24 | 0.4 | 0 |
| Lodging | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 437.81 | 11 | $617.68 | 100% | 95% | $0.24 | 0.4 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 225.62 | 11 | $363.34 | 100% | 95% | $0.27 | 0.4 | 0 |
| Lodging | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 225.62 | 11 | $363.34 | 100% | 95% | $0.27 | 0.4 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr | Per Residential Dishwasher | 20.00 | 10 | $16.67 | 100% | 25% | $0.15 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | and 5.0 gal/cycle | | | | | | | | | |
| Lodging | Water Heat LE 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 20.00 | 10 | $16.67 | 100% | 55% | $0.15 | 0.6 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 33554.87 | 14 | ###### | 50% | 95% | $0.08 | 1.2 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 33421.94 | 14 | ###### | 50% | 95% | $0.08 | 1.2 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 2006.75 | 8 | $2,328.64 | 50% | 75% | $0.24 | 0.4 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 3925.38 | 7 | $1,279.14 | 95% | 80% | $0.08 | 1.2 | 0 |
| Lodging | Water Heat LE 55 Gal | New | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 3925.38 | 7 | $1,279.14 | 95% | 80% | $0.08 | 1.2 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 1474.47 | 14 | $430.81 | 100% | 14% | $0.04 | 2.3 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 333.55 | 15 | $224.27 | 75% | 90% | $0.10 | 1.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 32311.75 | 7 | $1,250.53 | 95% | 100% | $0.01 | 10.0 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 32183.74 | 7 | $1,250.53 | 75% | 100% | $0.01 | 9.9 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 23454.85 | 7 | $990.91 | 95% | 90% | $0.01 | 9.1 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 23361.93 | 7 | $990.91 | 75% | 90% | $0.01 | 9.1 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 5413.61 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 5413.61 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 3821.37 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 3821.37 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 2229.13 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 2229.13 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 2547.58 | 12 | $111.32 | 95% | 25% | $0.01 | 13.8 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Existing Low-flow Pre-Rinse Spray Valve | Per Pre-Rinse Spray Valve | 11.67 | 5 | $7.38 | 95% | 25% | $0.19 | 0.5 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 105.81 | 5 | $5.27 | 95% | 90% | $0.02 | 5.8 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 105.81 | 5 | $5.27 | 95% | 90% | $0.02 | 5.8 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 5119.13 | 9 | $276.57 | 75% | 85% | $0.01 | 8.7 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 5119.13 | 9 | $276.57 | 75% | 85% | $0.01 | 8.7 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 3839.35 | 9 | $207.43 | 75% | 75% | $0.01 | 8.7 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 3839.35 | 9 | $207.43 | 75% | 75% | $0.01 | 8.7 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 2559.57 | 9 | $138.29 | 75% | 50% | $0.01 | 8.7 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 2559.57 | 9 | $138.29 | 75% | 50% | $0.01 | 8.7 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 2559.57 | 9 | $138.29 | 75% | 35% | $0.01 | 8.7 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 2559.57 | 9 | $138.29 | 75% | 35% | $0.01 | 8.7 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 40359.23 | 10 | $5,412.44 | 2% | 98% | $0.02 | 3.9 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 40199.35 | 10 | $5,412.44 | 2% | 98% | $0.02 | 3.8 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.31 | 15 | $3.28 | 100% | 100% | $1.17 | 0.1 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.31 | 15 | $3.28 | 100% | 100% | $1.17 | 0.1 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 3502.92 | 12 | ###### | 75% | 85% | $0.62 | 0.2 | 0 |
| Lodging | Water Heat LE 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 3502.92 | 12 | ###### | 75% | 85% | $0.62 | 0.2 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.09 | 10 | $0.54 | 90% | 100% | $0.09 | 1.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lodging | Water Heat LE 55 Gal | New | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.09 | 10 | $0.54 | 90% | 100% | $0.09 | 1.1 | 0 |
| Lodging | Water Heat LE 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 9339.33 | 2 | $336.91 | 75% | 94% | $0.02 | 3.4 | 0 |
| Office | Computers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.50 | 4 | $1.25 | 95% | 86% | $0.91 | 0.1 | 0 |
| Office | Computers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.52 | 4 | $1.25 | 95% | 86% | $0.87 | 0.1 | 0 |
| Office | Computers | Existing | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.28 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 1,440 |
| Office | Computers | New | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.28 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 43 |
| Office | Computers | Existing | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 2520.25 | 5 | $560.06 | 50% | 80% | $0.07 | 1.3 | 3,017 |
| Office | Computers | New | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 2520.25 | 5 | $560.06 | 50% | 80% | $0.07 | 1.3 | 71 |
| Office | Cooling Chillers | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 2600.81 | 10 | $91.89 | 100% | 65% | $0.01 | 17.2 | 0 |
| Office | Cooling Chillers | New | Active chilled beam cooling | Active chilled beam cooling | Standard Building Design and Cooling System | Per Building | 2688.20 | 15 | ###### | 60% | 100% | $2.36 | 0.1 | 0 |
| Office | Cooling Chillers | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 32.03 | 20 | $3,206.89 | 95% | 95% | $12.36 | 0.0 | 0 |
| Office | Cooling Chillers | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 31.92 | 20 | $3,206.89 | 95% | 95% | $12.41 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Cooling Chillers | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 13.44 | 15 | $1,685.00 | 95% | 95% | $17.73 | 0.0 | 0 |
| Office | Cooling Chillers | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 674.35 | 10 | $2,990.63 | 95% | 96% | $0.80 | 0.1 | 0 |
| Office | Cooling Chillers | New | Automated control system | Automated control system | Baseline DX | Per Building | 672.05 | 10 | $2,990.63 | 95% | 96% | $0.80 | 0.1 | 0 |
| Office | Cooling Chillers | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 7422.19 | 15 | $4,024.33 | 25% | 62% | $0.08 | 1.6 | 0 |
| Office | Cooling Chillers | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 4495.69 | 15 | $2,012.17 | 25% | 95% | $0.06 | 1.9 | 0 |
| Office | Cooling Chillers | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 4480.33 | 15 | $2,012.17 | 75% | 95% | $0.06 | 1.9 | 0 |
| Office | Cooling Chillers | Existing | Chilled Water Reset, Optimizer System for Chiller(s) | Chilled Water Reset, Optimizer System for Chiller(s) | 0 | Per Building | 269.74 | 10 | $5,692.00 | 95% | 81% | $3.80 | 0.0 | 0 |
| Office | Cooling Chillers | Existing | Chiller Tuneup/Diagnostics | Chiller Tuneup/Diagnostics | Existing Conditions | Per Building | 1078.96 | 10 | $2,693.69 | 25% | 24% | $0.45 | 0.2 | 0 |
| Office | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.41 | 20 | $0.95 | 90% | 100% | $0.29 | 0.4 | 0 |
| Office | Cooling Chillers | New | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.41 | 20 | $0.95 | 90% | 100% | $0.29 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Cooling Chillers | Existing | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.14 | 20 | $0.32 | 90% | 100% | $0.29 | 0.4 | 0 |
| Office | Cooling Chillers | New | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.14 | 20 | $0.32 | 90% | 100% | $0.29 | 0.4 | 0 |
| Office | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.30 | 20 | $0.71 | 90% | 100% | $0.29 | 0.4 | 0 |
| Office | Cooling Chillers | New | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.30 | 20 | $0.71 | 90% | 100% | $0.29 | 0.4 | 0 |
| Office | Cooling Chillers | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 2697.41 | 15 | ###### | 95% | 75% | $1.06 | 0.1 | 0 |
| Office | Cooling Chillers | Existing | Cooling Tower Optimization | Cooling Tower Optimization | Existing Conditions | Per Building | 42.01 | 8 | $493.84 | 10% | 90% | $2.47 | 0.0 | 0 |
| Office | Cooling Chillers | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 2016.15 | 7 | $8,354.09 | 75% | 85% | $0.96 | 0.1 | 0 |
| Office | Cooling Chillers | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 138.41 | 20 | ###### | 75% | 99% | $69.26 | 0.0 | 0 |
| Office | Cooling Chillers | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 137.94 | 20 | ###### | 75% | 99% | $69.50 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Cooling Chillers | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2277.81 | 30 | $159.70 | 20% | 84% | $0.01 | 18.6 | 0 |
| Office | Cooling Chillers | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2270.03 | 30 | $159.70 | 80% | 84% | $0.01 | 18.5 | 0 |
| Office | Cooling Chillers | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 2157.93 | 7 | $2,263.96 | 75% | 75% | $0.24 | 0.4 | 0 |
| Office | Cooling Chillers | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2427.67 | 18 | $17,337.01 | 1% | 98% | $0.92 | 0.1 | 0 |
| Office | Cooling Chillers | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2419.38 | 18 | $17,337.01 | 1% | 98% | $0.93 | 0.1 | 0 |
| Office | Cooling Chillers | Existing | VFD on cooling tower fans | VFD on cooling tower fans | Base single-speed fan | Per Cooling Tower Motor VFD | 3417.63 | 13 | $1,877.70 | 75% | 98% | $0.08 | 1.4 | 0 |
| Office | Cooling Chillers | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 6801.70 | 15 | $2,154.69 | 10% | 66% | $0.04 | 2.7 | 0 |
| Office | Cooling Chillers | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 4495.69 | 15 | $1,077.34 | 10% | 95% | $0.03 | 3.6 | 0 |
| Office | Cooling Chillers | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 4480.33 | 15 | $1,077.34 | 50% | 95% | $0.03 | 3.6 | 0 |
| Office | Cooling Chillers | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 674.35 | 5 | $1,202.28 | 50% | 95% | $0.54 | 0.2 | 0 |
| Office | Cooling Chillers | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 672.05 | 5 | $1,202.28 | 50% | 95% | $0.54 | 0.2 | 0 |
| Office | Cooling DX | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 3530.39 | 10 | $91.89 | 100% | 65% | $0.00 | 23.4 | 2,862 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Cooling DX | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 282.43 | 20 | $3,206.89 | 95% | 95% | $1.40 | 0.1 | 0 |
| Office | Cooling DX | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 273.70 | 20 | $3,206.89 | 95% | 95% | $1.45 | 0.1 | 0 |
| Office | Cooling DX | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 17.74 | 15 | $1,685.00 | 95% | 95% | $13.43 | 0.0 | 0 |
| Office | Cooling DX | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 915.38 | 10 | $2,990.63 | 95% | 96% | $0.59 | 0.2 | 0 |
| Office | Cooling DX | New | Automated control system | Automated control system | Baseline DX | Per Building | 887.10 | 10 | $2,990.63 | 95% | 96% | $0.61 | 0.2 | 0 |
| Office | Cooling DX | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 10075.02 | 15 | $4,024.33 | 25% | 62% | $0.06 | 2.1 | 1,210 |
| Office | Cooling DX | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 6102.53 | 15 | $2,012.17 | 25% | 95% | $0.05 | 2.6 | 1,223 |
| Office | Cooling DX | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 5913.98 | 15 | $2,012.17 | 75% | 95% | $0.05 | 2.5 | 85 |
| Office | Cooling DX | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 3661.52 | 15 | $4,780.80 | 95% | 95% | $0.18 | 0.7 | 0 |
| Office | Cooling DX | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 1662.31 | 5 | $910.19 | 95% | 45% | $0.17 | 0.6 | 0 |
| Office | Cooling DX | Existing | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.10 | 15 | $0.26 | 90% | 100% | $0.36 | 0.3 | 0 |
| Office | Cooling DX | New | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.10 | 15 | $0.26 | 90% | 100% | $0.36 | 0.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Cooling DX | Existing | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.16 | 15 | $0.42 | 90% | 100% | $0.37 | 0.3 | 0 |
| Office | Cooling DX | New | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.16 | 15 | $0.42 | 90% | 100% | $0.37 | 0.3 | 0 |
| Office | Cooling DX | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1903.99 | 15 | $2,088.52 | 75% | 99% | $0.16 | 0.8 | 0 |
| Office | Cooling DX | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1845.16 | 15 | $1,113.88 | 75% | 99% | $0.09 | 1.4 | 25 |
| Office | Cooling DX | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 338.92 | 15 | $3,250.69 | 95% | 62% | $1.36 | 0.1 | 0 |
| Office | Cooling DX | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 338.92 | 15 | $2,470.52 | 45% | 80% | $1.03 | 0.1 | 0 |
| Office | Cooling DX | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 8645.26 | 15 | ###### | 90% | 100% | $1.18 | 0.1 | 0 |
| Office | Cooling DX | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 2661.29 | 7 | $8,354.09 | 95% | 85% | $0.73 | 0.1 | 0 |
| Office | Cooling DX | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1220.51 | 20 | ###### | 75% | 99% | $7.85 | 0.0 | 0 |
| Office | Cooling DX | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1182.80 | 20 | ###### | 75% | 99% | $8.10 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Cooling DX | Existing | HVAC Diagnostic/Air Conditioner Tune Up | HVAC Diagnostic/Air Conditioner Tune Up | No Tune Up | Per Building | 1662.31 | 10 | $934.79 | 95% | 24% | $0.10 | 1.1 | 326 |
| Office | Cooling DX | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3091.95 | 30 | $159.70 | 20% | 84% | $0.01 | 25.3 | 553 |
| Office | Cooling DX | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2996.42 | 30 | $159.70 | 80% | 84% | $0.01 | 24.5 | 54 |
| Office | Cooling DX | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 2558.11 | 10 | $4,160.88 | 10% | 45% | $0.29 | 0.4 | 0 |
| Office | Cooling DX | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 2929.22 | 7 | $2,263.96 | 95% | 75% | $0.18 | 0.6 | 0 |
| Office | Cooling DX | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3295.37 | 18 | $17,337.01 | 1% | 98% | $0.68 | 0.2 | 0 |
| Office | Cooling DX | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3193.55 | 18 | $17,337.01 | 1% | 98% | $0.70 | 0.2 | 0 |
| Office | Cooling DX | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 9232.75 | 15 | $2,154.69 | 10% | 66% | $0.03 | 3.7 | 534 |
| Office | Cooling DX | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 6102.53 | 15 | $1,077.34 | 10% | 95% | $0.02 | 4.8 | 523 |
| Office | Cooling DX | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 5913.98 | 15 | $1,077.34 | 50% | 95% | $0.03 | 4.7 | 67 |
| Office | Cooling DX | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 915.38 | 5 | $1,202.28 | 50% | 95% | $0.40 | 0.3 | 0 |
| Office | Cooling DX | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 887.10 | 5 | $1,202.28 | 50% | 95% | $0.41 | 0.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Fax | Existing | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 70 |
| Office | Fax | New | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 2 |
| Office | Flat Screen Monitors | Existing | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.07 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 179 |
| Office | Flat Screen Monitors | New | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.07 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 2 |
| Office | Freezer | Existing | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.03 | 3.2 | 3 |
| Office | Freezer | New | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.03 | 3.2 | 0 |
| Office | Heat Pump | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 5640.60 | 10 | $91.89 | 100% | 65% | $0.00 | 32.7 | 1,740 |
| Office | Heat Pump | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 249.66 | 20 | $3,206.89 | 95% | 95% | $1.59 | 0.1 | 0 |
| Office | Heat Pump | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 241.27 | 20 | $3,206.89 | 95% | 95% | $1.64 | 0.1 | 0 |
| Office | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.16 | 15 | $0.08 | 90% | 100% | $0.08 | 1.4 | 0 |
| Office | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.16 | 15 | $0.08 | 90% | 100% | $0.08 | 1.4 | 0 |
| Office | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.30 | 15 | $0.17 | 90% | 100% | $0.08 | 1.3 | 497 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.30 | 15 | $0.17 | 90% | 100% | $0.08 | 1.3 | 17 |
| Office | Heat Pump | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 587.98 | 15 | $1,685.00 | 95% | 95% | $0.41 | 0.3 | 0 |
| Office | Heat Pump | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 389.05 | 15 | $1,685.00 | 95% | 95% | $0.61 | 0.2 | 0 |
| Office | Heat Pump | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 1649.12 | 10 | $2,990.63 | 95% | 96% | $0.33 | 0.3 | 0 |
| Office | Heat Pump | New | Automated control system | Automated control system | Baseline DX | Per Building | 1593.74 | 10 | $2,990.63 | 95% | 96% | $0.34 | 0.3 | 0 |
| Office | Heat Pump | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 18150.85 | 15 | $4,024.33 | 25% | 62% | $0.03 | 3.3 | 832 |
| Office | Heat Pump | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 10994.13 | 15 | $2,012.17 | 25% | 95% | $0.03 | 4.0 | 840 |
| Office | Heat Pump | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 10624.94 | 15 | $2,012.17 | 75% | 95% | $0.03 | 3.9 | 59 |
| Office | Heat Pump | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 3236.60 | 15 | $4,529.18 | 95% | 95% | $0.20 | 0.5 | 0 |
| Office | Heat Pump | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 1469.40 | 5 | $910.19 | 95% | 45% | $0.19 | 0.5 | 0 |
| Office | Heat Pump | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 3161.38 | 15 | $2,088.52 | 75% | 99% | $0.09 | 1.1 | 764 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Heat Pump | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 3055.22 | 15 | $1,113.88 | 75% | 99% | $0.05 | 2.0 | 16 |
| Office | Heat Pump | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 299.59 | 15 | $3,250.69 | 95% | 62% | $1.53 | 0.1 | 0 |
| Office | Heat Pump | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 299.59 | 15 | $2,470.52 | 45% | 80% | $1.17 | 0.1 | 0 |
| Office | Heat Pump | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 4781.22 | 7 | $8,354.09 | 95% | 85% | $0.40 | 0.2 | 0 |
| Office | Heat Pump | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1731.86 | 20 | ###### | 75% | 99% | $5.54 | 0.0 | 0 |
| Office | Heat Pump | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1673.70 | 20 | ###### | 75% | 99% | $5.73 | 0.0 | 0 |
| Office | Heat Pump | Existing | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.23 | 15 | $18.71 | 90% | 100% | $2.15 | 0.0 | 0 |
| Office | Heat Pump | New | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.23 | 15 | $18.71 | 90% | 100% | $2.15 | 0.0 | 0 |
| Office | Heat Pump | Existing | HVAC Diagnostic/Heat Pump Tune Up | HVAC Diagnostic/Heat Pump Tune Up | No Tune Up | Per Building | 1469.40 | 10 | $885.59 | 95% | 24% | $0.11 | 0.9 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Heat Pump | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2733.13 | 30 | $159.70 | 20% | 84% | $0.01 | 19.3 | 160 |
| Office | Heat Pump | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2641.35 | 30 | $159.70 | 80% | 84% | $0.01 | 18.6 | 18 |
| Office | Heat Pump | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 2558.11 | 10 | $4,160.88 | 10% | 45% | $0.29 | 0.3 | 0 |
| Office | Heat Pump | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 5277.18 | 7 | $2,263.96 | 95% | 75% | $0.10 | 0.9 | 0 |
| Office | Heat Pump | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2912.94 | 18 | $17,337.01 | 1% | 98% | $0.77 | 0.1 | 0 |
| Office | Heat Pump | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2815.12 | 18 | $17,337.01 | 1% | 98% | $0.80 | 0.1 | 0 |
| Office | Heat Pump | Existing | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 19591.27 | 15 | ###### | 50% | 95% | $2.18 | 0.1 | 0 |
| Office | Heat Pump | New | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 18933.37 | 15 | ###### | 95% | 95% | $2.25 | 0.1 | 0 |
| Office | Heat Pump | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 16633.44 | 15 | $2,154.69 | 10% | 66% | $0.02 | 5.7 | 367 |
| Office | Heat Pump | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 10994.13 | 15 | $1,077.34 | 10% | 95% | $0.01 | 7.6 | 359 |
| Office | Heat Pump | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 10624.94 | 15 | $1,077.34 | 50% | 95% | $0.01 | 7.3 | 47 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Heat Pump | Existing | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.86 | 15 | $1.74 | 90% | 100% | $0.29 | 0.4 | 0 |
| Office | Heat Pump | New | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.86 | 15 | $1.74 | 90% | 100% | $0.29 | 0.4 | 0 |
| Office | Heat Pump | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1649.12 | 5 | $1,202.28 | 50% | 95% | $0.22 | 0.4 | 0 |
| Office | Heat Pump | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1593.74 | 5 | $1,202.28 | 50% | 95% | $0.23 | 0.4 | 0 |
| Office | Lighting Exterior | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 484.54 | 10 | $100.00 | 85% | 45% | $0.04 | 2.6 | 186 |
| Office | Lighting Exterior | Existing | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 1356.70 | 8 | $225.00 | 50% | 45% | $0.03 | 2.7 | 327 |
| Office | Lighting Exterior | New | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 1356.70 | 8 | $225.00 | 50% | 75% | $0.03 | 2.7 | 13 |
| Office | Lighting Exterior | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 1162.89 | 8 | $363.17 | 10% | 100% | $0.07 | 1.5 | 112 |
| Office | Lighting Interior Fluorescent | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 1829.78 | 10 | $100.00 | 85% | 45% | $0.01 | 10.0 | 0 |
| Office | Lighting Interior Fluorescent | Existing | Delamping fixtures | Delamping fixtures | 0 | Per Delamped Fixture | 77.01 | 13 | $6.00 | 0% | 85% | $0.01 | 8.7 | 0 |
| Office | Lighting Interior Fluorescent | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 3492.75 | 8 | $5,173.27 | 65% | 100% | $0.31 | 0.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Lighting Interior Fluorescent | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 4940.41 | 10 | $1,131.84 | 10% | 98% | $0.04 | 2.4 | 1,426 |
| Office | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent High Performance - Above Standard | Above Standard Fluorescent High Performance T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.20 | 13 | $0.18 | 90% | 100% | $0.14 | 0.8 | 0 |
| Office | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent Reduced Wattage - Above Standard | Above Standard Fluorescent Reduced Wattage T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.19 | 13 | $0.75 | 90% | 100% | $0.61 | 0.2 | 0 |
| Office | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T5 - Above Standard | Above Standard Fluorescent T-5 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.23 | 13 | $0.36 | 90% | 100% | $0.24 | 0.4 | 0 |
| Office | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T8 - Above Standard | Above Standard Fluorescent T8 Interior Lighting | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.06 | 13 | $0.13 | 90% | 100% | $0.35 | 0.3 | 0 |
| Office | Lighting Interior Fluorescent | Existing | Lighting Interior - LED Tube - Above Standard | Above Standard LED Tube | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.37 | 20 | $2.25 | 90% | 100% | $0.76 | 0.2 | 0 |
| Office | Lighting Interior Fluorescent | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 4391.48 | 8 | $762.48 | 90% | 98% | $0.04 | 2.6 | 2,874 |
| Office | Lighting Interior Fluorescent | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 4391.48 | 8 | $363.17 | 10% | 99% | $0.02 | 5.5 | 424 |
| Office | Lighting Interior HID | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 48.48 | 10 | $100.00 | 85% | 45% | $0.37 | 0.3 | 0 |
| Office | Lighting Interior HID | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 92.54 | 8 | $5,173.27 | 65% | 100% | $11.74 | 0.0 | 0 |
| Office | Lighting Interior HID | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 130.90 | 10 | $1,131.84 | 10% | 98% | $1.56 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Lighting Interior HID | Existing | Lighting Interior - Efficient Metal Halide - Above Standard | Efficient Metal Halide | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.01 | 15 | $0.00 | 90% | 100% | $0.09 | 1.2 | 0 |
| Office | Lighting Interior HID | Existing | Lighting Interior - High Bay Fluorescent High Output - Above Standard | High Bay Fluorescent High Output (HO) | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.03 | 15 | $0.01 | 90% | 100% | $0.06 | 1.8 | 252 |
| Office | Lighting Interior HID | Existing | Lighting Interior - High Bay LED - Above Standard | High Bay LED | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.04 | 20 | $0.01 | 90% | 100% | $0.04 | 3.1 | 22 |
| Office | Lighting Interior HID | Existing | Lighting Interior - Induction - Above Standard | Induction | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.03 | 20 | -$0.01 | 90% | 100% | -$0.03 | 999.0 | 0 |
| Office | Lighting Interior HID | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 116.36 | 8 | $762.48 | 90% | 98% | $1.38 | 0.1 | 0 |
| Office | Lighting Interior HID | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 116.36 | 8 | $363.17 | 10% | 99% | $0.66 | 0.2 | 0 |
| Office | Lighting Interior Other | Existing | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Incandescent Exit Sign | Per Exit Sign | 38.02 | 10 | $9.50 | 95% | 25% | $0.04 | 2.2 | 9 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Lighting Interior Other | New | HE Lighting Fixtures/Design 10% better than code (New Construction) | HE Lighting Fixtures/Design 10% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.26 | 15 | $0.06 | 100% | 100% | $0.03 | 3.4 | 0 |
| Office | Lighting Interior Other | New | HE Lighting Fixtures/Design 15% better than code (New Construction) | HE Lighting Fixtures/Design 15% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.39 | 15 | $0.08 | 100% | 100% | $0.03 | 3.7 | 0 |
| Office | Lighting Interior Other | New | HE Lighting Fixtures/Design 30% better than code (New Construction) | HE Lighting Fixtures/Design 30% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.77 | 15 | $0.16 | 100% | 100% | $0.03 | 3.7 | 610 |
| Office | Lighting Interior Other | New | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 4093.48 | 8 | $5,173.27 | 65% | 100% | $0.27 | 0.4 | 0 |
| Office | Lighting Interior Other | Existing | LED exit sign | LED exit sign | CFL Exit Sign | Per Exit Sign | 28.21 | 16 | $12.00 | 95% | 50% | $0.06 | 1.9 | 46 |
| Office | Lighting Interior Other | New | Light Pipes | Light Pipes | Standard lighting system | Per Building | 5790.13 | 10 | $1,131.84 | 30% | 98% | $0.04 | 2.8 | 99 |
| Office | Lighting Interior Other | New | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 5146.79 | 8 | $762.48 | 90% | 98% | $0.03 | 3.1 | 56 |
| Office | Lighting Interior Other | Existing | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 73.58 | 30 | $7.50 | 75% | 95% | $0.01 | 11.4 | 178 |
| Office | Lighting Interior Other | New | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 73.58 | 30 | $7.50 | 75% | 95% | $0.01 | 11.4 | 3 |
| Office | Lighting Interior Screw Base | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 243.78 | 10 | $100.00 | 85% | 45% | $0.07 | 1.3 | 26 |
| Office | Lighting Interior Screw Base | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 465.33 | 8 | $5,173.27 | 65% | 100% | $2.33 | 0.0 | 0 |
| Office | Lighting Interior Screw Base | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 658.19 | 10 | $1,131.84 | 10% | 98% | $0.31 | 0.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base CFL - Above Standard | CFL | EISA Standard Incandescent | Per Building | 0.16 | 5 | $0.00 | 90% | 100% | $0.01 | 10.8 | 991 |
| Office | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base Incandescent - Backstop EISA Standard | Backstop EISA Standard Incandescent | EISA Standard Incandescent | Per Building | 0.13 | 2 | $0.00 | 90% | 100% | $0.01 | 6.1 | 0 |
| Office | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base LED - Above Standard | LED | EISA Standard Incandescent | Per Building | 0.17 | 12 | $0.03 | 90% | 100% | $0.04 | 2.9 | 2,006 |
| Office | Lighting Interior Screw Base | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 585.06 | 8 | $762.48 | 90% | 98% | $0.27 | 0.4 | 0 |
| Office | Lighting Interior Screw Base | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 585.06 | 8 | $363.17 | 10% | 99% | $0.13 | 0.7 | 0 |
| Office | Other Plug Load | Existing | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 29.12 | 15 | $2.80 | 75% | 75% | $0.01 | 7.7 | 65 |
| Office | Other Plug Load | New | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 29.12 | 15 | $2.80 | 75% | 75% | $0.01 | 7.7 | 2 |
| Office | Other Plug Load | Existing | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 14.74 | 4 | $1.46 | 100% | 20% | $0.04 | 2.4 | 12 |
| Office | Other Plug Load | New | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 14.74 | 4 | $1.46 | 100% | 20% | $0.04 | 2.4 | 0 |
| Office | Other Plug Load | Existing | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 925.98 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 701 |
| Office | Other Plug Load | New | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 925.98 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 17 |
| Office | Other Plug Load | Existing | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.20 | 5 | $0.84 | 95% | 20% | $1.24 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Other Plug Load | New | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.20 | 5 | $0.84 | 95% | 20% | $1.24 | 0.1 | 0 |
| Office | Other Plug Load | Existing | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 578.72 | 5 | $98.01 | 95% | 95% | $0.05 | 1.8 | 560 |
| Office | Other Plug Load | New | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 578.72 | 5 | $98.01 | 95% | 95% | $0.05 | 1.8 | 14 |
| Office | Photo Copiers | Existing | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.01 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 5 |
| Office | Photo Copiers | New | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.01 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 0 |
| Office | Printers | Existing | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.08 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 81 |
| Office | Printers | New | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.08 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 1 |
| Office | Refrigerator | Existing | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 0 |
| Office | Refrigerator | New | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 0 |
| Office | Refrigerator | Existing | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 179 |
| Office | Refrigerator | New | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 10 |
| Office | Refrigerator | Existing | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.00 | 90% | 100% | $0.10 | 1.0 | 0 |
| Office | Refrigerator | New | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.00 | 90% | 100% | $0.10 | 1.0 | 0 |
| Office | Room Cooling | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 8920.14 | 15 | $4,024.33 | 25% | 62% | $0.06 | 1.9 | 167 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Room Cooling | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 5403.01 | 15 | $2,012.17 | 25% | 95% | $0.05 | 2.3 | 169 |
| Office | Room Cooling | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 5392.74 | 15 | $2,012.17 | 75% | 95% | $0.05 | 2.3 | 12 |
| Office | Room Cooling | Existing | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.05 | 12 | $0.01 | 90% | 100% | $0.04 | 2.8 | 8 |
| Office | Room Cooling | New | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.05 | 12 | $0.01 | 90% | 100% | $0.04 | 2.8 | 0 |
| Office | Servers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.49 | 4 | $1.25 | 95% | 86% | $0.93 | 0.1 | 0 |
| Office | Servers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.49 | 4 | $1.25 | 95% | 86% | $0.93 | 0.1 | 0 |
| Office | Servers | Existing | Data Center - Server/Storage Consolidation | Data Center - Server/Storage Consolidation | No Consolidation | Per Building | 3365.04 | 4 | $4,225.06 | 75% | 80% | $0.46 | 0.2 | 0 |
| Office | Servers | Existing | Data Center - Server/Storage Virtualization | Data Center - Server/Storage Virtualization | No Virtualization | Per Building | 3365.04 | 4 | $4,225.06 | 75% | 80% | $0.46 | 0.2 | 0 |
| Office | Servers | New | Data Center - Server/Storage Virtualization | Data Center - Server/Storage Virtualization | No Virtualization | Per Building | 3349.74 | 4 | $4,225.06 | 75% | 80% | $0.46 | 0.2 | 0 |
| Office | Servers | Existing | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.14 | 4 | $0.19 | 90% | 100% | $0.49 | 0.2 | 0 |
| Office | Servers | New | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.14 | 4 | $0.19 | 90% | 100% | $0.49 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Space Heat | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 2936.02 | 10 | $91.89 | 100% | 65% | $0.01 | 16.4 | 212 |
| Office | Space Heat | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 685.07 | 15 | $1,685.00 | 95% | 95% | $0.35 | 0.3 | 0 |
| Office | Space Heat | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 450.19 | 15 | $1,685.00 | 95% | 95% | $0.53 | 0.2 | 0 |
| Office | Space Heat | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 978.67 | 10 | $2,990.63 | 95% | 96% | $0.55 | 0.2 | 0 |
| Office | Space Heat | New | Automated control system | Automated control system | Baseline DX | Per Building | 978.67 | 10 | $2,990.63 | 95% | 96% | $0.55 | 0.2 | 0 |
| Office | Space Heat | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 10771.67 | 15 | $4,024.33 | 25% | 62% | $0.05 | 1.9 | 119 |
| Office | Space Heat | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 6524.50 | 15 | $2,012.17 | 25% | 95% | $0.04 | 2.3 | 120 |
| Office | Space Heat | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 6524.50 | 15 | $2,012.17 | 75% | 95% | $0.04 | 2.3 | 9 |
| Office | Space Heat | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1722.47 | 15 | $2,088.52 | 75% | 99% | $0.17 | 0.6 | 0 |
| Office | Space Heat | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1722.47 | 15 | $1,113.88 | 75% | 99% | $0.09 | 1.1 | 2 |
| Office | Space Heat | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 12895.02 | 15 | ###### | 90% | 100% | $0.79 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Space Heat | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 2936.02 | 7 | $8,354.09 | 95% | 85% | $0.66 | 0.1 | 0 |
| Office | Space Heat | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 760.82 | 20 | ###### | 75% | 99% | $12.60 | 0.0 | 0 |
| Office | Space Heat | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 760.82 | 20 | ###### | 75% | 99% | $12.60 | 0.0 | 0 |
| Office | Space Heat | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 3131.76 | 7 | $2,263.96 | 95% | 75% | $0.17 | 0.5 | 0 |
| Office | Space Heat | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 9871.16 | 15 | $2,154.69 | 10% | 66% | $0.03 | 3.3 | 52 |
| Office | Space Heat | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 6524.50 | 15 | $1,077.34 | 10% | 95% | $0.02 | 4.3 | 51 |
| Office | Space Heat | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 6524.50 | 15 | $1,077.34 | 50% | 95% | $0.02 | 4.3 | 7 |
| Office | Vending Machines | Existing | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 271.96 | 5 | $35.98 | 100% | 50% | $0.04 | 2.2 | 542 |
| Office | Vending Machines | New | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 271.96 | 5 | $35.98 | 100% | 50% | $0.04 | 2.2 | 13 |
| Office | Vending Machines | Existing | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 68.46 | 5 | $31.98 | 100% | 50% | $0.14 | 0.6 | 0 |
| Office | Vending Machines | New | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 68.46 | 5 | $31.98 | 100% | 50% | $0.14 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Vending Machines | Existing | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.02 | 90% | 100% | $0.27 | 0.4 | 0 |
| Office | Vending Machines | New | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.02 | 90% | 100% | $0.27 | 0.4 | 0 |
| Office | Ventilation and Circulation | Existing | CO sensors for parking garage exhaust fans | CO sensors for parking garage exhaust fans | Standard Ventilation | Per Fan Motor HP | 2449.00 | 5 | $356.44 | 20% | 85% | $0.04 | 2.1 | 1,658 |
| Office | Ventilation and Circulation | New | CO sensors for parking garage exhaust fans | CO sensors for parking garage exhaust fans | Standard Ventilation | Per Fan Motor HP | 2449.00 | 5 | $356.44 | 20% | 85% | $0.04 | 2.1 | 41 |
| Office | Ventilation and Circulation | Existing | Downsizing motor during retrofit | Downsizing motor during retrofit | Larger hp standard motor | Per Motor | 104.96 | 20 | $8,793.77 | 10% | 95% | $10.35 | 0.0 | 0 |
| Office | Ventilation and Circulation | Existing | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 2383.57 | 15 | $1,040.69 | 15% | 95% | $0.06 | 1.7 | 745 |
| Office | Ventilation and Circulation | New | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 2383.57 | 15 | $1,040.69 | 15% | 95% | $0.06 | 1.7 | 31 |
| Office | Ventilation and Circulation | Existing | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 152.52 | 18 | $1,044.90 | 75% | 95% | $0.89 | 0.1 | 0 |
| Office | Ventilation and Circulation | New | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 152.52 | 18 | $1,044.90 | 75% | 95% | $0.89 | 0.1 | 0 |
| Office | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 216.61 | 15 | $2.66 | 95% | 76% | $0.00 | 61.6 | 621 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 216.61 | 15 | $2.66 | 95% | 76% | $0.00 | 61.6 | 15 |
| Office | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 110.58 | 15 | $2.66 | 95% | 76% | $0.00 | 31.4 | 308 |
| Office | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 110.58 | 15 | $2.66 | 95% | 76% | $0.00 | 31.4 | 8 |
| Office | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 169.77 | 15 | $2.66 | 95% | 76% | $0.00 | 48.3 | 481 |
| Office | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 169.77 | 15 | $2.66 | 95% | 76% | $0.00 | 48.3 | 12 |
| Office | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 110.12 | 15 | $2.66 | 95% | 76% | $0.00 | 31.3 | 305 |
| Office | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 110.12 | 15 | $2.66 | 95% | 76% | $0.00 | 31.3 | 7 |
| Office | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 124.93 | 15 | $2.66 | 95% | 76% | $0.00 | 35.5 | 351 |
| Office | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, | Per Building | 124.93 | 15 | $2.66 | 95% | 76% | $0.00 | 35.5 | 9 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1200-3600 RPM | | | | | | | | | |
| Office | Ventilation and Circulation | Existing | VFD on HVAC Fan | VFD on HVAC Fan | Standard Motor | Per HVAC Fan Motor VFD (assuming 50 HP average) | 6044.21 | 13 | $1,408.27 | 75% | 98% | $0.04 | 2.9 | 16,957 |
| Office | Ventilation and Circulation | Existing | VFD on HVAC Pump | VFD on HVAC Pump | Standard Motor | Per HVAC Pump Motor VFD (assuming 50 HP average) | 1621.81 | 13 | $465.23 | 75% | 98% | $0.04 | 2.4 | 3,027 |
| Office | Water Heat GT 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 580.96 | 25 | $833.35 | 5% | 100% | $0.16 | 0.7 | 0 |
| Office | Water Heat GT 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 253.62 | 25 | $833.35 | 25% | 100% | $0.37 | 0.3 | 0 |
| Office | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.74 | 11 | $12.29 | 100% | 34% | $0.19 | 0.5 | 0 |
| Office | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.74 | 11 | $12.29 | 100% | 34% | $0.19 | 0.5 | 0 |
| Office | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.16 | 11 | $29.85 | 100% | 95% | $0.24 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.16 | 11 | $29.85 | 100% | 95% | $0.24 | 0.4 | 0 |
| Office | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.90 | 11 | $17.56 | 100% | 95% | $0.27 | 0.4 | 0 |
| Office | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.90 | 11 | $17.56 | 100% | 95% | $0.27 | 0.4 | 0 |
| Office | Water Heat GT 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.63 | 10 | $8.86 | 100% | 25% | $0.15 | 0.7 | 0 |
| Office | Water Heat GT 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.63 | 10 | $8.86 | 100% | 55% | $0.15 | 0.7 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 1461.12 | 14 | $950.00 | 50% | 95% | $0.10 | 1.1 | 31 |
| Office | Water Heat GT 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 637.85 | 14 | $950.00 | 50% | 95% | $0.22 | 0.5 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 87.38 | 8 | $117.50 | 50% | 75% | $0.28 | 0.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Water Heat GT 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 74.40 | 14 | $21.74 | 100% | 77% | $0.04 | 2.5 | 3 |
| Office | Water Heat GT 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 14.52 | 15 | $224.27 | 75% | 90% | $2.18 | 0.1 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1421.65 | 7 | $63.10 | 95% | 85% | $0.01 | 9.1 | 97 |
| Office | Water Heat GT 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 620.62 | 7 | $63.10 | 75% | 85% | $0.02 | 4.0 | 1 |
| Office | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1039.76 | 7 | $50.00 | 95% | 76% | $0.01 | 8.4 | 0 |
| Office | Water Heat GT 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 453.90 | 7 | $50.00 | 75% | 76% | $0.03 | 3.7 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 367.46 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 25 |
| Office | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 367.46 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 1 |
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 259.38 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Office | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 259.38 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 151.31 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Office | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 151.31 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 172.92 | 12 | $5.38 | 95% | 25% | $0.00 | 20.3 | 4 |
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 86.87 | 9 | $1.34 | 75% | 85% | $0.00 | 32.2 | 5 |
| Office | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 86.87 | 9 | $1.34 | 75% | 85% | $0.00 | 32.2 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 65.15 | 9 | $1.00 | 75% | 75% | $0.00 | 32.2 | 0 |
| Office | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 65.15 | 9 | $1.00 | 75% | 75% | $0.00 | 32.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 43.43 | 9 | $0.67 | 75% | 50% | $0.00 | 32.2 | 0 |
| Office | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 43.43 | 9 | $0.67 | 75% | 50% | $0.00 | 32.2 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 43.43 | 9 | $0.67 | 75% | 35% | $0.00 | 32.2 | 1 |
| Office | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 43.43 | 9 | $0.67 | 75% | 35% | $0.00 | 32.2 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.05 | 15 | $0.89 | 100% | 100% | $8.81 | 0.0 | 0 |
| Office | Water Heat GT 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.05 | 15 | $0.89 | 100% | 100% | $8.81 | 0.0 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 237.77 | 12 | $651.25 | 75% | 85% | $0.44 | 0.2 | 0 |
| Office | Water Heat GT 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 237.77 | 12 | $651.25 | 75% | 85% | $0.44 | 0.2 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.02 | 10 | $0.01 | 90% | 100% | $0.14 | 0.7 | 0 |
| Office | Water Heat GT 55 Gal | New | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.02 | 10 | $0.01 | 90% | 100% | $0.14 | 0.7 | 0 |
| Office | Water Heat GT 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 406.67 | 2 | $17.00 | 75% | 94% | $0.03 | 3.1 | 15 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Water Heat LE 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 528.02 | 25 | $833.35 | 5% | 100% | $0.18 | 0.7 | 0 |
| Office | Water Heat LE 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 525.93 | 25 | $833.35 | 25% | 100% | $0.18 | 0.7 | 0 |
| Office | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.74 | 11 | $12.29 | 100% | 34% | $0.19 | 0.5 | 0 |
| Office | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.74 | 11 | $12.29 | 100% | 34% | $0.19 | 0.5 | 0 |
| Office | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.16 | 11 | $29.85 | 100% | 95% | $0.24 | 0.4 | 0 |
| Office | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.16 | 11 | $29.85 | 100% | 95% | $0.24 | 0.4 | 0 |
| Office | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.90 | 11 | $17.56 | 100% | 95% | $0.27 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 10.90 | 11 | $17.56 | 100% | 95% | $0.27 | 0.4 | 0 |
| Office | Water Heat LE 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.63 | 10 | $8.86 | 100% | 25% | $0.15 | 0.7 | 0 |
| Office | Water Heat LE 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.63 | 10 | $8.86 | 100% | 55% | $0.15 | 0.7 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 1327.96 | 14 | $950.00 | 50% | 95% | $0.10 | 1.0 | 454 |
| Office | Water Heat LE 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 1322.70 | 14 | $950.00 | 50% | 95% | $0.11 | 1.0 | 15 |
| Office | Water Heat LE 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 79.42 | 8 | $117.50 | 50% | 75% | $0.31 | 0.3 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 74.40 | 14 | $21.74 | 100% | 77% | $0.04 | 2.5 | 42 |
| Office | Water Heat LE 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 13.20 | 15 | $224.27 | 75% | 90% | $2.40 | 0.0 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1278.76 | 7 | $63.10 | 95% | 85% | $0.01 | 8.2 | 1,379 |
| Office | Water Heat LE 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1273.70 | 7 | $63.10 | 75% | 85% | $0.01 | 8.2 | 28 |
| Office | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 928.25 | 7 | $50.00 | 95% | 76% | $0.01 | 7.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Water Heat LE 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 924.57 | 7 | $50.00 | 75% | 76% | $0.01 | 7.5 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 779.71 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 1,058 |
| Office | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 779.71 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 26 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 550.39 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Office | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 550.39 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 321.06 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Office | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 321.06 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 366.92 | 12 | $5.38 | 95% | 25% | $0.00 | 43.1 | 166 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 184.33 | 9 | $1.34 | 75% | 85% | $0.00 | 68.4 | 224 |
| Office | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 184.33 | 9 | $1.34 | 75% | 85% | $0.00 | 68.4 | 6 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 138.24 | 9 | $1.00 | 75% | 75% | $0.00 | 68.4 | 0 |
| Office | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 138.24 | 9 | $1.00 | 75% | 75% | $0.00 | 68.4 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 92.16 | 9 | $0.67 | 75% | 50% | $0.00 | 68.4 | 0 |
| Office | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 92.16 | 9 | $0.67 | 75% | 50% | $0.00 | 68.4 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 92.16 | 9 | $0.67 | 75% | 35% | $0.00 | 68.4 | 46 |
| Office | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 92.16 | 9 | $0.67 | 75% | 35% | $0.00 | 68.4 | 1 |
| Office | Water Heat LE 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.22 | 15 | $0.69 | 100% | 100% | $1.50 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Office | Water Heat LE 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.22 | 15 | $0.69 | 100% | 100% | $1.50 | 0.1 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 504.52 | 12 | $651.25 | 75% | 85% | $0.21 | 0.5 | 0 |
| Office | Water Heat LE 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 504.52 | 12 | $651.25 | 75% | 85% | $0.21 | 0.5 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.18 | 10 | $0.11 | 90% | 100% | $0.11 | 0.9 | 0 |
| Office | Water Heat LE 55 Gal | New | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.18 | 10 | $0.11 | 90% | 100% | $0.11 | 0.9 | 0 |
| Office | Water Heat LE 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 369.61 | 2 | $17.00 | 75% | 94% | $0.03 | 2.8 | 213 |
| Other Commercial | Compressed Air | Existing | Air Entraining Air Nozzle | Increase Pressure Air Entraining Air Nozzles | Standard Nozzle | Per Compressed Air System | 1031.68 | 15 | $700.00 | 90% | 100% | $0.10 | 1.1 | 12 |
| Other Commercial | Compressed Air | New | Air Entraining Air Nozzle | Increase Pressure Air Entraining Air Nozzles | Standard Nozzle | Per Compressed Air System | 1031.68 | 15 | $700.00 | 90% | 100% | $0.10 | 1.1 | 0 |
| Other Commercial | Compressed Air | Existing | Compressed Air System Improvements | Compressed Air System Improvements | Existing Compressed Air System | Per Compressed Air System | 50133.31 | 10 | $7,590.12 | 35% | 90% | $0.03 | 3.5 | 589 |
| Other Commercial | Compressed Air | Existing | Low Pressure-drop Filters | Low Pressure-drop Filters | Standard Filter | Per Compressed Air System | 1614.08 | 5 | $1,000.00 | 35% | 90% | $0.19 | 0.5 | 0 |
| Other Commercial | Compressed Air | New | Low Pressure-drop Filters | Low Pressure-drop Filters | Standard Filter | Per Compressed Air System | 1614.08 | 5 | $1,000.00 | 35% | 90% | $0.19 | 0.5 | 0 |
| Other Commercial | Compressed Air | Existing | VFD Controlled Compressor | VFD Controlled Compressor | Standard Compressor | Per Compressed Air System | 34632.00 | 10 | $14,146.00 | 35% | 90% | $0.07 | 1.3 | 407 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Compressed Air | New | VFD Controlled Compressor | VFD Controlled Compressor | Standard Compressor | Per Compressed Air System | 34632.00 | 10 | $14,146.00 | 35% | 90% | $0.07 | 1.3 | 10 |
| Other Commercial | Compressed Air | Existing | Zero Loss Condensate Drains | Zero Loss Condensate Drains | Standard Drains | Per Compressed Air System | 2192.03 | 5 | $700.00 | 35% | 90% | $0.10 | 0.9 | 0 |
| Other Commercial | Compressed Air | New | Zero Loss Condensate Drains | Zero Loss Condensate Drains | Standard Drains | Per Compressed Air System | 2192.03 | 5 | $700.00 | 35% | 90% | $0.10 | 0.9 | 0 |
| Other Commercial | Computers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.24 | 4 | $4.40 | 95% | 86% | $6.64 | 0.0 | 0 |
| Other Commercial | Computers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.25 | 4 | $4.40 | 95% | 86% | $6.40 | 0.0 | 0 |
| Other Commercial | Computers | Existing | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.04 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 195 |
| Other Commercial | Computers | New | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.04 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 6 |
| Other Commercial | Computers | Existing | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 1210.82 | 5 | $269.07 | 50% | 80% | $0.07 | 1.3 | 409 |
| Other Commercial | Computers | New | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 1210.82 | 5 | $269.07 | 50% | 80% | $0.07 | 1.3 | 10 |
| Other Commercial | Cooking | Existing | Commercial Hot Food Holding Cabinets (Energy Star) | ENERGY STAR Hot Food Holding Cabinet | Standard Hot Food Holding Cabinet | Per Hot Food Holding Cabinet | 64.88 | 12 | $0.00 | 15% | 95% | $0.00 | 105,796.6 | 10 |
| Other Commercial | Cooking | New | Commercial Hot Food Holding Cabinets (Energy Star) | ENERGY STAR Hot Food Holding Cabinet | Standard Hot Food Holding Cabinet | Per Hot Food Holding Cabinet | 64.88 | 12 | $0.00 | 15% | 95% | $0.00 | 105,796.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Cooking | Existing | Electric Steam cooker (Energy Star) | ENERGY STAR Steam Cooker | Standard Steam Cooker | Per Steam Cooker | 397.98 | 12 | $7.50 | 5% | 95% | $0.00 | 32.5 | 21 |
| Other Commercial | Cooking | New | Electric Steam cooker (Energy Star) | ENERGY STAR Steam Cooker | Standard Steam Cooker | Per Steam Cooker | 397.98 | 12 | $7.50 | 5% | 95% | $0.00 | 32.5 | 1 |
| Other Commercial | Cooking | Existing | Electric combination oven (Energy Star) | ENERGY STAR Combination Oven | Standard Combination Oven | Per Combination Oven | 238.79 | 12 | $0.00 | 90% | 90% | $0.00 | 389,391.8 | 218 |
| Other Commercial | Cooking | New | Electric combination oven (Energy Star) | ENERGY STAR Combination Oven | Standard Combination Oven | Per Combination Oven | 238.79 | 12 | $0.00 | 90% | 90% | $0.00 | 389,391.8 | 5 |
| Other Commercial | Cooking | Existing | Electric convection oven (Energy Star) | ENERGY STAR Convection Oven | Standard Convection Oven | Per Convection Oven | 72.64 | 12 | $0.00 | 5% | 55% | $0.00 | 118,457.2 | 0 |
| Other Commercial | Cooking | New | Electric convection oven (Energy Star) | ENERGY STAR Convection Oven | Standard Convection Oven | Per Convection Oven | 72.64 | 12 | $0.00 | 5% | 55% | $0.00 | 118,457.2 | 0 |
| Other Commercial | Cooking | Existing | High Efficiency Fryers (Energy Star) | ENERGY STAR Fryer | Standard Fryer | Per Fryer | 35.69 | 12 | $7.88 | 0% | 95% | $0.04 | 2.8 | 0 |
| Other Commercial | Cooking | New | High Efficiency Fryers (Energy Star) | ENERGY STAR Fryer | Standard Fryer | Per Fryer | 35.69 | 12 | $7.88 | 0% | 95% | $0.04 | 2.8 | 0 |
| Other Commercial | Cooking | Existing | High Efficiency Griddle (Energy Star) | ENERGY STAR Griddle | Standard Griddle | Per Griddle | 35.80 | 12 | $0.00 | 20% | 95% | $0.00 | 116,740.7 | 8 |
| Other Commercial | Cooking | New | High Efficiency Griddle (Energy Star) | ENERGY STAR Griddle | Standard Griddle | Per Griddle | 35.80 | 12 | $0.00 | 20% | 95% | $0.00 | 116,740.7 | 0 |
| Other Commercial | Cooking | Existing | High Efficiency Induction Cooking | High Efficiency Induction Cooking | Standard Stovetop | Per Induction Stovetop | 148.32 | 12 | $112.28 | 5% | 95% | $0.12 | 0.8 | 0 |
| Other Commercial | Cooking | New | High Efficiency Induction Cooking | High Efficiency Induction Cooking | Standard Stovetop | Per Induction Stovetop | 148.32 | 12 | $112.28 | 5% | 95% | $0.12 | 0.8 | 0 |
| Other Commercial | Cooling Chillers | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 13339.37 | 10 | $323.01 | 100% | 58% | $0.00 | 25.2 | 355 |
| Other Commercial | Cooling Chillers | New | Active chilled beam cooling | Active chilled beam cooling | Standard Building Design | Per Building | 12048.42 | 15 | ###### | 60% | 100% | $1.85 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | and Cooling System | | | | | | | | | |
| Other Commercial | Cooling Chillers | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 163.29 | 20 | $11,002.62 | 95% | 95% | $8.32 | 0.0 | 0 |
| Other Commercial | Cooling Chillers | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 138.60 | 20 | $11,002.62 | 95% | 95% | $9.80 | 0.0 | 0 |
| Other Commercial | Cooling Chillers | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 60.24 | 15 | $1,685.00 | 95% | 95% | $3.95 | 0.0 | 0 |
| Other Commercial | Cooling Chillers | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 3548.75 | 10 | $15,290.17 | 95% | 96% | $0.78 | 0.1 | 0 |
| Other Commercial | Cooling Chillers | New | Automated control system | Automated control system | Baseline DX | Per Building | 3012.11 | 10 | $15,290.17 | 95% | 96% | $0.91 | 0.1 | 0 |
| Other Commercial | Cooling Chillers | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 39058.89 | 15 | $13,807.21 | 25% | 62% | $0.05 | 2.4 | 134 |
| Other Commercial | Cooling Chillers | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 23658.32 | 15 | $6,903.60 | 25% | 95% | $0.04 | 2.9 | 178 |
| Other Commercial | Cooling Chillers | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 20080.71 | 15 | $6,903.60 | 75% | 95% | $0.05 | 2.5 | 12 |
| Other Commercial | Cooling Chillers | Existing | Chilled Water Reset, Optimizer System for Chiller(s) | Chilled Water Reset, Optimizer System for Chiller(s) | 0 | Per Building | 1419.50 | 10 | ###### | 95% | 81% | $2.54 | 0.0 | 0 |
| Other Commercial | Cooling Chillers | Existing | Chiller Tuneup/Diagnostics | Chiller Tuneup/Diagnostics | Existing Conditions | Per Building | 5678.00 | 10 | ###### | 25% | 24% | $0.44 | 0.3 | 0 |
| Other Commercial | Cooling Chillers | Existing | Chillers 150-300 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.52 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | Per Building | 0.49 | 20 | $1.27 | 90% | 100% | $0.32 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Cooling Chillers | New | Chillers 150-300 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.52 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | Per Building | 0.49 | 20 | $1.27 | 90% | 100% | $0.32 | 0.4 | 0 |
| Other Commercial | Cooling Chillers | Existing | Chillers 150-300 tons (screw) - High Efficiency | High Efficiency - 0.63 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | Per Building | 0.15 | 20 | $0.40 | 90% | 100% | $0.32 | 0.4 | 0 |
| Other Commercial | Cooling Chillers | New | Chillers 150-300 tons (screw) - High Efficiency | High Efficiency - 0.63 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | Per Building | 0.15 | 20 | $0.40 | 90% | 100% | $0.32 | 0.4 | 0 |
| Other Commercial | Cooling Chillers | Existing | Chillers 150-300 tons (screw) - Premium Efficiency | Premium Efficiency - 0.58 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | Per Building | 0.30 | 20 | $0.79 | 90% | 100% | $0.32 | 0.4 | 0 |
| Other Commercial | Cooling Chillers | New | Chillers 150-300 tons (screw) - Premium Efficiency | Premium Efficiency - 0.58 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | Per Building | 0.30 | 20 | $0.79 | 90% | 100% | $0.32 | 0.4 | 0 |
| Other Commercial | Cooling Chillers | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 14194.99 | 15 | ###### | 95% | 75% | $1.04 | 0.1 | 0 |
| Other Commercial | Cooling Chillers | Existing | Cooling Tower Optimization | Cooling Tower Optimization | Existing Conditions | Per Building | 221.09 | 8 | $2,555.74 | 10% | 90% | $2.43 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Cooling Chillers | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 9036.32 | 7 | ###### | 75% | 85% | $0.75 | 0.1 | 0 |
| Other Commercial | Cooling Chillers | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 724.02 | 20 | ###### | 75% | 99% | $45.43 | 0.0 | 0 |
| Other Commercial | Cooling Chillers | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 614.54 | 20 | ###### | 75% | 99% | $53.52 | 0.0 | 0 |
| Other Commercial | Cooling Chillers | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 11986.88 | 30 | $241.65 | 20% | 84% | $0.00 | 65.1 | 79 |
| Other Commercial | Cooling Chillers | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 10174.23 | 30 | $241.65 | 80% | 84% | $0.00 | 55.2 | 8 |
| Other Commercial | Cooling Chillers | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 11356.00 | 7 | $7,957.72 | 75% | 75% | $0.16 | 0.7 | 0 |
| Other Commercial | Cooling Chillers | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 12775.49 | 18 | ###### | 1% | 98% | $0.90 | 0.1 | 0 |
| Other Commercial | Cooling Chillers | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 10843.58 | 18 | ###### | 1% | 98% | $1.06 | 0.1 | 0 |
| Other Commercial | Cooling Chillers | Existing | VFD on cooling tower fans | VFD on cooling tower fans | Base single-speed fan | Per Cooling Tower Motor VFD | 23321.59 | 13 | $6,600.03 | 75% | 98% | $0.04 | 2.7 | 600 |
| Other Commercial | Cooling Chillers | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 35793.58 | 15 | $4,985.28 | 10% | 66% | $0.02 | 6.2 | 78 |
| Other Commercial | Cooling Chillers | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 23658.32 | 15 | $2,492.64 | 10% | 95% | $0.01 | 8.1 | 76 |
| Other Commercial | Cooling Chillers | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 20080.71 | 15 | $2,492.64 | 50% | 95% | $0.02 | 6.9 | 9 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Cooling Chillers | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 3548.75 | 5 | $1,819.19 | 50% | 95% | $0.15 | 0.7 | 0 |
| Other Commercial | Cooling Chillers | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 3012.11 | 5 | $1,819.19 | 50% | 95% | $0.18 | 0.6 | 0 |
| Other Commercial | Cooling DX | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 14794.91 | 10 | $323.01 | 100% | 58% | $0.00 | 28.0 | 2,269 |
| Other Commercial | Cooling DX | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 1183.59 | 20 | $11,002.62 | 95% | 95% | $1.15 | 0.1 | 0 |
| Other Commercial | Cooling DX | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 1147.02 | 20 | $11,002.62 | 95% | 95% | $1.18 | 0.1 | 0 |
| Other Commercial | Cooling DX | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 76.29 | 15 | $1,685.00 | 95% | 95% | $3.12 | 0.0 | 0 |
| Other Commercial | Cooling DX | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 3935.97 | 10 | $15,290.17 | 95% | 96% | $0.70 | 0.2 | 0 |
| Other Commercial | Cooling DX | New | Automated control system | Automated control system | Baseline DX | Per Building | 3814.36 | 10 | $15,290.17 | 95% | 96% | $0.72 | 0.2 | 0 |
| Other Commercial | Cooling DX | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 43320.83 | 15 | $13,807.21 | 25% | 62% | $0.05 | 2.7 | 1,123 |
| Other Commercial | Cooling DX | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 26239.82 | 15 | $6,903.60 | 25% | 95% | $0.04 | 3.3 | 1,135 |
| Other Commercial | Cooling DX | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 25429.08 | 15 | $6,903.60 | 75% | 95% | $0.04 | 3.2 | 77 |
| Other Commercial | Cooling DX | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 15743.89 | 15 | ###### | 95% | 95% | $0.22 | 0.6 | 0 |
| Other Commercial | Cooling DX | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 6966.29 | 5 | $4,653.53 | 95% | 45% | $0.20 | 0.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Cooling DX | Existing | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.12 | 15 | $0.38 | 90% | 100% | $0.43 | 0.3 | 0 |
| Other Commercial | Cooling DX | New | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.12 | 15 | $0.38 | 90% | 100% | $0.43 | 0.3 | 0 |
| Other Commercial | Cooling DX | Existing | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.19 | 15 | $0.61 | 90% | 100% | $0.44 | 0.3 | 0 |
| Other Commercial | Cooling DX | New | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.19 | 15 | $0.61 | 90% | 100% | $0.44 | 0.3 | 0 |
| Other Commercial | Cooling DX | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 8186.83 | 15 | $7,341.07 | 50% | 99% | $0.13 | 1.0 | 0 |
| Other Commercial | Cooling DX | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 7933.87 | 15 | $3,915.24 | 50% | 99% | $0.07 | 1.7 | 15 |
| Other Commercial | Cooling DX | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 1420.31 | 15 | $16,619.75 | 95% | 65% | $1.65 | 0.1 | 0 |
| Other Commercial | Cooling DX | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 1420.31 | 15 | $12,631.01 | 45% | 80% | $1.26 | 0.1 | 0 |
| Other Commercial | Cooling DX | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 37173.08 | 15 | ###### | 90% | 100% | $1.41 | 0.1 | 0 |
| Other Commercial | Cooling DX | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 11443.09 | 7 | ###### | 95% | 85% | $0.59 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Cooling DX | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 5247.96 | 20 | ###### | 75% | 99% | $6.27 | 0.0 | 0 |
| Other Commercial | Cooling DX | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 5085.82 | 20 | ###### | 75% | 99% | $6.47 | 0.0 | 0 |
| Other Commercial | Cooling DX | Existing | HVAC Diagnostic/Air Conditioner Tune Up | HVAC Diagnostic/Air Conditioner Tune Up | No Tune Up | Per Building | 6966.29 | 10 | $4,779.30 | 95% | 24% | $0.12 | 0.9 | 0 |
| Other Commercial | Cooling DX | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 13294.84 | 30 | $241.65 | 20% | 84% | $0.00 | 72.2 | 503 |
| Other Commercial | Cooling DX | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 12884.07 | 30 | $241.65 | 80% | 84% | $0.00 | 69.9 | 49 |
| Other Commercial | Cooling DX | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 14061.33 | 10 | ###### | 10% | 45% | $0.27 | 0.4 | 0 |
| Other Commercial | Cooling DX | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 12595.12 | 7 | $7,957.72 | 95% | 75% | $0.15 | 0.7 | 0 |
| Other Commercial | Cooling DX | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 14169.51 | 18 | ###### | 1% | 98% | $0.81 | 0.2 | 0 |
| Other Commercial | Cooling DX | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 13731.70 | 18 | ###### | 1% | 98% | $0.83 | 0.2 | 0 |
| Other Commercial | Cooling DX | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 39699.23 | 15 | $4,985.28 | 10% | 66% | $0.02 | 6.8 | 496 |
| Other Commercial | Cooling DX | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 26239.82 | 15 | $2,492.64 | 10% | 95% | $0.01 | 9.0 | 485 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Cooling DX | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 25429.08 | 15 | $2,492.64 | 50% | 95% | $0.01 | 8.7 | 61 |
| Other Commercial | Cooling DX | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 3935.97 | 5 | $1,819.19 | 50% | 95% | $0.14 | 0.8 | 0 |
| Other Commercial | Cooling DX | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 3814.36 | 5 | $1,819.19 | 50% | 95% | $0.14 | 0.7 | 0 |
| Other Commercial | Fax | Existing | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 11 |
| Other Commercial | Fax | New | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 0 |
| Other Commercial | Flat Screen Monitors | Existing | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.01 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 24 |
| Other Commercial | Flat Screen Monitors | New | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.01 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 0 |
| Other Commercial | Freezer | Existing | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.04 | 3.2 | 2 |
| Other Commercial | Freezer | New | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.04 | 3.2 | 0 |
| Other Commercial | Heat Pump | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 19849.11 | 10 | $323.01 | 100% | 58% | $0.00 | 32.9 | 440 |
| Other Commercial | Heat Pump | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 1077.45 | 20 | $11,002.62 | 95% | 95% | $1.26 | 0.1 | 0 |
| Other Commercial | Heat Pump | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 1045.49 | 20 | $11,002.62 | 95% | 95% | $1.30 | 0.1 | 0 |
| Other Commercial | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.17 | 15 | $0.12 | 90% | 100% | $0.10 | 1.0 | 47 |
| Other Commercial | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.17 | 15 | $0.12 | 90% | 100% | $0.10 | 1.0 | 2 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.32 | 15 | $0.25 | 90% | 100% | $0.11 | 1.0 | 0 |
| Other Commercial | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.32 | 15 | $0.25 | 90% | 100% | $0.11 | 1.0 | 0 |
| Other Commercial | Heat Pump | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 1488.89 | 15 | $1,685.00 | 95% | 95% | $0.16 | 0.7 | 0 |
| Other Commercial | Heat Pump | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 1018.92 | 15 | $1,685.00 | 95% | 95% | $0.23 | 0.5 | 0 |
| Other Commercial | Heat Pump | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 5710.00 | 10 | $15,290.17 | 95% | 96% | $0.48 | 0.2 | 0 |
| Other Commercial | Heat Pump | New | Automated control system | Automated control system | Baseline DX | Per Building | 5540.61 | 10 | $15,290.17 | 95% | 96% | $0.50 | 0.2 | 0 |
| Other Commercial | Heat Pump | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 62846.41 | 15 | $13,807.21 | 25% | 62% | $0.03 | 3.4 | 238 |
| Other Commercial | Heat Pump | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 38066.65 | 15 | $6,903.60 | 25% | 95% | $0.03 | 4.1 | 240 |
| Other Commercial | Heat Pump | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 36937.40 | 15 | $6,903.60 | 75% | 95% | $0.03 | 4.0 | 17 |
| Other Commercial | Heat Pump | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 14332.04 | 15 | ###### | 95% | 95% | $0.23 | 0.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Heat Pump | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 6341.58 | 5 | $4,653.53 | 95% | 45% | $0.22 | 0.4 | 0 |
| Other Commercial | Heat Pump | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 11196.16 | 15 | $7,341.07 | 50% | 99% | $0.09 | 1.1 | 149 |
| Other Commercial | Heat Pump | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 10864.02 | 15 | $3,915.24 | 50% | 99% | $0.05 | 2.1 | 3 |
| Other Commercial | Heat Pump | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 1292.94 | 15 | $16,619.75 | 95% | 65% | $1.82 | 0.1 | 0 |
| Other Commercial | Heat Pump | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 1292.94 | 15 | $12,631.01 | 45% | 80% | $1.38 | 0.1 | 0 |
| Other Commercial | Heat Pump | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 16621.83 | 7 | ###### | 95% | 85% | $0.41 | 0.2 | 0 |
| Other Commercial | Heat Pump | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 6052.45 | 20 | ###### | 75% | 99% | $5.43 | 0.0 | 0 |
| Other Commercial | Heat Pump | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 5872.90 | 20 | ###### | 75% | 99% | $5.60 | 0.0 | 0 |
| Other Commercial | Heat Pump | Existing | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.32 | 15 | $27.21 | 90% | 100% | $2.91 | 0.0 | 0 |
| Other Commercial | Heat Pump | New | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.32 | 15 | $27.21 | 90% | 100% | $2.91 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Heat Pump | Existing | HVAC Diagnostic/Heat Pump Tune Up | HVAC Diagnostic/Heat Pump Tune Up | No Tune Up | Per Building | 6341.58 | 10 | $4,527.76 | 95% | 24% | $0.13 | 0.8 | 0 |
| Other Commercial | Heat Pump | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 12102.61 | 30 | $241.65 | 20% | 84% | $0.00 | 56.7 | 66 |
| Other Commercial | Heat Pump | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 11743.59 | 30 | $241.65 | 80% | 84% | $0.00 | 55.0 | 6 |
| Other Commercial | Heat Pump | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 14061.33 | 10 | ###### | 10% | 45% | $0.27 | 0.4 | 0 |
| Other Commercial | Heat Pump | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 18271.99 | 7 | $7,957.72 | 95% | 75% | $0.10 | 0.9 | 0 |
| Other Commercial | Heat Pump | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 12898.84 | 18 | ###### | 1% | 98% | $0.89 | 0.1 | 0 |
| Other Commercial | Heat Pump | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 12516.19 | 18 | ###### | 1% | 98% | $0.92 | 0.1 | 0 |
| Other Commercial | Heat Pump | Existing | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 67833.79 | 15 | ###### | 50% | 95% | $2.21 | 0.1 | 0 |
| Other Commercial | Heat Pump | New | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 65821.51 | 15 | ###### | 95% | 95% | $2.28 | 0.1 | 0 |
| Other Commercial | Heat Pump | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 57592.48 | 15 | $4,985.28 | 10% | 66% | $0.01 | 8.6 | 105 |
| Other Commercial | Heat Pump | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 38066.65 | 15 | $2,492.64 | 10% | 95% | $0.01 | 11.4 | 103 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Heat Pump | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 36937.40 | 15 | $2,492.64 | 50% | 95% | $0.01 | 11.0 | 13 |
| Other Commercial | Heat Pump | Existing | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.83 | 15 | $2.52 | 90% | 100% | $0.43 | 0.2 | 0 |
| Other Commercial | Heat Pump | New | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.83 | 15 | $2.52 | 90% | 100% | $0.43 | 0.2 | 0 |
| Other Commercial | Heat Pump | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 5710.00 | 5 | $1,819.19 | 50% | 95% | $0.10 | 0.9 | 0 |
| Other Commercial | Heat Pump | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 5540.61 | 5 | $1,819.19 | 50% | 95% | $0.10 | 0.9 | 0 |
| Other Commercial | Lighting Exterior | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 1703.13 | 10 | $100.00 | 85% | 45% | $0.01 | 9.2 | 176 |
| Other Commercial | Lighting Exterior | Existing | LED or equivalent sign lighting | LED or equivalent sign lighting | Replace fluorescent sign lighting | Per Sign | 840.95 | 15 | $17.36 | 100% | 95% | $0.00 | 36.5 | 899 |
| Other Commercial | Lighting Exterior | New | LED or equivalent sign lighting | LED or equivalent sign lighting | Replace fluorescent sign lighting | Per Sign | 840.95 | 15 | $17.36 | 100% | 95% | $0.00 | 36.5 | 22 |
| Other Commercial | Lighting Exterior | Existing | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 4768.76 | 8 | $228.96 | 50% | 45% | $0.01 | 9.4 | 310 |
| Other Commercial | Lighting Exterior | New | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 4768.76 | 8 | $228.96 | 50% | 75% | $0.01 | 9.4 | 13 |
| Other Commercial | Lighting Exterior | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 4087.51 | 8 | $372.07 | 10% | 100% | $0.02 | 4.9 | 106 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 5249.69 | 10 | $100.00 | 85% | 45% | $0.00 | 28.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Lighting Interior Fluorescent | Existing | Delamping fixtures | Delamping fixtures | 0 | Per Delamped Fixture | 77.01 | 13 | $6.00 | 0% | 85% | $0.01 | 8.6 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Fiber Optic Display Lighting | Fiber Optic Display Lighting | Existing Display Lighting | Per Case Door | 943.91 | 15 | $1,230.92 | 50% | 95% | $0.18 | 0.6 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 4129.54 | 8 | $11,673.09 | 65% | 100% | $0.59 | 0.2 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 14174.15 | 10 | $3,883.28 | 10% | 98% | $0.05 | 2.0 | 1,171 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent High Performance - Above Standard | Above Standard Fluorescent High Performance T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.15 | 13 | $0.18 | 90% | 100% | $0.18 | 0.6 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent Reduced Wattage - Above Standard | Above Standard Fluorescent Reduced Wattage T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.15 | 13 | $0.64 | 90% | 100% | $0.64 | 0.2 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T5 - Above Standard | Above Standard Fluorescent T-5 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.20 | 13 | $0.36 | 90% | 100% | $0.28 | 0.4 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T8 - Above Standard | Above Standard Fluorescent T8 Interior Lighting | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.06 | 13 | $0.15 | 90% | 100% | $0.41 | 0.2 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Lighting Interior - LED Tube - Above Standard | Above Standard LED Tube | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.31 | 20 | $1.93 | 90% | 100% | $0.77 | 0.1 | 0 |
| Other Commercial | Lighting Interior Fluorescent | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 12599.25 | 8 | $2,680.08 | 90% | 98% | $0.04 | 2.1 | 2,358 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Lighting Interior Fluorescent | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 12599.25 | 8 | $372.07 | 10% | 99% | $0.01 | 15.2 | 348 |
| Other Commercial | Lighting Interior HID | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 178.95 | 10 | $100.00 | 85% | 45% | $0.10 | 1.0 | 0 |
| Other Commercial | Lighting Interior HID | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 140.77 | 8 | $11,673.09 | 65% | 100% | $17.41 | 0.0 | 0 |
| Other Commercial | Lighting Interior HID | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 483.16 | 10 | $3,883.28 | 10% | 98% | $1.45 | 0.1 | 0 |
| Other Commercial | Lighting Interior HID | Existing | Lighting Interior - Efficient Metal Halide - Above Standard | Efficient Metal Halide | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.01 | 15 | $0.01 | 90% | 100% | $0.09 | 1.1 | 0 |
| Other Commercial | Lighting Interior HID | Existing | Lighting Interior - High Bay Fluorescent High Output - Above Standard | High Bay Fluorescent High Output (HO) | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.03 | 15 | $0.01 | 90% | 100% | $0.06 | 1.8 | 263 |
| Other Commercial | Lighting Interior HID | Existing | Lighting Interior - High Bay LED - Above Standard | High Bay LED | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.04 | 20 | $0.01 | 90% | 100% | $0.04 | 3.0 | 23 |
| Other Commercial | Lighting Interior HID | Existing | Lighting Interior - Induction - Above Standard | Induction | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.03 | 20 | -$0.01 | 90% | 100% | -$0.03 | 999.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Lighting Interior HID | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 429.48 | 8 | $2,680.08 | 90% | 98% | $1.31 | 0.1 | 0 |
| Other Commercial | Lighting Interior HID | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 429.48 | 8 | $372.07 | 10% | 99% | $0.18 | 0.5 | 0 |
| Other Commercial | Lighting Interior Other | Existing | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Incandescent Exit Sign | Per Exit Sign | 152.07 | 10 | $38.00 | 95% | 25% | $0.04 | 2.2 | 11 |
| Other Commercial | Lighting Interior Other | New | Fiber Optic Display Lighting | Fiber Optic Display Lighting | Existing Display Lighting | Per Case Door | 943.91 | 15 | $1,230.92 | 50% | 95% | $0.18 | 0.6 | 0 |
| Other Commercial | Lighting Interior Other | New | HE Lighting Fixtures/Design 10% better than code (New Construction) | HE Lighting Fixtures/Design 10% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.26 | 15 | $0.14 | 100% | 100% | $0.08 | 1.4 | 0 |
| Other Commercial | Lighting Interior Other | New | HE Lighting Fixtures/Design 15% better than code (New Construction) | HE Lighting Fixtures/Design 15% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.39 | 15 | $0.16 | 100% | 100% | $0.06 | 1.9 | 0 |
| Other Commercial | Lighting Interior Other | New | HE Lighting Fixtures/Design 30% better than code (New Construction) | HE Lighting Fixtures/Design 30% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.77 | 15 | $0.31 | 100% | 100% | $0.06 | 1.9 | 606 |
| Other Commercial | Lighting Interior Other | New | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 5929.44 | 8 | $11,673.09 | 65% | 100% | $0.41 | 0.2 | 0 |
| Other Commercial | Lighting Interior Other | Existing | LED exit sign | LED exit sign | CFL Exit Sign | Per Exit Sign | 112.83 | 16 | $48.00 | 95% | 50% | $0.06 | 1.9 | 51 |
| Other Commercial | Lighting Interior Other | New | Light Pipes | Light Pipes | Standard lighting system | Per Building | 20352.09 | 10 | $3,883.28 | 30% | 98% | $0.03 | 2.8 | 99 |
| Other Commercial | Lighting Interior Other | New | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 18090.75 | 8 | $2,680.08 | 90% | 98% | $0.03 | 3.0 | 55 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Lighting Interior Other | Existing | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 294.34 | 30 | $30.00 | 75% | 95% | $0.01 | 11.3 | 201 |
| Other Commercial | Lighting Interior Other | New | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 294.34 | 30 | $30.00 | 75% | 95% | $0.01 | 11.3 | 3 |
| Other Commercial | Lighting Interior Screw Base | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 1482.85 | 10 | $100.00 | 85% | 45% | $0.01 | 8.0 | 44 |
| Other Commercial | Lighting Interior Screw Base | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 1166.45 | 8 | $11,673.09 | 65% | 100% | $2.10 | 0.0 | 0 |
| Other Commercial | Lighting Interior Screw Base | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 4003.69 | 10 | $3,883.28 | 10% | 98% | $0.17 | 0.6 | 0 |
| Other Commercial | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base CFL - Above Standard | CFL | EISA Standard Incandescent | Per Building | 0.28 | 5 | $0.01 | 90% | 100% | $0.01 | 10.8 | 854 |
| Other Commercial | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base Incandescent - Backstop EISA Standard | Backstop EISA Standard Incandescent | EISA Standard Incandescent | Per Building | 0.23 | 2 | $0.00 | 90% | 100% | $0.01 | 6.1 | 0 |
| Other Commercial | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base LED - Above Standard | LED | EISA Standard Incandescent | Per Building | 0.30 | 12 | $0.05 | 90% | 100% | $0.04 | 2.9 | 4,387 |
| Other Commercial | Lighting Interior Screw Base | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 3558.83 | 8 | $2,680.08 | 90% | 98% | $0.16 | 0.6 | 0 |
| Other Commercial | Lighting Interior Screw Base | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 3558.83 | 8 | $372.07 | 10% | 99% | $0.02 | 4.3 | 28 |
| Other Commercial | Other Plug Load | Existing | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 5.82 | 15 | $0.56 | 75% | 75% | $0.01 | 7.7 | 4 |
| Other Commercial | Other Plug Load | New | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 5.82 | 15 | $0.56 | 75% | 75% | $0.01 | 7.7 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Other Plug Load | Existing | Elevators | Elevators | Standard Elevator | Per Elevator Cab | 6960.00 | 16 | ###### | 75% | 90% | $6.49 | 0.0 | 0 |
| Other Commercial | Other Plug Load | New | Elevators | Elevators | Standard Elevator | Per Elevator Cab | 6960.00 | 16 | ###### | 100% | 90% | $6.49 | 0.0 | 0 |
| Other Commercial | Other Plug Load | Existing | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 8.08 | 4 | $0.80 | 100% | 20% | $0.04 | 2.4 | 2 |
| Other Commercial | Other Plug Load | New | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 8.08 | 4 | $0.80 | 100% | 20% | $0.04 | 2.4 | 0 |
| Other Commercial | Other Plug Load | Existing | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 948.66 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 203 |
| Other Commercial | Other Plug Load | New | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 948.66 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 5 |
| Other Commercial | Other Plug Load | Existing | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.72 | 5 | $2.94 | 95% | 20% | $1.24 | 0.1 | 0 |
| Other Commercial | Other Plug Load | New | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.72 | 5 | $2.94 | 95% | 20% | $1.24 | 0.1 | 0 |
| Other Commercial | Other Plug Load | Existing | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 278.04 | 5 | $47.09 | 95% | 95% | $0.05 | 1.8 | 76 |
| Other Commercial | Other Plug Load | New | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 278.04 | 5 | $47.09 | 95% | 95% | $0.05 | 1.8 | 2 |
| Other Commercial | Other Plug Load | Existing | VFD on Process | VFD on Process | Standard Motor | Per Process Motor VFD | 7849.68 | 15 | $11,000.00 | 55% | 98% | $0.20 | 0.5 | 0 |
| Other Commercial | Photo Copiers | Existing | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 1 |
| Other Commercial | Photo Copiers | New | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 0 |
| Other Commercial | Pool Pump | Existing | Pool Pump - Two Speed | Pool Pump - Two Speed | Pool Pump - Constant Speed | Per Building | 0.02 | 10 | $0.00 | 100% | 100% | $0.01 | 7.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Pool Pump | New | Pool Pump - Two Speed | Pool Pump - Two Speed | Pool Pump - Constant Speed | Per Building | 0.02 | 10 | $0.00 | 100% | 100% | $0.01 | 7.6 | 0 |
| Other Commercial | Pool Pump | Existing | Pool Pump - VSD | Pool Pump - VSD | Pool Pump - Constant Speed | Per Building | 0.04 | 10 | $0.01 | 100% | 100% | $0.03 | 3.6 | 598 |
| Other Commercial | Pool Pump | New | Pool Pump - VSD | Pool Pump - VSD | Pool Pump - Constant Speed | Per Building | 0.04 | 10 | $0.01 | 100% | 100% | $0.03 | 3.6 | 30 |
| Other Commercial | Printers | Existing | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.01 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 12 |
| Other Commercial | Printers | New | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.01 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 0 |
| Other Commercial | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 1804.25 | 12 | $123.50 | 50% | 60% | $0.01 | 9.0 | 588 |
| Other Commercial | Refrigeration | New | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 1804.25 | 12 | $123.50 | 50% | 60% | $0.01 | 9.0 | 14 |
| Other Commercial | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 3320.98 | 12 | $123.50 | 50% | 60% | $0.01 | 16.5 | 1,121 |
| Other Commercial | Refrigeration | New | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 3320.98 | 12 | $123.50 | 50% | 60% | $0.01 | 16.5 | 28 |
| Other Commercial | Refrigeration | Existing | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 267.78 | 8 | $43.47 | 95% | 80% | $0.03 | 2.7 | 229 |
| Other Commercial | Refrigeration | New | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 267.78 | 8 | $43.47 | 95% | 80% | $0.03 | 2.7 | 6 |
| Other Commercial | Refrigeration | Existing | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 646.18 | 8 | $43.47 | 95% | 80% | $0.01 | 6.5 | 552 |
| Other Commercial | Refrigeration | New | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 646.18 | 8 | $43.47 | 95% | 80% | $0.01 | 6.5 | 14 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Refrigeration | Existing | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Standard Solid Door Refrigerator & Freezer | Per Solid Door Commercial Refrigerator/Freezer Energy Star | 3.01 | 12 | $0.94 | 95% | 81% | $0.05 | 2.0 | 3 |
| Other Commercial | Refrigeration | New | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Standard Solid Door Refrigerator & Freezer | Per Solid Door Commercial Refrigerator/Freezer Energy Star | 3.01 | 12 | $0.94 | 95% | 81% | $0.05 | 2.0 | 0 |
| Other Commercial | Refrigeration | Existing | Compressor VSD retrofit | Compressor VSD retrofit | Base Refrigeration System - Grocery | Per Refrigerator/Freezer Compressor Motor HP | 341.98 | 15 | $194.84 | 70% | 86% | $0.08 | 1.3 | 186 |
| Other Commercial | Refrigeration | Existing | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 103.94 | 10 | $613.02 | 60% | 100% | $1.06 | 0.1 | 0 |
| Other Commercial | Refrigeration | New | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 103.94 | 10 | $613.02 | 60% | 100% | $1.06 | 0.1 | 0 |
| Other Commercial | Refrigeration | Existing | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 25.98 | 10 | $613.02 | 90% | 100% | $4.25 | 0.0 | 0 |
| Other Commercial | Refrigeration | New | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 25.98 | 10 | $613.02 | 90% | 100% | $4.25 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Refrigeration | Existing | Door Gasket - Cooler | Door Gasket - Cooler | Existing Gasket | Per linear foot of gasket on walk-in or reach-in cooler | 100.31 | 4 | $22.29 | 95% | 90% | $0.08 | 1.1 | 96 |
| Other Commercial | Refrigeration | Existing | Door Gasket - Freezer | Door Gasket - Freezer | Existing Gasket | Per linear foot of gasket on walk-in or reach-in freezer | 351.09 | 4 | $22.29 | 95% | 90% | $0.02 | 3.8 | 338 |
| Other Commercial | Refrigeration | Existing | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 551.95 | 15 | $355.16 | 95% | 93% | $0.09 | 1.1 | 547 |
| Other Commercial | Refrigeration | New | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 551.95 | 15 | $355.16 | 95% | 93% | $0.09 | 1.1 | 13 |
| Other Commercial | Refrigeration | Existing | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 276.13 | 15 | $369.60 | 10% | 95% | $0.19 | 0.6 | 0 |
| Other Commercial | Refrigeration | New | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 276.13 | 15 | $369.60 | 5% | 95% | $0.19 | 0.6 | 0 |
| Other Commercial | Refrigeration | Existing | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 352.77 | 15 | $33.44 | 90% | 100% | $0.01 | 7.8 | 0 |
| Other Commercial | Refrigeration | New | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 352.77 | 15 | $33.44 | 90% | 100% | $0.01 | 7.8 | 0 |
| Other Commercial | Refrigeration | Existing | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 256.67 | 15 | $118.72 | 65% | 100% | $0.07 | 1.6 | 168 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Refrigeration | New | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 256.67 | 15 | $118.72 | 95% | 100% | $0.07 | 1.6 | 6 |
| Other Commercial | Refrigeration | Existing | High Efficiency Ice Makers | High Efficiency Ice Makers | Standard Ice Maker | Per Air-cooled Ice Maker | 23.72 | 10 | $52.80 | 75% | 55% | $0.40 | 0.2 | 0 |
| Other Commercial | Refrigeration | New | High Efficiency Ice Makers | High Efficiency Ice Makers | Standard Ice Maker | Per Air-cooled Ice Maker | 23.72 | 10 | $52.80 | 95% | 55% | $0.40 | 0.2 | 0 |
| Other Commercial | Refrigeration | Existing | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 132.17 | 15 | $94.74 | 50% | 85% | $0.10 | 1.0 | 63 |
| Other Commercial | Refrigeration | New | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 132.17 | 15 | $94.74 | 95% | 92% | $0.10 | 1.0 | 3 |
| Other Commercial | Refrigeration | Existing | Insulation for bare suction lines | Insulation for bare suction lines | No Insulation | Per linear feet of walk-in cooler/freezer suction line | 476.83 | 11 | $254.87 | 95% | 50% | $0.09 | 1.1 | 198 |
| Other Commercial | Refrigeration | Existing | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 615.87 | 8 | $469.31 | 95% | 80% | $0.16 | 0.6 | 0 |
| Other Commercial | Refrigeration | New | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 615.87 | 8 | $469.31 | 95% | 80% | $0.16 | 0.6 | 0 |
| Other Commercial | Refrigeration | Existing | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 132.17 | 15 | $94.74 | 50% | 95% | $0.10 | 1.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Refrigeration | New | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 132.17 | 15 | $94.74 | 95% | 95% | $0.10 | 1.0 | 0 |
| Other Commercial | Refrigeration | Existing | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 1907.61 | 15 | $1,024.02 | 95% | 86% | $0.08 | 1.4 | 1,753 |
| Other Commercial | Refrigeration | New | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 1907.61 | 15 | $1,024.02 | 95% | 86% | $0.08 | 1.4 | 43 |
| Other Commercial | Refrigeration | Existing | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 211.74 | 15 | $441.08 | 95% | 49% | $0.29 | 0.4 | 0 |
| Other Commercial | Refrigeration | New | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 211.74 | 15 | $441.08 | 0% | 49% | $0.29 | 0.4 | 0 |
| Other Commercial | Refrigeration | Existing | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 836.14 | 15 | $441.08 | 95% | 49% | $0.07 | 1.4 | 438 |
| Other Commercial | Refrigeration | New | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 836.14 | 15 | $441.08 | 0% | 49% | $0.07 | 1.4 | 0 |
| Other Commercial | Refrigeration | Existing | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 624.40 | 15 | $441.08 | 95% | 49% | $0.10 | 1.0 | 327 |
| Other Commercial | Refrigeration | New | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 624.40 | 15 | $441.08 | 0% | 49% | $0.10 | 1.0 | 0 |
| Other Commercial | Refrigeration | Existing | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 1767.20 | 3 | $3,764.62 | 10% | 85% | $0.99 | 0.1 | 0 |
| Other Commercial | Refrigeration | New | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 1767.20 | 3 | $3,764.62 | 5% | 90% | $0.99 | 0.1 | 0 |
| Other Commercial | Refrigeration | Existing | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 439.22 | 4 | $44.47 | 95% | 78% | $0.04 | 2.4 | 366 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Refrigeration | New | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 673.98 | 4 | $44.47 | 95% | 78% | $0.02 | 3.7 | 14 |
| Other Commercial | Refrigeration | Existing | Vertical night covers | Vertical night covers | No covers present | Per ft of vertical display case width | 42.87 | 5 | $36.74 | 95% | 100% | $0.26 | 0.3 | 0 |
| Other Commercial | Refrigeration | New | Vertical night covers | Vertical night covers | No covers present | Per ft of vertical display case width | 42.87 | 5 | $36.74 | 95% | 100% | $0.26 | 0.3 | 0 |
| Other Commercial | Refrigeration | Existing | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 230.16 | 15 | $139.32 | 75% | 49% | $0.09 | 1.2 | 95 |
| Other Commercial | Refrigeration | New | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 230.16 | 15 | $139.32 | 95% | 49% | $0.09 | 1.2 | 3 |
| Other Commercial | Refrigeration | Existing | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 615.81 | 15 | $139.32 | 75% | 49% | $0.03 | 3.3 | 255 |
| Other Commercial | Refrigeration | New | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 615.81 | 15 | $139.32 | 95% | 49% | $0.03 | 3.3 | 8 |
| Other Commercial | Refrigeration | Existing | eCube | eCube | No eCube | Per Walk-in | 681.01 | 9 | $222.36 | 95% | 95% | $0.06 | 1.5 | 691 |
| Other Commercial | Refrigeration | New | eCube | eCube | No eCube | Per Walk-in | 681.01 | 9 | $222.36 | 95% | 95% | $0.06 | 1.5 | 17 |
| Other Commercial | Refrigerator | Existing | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 0 |
| Other Commercial | Refrigerator | New | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 0 |
| Other Commercial | Refrigerator | Existing | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.09 | 1.0 | 137 |
| Other Commercial | Refrigerator | New | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.09 | 1.0 | 8 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Refrigerator | Existing | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.09 | 1.0 | 0 |
| Other Commercial | Refrigerator | New | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.09 | 1.0 | 0 |
| Other Commercial | Room Cooling | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 38355.03 | 15 | $13,807.21 | 25% | 62% | $0.05 | 2.4 | 1,149 |
| Other Commercial | Room Cooling | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 23231.99 | 15 | $6,903.60 | 25% | 95% | $0.04 | 2.9 | 1,161 |
| Other Commercial | Room Cooling | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 23187.83 | 15 | $6,903.60 | 75% | 95% | $0.04 | 2.9 | 85 |
| Other Commercial | Room Cooling | Existing | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.06 | 12 | $0.02 | 90% | 100% | $0.05 | 2.4 | 52 |
| Other Commercial | Room Cooling | New | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.06 | 12 | $0.02 | 90% | 100% | $0.05 | 2.4 | 2 |
| Other Commercial | Servers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.39 | 4 | $4.40 | 95% | 86% | $4.08 | 0.0 | 0 |
| Other Commercial | Servers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.39 | 4 | $4.40 | 95% | 86% | $4.10 | 0.0 | 0 |
| Other Commercial | Servers | Existing | Data Center - Server/Storage Consolidation | Data Center - Server/Storage Consolidation | No Consolidation | Per Building | 2689.57 | 4 | $3,376.94 | 75% | 80% | $0.46 | 0.2 | 0 |
| Other Commercial | Servers | Existing | Data Center - Server/Storage Virtualization | Data Center - Server/Storage Virtualization | No Virtualization | Per Building | 2689.57 | 4 | $3,376.94 | 75% | 80% | $0.46 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Servers | New | Data Center - Server/Storage Virtualization | Data Center - Server/Storage Virtualization | No Virtualization | Per Building | 2677.33 | 4 | $3,376.94 | 75% | 80% | $0.46 | 0.2 | 0 |
| Other Commercial | Servers | Existing | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.03 | 4 | $0.04 | 90% | 100% | $0.49 | 0.2 | 0 |
| Other Commercial | Servers | New | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.03 | 4 | $0.04 | 90% | 100% | $0.49 | 0.2 | 0 |
| Other Commercial | Space Heat | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 7219.25 | 10 | $323.01 | 100% | 58% | $0.01 | 12.0 | 22 |
| Other Commercial | Space Heat | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 1684.49 | 15 | $1,685.00 | 95% | 95% | $0.14 | 0.7 | 0 |
| Other Commercial | Space Heat | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 1106.95 | 15 | $1,685.00 | 95% | 95% | $0.22 | 0.5 | 0 |
| Other Commercial | Space Heat | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 2406.42 | 10 | $15,290.17 | 95% | 96% | $1.14 | 0.1 | 0 |
| Other Commercial | Space Heat | New | Automated control system | Automated control system | Baseline DX | Per Building | 2406.42 | 10 | $15,290.17 | 95% | 96% | $1.14 | 0.1 | 0 |
| Other Commercial | Space Heat | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 26485.96 | 15 | $13,807.21 | 25% | 62% | $0.07 | 1.4 | 14 |
| Other Commercial | Space Heat | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 16042.79 | 15 | $6,903.60 | 25% | 95% | $0.06 | 1.7 | 14 |
| Other Commercial | Space Heat | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 16042.79 | 15 | $6,903.60 | 75% | 95% | $0.06 | 1.7 | 1 |
| Other Commercial | Space Heat | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 4235.30 | 15 | $7,341.07 | 50% | 99% | $0.25 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Space Heat | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 4235.30 | 15 | $3,915.24 | 50% | 99% | $0.13 | 0.8 | 0 |
| Other Commercial | Space Heat | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 31706.97 | 15 | ###### | 90% | 100% | $1.65 | 0.1 | 0 |
| Other Commercial | Space Heat | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 7219.25 | 7 | ###### | 95% | 85% | $0.94 | 0.1 | 0 |
| Other Commercial | Space Heat | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1442.62 | 20 | ###### | 75% | 99% | $22.80 | 0.0 | 0 |
| Other Commercial | Space Heat | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1442.62 | 20 | ###### | 75% | 99% | $22.80 | 0.0 | 0 |
| Other Commercial | Space Heat | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 7700.54 | 7 | $7,957.72 | 95% | 75% | $0.24 | 0.4 | 0 |
| Other Commercial | Space Heat | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 24271.74 | 15 | $4,985.28 | 10% | 66% | $0.03 | 3.6 | 6 |
| Other Commercial | Space Heat | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 16042.79 | 15 | $2,492.64 | 10% | 95% | $0.02 | 4.8 | 6 |
| Other Commercial | Space Heat | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 16042.79 | 15 | $2,492.64 | 50% | 95% | $0.02 | 4.8 | 1 |
| Other Commercial | Vending Machines | Existing | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 550.30 | 5 | $72.80 | 100% | 50% | $0.04 | 2.2 | 310 |
| Other Commercial | Vending Machines | New | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 550.30 | 5 | $72.80 | 100% | 50% | $0.04 | 2.2 | 8 |
| Other Commercial | Vending Machines | Existing | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 138.52 | 5 | $64.71 | 100% | 50% | $0.14 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Vending Machines | New | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 138.52 | 5 | $64.71 | 100% | 50% | $0.14 | 0.6 | 0 |
| Other Commercial | Vending Machines | Existing | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.01 | 90% | 100% | $0.27 | 0.4 | 0 |
| Other Commercial | Vending Machines | New | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.01 | 90% | 100% | $0.27 | 0.4 | 0 |
| Other Commercial | Ventilation and Circulation | Existing | CO sensors for parking garage exhaust fans | CO sensors for parking garage exhaust fans | Standard Ventilation | Per Fan Motor HP | 8608.13 | 5 | $1,252.88 | 5% | 85% | $0.04 | 2.1 | 412 |
| Other Commercial | Ventilation and Circulation | New | CO sensors for parking garage exhaust fans | CO sensors for parking garage exhaust fans | Standard Ventilation | Per Fan Motor HP | 8608.13 | 5 | $1,252.88 | 5% | 85% | $0.04 | 2.1 | 10 |
| Other Commercial | Ventilation and Circulation | Existing | Downsizing motor during retrofit | Downsizing motor during retrofit | Larger hp standard motor | Per Motor | 427.20 | 20 | ###### | 10% | 95% | $8.94 | 0.0 | 0 |
| Other Commercial | Ventilation and Circulation | Existing | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 9701.69 | 15 | $5,320.71 | 15% | 95% | $0.08 | 1.4 | 792 |
| Other Commercial | Ventilation and Circulation | New | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 9701.69 | 15 | $5,320.71 | 15% | 95% | $0.08 | 1.4 | 36 |
| Other Commercial | Ventilation and Circulation | Existing | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 1359.80 | 18 | $5,342.25 | 75% | 95% | $0.51 | 0.2 | 0 |
| Other Commercial | Ventilation and Circulation | New | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced | Per Air Handler Recirculating Fan Motor (1 HP or less) | 1359.80 | 18 | $5,342.25 | 75% | 95% | $0.51 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | with 85% eff. ECPM motor | | | | | | | | | |
| Other Commercial | Ventilation and Circulation | Existing | Energy Efficient Laboratory Fume Hood | Energy Efficient Laboratory Fume Hood | Standard Fume Hood | Per Building | 67.37 | 13 | $3,050.87 | 5% | 59% | $6.93 | 0.0 | 0 |
| Other Commercial | Ventilation and Circulation | New | Energy Efficient Laboratory Fume Hood | Energy Efficient Laboratory Fume Hood | Standard Fume Hood | Per Building | 67.37 | 13 | $3,050.87 | 5% | 59% | $6.93 | 0.0 | 0 |
| Other Commercial | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 881.65 | 15 | $9.34 | 95% | 76% | $0.00 | 71.4 | 714 |
| Other Commercial | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 881.65 | 15 | $9.34 | 95% | 76% | $0.00 | 71.4 | 18 |
| Other Commercial | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 450.09 | 15 | $9.34 | 95% | 76% | $0.00 | 36.4 | 354 |
| Other Commercial | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 450.09 | 15 | $9.34 | 95% | 76% | $0.00 | 36.4 | 9 |
| Other Commercial | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 691.00 | 15 | $9.34 | 95% | 76% | $0.00 | 56.0 | 553 |
| Other Commercial | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 691.00 | 15 | $9.34 | 95% | 76% | $0.00 | 56.0 | 14 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 448.22 | 15 | $9.34 | 95% | 76% | $0.00 | 36.3 | 351 |
| Other Commercial | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 448.22 | 15 | $9.34 | 95% | 76% | $0.00 | 36.3 | 9 |
| Other Commercial | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 508.47 | 15 | $9.34 | 95% | 76% | $0.00 | 41.2 | 403 |
| Other Commercial | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 508.47 | 15 | $9.34 | 95% | 76% | $0.00 | 41.2 | 10 |
| Other Commercial | Ventilation and Circulation | Existing | High Efficiency Ventilation Hoods | High Efficiency Ventilation Hoods | Standard Ventilation Hood | Per Kitchen Exhaust Hood HP | 168.23 | 15 | $74.55 | 5% | 65% | $0.06 | 1.7 | 6 |
| Other Commercial | Ventilation and Circulation | New | High Efficiency Ventilation Hoods | High Efficiency Ventilation Hoods | Standard Ventilation Hood | Per Kitchen Exhaust Hood HP | 168.23 | 15 | $74.55 | 5% | 65% | $0.06 | 1.7 | 0 |
| Other Commercial | Ventilation and Circulation | Existing | VFD on HVAC Fan | VFD on HVAC Fan | Standard Motor | Per HVAC Fan Motor VFD (assuming 50 HP average) | 28293.99 | 13 | $4,950.02 | 75% | 98% | $0.03 | 3.9 | 22,419 |
| Other Commercial | Ventilation and Circulation | Existing | VFD on HVAC Pump | VFD on HVAC Pump | Standard Motor | Per HVAC Pump Motor VFD (assuming 50 HP average) | 9301.23 | 13 | $1,635.26 | 75% | 98% | $0.03 | 3.8 | 4,534 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 33.05 | 12 | $43.07 | 5% | 95% | $0.21 | 0.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat GT 55 Gal | New | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 33.05 | 12 | $43.07 | 5% | 95% | $0.21 | 0.5 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 33.05 | 12 | $43.07 | 5% | 100% | $0.21 | 0.5 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 33.05 | 12 | $43.07 | 5% | 100% | $0.21 | 0.5 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 222.10 | 25 | $4,090.99 | 5% | 100% | $2.10 | 0.1 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 96.96 | 25 | $4,090.99 | 25% | 100% | $4.80 | 0.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 37.75 | 11 | $43.21 | 100% | 34% | $0.19 | 0.5 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 37.75 | 11 | $43.21 | 100% | 34% | $0.19 | 0.5 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 74.37 | 11 | $104.93 | 100% | 95% | $0.24 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 74.37 | 11 | $104.93 | 100% | 95% | $0.24 | 0.4 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 38.33 | 11 | $61.72 | 100% | 95% | $0.27 | 0.4 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 38.33 | 11 | $61.72 | 100% | 95% | $0.27 | 0.4 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.89 | 10 | $9.07 | 100% | 25% | $0.15 | 0.7 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.89 | 10 | $9.07 | 100% | 55% | $0.15 | 0.7 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 558.58 | 14 | $4,663.64 | 50% | 95% | $1.23 | 0.1 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 243.85 | 14 | $4,663.64 | 50% | 95% | $2.81 | 0.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 33.41 | 8 | $576.82 | 50% | 75% | $3.62 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat GT 55 Gal | Existing | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 133.37 | 7 | $43.46 | 5% | 80% | $0.08 | 1.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 133.37 | 7 | $43.46 | 5% | 80% | $0.08 | 1.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 365.24 | 14 | $106.71 | 100% | 82% | $0.04 | 2.5 | 17 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 5.55 | 15 | $224.27 | 75% | 90% | $5.71 | 0.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 543.49 | 7 | $309.76 | 95% | 98% | $0.13 | 0.7 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 237.26 | 7 | $309.76 | 75% | 98% | $0.30 | 0.3 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 397.49 | 7 | $245.45 | 95% | 88% | $0.14 | 0.7 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 173.53 | 7 | $245.45 | 75% | 88% | $0.33 | 0.3 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 150.08 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 7 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 150.08 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 105.94 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 105.94 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 61.80 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 61.80 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 70.62 | 12 | $18.91 | 95% | 25% | $0.04 | 2.4 | 1 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Existing Low-flow Pre-Rinse Spray Valve | Per Pre-Rinse Spray Valve | 2.36 | 5 | $3.16 | 95% | 25% | $0.40 | 0.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 21.37 | 5 | $2.26 | 95% | 90% | $0.03 | 2.9 | 1 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 21.37 | 5 | $2.26 | 95% | 90% | $0.03 | 2.9 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 35.48 | 9 | $7.83 | 75% | 85% | $0.04 | 2.2 | 1 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 35.48 | 9 | $7.83 | 75% | 85% | $0.04 | 2.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 26.61 | 9 | $5.87 | 75% | 75% | $0.04 | 2.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 26.61 | 9 | $5.87 | 75% | 75% | $0.04 | 2.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 17.74 | 9 | $3.92 | 75% | 50% | $0.04 | 2.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 17.74 | 9 | $3.92 | 75% | 50% | $0.04 | 2.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 17.74 | 9 | $3.92 | 75% | 35% | $0.04 | 2.2 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 17.74 | 9 | $3.92 | 75% | 35% | $0.04 | 2.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat GT 55 Gal | Existing | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 671.85 | 10 | $183.89 | 0% | 98% | $0.05 | 2.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 293.30 | 10 | $183.89 | 0% | 98% | $0.11 | 0.9 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.01 | 15 | $1.24 | 100% | 100% | $113.10 | 0.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.01 | 15 | $1.24 | 100% | 100% | $113.10 | 0.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 97.11 | 12 | $2,289.12 | 75% | 85% | $3.78 | 0.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 97.11 | 12 | $2,289.12 | 75% | 85% | $3.78 | 0.0 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.00 | 10 | $0.02 | 90% | 100% | $1.74 | 0.1 | 0 |
| Other Commercial | Water Heat GT 55 Gal | New | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.00 | 10 | $0.02 | 90% | 100% | $1.74 | 0.1 | 0 |
| Other Commercial | Water Heat GT 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 155.47 | 2 | $83.45 | 75% | 94% | $0.36 | 0.2 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 70.14 | 12 | $43.07 | 5% | 95% | $0.10 | 1.0 | 1 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat LE 55 Gal | New | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 70.14 | 12 | $43.07 | 5% | 95% | $0.10 | 1.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 70.14 | 12 | $43.07 | 5% | 100% | $0.10 | 1.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 70.14 | 12 | $43.07 | 5% | 100% | $0.10 | 1.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 201.86 | 25 | $4,090.99 | 5% | 100% | $2.31 | 0.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 201.06 | 25 | $4,090.99 | 25% | 100% | $2.31 | 0.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 37.75 | 11 | $43.21 | 100% | 34% | $0.19 | 0.5 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 37.75 | 11 | $43.21 | 100% | 34% | $0.19 | 0.5 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF | Per Residential Clothes Washer | 74.37 | 11 | $104.93 | 100% | 95% | $0.24 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 8.0 (Electric DHW & Dryer) | | | | | | | | | |
| Other Commercial | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 74.37 | 11 | $104.93 | 100% | 95% | $0.24 | 0.4 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 38.33 | 11 | $61.72 | 100% | 95% | $0.27 | 0.4 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 38.33 | 11 | $61.72 | 100% | 95% | $0.27 | 0.4 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.89 | 10 | $9.07 | 100% | 25% | $0.15 | 0.7 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 10.89 | 10 | $9.07 | 100% | 55% | $0.15 | 0.7 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 507.67 | 14 | $4,663.64 | 50% | 95% | $1.35 | 0.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 505.66 | 14 | $4,663.64 | 50% | 95% | $1.35 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat LE 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 30.36 | 8 | $576.82 | 50% | 75% | $3.99 | 0.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 133.37 | 7 | $43.46 | 5% | 80% | $0.08 | 1.2 | 1 |
| Other Commercial | Water Heat LE 55 Gal | New | High-efficiency coin-op washer w/ Electric water heat | High-efficiency coin-op washer w/ Electric water heat | Federal Standard 2013 Coin-op Electric Washer Top-loading, 1.60 MEF and 8.5 WF | Per Commercial Clothes Washer | 133.37 | 7 | $43.46 | 5% | 80% | $0.08 | 1.2 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 365.24 | 14 | $106.71 | 100% | 82% | $0.04 | 2.5 | 45 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 5.05 | 15 | $224.27 | 75% | 90% | $6.28 | 0.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 488.87 | 7 | $309.76 | 95% | 98% | $0.15 | 0.6 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 486.93 | 7 | $309.76 | 75% | 98% | $0.15 | 0.6 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 354.86 | 7 | $245.45 | 95% | 88% | $0.16 | 0.6 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 353.46 | 7 | $245.45 | 75% | 88% | $0.16 | 0.6 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 318.45 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 53 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 318.45 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 1 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 224.79 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 224.79 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 131.13 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 131.13 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 149.86 | 12 | $18.91 | 95% | 25% | $0.02 | 5.0 | 8 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Existing Low-flow Pre-Rinse Spray Valve | Per Pre-Rinse Spray Valve | 5.00 | 5 | $3.16 | 95% | 25% | $0.19 | 0.5 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 45.35 | 5 | $2.26 | 95% | 90% | $0.02 | 6.1 | 9 |
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 45.35 | 5 | $2.26 | 95% | 90% | $0.02 | 6.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 75.28 | 9 | $7.83 | 75% | 85% | $0.02 | 4.8 | 11 |
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 75.28 | 9 | $7.83 | 75% | 85% | $0.02 | 4.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 56.46 | 9 | $5.87 | 75% | 75% | $0.02 | 4.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 56.46 | 9 | $5.87 | 75% | 75% | $0.02 | 4.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 37.64 | 9 | $3.92 | 75% | 50% | $0.02 | 4.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 37.64 | 9 | $3.92 | 75% | 50% | $0.02 | 4.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 37.64 | 9 | $3.92 | 75% | 35% | $0.02 | 4.8 | 2 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Commercial | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 37.64 | 9 | $3.92 | 75% | 35% | $0.02 | 4.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 610.62 | 10 | $183.89 | 0% | 98% | $0.05 | 1.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Ozone commercial laundry system | Ozone commercial laundry system | Standard Commercial Laundry System | Per Ozonating Clothes Washer | 608.20 | 10 | $183.89 | 0% | 98% | $0.05 | 1.8 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.02 | 15 | $0.96 | 100% | 100% | $19.22 | 0.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.02 | 15 | $0.96 | 100% | 100% | $19.22 | 0.0 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 206.05 | 12 | $2,289.12 | 75% | 85% | $1.78 | 0.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 206.05 | 12 | $2,289.12 | 75% | 85% | $1.78 | 0.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.02 | 10 | $0.16 | 90% | 100% | $1.44 | 0.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | New | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.02 | 10 | $0.16 | 90% | 100% | $1.44 | 0.1 | 0 |
| Other Commercial | Water Heat LE 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 141.30 | 2 | $83.45 | 75% | 94% | $0.40 | 0.2 | 0 |
| Restaurant | Computers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.05 | 4 | $0.83 | 95% | 86% | $6.37 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Computers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.05 | 4 | $0.83 | 95% | 86% | $6.13 | 0.0 | 0 |
| Restaurant | Computers | Existing | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.04 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 20 |
| Restaurant | Computers | New | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.04 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 1 |
| Restaurant | Computers | Existing | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 238.22 | 5 | $52.94 | 50% | 80% | $0.07 | 1.3 | 41 |
| Restaurant | Computers | New | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 238.22 | 5 | $52.94 | 50% | 80% | $0.07 | 1.3 | 1 |
| Restaurant | Cooking | Existing | Commercial Hot Food Holding Cabinets (Energy Star) | ENERGY STAR Hot Food Holding Cabinet | Standard Hot Food Holding Cabinet | Per Hot Food Holding Cabinet | 1730.10 | 12 | $0.01 | 35% | 95% | $0.00 | 105,979.8 | 328 |
| Restaurant | Cooking | New | Commercial Hot Food Holding Cabinets (Energy Star) | ENERGY STAR Hot Food Holding Cabinet | Standard Hot Food Holding Cabinet | Per Hot Food Holding Cabinet | 1730.10 | 12 | $0.01 | 35% | 95% | $0.00 | 105,979.8 | 8 |
| Restaurant | Cooking | Existing | Electric Steam cooker (Energy Star) | ENERGY STAR Steam Cooker | Standard Steam Cooker | Per Steam Cooker | 10612.75 | 12 | $200.00 | 20% | 95% | $0.00 | 32.5 | 1,151 |
| Restaurant | Cooking | New | Electric Steam cooker (Energy Star) | ENERGY STAR Steam Cooker | Standard Steam Cooker | Per Steam Cooker | 10612.75 | 12 | $200.00 | 20% | 95% | $0.00 | 32.5 | 28 |
| Restaurant | Cooking | Existing | Electric combination oven (Energy Star) | ENERGY STAR Combination Oven | Standard Combination Oven | Per Combination Oven | 6367.75 | 12 | $0.01 | 90% | 90% | $0.00 | 390,066.1 | 2,944 |
| Restaurant | Cooking | New | Electric combination oven (Energy Star) | ENERGY STAR Combination Oven | Standard Combination Oven | Per Combination Oven | 6367.75 | 12 | $0.01 | 90% | 90% | $0.00 | 390,066.1 | 72 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Cooking | Existing | Electric convection oven (Energy Star) | ENERGY STAR Convection Oven | Standard Convection Oven | Per Convection Oven | 1937.14 | 12 | $0.01 | 40% | 55% | $0.00 | 118,662.4 | 0 |
| Restaurant | Cooking | New | Electric convection oven (Energy Star) | ENERGY STAR Convection Oven | Standard Convection Oven | Per Convection Oven | 1937.14 | 12 | $0.01 | 40% | 55% | $0.00 | 118,662.4 | 0 |
| Restaurant | Cooking | Existing | High Efficiency Fryers (Energy Star) | ENERGY STAR Fryer | Standard Fryer | Per Fryer | 951.66 | 12 | $210.00 | 0% | 95% | $0.04 | 2.8 | 0 |
| Restaurant | Cooking | New | High Efficiency Fryers (Energy Star) | ENERGY STAR Fryer | Standard Fryer | Per Fryer | 951.66 | 12 | $210.00 | 0% | 95% | $0.04 | 2.8 | 0 |
| Restaurant | Cooking | Existing | High Efficiency Griddle (Energy Star) | ENERGY STAR Griddle | Standard Griddle | Per Griddle | 954.54 | 12 | $0.01 | 75% | 95% | $0.00 | 116,942.9 | 388 |
| Restaurant | Cooking | New | High Efficiency Griddle (Energy Star) | ENERGY STAR Griddle | Standard Griddle | Per Griddle | 954.54 | 12 | $0.01 | 75% | 95% | $0.00 | 116,942.9 | 10 |
| Restaurant | Cooking | Existing | High Efficiency Induction Cooking | High Efficiency Induction Cooking | Standard Stovetop | Per Induction Stovetop | 5778.55 | 12 | $2,994.00 | 95% | 95% | $0.08 | 1.2 | 2,977 |
| Restaurant | Cooking | New | High Efficiency Induction Cooking | High Efficiency Induction Cooking | Standard Stovetop | Per Induction Stovetop | 5778.55 | 12 | $2,994.00 | 95% | 95% | $0.08 | 1.2 | 73 |
| Restaurant | Cooling Chillers | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 1702.14 | 10 | $60.96 | 100% | 49% | $0.01 | 16.4 | 0 |
| Restaurant | Cooling Chillers | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 20.96 | 20 | $2,512.11 | 95% | 95% | $14.80 | 0.0 | 0 |
| Restaurant | Cooling Chillers | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 20.89 | 20 | $2,512.11 | 95% | 95% | $14.85 | 0.0 | 0 |
| Restaurant | Cooling Chillers | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 9.42 | 15 | $1,685.00 | 95% | 95% | $25.29 | 0.0 | 0 |
| Restaurant | Cooling Chillers | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 5202.81 | 15 | $3,152.46 | 25% | 62% | $0.09 | 1.4 | 0 |
| Restaurant | Cooling Chillers | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 3151.39 | 15 | $1,576.23 | 25% | 95% | $0.07 | 1.7 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Cooling Chillers | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 3140.62 | 15 | $1,576.23 | 75% | 95% | $0.07 | 1.6 | 0 |
| Restaurant | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.43 | 20 | $1.10 | 90% | 100% | $0.31 | 0.4 | 0 |
| Restaurant | Cooling Chillers | New | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.43 | 20 | $1.10 | 90% | 100% | $0.31 | 0.4 | 0 |
| Restaurant | Cooling Chillers | Existing | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.14 | 20 | $0.37 | 90% | 100% | $0.31 | 0.4 | 0 |
| Restaurant | Cooling Chillers | New | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.14 | 20 | $0.37 | 90% | 100% | $0.31 | 0.4 | 0 |
| Restaurant | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.32 | 20 | $0.81 | 90% | 100% | $0.31 | 0.4 | 0 |
| Restaurant | Cooling Chillers | New | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.32 | 20 | $0.81 | 90% | 100% | $0.31 | 0.4 | 0 |
| Restaurant | Cooling Chillers | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 1890.83 | 15 | ###### | 95% | 75% | $1.15 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Cooling Chillers | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 1413.28 | 7 | $5,541.43 | 75% | 85% | $0.91 | 0.1 | 0 |
| Restaurant | Cooling Chillers | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 97.03 | 20 | ###### | 75% | 99% | $77.40 | 0.0 | 0 |
| Restaurant | Cooling Chillers | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 96.69 | 20 | ###### | 75% | 99% | $77.66 | 0.0 | 0 |
| Restaurant | Cooling Chillers | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 1596.70 | 30 | $157.16 | 20% | 84% | $0.01 | 12.8 | 0 |
| Restaurant | Cooling Chillers | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 1591.25 | 30 | $157.16 | 80% | 84% | $0.01 | 12.8 | 0 |
| Restaurant | Cooling Chillers | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 1512.67 | 7 | $1,501.73 | 75% | 75% | $0.23 | 0.4 | 0 |
| Restaurant | Cooling Chillers | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 1701.75 | 18 | $11,994.90 | 1% | 98% | $0.91 | 0.1 | 0 |
| Restaurant | Cooling Chillers | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 1695.94 | 18 | $11,994.90 | 1% | 98% | $0.91 | 0.1 | 0 |
| Restaurant | Cooling Chillers | Existing | VFD on cooling tower fans | VFD on cooling tower fans | Base single-speed fan | Per Cooling Tower Motor VFD | 3428.00 | 13 | $1,245.51 | 75% | 98% | $0.06 | 2.0 | 0 |
| Restaurant | Cooling Chillers | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 4767.86 | 15 | $2,049.20 | 10% | 66% | $0.06 | 1.9 | 0 |
| Restaurant | Cooling Chillers | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 3151.39 | 15 | $1,024.60 | 10% | 95% | $0.05 | 2.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Cooling Chillers | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 3140.62 | 15 | $1,024.60 | 50% | 95% | $0.05 | 2.5 | 0 |
| Restaurant | Cooling Chillers | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 472.71 | 5 | $1,183.12 | 50% | 95% | $0.76 | 0.1 | 0 |
| Restaurant | Cooling Chillers | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 471.09 | 5 | $1,183.12 | 50% | 95% | $0.76 | 0.1 | 0 |
| Restaurant | Cooling DX | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 2224.63 | 10 | $60.96 | 100% | 49% | $0.00 | 21.5 | 121 |
| Restaurant | Cooling DX | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 177.97 | 20 | $2,512.11 | 95% | 95% | $1.74 | 0.1 | 0 |
| Restaurant | Cooling DX | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 160.63 | 20 | $2,512.11 | 95% | 95% | $1.93 | 0.1 | 0 |
| Restaurant | Cooling DX | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 11.15 | 15 | $1,685.00 | 95% | 95% | $21.36 | 0.0 | 0 |
| Restaurant | Cooling DX | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 6799.87 | 15 | $3,152.46 | 25% | 62% | $0.07 | 1.8 | 74 |
| Restaurant | Cooling DX | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 4118.74 | 15 | $1,576.23 | 25% | 95% | $0.05 | 2.2 | 74 |
| Restaurant | Cooling DX | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 3717.51 | 15 | $1,576.23 | 75% | 95% | $0.06 | 1.9 | 5 |
| Restaurant | Cooling DX | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 2471.25 | 15 | $3,220.63 | 95% | 95% | $0.18 | 0.6 | 0 |
| Restaurant | Cooling DX | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 1047.48 | 5 | $629.73 | 95% | 45% | $0.18 | 0.6 | 0 |
| Restaurant | Cooling DX | Existing | DX Package 65 to 135 kBtuh - High Efficiency | High Efficiency - 11.5 EER - DX Package 65 to 135 kBtuh | Standard Efficiency - 11.2 EER - DX Package 65 to 135 kBtuh | Per Building | 0.05 | 15 | $0.05 | 90% | 100% | $0.14 | 0.8 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Cooling DX | New | DX Package 65 to 135 kBtuh - High Efficiency | High Efficiency - 11.5 EER - DX Package 65 to 135 kBtuh | Standard Efficiency - 11.2 EER - DX Package 65 to 135 kBtuh | Per Building | 0.05 | 15 | $0.05 | 90% | 100% | $0.14 | 0.8 | 0 |
| Restaurant | Cooling DX | Existing | DX Package 65 to 135 kBtuh - Premium Efficiency | Premium Efficiency - 12.0 EER - DX Package 65 to 135 kBtuh | Standard Efficiency - 11.2 EER - DX Package 65 to 135 kBtuh | Per Building | 0.13 | 15 | $0.14 | 90% | 100% | $0.15 | 0.8 | 0 |
| Restaurant | Cooling DX | New | DX Package 65 to 135 kBtuh - Premium Efficiency | Premium Efficiency - 12.0 EER - DX Package 65 to 135 kBtuh | Standard Efficiency - 11.2 EER - DX Package 65 to 135 kBtuh | Per Building | 0.13 | 15 | $0.14 | 90% | 100% | $0.15 | 0.8 | 0 |
| Restaurant | Cooling DX | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1285.05 | 15 | $1,385.36 | 5% | 99% | $0.15 | 0.8 | 0 |
| Restaurant | Cooling DX | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1159.86 | 15 | $738.86 | 5% | 99% | $0.09 | 1.3 | 0 |
| Restaurant | Cooling DX | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 213.56 | 15 | $2,249.04 | 95% | 85% | $1.49 | 0.1 | 0 |
| Restaurant | Cooling DX | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 213.56 | 15 | $1,709.27 | 45% | 80% | $1.13 | 0.1 | 0 |
| Restaurant | Cooling DX | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 5834.89 | 15 | $51,440.13 | 90% | 100% | $1.25 | 0.1 | 0 |
| Restaurant | Cooling DX | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 1672.88 | 7 | $5,541.43 | 95% | 85% | $0.77 | 0.1 | 0 |
| Restaurant | Cooling DX | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 823.75 | 20 | ###### | 75% | 99% | $9.12 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Cooling DX | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 743.50 | 20 | ###### | 75% | 99% | $10.10 | 0.0 | 0 |
| Restaurant | Cooling DX | Existing | HVAC Diagnostic/Air Conditioner Tune Up | HVAC Diagnostic/Air Conditioner Tune Up | No Tune Up | Per Building | 1047.48 | 10 | $629.73 | 95% | 24% | $0.11 | 1.0 | 0 |
| Restaurant | Cooling DX | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2086.83 | 30 | $157.16 | 20% | 84% | $0.01 | 16.7 | 29 |
| Restaurant | Cooling DX | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 1883.54 | 30 | $157.16 | 80% | 84% | $0.01 | 15.1 | 3 |
| Restaurant | Cooling DX | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 2653.56 | 10 | $2,878.78 | 10% | 45% | $0.20 | 0.5 | 0 |
| Restaurant | Cooling DX | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 1977.00 | 7 | $1,501.73 | 95% | 75% | $0.18 | 0.6 | 0 |
| Restaurant | Cooling DX | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2224.12 | 18 | $11,994.90 | 1% | 98% | $0.70 | 0.2 | 0 |
| Restaurant | Cooling DX | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2007.45 | 18 | $11,994.90 | 1% | 98% | $0.77 | 0.2 | 0 |
| Restaurant | Cooling DX | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 6231.40 | 15 | $2,049.20 | 10% | 66% | $0.05 | 2.5 | 32 |
| Restaurant | Cooling DX | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 4118.74 | 15 | $1,024.60 | 10% | 95% | $0.04 | 3.3 | 32 |
| Restaurant | Cooling DX | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 3717.51 | 15 | $1,024.60 | 50% | 95% | $0.04 | 3.0 | 4 |
| Restaurant | Cooling DX | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 617.81 | 5 | $1,183.12 | 50% | 95% | $0.58 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Cooling DX | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 557.63 | 5 | $1,183.12 | 50% | 95% | $0.64 | 0.2 | 0 |
| Restaurant | Fax | Existing | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 4 |
| Restaurant | Fax | New | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 0 |
| Restaurant | Flat Screen Monitors | Existing | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.01 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 2 |
| Restaurant | Flat Screen Monitors | New | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.01 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 0 |
| Restaurant | Freezer | Existing | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.03 | 3.2 | 2 |
| Restaurant | Freezer | New | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.03 | 3.2 | 0 |
| Restaurant | Heat Pump | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 5121.09 | 10 | $60.96 | 100% | 49% | $0.00 | 45.5 | 232 |
| Restaurant | Heat Pump | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 152.76 | 20 | $2,512.11 | 95% | 95% | $2.03 | 0.1 | 0 |
| Restaurant | Heat Pump | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 143.75 | 20 | $2,512.11 | 95% | 95% | $2.16 | 0.1 | 0 |
| Restaurant | Heat Pump | Existing | Air Source Heat Pump 65 to 135 kBtuh - High Efficiency | High Efficiency - 11.5 EER, 3.4 COP - Air Source Heat Pump 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 0.19 | 15 | $0.33 | 90% | 100% | $0.24 | 0.4 | 0 |
| Restaurant | Heat Pump | New | Air Source Heat Pump 65 to 135 kBtuh - High Efficiency | High Efficiency - 11.5 EER, 3.4 COP - Air Source Heat Pump 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 0.19 | 15 | $0.33 | 90% | 100% | $0.24 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Heat Pump | Existing | Air Source Heat Pump 65 to 135 kBtuh - Premium Efficiency | Premium Efficiency - 12.0 EER, 3.8 COP - Air Source Heat Pump 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 0.62 | 15 | $0.66 | 90% | 100% | $0.15 | 0.7 | 0 |
| Restaurant | Heat Pump | New | Air Source Heat Pump 65 to 135 kBtuh - Premium Efficiency | Premium Efficiency - 12.0 EER, 3.8 COP - Air Source Heat Pump 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 0.62 | 15 | $0.66 | 90% | 100% | $0.15 | 0.7 | 0 |
| Restaurant | Heat Pump | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 749.36 | 15 | $1,685.00 | 95% | 95% | $0.32 | 0.3 | 0 |
| Restaurant | Heat Pump | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 473.36 | 15 | $1,685.00 | 95% | 95% | $0.50 | 0.2 | 0 |
| Restaurant | Heat Pump | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 17619.26 | 15 | $3,152.46 | 25% | 62% | $0.03 | 4.2 | 164 |
| Restaurant | Heat Pump | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 10672.14 | 15 | $1,576.23 | 25% | 95% | $0.02 | 5.1 | 165 |
| Restaurant | Heat Pump | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 10042.42 | 15 | $1,576.23 | 75% | 95% | $0.02 | 4.8 | 12 |
| Restaurant | Heat Pump | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 2121.23 | 15 | $3,220.63 | 95% | 95% | $0.21 | 0.5 | 0 |
| Restaurant | Heat Pump | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 899.12 | 5 | $629.73 | 95% | 45% | $0.21 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Heat Pump | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2987.14 | 15 | $1,385.36 | 5% | 99% | $0.07 | 1.6 | 10 |
| Restaurant | Heat Pump | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2810.88 | 15 | $738.86 | 5% | 99% | $0.04 | 2.9 | 0 |
| Restaurant | Heat Pump | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 183.32 | 15 | $2,249.04 | 95% | 85% | $1.73 | 0.1 | 0 |
| Restaurant | Heat Pump | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 183.32 | 15 | $1,709.27 | 45% | 80% | $1.32 | 0.1 | 0 |
| Restaurant | Heat Pump | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 4519.09 | 7 | $5,541.43 | 95% | 85% | $0.28 | 0.3 | 0 |
| Restaurant | Heat Pump | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1253.15 | 20 | ###### | 75% | 99% | $5.99 | 0.0 | 0 |
| Restaurant | Heat Pump | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1179.21 | 20 | ###### | 75% | 99% | $6.37 | 0.0 | 0 |
| Restaurant | Heat Pump | Existing | Ground Source Heat Pump Replacing Air Source Heat Pump 65 to 135 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 1.26 | 15 | $19.51 | 90% | 100% | $2.19 | 0.0 | 0 |
| Restaurant | Heat Pump | New | Ground Source Heat Pump Replacing Air Source Heat Pump 65 to 135 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 1.26 | 15 | $19.51 | 90% | 100% | $2.19 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Heat Pump | Existing | HVAC Diagnostic/Heat Pump Tune Up | HVAC Diagnostic/Heat Pump Tune Up | No Tune Up | Per Building | 899.12 | 10 | $629.73 | 95% | 24% | $0.13 | 0.8 | 0 |
| Restaurant | Heat Pump | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 1791.26 | 30 | $157.16 | 20% | 84% | $0.01 | 13.1 | 21 |
| Restaurant | Heat Pump | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 1685.57 | 30 | $157.16 | 80% | 84% | $0.01 | 12.3 | 2 |
| Restaurant | Heat Pump | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 2653.56 | 10 | $2,878.78 | 10% | 45% | $0.20 | 0.5 | 0 |
| Restaurant | Heat Pump | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 5122.63 | 7 | $1,501.73 | 95% | 75% | $0.07 | 1.4 | 241 |
| Restaurant | Heat Pump | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 1909.11 | 18 | $11,994.90 | 1% | 98% | $0.81 | 0.1 | 0 |
| Restaurant | Heat Pump | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 1796.46 | 18 | $11,994.90 | 1% | 98% | $0.86 | 0.1 | 0 |
| Restaurant | Heat Pump | Existing | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 19017.49 | 15 | ###### | 50% | 95% | $1.49 | 0.1 | 0 |
| Restaurant | Heat Pump | New | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 17895.34 | 15 | ###### | 95% | 95% | $1.58 | 0.1 | 0 |
| Restaurant | Heat Pump | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 16146.29 | 15 | $2,049.20 | 10% | 66% | $0.02 | 5.9 | 72 |
| Restaurant | Heat Pump | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 10672.14 | 15 | $1,024.60 | 10% | 95% | $0.01 | 7.8 | 71 |
| Restaurant | Heat Pump | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 10042.42 | 15 | $1,024.60 | 50% | 95% | $0.01 | 7.4 | 9 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Heat Pump | Existing | Water Source Heat Pump Replacing Air Source Heat Pump 65 to 135 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 0.91 | 15 | $1.32 | 90% | 100% | $0.21 | 0.5 | 0 |
| Restaurant | Heat Pump | New | Water Source Heat Pump Replacing Air Source Heat Pump 65 to 135 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - 65 to 135 kBtuh | Standard Efficiency - 11.0 EER, 3.3 COP - Air Source Heat Pump 65 to 135 kBtuh | Per Building | 0.91 | 15 | $1.32 | 90% | 100% | $0.21 | 0.5 | 0 |
| Restaurant | Heat Pump | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1600.82 | 5 | $1,183.12 | 50% | 95% | $0.22 | 0.4 | 0 |
| Restaurant | Heat Pump | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1506.36 | 5 | $1,183.12 | 50% | 95% | $0.24 | 0.4 | 0 |
| Restaurant | Lighting Exterior | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 321.40 | 10 | $100.00 | 85% | 45% | $0.06 | 1.7 | 12 |
| Restaurant | Lighting Exterior | Existing | LED or equivalent sign lighting | LED or equivalent sign lighting | Replace fluorescent sign lighting | Per Sign | 1183.62 | 15 | $17.36 | 100% | 95% | $0.00 | 50.3 | 642 |
| Restaurant | Lighting Exterior | New | LED or equivalent sign lighting | LED or equivalent sign lighting | Replace fluorescent sign lighting | Per Sign | 1183.62 | 15 | $17.36 | 100% | 95% | $0.00 | 50.3 | 16 |
| Restaurant | Lighting Exterior | Existing | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 899.93 | 8 | $225.00 | 50% | 45% | $0.05 | 1.8 | 20 |
| Restaurant | Lighting Exterior | New | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 899.93 | 8 | $225.00 | 50% | 75% | $0.05 | 1.8 | 1 |
| Restaurant | Lighting Exterior | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 771.37 | 8 | $307.53 | 10% | 100% | $0.08 | 1.1 | 7 |
| Restaurant | Lighting Interior Fluorescent | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 852.10 | 10 | $100.00 | 85% | 45% | $0.02 | 4.5 | 11 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Lighting Interior Fluorescent | Existing | Delamping fixtures | Delamping fixtures | 0 | Per Delamped Fixture | 108.39 | 13 | $6.00 | 0% | 85% | $0.01 | 11.9 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Fiber Optic Display Lighting | Fiber Optic Display Lighting | Existing Display Lighting | Per Case Door | 535.00 | 15 | $697.67 | 50% | 95% | $0.18 | 0.6 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 1860.71 | 8 | $3,670.26 | 65% | 100% | $0.41 | 0.2 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 2300.68 | 10 | $886.63 | 10% | 98% | $0.07 | 1.4 | 105 |
| Restaurant | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent High Performance - Above Standard | Above Standard Fluorescent High Performance T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.13 | 13 | $0.09 | 90% | 100% | $0.11 | 1.0 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent Reduced Wattage - Above Standard | Above Standard Fluorescent Reduced Wattage T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.14 | 13 | $0.34 | 90% | 100% | $0.37 | 0.3 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T5 - Above Standard | Above Standard Fluorescent T-5 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.18 | 13 | $0.19 | 90% | 100% | $0.16 | 0.6 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T8 - Above Standard | Above Standard Fluorescent T8 Interior Lighting | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.05 | 13 | $0.08 | 90% | 100% | $0.22 | 0.5 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Lighting Interior - LED Tube - Above Standard | Above Standard LED Tube | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.28 | 20 | $1.13 | 90% | 100% | $0.49 | 0.2 | 0 |
| Restaurant | Lighting Interior Fluorescent | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 2045.05 | 8 | $505.77 | 45% | 98% | $0.05 | 1.8 | 127 |
| Restaurant | Lighting Interior Fluorescent | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 2045.05 | 8 | $307.53 | 10% | 99% | $0.03 | 2.9 | 29 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Lighting Interior HID | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 97.81 | 10 | $100.00 | 85% | 45% | $0.18 | 0.5 | 0 |
| Restaurant | Lighting Interior HID | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 213.58 | 8 | $3,670.26 | 65% | 100% | $3.61 | 0.0 | 0 |
| Restaurant | Lighting Interior HID | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 264.09 | 10 | $886.63 | 10% | 98% | $0.60 | 0.2 | 0 |
| Restaurant | Lighting Interior HID | Existing | Lighting Interior - Efficient Metal Halide - Above Standard | Efficient Metal Halide | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.02 | 15 | $0.01 | 90% | 100% | $0.07 | 1.6 | 0 |
| Restaurant | Lighting Interior HID | Existing | Lighting Interior - High Bay Fluorescent High Output - Above Standard | High Bay Fluorescent High Output (HO) | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.08 | 15 | $0.02 | 90% | 100% | $0.04 | 2.5 | 73 |
| Restaurant | Lighting Interior HID | Existing | Lighting Interior - High Bay LED - Above Standard | High Bay LED | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.13 | 20 | $0.03 | 90% | 100% | $0.03 | 4.2 | 6 |
| Restaurant | Lighting Interior HID | Existing | Lighting Interior - Induction - Above Standard | Induction | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.10 | 20 | -$0.02 | 90% | 100% | -$0.02 | 999.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Lighting Interior HID | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 234.74 | 8 | $505.77 | 45% | 98% | $0.45 | 0.2 | 0 |
| Restaurant | Lighting Interior HID | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 234.74 | 8 | $307.53 | 10% | 99% | $0.28 | 0.3 | 0 |
| Restaurant | Lighting Interior Other | Existing | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Incandescent Exit Sign | Per Exit Sign | 152.07 | 10 | $38.00 | 95% | 25% | $0.04 | 2.1 | 5 |
| Restaurant | Lighting Interior Other | New | Fiber Optic Display Lighting | Fiber Optic Display Lighting | Existing Display Lighting | Per Case Door | 535.00 | 15 | $697.67 | 50% | 95% | $0.18 | 0.6 | 0 |
| Restaurant | Lighting Interior Other | New | HE Lighting Fixtures/Design 10% better than code (New Construction) | HE Lighting Fixtures/Design 10% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.51 | 15 | $0.03 | 100% | 100% | $0.01 | 14.8 | 0 |
| Restaurant | Lighting Interior Other | New | HE Lighting Fixtures/Design 15% better than code (New Construction) | HE Lighting Fixtures/Design 15% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.76 | 15 | $0.04 | 100% | 100% | $0.01 | 13.8 | 0 |
| Restaurant | Lighting Interior Other | New | HE Lighting Fixtures/Design 30% better than code (New Construction) | HE Lighting Fixtures/Design 30% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 1.52 | 15 | $0.17 | 100% | 100% | $0.02 | 6.5 | 122 |
| Restaurant | Lighting Interior Other | New | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 6120.72 | 8 | $3,670.26 | 65% | 100% | $0.13 | 0.7 | 0 |
| Restaurant | Lighting Interior Other | Existing | LED exit sign | LED exit sign | CFL Exit Sign | Per Exit Sign | 112.83 | 16 | $48.00 | 95% | 50% | $0.06 | 1.8 | 26 |
| Restaurant | Lighting Interior Other | New | Light Pipes | Light Pipes | Standard lighting system | Per Building | 7568.01 | 10 | $886.63 | 30% | 98% | $0.02 | 4.5 | 20 |
| Restaurant | Lighting Interior Other | New | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 6727.12 | 8 | $505.77 | 45% | 98% | $0.02 | 5.8 | 6 |
| Restaurant | Lighting Interior Other | Existing | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 294.34 | 30 | $30.00 | 75% | 95% | $0.01 | 11.1 | 102 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Lighting Interior Other | New | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 294.34 | 30 | $30.00 | 75% | 95% | $0.01 | 11.1 | 2 |
| Restaurant | Lighting Interior Screw Base | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 653.06 | 10 | $100.00 | 85% | 45% | $0.03 | 3.4 | 2 |
| Restaurant | Lighting Interior Screw Base | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 1426.07 | 8 | $3,670.26 | 65% | 100% | $0.54 | 0.2 | 0 |
| Restaurant | Lighting Interior Screw Base | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 1763.27 | 10 | $886.63 | 10% | 98% | $0.09 | 1.1 | 20 |
| Restaurant | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base CFL - Above Standard | CFL | EISA Standard Incandescent | Per Building | 0.55 | 5 | $0.01 | 90% | 100% | $0.01 | 14.7 | 632 |
| Restaurant | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base Incandescent - Backstop EISA Standard | Backstop EISA Standard Incandescent | EISA Standard Incandescent | Per Building | 0.45 | 2 | $0.01 | 90% | 100% | $0.01 | 8.3 | 0 |
| Restaurant | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base LED - Above Standard | LED | EISA Standard Incandescent | Per Building | 0.59 | 12 | $0.07 | 90% | 100% | $0.03 | 3.9 | 982 |
| Restaurant | Lighting Interior Screw Base | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 1567.35 | 8 | $505.77 | 45% | 98% | $0.07 | 1.4 | 24 |
| Restaurant | Lighting Interior Screw Base | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 1567.35 | 8 | $307.53 | 10% | 99% | $0.04 | 2.2 | 5 |
| Restaurant | Other Plug Load | Existing | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 29.12 | 15 | $2.80 | 75% | 75% | $0.01 | 7.7 | 9 |
| Restaurant | Other Plug Load | New | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 29.12 | 15 | $2.80 | 75% | 75% | $0.01 | 7.7 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Other Plug Load | Existing | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 5.95 | 4 | $0.59 | 100% | 20% | $0.04 | 2.4 | 1 |
| Restaurant | Other Plug Load | New | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 5.95 | 4 | $0.59 | 100% | 20% | $0.04 | 2.4 | 0 |
| Restaurant | Other Plug Load | Existing | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 784.09 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 85 |
| Restaurant | Other Plug Load | New | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 784.09 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 2 |
| Restaurant | Other Plug Load | Existing | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.14 | 5 | $0.55 | 95% | 20% | $1.24 | 0.1 | 0 |
| Restaurant | Other Plug Load | New | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.14 | 5 | $0.55 | 95% | 20% | $1.24 | 0.1 | 0 |
| Restaurant | Other Plug Load | Existing | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 54.70 | 5 | $9.26 | 95% | 95% | $0.05 | 1.8 | 8 |
| Restaurant | Other Plug Load | New | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 54.70 | 5 | $9.26 | 95% | 95% | $0.05 | 1.8 | 0 |
| Restaurant | Photo Copiers | Existing | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.01 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 0 |
| Restaurant | Photo Copiers | New | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.01 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 0 |
| Restaurant | Printers | Existing | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.02 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 2 |
| Restaurant | Printers | New | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.02 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 0 |
| Restaurant | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 5406.08 | 12 | $370.05 | 50% | 67% | $0.01 | 9.0 | 935 |
| Restaurant | Refrigeration | New | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 5406.08 | 12 | $370.05 | 50% | 67% | $0.01 | 9.0 | 23 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 9950.67 | 12 | $370.05 | 50% | 67% | $0.01 | 16.5 | 1,893 |
| Restaurant | Refrigeration | New | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 9950.67 | 12 | $370.05 | 50% | 67% | $0.01 | 16.5 | 47 |
| Restaurant | Refrigeration | Existing | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 577.18 | 8 | $93.69 | 95% | 80% | $0.03 | 2.7 | 250 |
| Restaurant | Refrigeration | New | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 577.18 | 8 | $93.69 | 95% | 80% | $0.03 | 2.7 | 6 |
| Restaurant | Refrigeration | Existing | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 1392.81 | 8 | $93.69 | 95% | 80% | $0.01 | 6.5 | 604 |
| Restaurant | Refrigeration | New | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 1392.81 | 8 | $93.69 | 95% | 80% | $0.01 | 6.5 | 15 |
| Restaurant | Refrigeration | Existing | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Standard Solid Door Refrigerator & Freezer | Per Solid Door Commercial Refrigerator/Freezer Energy Star | 80.25 | 12 | $25.00 | 95% | 81% | $0.05 | 2.0 | 35 |
| Restaurant | Refrigeration | New | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Standard Solid Door Refrigerator & Freezer | Per Solid Door Commercial Refrigerator/Freezer Energy Star | 80.25 | 12 | $25.00 | 95% | 81% | $0.05 | 2.0 | 1 |
| Restaurant | Refrigeration | Existing | Compressor VSD retrofit | Compressor VSD retrofit | Base Refrigeration System - Grocery | Per Refrigerator/Freezer Compressor Motor HP | 2249.18 | 15 | $1,281.46 | 70% | 86% | $0.08 | 1.3 | 457 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Refrigeration | Existing | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 224.03 | 10 | $1,321.33 | 60% | 50% | $1.06 | 0.1 | 0 |
| Restaurant | Refrigeration | New | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 224.03 | 10 | $1,321.33 | 60% | 50% | $1.06 | 0.1 | 0 |
| Restaurant | Refrigeration | Existing | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 56.01 | 10 | $1,321.33 | 90% | 100% | $4.25 | 0.0 | 0 |
| Restaurant | Refrigeration | New | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 56.01 | 10 | $1,321.33 | 90% | 100% | $4.25 | 0.0 | 0 |
| Restaurant | Refrigeration | Existing | Door Gasket - Cooler | Door Gasket - Cooler | Existing Gasket | Per linear foot of gasket on walk-in or reach-in cooler | 216.22 | 4 | $48.05 | 95% | 90% | $0.08 | 1.1 | 106 |
| Restaurant | Refrigeration | Existing | Door Gasket - Freezer | Door Gasket - Freezer | Existing Gasket | Per linear foot of gasket on walk-in or reach-in freezer | 756.76 | 4 | $48.05 | 95% | 90% | $0.02 | 3.8 | 369 |
| Restaurant | Refrigeration | Existing | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 1653.81 | 15 | $1,064.16 | 95% | 93% | $0.09 | 1.1 | 831 |
| Restaurant | Refrigeration | New | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 1653.81 | 15 | $1,064.16 | 95% | 93% | $0.09 | 1.1 | 20 |
| Restaurant | Refrigeration | Existing | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 342.71 | 15 | $458.73 | 10% | 95% | $0.19 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Refrigeration | New | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 342.71 | 15 | $458.73 | 5% | 95% | $0.19 | 0.6 | 0 |
| Restaurant | Refrigeration | Existing | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 760.37 | 15 | $72.07 | 90% | 100% | $0.01 | 7.8 | 0 |
| Restaurant | Refrigeration | New | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 760.37 | 15 | $72.07 | 90% | 100% | $0.01 | 7.8 | 0 |
| Restaurant | Refrigeration | Existing | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 1688.08 | 15 | $780.80 | 65% | 90% | $0.07 | 1.6 | 435 |
| Restaurant | Refrigeration | New | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 1688.08 | 15 | $780.80 | 95% | 90% | $0.07 | 1.6 | 16 |
| Restaurant | Refrigeration | Existing | High Efficiency Ice Makers | High Efficiency Ice Makers | Standard Ice Maker | Per Air-cooled Ice Maker | 632.53 | 10 | $1,408.00 | 75% | 55% | $0.40 | 0.2 | 0 |
| Restaurant | Refrigeration | New | High Efficiency Ice Makers | High Efficiency Ice Makers | Standard Ice Maker | Per Air-cooled Ice Maker | 632.53 | 10 | $1,408.00 | 95% | 55% | $0.40 | 0.2 | 0 |
| Restaurant | Refrigeration | Existing | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 396.02 | 15 | $283.88 | 50% | 85% | $0.10 | 1.0 | 96 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Refrigeration | New | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 396.02 | 15 | $283.88 | 95% | 92% | $0.10 | 1.0 | 5 |
| Restaurant | Refrigeration | Existing | Insulation for bare suction lines | Insulation for bare suction lines | No Insulation | Per linear feet of walk-in cooler/freezer suction line | 591.81 | 11 | $316.33 | 95% | 50% | $0.09 | 1.1 | 83 |
| Restaurant | Refrigeration | Existing | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 1845.33 | 8 | $1,406.19 | 95% | 80% | $0.16 | 0.6 | 0 |
| Restaurant | Refrigeration | New | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 1845.33 | 8 | $1,406.19 | 95% | 80% | $0.16 | 0.6 | 0 |
| Restaurant | Refrigeration | Existing | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 396.02 | 15 | $283.88 | 50% | 95% | $0.10 | 1.0 | 0 |
| Restaurant | Refrigeration | New | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 396.02 | 15 | $283.88 | 95% | 95% | $0.10 | 1.0 | 0 |
| Restaurant | Refrigeration | Existing | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 4111.75 | 15 | $2,207.23 | 95% | 86% | $0.08 | 1.4 | 1,918 |
| Restaurant | Refrigeration | New | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 4111.75 | 15 | $2,207.23 | 95% | 86% | $0.08 | 1.4 | 47 |
| Restaurant | Refrigeration | Existing | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 634.43 | 15 | $1,321.61 | 95% | 49% | $0.29 | 0.4 | 0 |
| Restaurant | Refrigeration | New | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 634.43 | 15 | $1,321.61 | 0% | 49% | $0.29 | 0.4 | 0 |
| Restaurant | Refrigeration | Existing | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 2505.32 | 15 | $1,321.61 | 95% | 49% | $0.07 | 1.4 | 666 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Refrigeration | New | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 2505.32 | 15 | $1,321.61 | 0% | 49% | $0.07 | 1.4 | 0 |
| Restaurant | Refrigeration | Existing | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 1870.89 | 15 | $1,321.61 | 95% | 49% | $0.10 | 1.0 | 497 |
| Restaurant | Refrigeration | New | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 1870.89 | 15 | $1,321.61 | 0% | 49% | $0.10 | 1.0 | 0 |
| Restaurant | Refrigeration | Existing | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 2193.35 | 3 | $710.43 | 10% | 85% | $0.15 | 0.6 | 0 |
| Restaurant | Refrigeration | New | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 2193.35 | 3 | $710.43 | 5% | 90% | $0.15 | 0.6 | 0 |
| Restaurant | Refrigeration | Existing | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 946.71 | 4 | $95.86 | 95% | 78% | $0.04 | 2.4 | 400 |
| Restaurant | Refrigeration | New | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 1452.73 | 4 | $95.86 | 95% | 78% | $0.02 | 3.7 | 15 |
| Restaurant | Refrigeration | Existing | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 496.10 | 15 | $300.30 | 75% | 49% | $0.09 | 1.2 | 104 |
| Restaurant | Refrigeration | New | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 496.10 | 15 | $300.30 | 95% | 49% | $0.09 | 1.2 | 3 |
| Restaurant | Refrigeration | Existing | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 1327.34 | 15 | $300.30 | 75% | 49% | $0.03 | 3.3 | 278 |
| Restaurant | Refrigeration | New | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 1327.34 | 15 | $300.30 | 95% | 49% | $0.03 | 3.3 | 9 |
| Restaurant | Refrigeration | Existing | eCube | eCube | No eCube | Per Walk-in | 1467.88 | 9 | $479.28 | 95% | 95% | $0.06 | 1.5 | 756 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Refrigeration | New | eCube | eCube | No eCube | Per Walk-in | 1467.88 | 9 | $479.28 | 95% | 95% | $0.06 | 1.5 | 19 |
| Restaurant | Refrigerator | Existing | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.06 | 12 | $0.04 | 90% | 100% | $0.10 | 1.0 | 0 |
| Restaurant | Refrigerator | New | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.06 | 12 | $0.04 | 90% | 100% | $0.10 | 1.0 | 0 |
| Restaurant | Refrigerator | Existing | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.08 | 12 | $0.05 | 90% | 100% | $0.10 | 1.0 | 92 |
| Restaurant | Refrigerator | New | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.08 | 12 | $0.05 | 90% | 100% | $0.10 | 1.0 | 5 |
| Restaurant | Refrigerator | Existing | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.03 | 12 | $0.02 | 90% | 100% | $0.10 | 1.0 | 0 |
| Restaurant | Refrigerator | New | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.03 | 12 | $0.02 | 90% | 100% | $0.10 | 1.0 | 0 |
| Restaurant | Room Cooling | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 6252.84 | 15 | $3,152.46 | 25% | 62% | $0.07 | 1.6 | 31 |
| Restaurant | Room Cooling | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 3787.40 | 15 | $1,576.23 | 25% | 95% | $0.06 | 2.0 | 31 |
| Restaurant | Room Cooling | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 3780.20 | 15 | $1,576.23 | 75% | 95% | $0.06 | 2.0 | 2 |
| Restaurant | Room Cooling | Existing | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.06 | 12 | $0.01 | 90% | 100% | $0.04 | 2.8 | 1 |
| Restaurant | Room Cooling | New | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.06 | 12 | $0.01 | 90% | 100% | $0.04 | 2.8 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Servers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.37 | 4 | $0.83 | 95% | 86% | $0.81 | 0.1 | 0 |
| Restaurant | Servers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.37 | 4 | $0.83 | 95% | 86% | $0.81 | 0.1 | 0 |
| Restaurant | Servers | Existing | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.16 | 4 | $0.22 | 90% | 100% | $0.49 | 0.2 | 0 |
| Restaurant | Servers | New | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.16 | 4 | $0.22 | 90% | 100% | $0.49 | 0.2 | 0 |
| Restaurant | Space Heat | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 4002.16 | 10 | $60.96 | 100% | 49% | $0.00 | 33.7 | 3 |
| Restaurant | Space Heat | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 933.84 | 15 | $1,685.00 | 95% | 95% | $0.26 | 0.4 | 0 |
| Restaurant | Space Heat | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 613.67 | 15 | $1,685.00 | 95% | 95% | $0.39 | 0.3 | 0 |
| Restaurant | Space Heat | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 14683.12 | 15 | $3,152.46 | 25% | 62% | $0.03 | 3.3 | 2 |
| Restaurant | Space Heat | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 8893.70 | 15 | $1,576.23 | 25% | 95% | $0.03 | 4.0 | 2 |
| Restaurant | Space Heat | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 8893.70 | 15 | $1,576.23 | 75% | 95% | $0.03 | 4.0 | 0 |
| Restaurant | Space Heat | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2347.94 | 15 | $1,385.36 | 5% | 99% | $0.08 | 1.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Space Heat | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2347.94 | 15 | $738.86 | 5% | 99% | $0.04 | 2.3 | 0 |
| Restaurant | Space Heat | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 17577.50 | 15 | $51,440.13 | 90% | 100% | $0.41 | 0.2 | 0 |
| Restaurant | Space Heat | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 4002.16 | 7 | $5,541.43 | 95% | 85% | $0.32 | 0.3 | 0 |
| Restaurant | Space Heat | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 680.51 | 20 | ###### | 75% | 99% | $11.04 | 0.0 | 0 |
| Restaurant | Space Heat | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 680.51 | 20 | ###### | 75% | 99% | $11.04 | 0.0 | 0 |
| Restaurant | Space Heat | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 4268.97 | 7 | $1,501.73 | 95% | 75% | $0.08 | 1.1 | 3 |
| Restaurant | Space Heat | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 13455.61 | 15 | $2,049.20 | 10% | 66% | $0.02 | 4.7 | 1 |
| Restaurant | Space Heat | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 8893.70 | 15 | $1,024.60 | 10% | 95% | $0.02 | 6.2 | 1 |
| Restaurant | Space Heat | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 8893.70 | 15 | $1,024.60 | 50% | 95% | $0.02 | 6.2 | 0 |
| Restaurant | Ventilation and Circulation | Existing | Downsizing motor during retrofit | Downsizing motor during retrofit | Larger hp standard motor | Per Motor | 122.36 | 20 | $5,833.08 | 10% | 95% | $5.89 | 0.0 | 0 |
| Restaurant | Ventilation and Circulation | Existing | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 2778.88 | 15 | $720.02 | 15% | 95% | $0.04 | 2.9 | 144 |
| Restaurant | Ventilation and Circulation | New | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 2778.88 | 15 | $720.02 | 15% | 95% | $0.04 | 2.9 | 5 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Ventilation and Circulation | Existing | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 205.73 | 18 | $722.93 | 75% | 95% | $0.45 | 0.2 | 0 |
| Restaurant | Ventilation and Circulation | New | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 205.73 | 18 | $722.93 | 75% | 95% | $0.45 | 0.2 | 0 |
| Restaurant | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 252.53 | 15 | $1.76 | 95% | 76% | $0.00 | 106.0 | 104 |
| Restaurant | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 252.53 | 15 | $1.76 | 95% | 76% | $0.00 | 106.0 | 3 |
| Restaurant | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 128.92 | 15 | $1.76 | 95% | 76% | $0.00 | 54.1 | 51 |
| Restaurant | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 128.92 | 15 | $1.76 | 95% | 76% | $0.00 | 54.1 | 1 |
| Restaurant | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 197.93 | 15 | $1.76 | 95% | 76% | $0.00 | 83.1 | 80 |
| Restaurant | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, | Per Building | 197.93 | 15 | $1.76 | 95% | 76% | $0.00 | 83.1 | 2 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1200-3600 RPM | | | | | | | | | |
| Restaurant | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 128.38 | 15 | $1.76 | 95% | 76% | $0.00 | 53.9 | 51 |
| Restaurant | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 128.38 | 15 | $1.76 | 95% | 76% | $0.00 | 53.9 | 1 |
| Restaurant | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 145.64 | 15 | $1.76 | 95% | 76% | $0.00 | 61.1 | 59 |
| Restaurant | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 145.64 | 15 | $1.76 | 95% | 76% | $0.00 | 61.1 | 1 |
| Restaurant | Ventilation and Circulation | Existing | High Efficiency Ventilation Hoods | High Efficiency Ventilation Hoods | Standard Ventilation Hood | Per Kitchen Exhaust Hood HP | 4486.00 | 15 | $1,988.00 | 95% | 25% | $0.06 | 1.7 | 608 |
| Restaurant | Ventilation and Circulation | New | High Efficiency Ventilation Hoods | High Efficiency Ventilation Hoods | Standard Ventilation Hood | Per Kitchen Exhaust Hood HP | 4486.00 | 15 | $1,988.00 | 95% | 25% | $0.06 | 1.7 | 15 |
| Restaurant | Ventilation and Circulation | Existing | VFD on HVAC Fan | VFD on HVAC Fan | Standard Motor | Per HVAC Fan Motor VFD (assuming 50 HP average) | 6059.60 | 13 | $934.13 | 75% | 98% | $0.02 | 4.3 | 2,437 |
| Restaurant | Ventilation and Circulation | Existing | VFD on HVAC Pump | VFD on HVAC Pump | Standard Motor | Per HVAC Pump Motor VFD (assuming 50 HP average) | 1409.14 | 13 | $308.59 | 75% | 98% | $0.03 | 3.0 | 404 |
| Restaurant | Water Heat GT 55 Gal | Existing | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 881.45 | 12 | $1,148.46 | 95% | 95% | $0.21 | 0.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Water Heat GT 55 Gal | New | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 881.45 | 12 | $1,148.46 | 95% | 95% | $0.21 | 0.5 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 881.45 | 12 | $1,148.46 | 95% | 33% | $0.21 | 0.5 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 881.45 | 12 | $1,148.46 | 95% | 33% | $0.21 | 0.5 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 2420.56 | 25 | $2,121.25 | 5% | 100% | $0.10 | 1.2 | 1 |
| Restaurant | Water Heat GT 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 1056.69 | 25 | $2,121.25 | 25% | 100% | $0.23 | 0.5 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.12 | 11 | $8.15 | 100% | 34% | $0.19 | 0.5 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.12 | 11 | $8.15 | 100% | 34% | $0.19 | 0.5 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF | Per Residential Clothes Washer | 14.04 | 11 | $19.80 | 100% | 95% | $0.24 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 8.0 (Electric DHW & Dryer) | | | | | | | | | |
| Restaurant | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 14.04 | 11 | $19.80 | 100% | 95% | $0.24 | 0.4 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.23 | 11 | $11.65 | 100% | 95% | $0.27 | 0.4 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.23 | 11 | $11.65 | 100% | 95% | $0.27 | 0.4 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 9.00 | 10 | $7.50 | 100% | 25% | $0.15 | 0.6 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 9.00 | 10 | $7.50 | 100% | 55% | $0.15 | 0.6 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 6087.72 | 14 | $2,418.18 | 50% | 95% | $0.06 | 1.8 | 17 |
| Restaurant | Water Heat GT 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 2657.58 | 14 | $2,418.18 | 50% | 95% | $0.13 | 0.8 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Water Heat GT 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 364.08 | 8 | $299.09 | 50% | 75% | $0.17 | 0.5 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 189.38 | 14 | $55.33 | 100% | 80% | $0.04 | 2.4 | 1 |
| Restaurant | Water Heat GT 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 60.51 | 15 | $224.27 | 75% | 90% | $0.52 | 0.2 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 5923.26 | 7 | $160.62 | 95% | 94% | $0.01 | 14.6 | 65 |
| Restaurant | Water Heat GT 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 2585.79 | 7 | $160.62 | 75% | 94% | $0.01 | 6.4 | 1 |
| Restaurant | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 4332.11 | 7 | $127.27 | 95% | 84% | $0.01 | 13.4 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1891.18 | 7 | $127.27 | 75% | 84% | $0.02 | 5.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1180.60 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 11 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1180.60 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 1 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 833.36 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 833.36 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 486.13 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 486.13 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 555.58 | 12 | $8.92 | 95% | 25% | $0.00 | 38.4 | 2 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Existing Low-flow Pre-Rinse Spray Valve | Per Pre-Rinse Spray Valve | 62.88 | 5 | $84.37 | 95% | 25% | $0.40 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 569.89 | 5 | $60.26 | 95% | 45% | $0.03 | 2.8 | 3 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 569.89 | 5 | $60.26 | 95% | 45% | $0.03 | 2.8 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.10 | 9 | $0.89 | 75% | 85% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.10 | 9 | $0.89 | 75% | 85% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 5.32 | 9 | $0.67 | 75% | 75% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 5.32 | 9 | $0.67 | 75% | 75% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 3.55 | 9 | $0.44 | 75% | 50% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 3.55 | 9 | $0.44 | 75% | 50% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 3.55 | 9 | $0.44 | 75% | 35% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 3.55 | 9 | $0.44 | 75% | 35% | $0.02 | 3.9 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.33 | 15 | $3.40 | 100% | 100% | $5.38 | 0.0 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.33 | 15 | $3.40 | 100% | 100% | $5.38 | 0.0 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 763.92 | 12 | $1,079.97 | 75% | 85% | $0.23 | 0.4 | 0 |
| Restaurant | Water Heat GT 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 763.92 | 12 | $1,079.97 | 75% | 85% | $0.23 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Water Heat GT 55 Gal | Existing | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.10 | 10 | $0.05 | 90% | 100% | $0.08 | 1.1 | 9 |
| Restaurant | Water Heat GT 55 Gal | New | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.10 | 10 | $0.05 | 90% | 100% | $0.08 | 1.1 | 0 |
| Restaurant | Water Heat GT 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 1694.40 | 2 | $43.27 | 75% | 94% | $0.02 | 4.9 | 8 |
| Restaurant | Water Heat LE 55 Gal | Existing | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 1870.36 | 12 | $1,148.46 | 95% | 95% | $0.10 | 1.0 | 35 |
| Restaurant | Water Heat LE 55 Gal | New | Dishwashing - Commercial - High Temp | High Efficiency Dishwasher (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 1870.36 | 12 | $1,148.46 | 95% | 95% | $0.10 | 1.0 | 1 |
| Restaurant | Water Heat LE 55 Gal | Existing | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 1870.36 | 12 | $1,148.46 | 95% | 33% | $0.10 | 1.0 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Dishwashing - Commercial - Low Temp | Low-Temp Commercial Dishwasher (Includes Extra Chemical Cost) - (ENERGY STAR) | Standard High Temp Commercial Dishwasher | Per Commercial Dishwasher | 1870.36 | 12 | $1,148.46 | 95% | 33% | $0.10 | 1.0 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 2199.96 | 25 | $2,121.25 | 5% | 100% | $0.11 | 1.1 | 1 |
| Restaurant | Water Heat LE 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 2191.25 | 25 | $2,121.25 | 25% | 100% | $0.11 | 1.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.12 | 11 | $8.15 | 100% | 34% | $0.19 | 0.5 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.12 | 11 | $8.15 | 100% | 34% | $0.19 | 0.5 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 14.04 | 11 | $19.80 | 100% | 95% | $0.24 | 0.4 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 14.04 | 11 | $19.80 | 100% | 95% | $0.24 | 0.4 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.23 | 11 | $11.65 | 100% | 95% | $0.27 | 0.4 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 7.23 | 11 | $11.65 | 100% | 95% | $0.27 | 0.4 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr | Per Residential Dishwasher | 9.00 | 10 | $7.50 | 100% | 25% | $0.15 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | and 5.0 gal/cycle | | | | | | | | | |
| Restaurant | Water Heat LE 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 9.00 | 10 | $7.50 | 100% | 55% | $0.15 | 0.6 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 5532.91 | 14 | $2,418.18 | 50% | 95% | $0.06 | 1.6 | 22 |
| Restaurant | Water Heat LE 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 5510.99 | 14 | $2,418.18 | 50% | 95% | $0.06 | 1.6 | 1 |
| Restaurant | Water Heat LE 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 330.90 | 8 | $299.09 | 50% | 75% | $0.19 | 0.5 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 189.38 | 14 | $55.33 | 100% | 80% | $0.04 | 2.4 | 1 |
| Restaurant | Water Heat LE 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 55.00 | 15 | $224.27 | 75% | 90% | $0.58 | 0.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 5327.93 | 7 | $160.62 | 95% | 94% | $0.01 | 13.1 | 86 |
| Restaurant | Water Heat LE 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 5306.82 | 7 | $160.62 | 75% | 94% | $0.01 | 13.0 | 1 |
| Restaurant | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 3867.50 | 7 | $127.27 | 95% | 84% | $0.01 | 12.0 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 3852.18 | 7 | $127.27 | 75% | 84% | $0.01 | 11.9 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 2505.12 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 40 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 2505.12 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 1 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1768.32 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1768.32 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1031.52 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 1031.52 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 1178.88 | 12 | $8.92 | 95% | 25% | $0.00 | 81.4 | 6 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM (Existing to Code) | Existing Low-flow Pre-Rinse Spray Valve | Per Pre-Rinse Spray Valve | 133.42 | 5 | $84.37 | 95% | 25% | $0.19 | 0.5 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 1209.25 | 5 | $60.26 | 95% | 45% | $0.02 | 5.9 | 12 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 0.6 GPM (Code to high Efficiency) | Low-Flow Pre-Rinse Spray Valves - 1.6 GPM | Per Pre-Rinse Spray Valve | 1209.25 | 5 | $60.26 | 95% | 45% | $0.02 | 5.9 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 15.06 | 9 | $0.89 | 75% | 85% | $0.01 | 8.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 15.06 | 9 | $0.89 | 75% | 85% | $0.01 | 8.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 11.29 | 9 | $0.67 | 75% | 75% | $0.01 | 8.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 11.29 | 9 | $0.67 | 75% | 75% | $0.01 | 8.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.53 | 9 | $0.44 | 75% | 50% | $0.01 | 8.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.53 | 9 | $0.44 | 75% | 50% | $0.01 | 8.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 7.53 | 9 | $0.44 | 75% | 35% | $0.01 | 8.2 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 7.53 | 9 | $0.44 | 75% | 35% | $0.01 | 8.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Restaurant | Water Heat LE 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.35 | 15 | $2.63 | 100% | 100% | $0.91 | 0.1 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.35 | 15 | $2.63 | 100% | 100% | $0.91 | 0.1 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 1620.96 | 12 | $1,079.97 | 75% | 85% | $0.11 | 0.9 | 0 |
| Restaurant | Water Heat LE 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 1620.96 | 12 | $1,079.97 | 75% | 85% | $0.11 | 0.9 | 0 |
| Restaurant | Water Heat LE 55 Gal | Existing | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.12 | 10 | $0.43 | 90% | 100% | $0.07 | 1.4 | 79 |
| Restaurant | Water Heat LE 55 Gal | New | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 1.12 | 10 | $0.43 | 90% | 100% | $0.07 | 1.4 | 2 |
| Restaurant | Water Heat LE 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 1539.97 | 2 | $43.27 | 75% | 94% | $0.02 | 4.5 | 10 |
| Retail | Computers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.10 | 4 | $0.94 | 95% | 86% | $3.43 | 0.0 | 0 |
| Retail | Computers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.10 | 4 | $0.94 | 95% | 86% | $3.31 | 0.0 | 0 |
| Retail | Computers | Existing | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.07 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 236 |
| Retail | Computers | New | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.07 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 7 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Computers | Existing | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 502.18 | 5 | $111.60 | 50% | 80% | $0.07 | 1.3 | 495 |
| Retail | Computers | New | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 502.18 | 5 | $111.60 | 50% | 80% | $0.07 | 1.3 | 12 |
| Retail | Cooling Chillers | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 2766.79 | 10 | $69.26 | 100% | 72% | $0.00 | 24.4 | 0 |
| Retail | Cooling Chillers | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 34.07 | 20 | $3,188.15 | 95% | 95% | $11.56 | 0.0 | 0 |
| Retail | Cooling Chillers | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 33.96 | 20 | $3,188.15 | 95% | 95% | $11.59 | 0.0 | 0 |
| Retail | Cooling Chillers | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 15.01 | 15 | $1,685.00 | 95% | 95% | $15.88 | 0.0 | 0 |
| Retail | Cooling Chillers | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 8287.38 | 15 | $4,000.81 | 25% | 62% | $0.07 | 1.8 | 0 |
| Retail | Cooling Chillers | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 5019.74 | 15 | $2,000.41 | 25% | 95% | $0.06 | 2.2 | 0 |
| Retail | Cooling Chillers | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 5002.59 | 15 | $2,000.41 | 75% | 95% | $0.06 | 2.2 | 0 |
| Retail | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.60 | 20 | $0.90 | 90% | 100% | $0.18 | 0.7 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Cooling Chillers | New | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.60 | 20 | $0.90 | 90% | 100% | $0.18 | 0.7 | 0 |
| Retail | Cooling Chillers | Existing | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.20 | 20 | $0.30 | 90% | 100% | $0.18 | 0.7 | 0 |
| Retail | Cooling Chillers | New | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.20 | 20 | $0.30 | 90% | 100% | $0.18 | 0.7 | 0 |
| Retail | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.45 | 20 | $0.67 | 90% | 100% | $0.18 | 0.7 | 0 |
| Retail | Cooling Chillers | New | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.45 | 20 | $0.67 | 90% | 100% | $0.18 | 0.7 | 0 |
| Retail | Cooling Chillers | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 3011.85 | 15 | ###### | 95% | 75% | $0.68 | 0.2 | 0 |
| Retail | Cooling Chillers | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 2251.17 | 7 | $6,295.92 | 75% | 85% | $0.65 | 0.2 | 0 |
| Retail | Cooling Chillers | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 154.55 | 20 | ###### | 75% | 99% | $61.67 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Cooling Chillers | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 154.02 | 20 | ###### | 75% | 99% | $61.88 | 0.0 | 0 |
| Retail | Cooling Chillers | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2543.34 | 30 | $136.85 | 20% | 84% | $0.01 | 24.4 | 0 |
| Retail | Cooling Chillers | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2534.65 | 30 | $136.85 | 80% | 84% | $0.01 | 24.3 | 0 |
| Retail | Cooling Chillers | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 2409.48 | 7 | $1,706.19 | 75% | 75% | $0.16 | 0.7 | 0 |
| Retail | Cooling Chillers | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2710.66 | 18 | $14,851.18 | 1% | 98% | $0.71 | 0.2 | 0 |
| Retail | Cooling Chillers | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2701.40 | 18 | $14,851.18 | 1% | 98% | $0.71 | 0.2 | 0 |
| Retail | Cooling Chillers | Existing | VFD on cooling tower fans | VFD on cooling tower fans | Base single-speed fan | Per Cooling Tower Motor VFD | 216.11 | 13 | $70.75 | 75% | 98% | $0.05 | 2.3 | 0 |
| Retail | Cooling Chillers | Existing | Wall Insulation | R-13 | Average Existing Insulation | Per SqFt of Wall Insulation | 7020.35 | 15 | $1,762.80 | 10% | 66% | $0.04 | 3.4 | 0 |
| Retail | Cooling Chillers | Existing | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 5736.85 | 15 | $1,084.80 | 10% | 95% | $0.03 | 4.5 | 0 |
| Retail | Cooling Chillers | New | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 5717.25 | 15 | $1,084.80 | 50% | 95% | $0.03 | 4.5 | 0 |
| Retail | Cooling Chillers | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 752.96 | 5 | $1,030.23 | 50% | 95% | $0.41 | 0.3 | 0 |
| Retail | Cooling Chillers | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 750.39 | 5 | $1,030.23 | 50% | 95% | $0.41 | 0.3 | 0 |
| Retail | Cooling DX | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 3755.69 | 10 | $69.26 | 100% | 72% | $0.00 | 33.2 | 924 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Cooling DX | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 300.46 | 20 | $3,188.15 | 95% | 95% | $1.31 | 0.1 | 0 |
| Retail | Cooling DX | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 291.17 | 20 | $3,188.15 | 95% | 95% | $1.35 | 0.1 | 0 |
| Retail | Cooling DX | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 19.81 | 15 | $1,685.00 | 95% | 95% | $12.03 | 0.0 | 0 |
| Retail | Cooling DX | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 11249.45 | 15 | $4,000.81 | 25% | 62% | $0.05 | 2.4 | 360 |
| Retail | Cooling DX | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 6813.89 | 15 | $2,000.41 | 25% | 95% | $0.04 | 2.9 | 364 |
| Retail | Cooling DX | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 6603.36 | 15 | $2,000.41 | 75% | 95% | $0.04 | 2.8 | 25 |
| Retail | Cooling DX | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 4088.34 | 15 | $4,095.31 | 95% | 95% | $0.14 | 0.9 | 0 |
| Retail | Cooling DX | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 1768.39 | 5 | $779.69 | 95% | 45% | $0.13 | 0.8 | 0 |
| Retail | Cooling DX | Existing | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.15 | 15 | $0.30 | 90% | 100% | $0.28 | 0.4 | 0 |
| Retail | Cooling DX | New | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.15 | 15 | $0.30 | 90% | 100% | $0.28 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Cooling DX | Existing | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.24 | 15 | $0.48 | 90% | 100% | $0.29 | 0.4 | 0 |
| Retail | Cooling DX | New | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.24 | 15 | $0.48 | 90% | 100% | $0.29 | 0.4 | 0 |
| Retail | Cooling DX | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2125.94 | 15 | $1,573.98 | 25% | 99% | $0.10 | 1.2 | 117 |
| Retail | Cooling DX | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2060.25 | 15 | $839.46 | 25% | 99% | $0.06 | 2.1 | 2 |
| Retail | Cooling DX | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 360.55 | 15 | $2,784.60 | 95% | 64% | $1.09 | 0.1 | 0 |
| Retail | Cooling DX | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 360.55 | 15 | $2,116.29 | 45% | 80% | $0.83 | 0.2 | 0 |
| Retail | Cooling DX | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 9653.02 | 15 | ###### | 90% | 100% | $0.91 | 0.1 | 0 |
| Retail | Cooling DX | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 2971.51 | 7 | $6,295.92 | 95% | 85% | $0.49 | 0.2 | 0 |
| Retail | Cooling DX | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1362.78 | 20 | ###### | 75% | 99% | $6.99 | 0.0 | 0 |
| Retail | Cooling DX | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1320.67 | 20 | ###### | 75% | 99% | $7.22 | 0.0 | 0 |
| Retail | Cooling DX | Existing | HVAC Diagnostic/Air Conditioner Tune Up | HVAC Diagnostic/Air Conditioner Tune Up | No Tune Up | Per Building | 1768.39 | 10 | $800.76 | 95% | 24% | $0.08 | 1.4 | 93 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Cooling DX | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3452.37 | 30 | $136.85 | 20% | 84% | $0.00 | 33.1 | 144 |
| Retail | Cooling DX | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3345.70 | 30 | $136.85 | 80% | 84% | $0.00 | 32.1 | 16 |
| Retail | Cooling DX | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 3014.85 | 10 | $3,564.28 | 10% | 45% | $0.21 | 0.5 | 0 |
| Retail | Cooling DX | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 3270.67 | 7 | $1,706.19 | 95% | 75% | $0.12 | 0.9 | 0 |
| Retail | Cooling DX | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3679.50 | 18 | $14,851.18 | 1% | 98% | $0.52 | 0.2 | 0 |
| Retail | Cooling DX | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3565.82 | 18 | $14,851.18 | 1% | 98% | $0.54 | 0.2 | 0 |
| Retail | Cooling DX | Existing | Wall Insulation | R-13 | Average Existing Insulation | Per SqFt of Wall Insulation | 9529.56 | 15 | $1,762.80 | 10% | 66% | $0.03 | 4.6 | 147 |
| Retail | Cooling DX | Existing | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 7787.31 | 15 | $1,084.80 | 10% | 95% | $0.02 | 6.2 | 178 |
| Retail | Cooling DX | New | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 7546.70 | 15 | $1,084.80 | 50% | 95% | $0.02 | 6.0 | 23 |
| Retail | Cooling DX | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1022.08 | 5 | $1,030.23 | 50% | 95% | $0.30 | 0.3 | 0 |
| Retail | Cooling DX | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 990.50 | 5 | $1,030.23 | 50% | 95% | $0.31 | 0.3 | 0 |
| Retail | Fax | Existing | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 22 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Fax | New | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 1 |
| Retail | Flat Screen Monitors | Existing | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.02 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 29 |
| Retail | Flat Screen Monitors | New | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.02 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 0 |
| Retail | Freezer | Existing | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.03 | 3.2 | 2 |
| Retail | Freezer | New | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.03 | 3.2 | 0 |
| Retail | Heat Pump | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 6981.39 | 10 | $69.26 | 100% | 72% | $0.00 | 53.0 | 2,606 |
| Retail | Heat Pump | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 261.38 | 20 | $3,188.15 | 95% | 95% | $1.51 | 0.1 | 0 |
| Retail | Heat Pump | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 252.03 | 20 | $3,188.15 | 95% | 95% | $1.56 | 0.1 | 0 |
| Retail | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.26 | 15 | $0.10 | 90% | 100% | $0.05 | 2.0 | 0 |
| Retail | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.26 | 15 | $0.10 | 90% | 100% | $0.05 | 2.0 | 0 |
| Retail | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.50 | 15 | $0.19 | 90% | 100% | $0.05 | 1.9 | 675 |
| Retail | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.50 | 15 | $0.19 | 90% | 100% | $0.05 | 1.9 | 24 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Heat Pump | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 866.63 | 15 | $1,685.00 | 95% | 95% | $0.27 | 0.4 | 0 |
| Retail | Heat Pump | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 566.29 | 15 | $1,685.00 | 95% | 95% | $0.42 | 0.3 | 0 |
| Retail | Heat Pump | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 23412.83 | 15 | $4,000.81 | 25% | 62% | $0.02 | 4.3 | 1,177 |
| Retail | Heat Pump | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 14181.36 | 15 | $2,000.41 | 25% | 95% | $0.02 | 5.2 | 1,189 |
| Retail | Heat Pump | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 13674.28 | 15 | $2,000.41 | 75% | 95% | $0.02 | 5.0 | 83 |
| Retail | Heat Pump | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 3556.63 | 15 | $3,879.77 | 95% | 95% | $0.15 | 0.7 | 0 |
| Retail | Heat Pump | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 1538.41 | 5 | $779.69 | 95% | 45% | $0.15 | 0.6 | 0 |
| Retail | Heat Pump | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 4028.41 | 15 | $1,573.98 | 25% | 99% | $0.06 | 1.9 | 356 |
| Retail | Heat Pump | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 3884.37 | 15 | $839.46 | 25% | 99% | $0.03 | 3.4 | 7 |
| Retail | Heat Pump | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 313.66 | 15 | $2,784.60 | 95% | 64% | $1.26 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Heat Pump | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 313.66 | 15 | $2,116.29 | 45% | 80% | $0.95 | 0.1 | 0 |
| Retail | Heat Pump | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 6153.43 | 7 | $6,295.92 | 95% | 85% | $0.24 | 0.4 | 0 |
| Retail | Heat Pump | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1800.34 | 20 | ###### | 75% | 99% | $5.29 | 0.0 | 0 |
| Retail | Heat Pump | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1735.96 | 20 | ###### | 75% | 99% | $5.49 | 0.0 | 0 |
| Retail | Heat Pump | Existing | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.99 | 15 | $21.26 | 90% | 100% | $1.51 | 0.1 | 0 |
| Retail | Heat Pump | New | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.99 | 15 | $21.26 | 90% | 100% | $1.51 | 0.1 | 0 |
| Retail | Heat Pump | Existing | HVAC Diagnostic/Heat Pump Tune Up | HVAC Diagnostic/Heat Pump Tune Up | No Tune Up | Per Building | 1538.41 | 10 | $758.61 | 95% | 24% | $0.09 | 1.1 | 109 |
| Retail | Heat Pump | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3003.38 | 30 | $136.85 | 20% | 84% | $0.00 | 24.4 | 193 |
| Retail | Heat Pump | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2895.98 | 30 | $136.85 | 80% | 84% | $0.01 | 23.5 | 21 |
| Retail | Heat Pump | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 3014.85 | 10 | $3,564.28 | 10% | 45% | $0.21 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Heat Pump | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 6807.05 | 7 | $1,706.19 | 95% | 75% | $0.06 | 1.6 | 1,696 |
| Retail | Heat Pump | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3200.97 | 18 | $14,851.18 | 1% | 98% | $0.60 | 0.2 | 0 |
| Retail | Heat Pump | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3086.51 | 18 | $14,851.18 | 1% | 98% | $0.62 | 0.2 | 0 |
| Retail | Heat Pump | Existing | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 25270.83 | 15 | $151,102.11 | 50% | 95% | $1.27 | 0.1 | 0 |
| Retail | Heat Pump | New | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 24367.22 | 15 | $151,102.11 | 95% | 95% | $1.32 | 0.1 | 0 |
| Retail | Heat Pump | Existing | Wall Insulation | R-13 | Average Existing Insulation | Per SqFt of Wall Insulation | 19833.33 | 15 | $1,762.80 | 10% | 66% | $0.01 | 8.2 | 479 |
| Retail | Heat Pump | Existing | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 16207.27 | 15 | $1,084.80 | 10% | 95% | $0.01 | 10.9 | 582 |
| Retail | Heat Pump | New | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 15627.75 | 15 | $1,084.80 | 50% | 95% | $0.01 | 10.5 | 77 |
| Retail | Heat Pump | Existing | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.47 | 15 | $1.97 | 90% | 100% | $0.19 | 0.5 | 0 |
| Retail | Heat Pump | New | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 1.47 | 15 | $1.97 | 90% | 100% | $0.19 | 0.5 | 0 |
| Retail | Heat Pump | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 2127.20 | 5 | $1,030.23 | 50% | 95% | $0.15 | 0.6 | 0 |
| Retail | Heat Pump | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 2051.14 | 5 | $1,030.23 | 50% | 95% | $0.15 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Lighting Exterior | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 365.16 | 10 | $100.00 | 85% | 45% | $0.05 | 2.0 | 88 |
| Retail | Lighting Exterior | Existing | LED or equivalent sign lighting | LED or equivalent sign lighting | Replace fluorescent sign lighting | Per Sign | 926.78 | 15 | $17.36 | 100% | 95% | $0.00 | 40.3 | 2,885 |
| Retail | Lighting Exterior | New | LED or equivalent sign lighting | LED or equivalent sign lighting | Replace fluorescent sign lighting | Per Sign | 926.78 | 15 | $17.36 | 100% | 95% | $0.00 | 40.3 | 71 |
| Retail | Lighting Exterior | Existing | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 1022.46 | 8 | $225.00 | 50% | 45% | $0.05 | 2.1 | 154 |
| Retail | Lighting Exterior | New | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 1022.46 | 8 | $225.00 | 50% | 75% | $0.05 | 2.1 | 6 |
| Retail | Lighting Exterior | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 876.39 | 8 | $275.31 | 10% | 100% | $0.07 | 1.4 | 53 |
| Retail | Lighting Interior Fluorescent | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 1528.19 | 10 | $100.00 | 85% | 45% | $0.01 | 8.3 | 113 |
| Retail | Lighting Interior Fluorescent | Existing | Delamping fixtures | Delamping fixtures | 0 | Per Delamped Fixture | 84.87 | 13 | $6.00 | 0% | 85% | $0.01 | 9.5 | 0 |
| Retail | Lighting Interior Fluorescent | Existing | Fiber Optic Display Lighting | Fiber Optic Display Lighting | Existing Display Lighting | Per Case Door | 533.90 | 15 | $696.24 | 50% | 95% | $0.18 | 0.6 | 0 |
| Retail | Lighting Interior Fluorescent | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 2927.13 | 8 | $3,905.48 | 65% | 100% | $0.28 | 0.3 | 0 |
| Retail | Lighting Interior Fluorescent | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 4126.10 | 10 | $1,125.23 | 10% | 98% | $0.05 | 2.0 | 1,067 |
| Retail | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent High Performance - Above Standard | Above Standard Fluorescent High Performance T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.18 | 13 | $0.21 | 90% | 100% | $0.17 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent Reduced Wattage - Above Standard | Above Standard Fluorescent Reduced Wattage T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.19 | 13 | $0.70 | 90% | 100% | $0.56 | 0.2 | 0 |
| Retail | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T5 - Above Standard | Above Standard Fluorescent T-5 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.26 | 13 | $0.37 | 90% | 100% | $0.22 | 0.5 | 0 |
| Retail | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T8 - Above Standard | Above Standard Fluorescent T8 Interior Lighting | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.07 | 13 | $0.17 | 90% | 100% | $0.40 | 0.3 | 0 |
| Retail | Lighting Interior Fluorescent | Existing | Lighting Interior - LED Tube - Above Standard | Above Standard LED Tube | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.42 | 20 | $2.26 | 90% | 100% | $0.67 | 0.2 | 0 |
| Retail | Lighting Interior Fluorescent | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 3667.65 | 8 | $574.63 | 45% | 98% | $0.03 | 2.9 | 1,291 |
| Retail | Lighting Interior Fluorescent | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 3667.65 | 8 | $275.31 | 10% | 99% | $0.02 | 6.0 | 296 |
| Retail | Lighting Interior HID | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 62.35 | 10 | $100.00 | 85% | 45% | $0.29 | 0.3 | 0 |
| Retail | Lighting Interior HID | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 119.43 | 8 | $3,905.48 | 65% | 100% | $6.86 | 0.0 | 0 |
| Retail | Lighting Interior HID | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 168.36 | 10 | $1,125.23 | 10% | 98% | $1.20 | 0.1 | 0 |
| Retail | Lighting Interior HID | Existing | Lighting Interior - Efficient Metal Halide - Above Standard | Efficient Metal Halide | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure | Per Building | 0.01 | 15 | $0.02 | 90% | 100% | $0.17 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sodium, Metal Halide | | | | | | | | | |
| Retail | Lighting Interior HID | Existing | Lighting Interior - High Bay Fluorescent High Output - Above Standard | High Bay Fluorescent High Output (HO) | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.04 | 15 | $0.02 | 90% | 100% | $0.08 | 1.4 | 269 |
| Retail | Lighting Interior HID | Existing | Lighting Interior - High Bay LED - Above Standard | High Bay LED | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.07 | 20 | $0.03 | 90% | 100% | $0.05 | 2.4 | 23 |
| Retail | Lighting Interior HID | Existing | Lighting Interior - Induction - Above Standard | Induction | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.06 | 20 | $0.00 | 90% | 100% | -$0.01 | 999.0 | 0 |
| Retail | Lighting Interior HID | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 149.65 | 8 | $574.63 | 45% | 98% | $0.81 | 0.1 | 0 |
| Retail | Lighting Interior HID | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 149.65 | 8 | $275.31 | 10% | 99% | $0.39 | 0.2 | 0 |
| Retail | Lighting Interior Other | Existing | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Incandescent Exit Sign | Per Exit Sign | 38.02 | 10 | $9.50 | 95% | 25% | $0.04 | 2.2 | 8 |
| Retail | Lighting Interior Other | New | Fiber Optic Display Lighting | Fiber Optic Display Lighting | Existing Display Lighting | Per Case Door | 533.90 | 15 | $696.24 | 50% | 95% | $0.18 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Lighting Interior Other | New | HE Lighting Fixtures/Design 10% better than code (New Construction) | HE Lighting Fixtures/Design 10% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.42 | 15 | $0.20 | 100% | 100% | $0.07 | 1.6 | 0 |
| Retail | Lighting Interior Other | New | HE Lighting Fixtures/Design 15% better than code (New Construction) | HE Lighting Fixtures/Design 15% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.64 | 15 | $0.24 | 100% | 100% | $0.05 | 2.0 | 0 |
| Retail | Lighting Interior Other | New | HE Lighting Fixtures/Design 30% better than code (New Construction) | HE Lighting Fixtures/Design 30% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 1.27 | 15 | $0.48 | 100% | 100% | $0.05 | 2.0 | 669 |
| Retail | Lighting Interior Other | New | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 5117.40 | 8 | $3,905.48 | 65% | 100% | $0.16 | 0.6 | 0 |
| Retail | Lighting Interior Other | Existing | LED exit sign | LED exit sign | CFL Exit Sign | Per Exit Sign | 28.21 | 16 | $12.00 | 95% | 50% | $0.06 | 1.9 | 37 |
| Retail | Lighting Interior Other | New | Light Pipes | Light Pipes | Standard lighting system | Per Building | 7213.52 | 10 | $1,125.23 | 30% | 98% | $0.03 | 3.5 | 109 |
| Retail | Lighting Interior Other | New | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 6412.02 | 8 | $574.63 | 45% | 98% | $0.02 | 5.0 | 33 |
| Retail | Lighting Interior Other | Existing | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 73.58 | 30 | $7.50 | 75% | 95% | $0.01 | 11.3 | 147 |
| Retail | Lighting Interior Other | New | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 73.58 | 30 | $7.50 | 75% | 95% | $0.01 | 11.3 | 3 |
| Retail | Lighting Interior Screw Base | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 203.82 | 10 | $100.00 | 85% | 45% | $0.09 | 1.1 | 16 |
| Retail | Lighting Interior Screw Base | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 390.40 | 8 | $3,905.48 | 65% | 100% | $2.10 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Lighting Interior Screw Base | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 550.31 | 10 | $1,125.23 | 10% | 98% | $0.37 | 0.3 | 0 |
| Retail | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base CFL - Above Standard | CFL | EISA Standard Incandescent | Per Building | 0.15 | 5 | $0.00 | 90% | 100% | $0.01 | 11.8 | 1,175 |
| Retail | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base Incandescent - Backstop EISA Standard | Backstop EISA Standard Incandescent | EISA Standard Incandescent | Per Building | 0.12 | 2 | $0.00 | 90% | 100% | $0.01 | 6.7 | 0 |
| Retail | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base LED - Above Standard | LED | EISA Standard Incandescent | Per Building | 0.16 | 12 | $0.02 | 90% | 100% | $0.03 | 3.1 | 1,886 |
| Retail | Lighting Interior Screw Base | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 489.16 | 8 | $574.63 | 45% | 98% | $0.25 | 0.4 | 0 |
| Retail | Lighting Interior Screw Base | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 489.16 | 8 | $275.31 | 10% | 99% | $0.12 | 0.8 | 0 |
| Retail | Other Plug Load | Existing | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 5.82 | 15 | $0.56 | 75% | 75% | $0.01 | 7.7 | 11 |
| Retail | Other Plug Load | New | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 5.82 | 15 | $0.56 | 75% | 75% | $0.01 | 7.7 | 0 |
| Retail | Other Plug Load | Existing | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 5.64 | 4 | $0.56 | 100% | 20% | $0.04 | 2.4 | 4 |
| Retail | Other Plug Load | New | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 5.64 | 4 | $0.56 | 100% | 20% | $0.04 | 2.4 | 0 |
| Retail | Other Plug Load | Existing | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 701.95 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 437 |
| Retail | Other Plug Load | New | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 701.95 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 11 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Other Plug Load | Existing | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.15 | 5 | $0.63 | 95% | 20% | $1.24 | 0.1 | 0 |
| Retail | Other Plug Load | New | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.15 | 5 | $0.63 | 95% | 20% | $1.24 | 0.1 | 0 |
| Retail | Other Plug Load | Existing | Escalator Motor Controller | Escalator Motor Controller | Standard Motor | Per Escalator Motor Controller | 392.32 | 15 | $19.00 | 95% | 90% | $0.01 | 15.3 | 1,099 |
| Retail | Other Plug Load | New | Escalator Motor Controller | Escalator Motor Controller | Standard Motor | Per Escalator Motor Controller | 392.32 | 15 | $19.00 | 95% | 90% | $0.01 | 15.3 | 27 |
| Retail | Other Plug Load | Existing | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 115.32 | 5 | $19.53 | 95% | 95% | $0.05 | 1.8 | 92 |
| Retail | Other Plug Load | New | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 115.32 | 5 | $19.53 | 95% | 95% | $0.05 | 1.8 | 2 |
| Retail | Photo Copiers | Existing | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 2 |
| Retail | Photo Copiers | New | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 0 |
| Retail | Printers | Existing | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.03 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 18 |
| Retail | Printers | New | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.03 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 0 |
| Retail | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 1020.52 | 12 | $69.86 | 50% | 50% | $0.01 | 9.0 | 786 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Refrigeration | New | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 1020.52 | 12 | $69.86 | 50% | 50% | $0.01 | 9.0 | 19 |
| Retail | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 1878.42 | 12 | $69.86 | 50% | 50% | $0.01 | 16.5 | 1,539 |
| Retail | Refrigeration | New | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 1878.42 | 12 | $69.86 | 50% | 50% | $0.01 | 16.5 | 38 |
| Retail | Refrigeration | Existing | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 307.17 | 8 | $49.86 | 95% | 80% | $0.03 | 2.7 | 765 |
| Retail | Refrigeration | New | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 307.17 | 8 | $49.86 | 95% | 80% | $0.03 | 2.7 | 19 |
| Retail | Refrigeration | Existing | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 741.24 | 8 | $49.86 | 95% | 80% | $0.01 | 6.5 | 1,846 |
| Retail | Refrigeration | New | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 741.24 | 8 | $49.86 | 95% | 80% | $0.01 | 6.5 | 45 |
| Retail | Refrigeration | Existing | Compressor VSD retrofit | Compressor VSD retrofit | Base Refrigeration System - Grocery | Per Refrigerator/Freezer Compressor Motor HP | 426.30 | 15 | $242.88 | 70% | 86% | $0.08 | 1.3 | 370 |
| Retail | Refrigeration | Existing | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 59.61 | 10 | $351.60 | 60% | 91% | $1.06 | 0.1 | 0 |
| Retail | Refrigeration | New | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 59.61 | 10 | $351.60 | 60% | 91% | $1.06 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Refrigeration | Existing | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 14.90 | 10 | $351.60 | 90% | 100% | $4.25 | 0.0 | 0 |
| Retail | Refrigeration | New | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 14.90 | 10 | $351.60 | 90% | 100% | $4.25 | 0.0 | 0 |
| Retail | Refrigeration | Existing | Door Gasket - Cooler | Door Gasket - Cooler | Existing Gasket | Per linear foot of gasket on walk-in or reach-in cooler | 95.89 | 4 | $25.57 | 95% | 90% | $0.10 | 0.9 | 0 |
| Retail | Refrigeration | Existing | Door Gasket - Freezer | Door Gasket - Freezer | Existing Gasket | Per linear foot of gasket on walk-in or reach-in freezer | 409.14 | 4 | $25.57 | 95% | 90% | $0.02 | 3.9 | 1,146 |
| Retail | Refrigeration | Existing | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 312.19 | 15 | $200.88 | 95% | 93% | $0.09 | 1.1 | 901 |
| Retail | Refrigeration | New | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 312.19 | 15 | $200.88 | 95% | 93% | $0.09 | 1.1 | 22 |
| Retail | Refrigeration | Existing | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 73.80 | 15 | $98.78 | 10% | 95% | $0.19 | 0.6 | 0 |
| Retail | Refrigeration | New | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 73.80 | 15 | $98.78 | 5% | 95% | $0.19 | 0.6 | 0 |
| Retail | Refrigeration | Existing | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 202.33 | 15 | $19.18 | 90% | 100% | $0.01 | 7.8 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Refrigeration | New | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 202.33 | 15 | $19.18 | 90% | 100% | $0.01 | 7.8 | 0 |
| Retail | Refrigeration | Existing | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 319.95 | 15 | $147.99 | 65% | 40% | $0.07 | 1.6 | 204 |
| Retail | Refrigeration | New | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 319.95 | 15 | $147.99 | 95% | 40% | $0.07 | 1.6 | 8 |
| Retail | Refrigeration | Existing | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 74.76 | 15 | $53.59 | 50% | 85% | $0.10 | 1.0 | 104 |
| Retail | Refrigeration | New | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 74.76 | 15 | $53.59 | 95% | 92% | $0.10 | 1.0 | 5 |
| Retail | Refrigeration | Existing | Insulation for bare suction lines | Insulation for bare suction lines | No Insulation | Per linear feet of walk-in cooler/freezer suction line | 127.44 | 11 | $68.12 | 95% | 50% | $0.09 | 1.1 | 76 |
| Retail | Refrigeration | Existing | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 348.35 | 8 | $265.45 | 95% | 80% | $0.16 | 0.6 | 0 |
| Retail | Refrigeration | New | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 348.35 | 8 | $265.45 | 95% | 80% | $0.16 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Refrigeration | Existing | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 74.76 | 15 | $53.59 | 50% | 95% | $0.10 | 1.0 | 0 |
| Retail | Refrigeration | New | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 74.76 | 15 | $53.59 | 95% | 95% | $0.10 | 1.0 | 0 |
| Retail | Refrigeration | Existing | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 2188.25 | 15 | $1,174.67 | 95% | 86% | $0.08 | 1.4 | 5,858 |
| Retail | Refrigeration | New | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 2188.25 | 15 | $1,174.67 | 95% | 86% | $0.08 | 1.4 | 144 |
| Retail | Refrigeration | Existing | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 119.76 | 15 | $249.48 | 95% | 49% | $0.29 | 0.4 | 0 |
| Retail | Refrigeration | New | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 119.76 | 15 | $249.48 | 0% | 49% | $0.29 | 0.4 | 0 |
| Retail | Refrigeration | Existing | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 472.94 | 15 | $249.48 | 95% | 49% | $0.07 | 1.4 | 721 |
| Retail | Refrigeration | New | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 472.94 | 15 | $249.48 | 0% | 49% | $0.07 | 1.4 | 0 |
| Retail | Refrigeration | Existing | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 353.17 | 15 | $249.48 | 95% | 49% | $0.10 | 1.0 | 539 |
| Retail | Refrigeration | New | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 353.17 | 15 | $249.48 | 0% | 49% | $0.10 | 1.0 | 0 |
| Retail | Refrigeration | Existing | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 472.32 | 3 | $807.16 | 10% | 85% | $0.80 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Refrigeration | New | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 472.32 | 3 | $807.16 | 5% | 90% | $0.80 | 0.1 | 0 |
| Retail | Refrigeration | Existing | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 86.32 | 4 | $25.51 | 95% | 78% | $0.11 | 0.8 | 0 |
| Retail | Refrigeration | New | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 148.81 | 4 | $25.51 | 95% | 78% | $0.06 | 1.4 | 9 |
| Retail | Refrigeration | Existing | Vertical night covers | Vertical night covers | No covers present | Per ft of vertical display case width | 3.34 | 5 | $2.86 | 95% | 100% | $0.26 | 0.3 | 0 |
| Retail | Refrigeration | New | Vertical night covers | Vertical night covers | No covers present | Per ft of vertical display case width | 3.34 | 5 | $2.86 | 95% | 100% | $0.26 | 0.3 | 0 |
| Retail | Refrigeration | Existing | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 132.01 | 15 | $79.91 | 75% | 49% | $0.09 | 1.2 | 159 |
| Retail | Refrigeration | New | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 132.01 | 15 | $79.91 | 95% | 49% | $0.09 | 1.2 | 5 |
| Retail | Refrigeration | Existing | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 353.20 | 15 | $79.91 | 75% | 49% | $0.03 | 3.3 | 425 |
| Retail | Refrigeration | New | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 353.20 | 15 | $79.91 | 95% | 49% | $0.03 | 3.3 | 13 |
| Retail | Refrigeration | Existing | eCube | eCube | No eCube | Per Walk-in | 390.60 | 9 | $127.54 | 95% | 95% | $0.06 | 1.5 | 1,155 |
| Retail | Refrigeration | New | eCube | eCube | No eCube | Per Walk-in | 390.60 | 9 | $127.54 | 95% | 95% | $0.06 | 1.5 | 28 |
| Retail | Refrigerator | Existing | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 0 |
| Retail | Refrigerator | New | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Refrigerator | Existing | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 109 |
| Retail | Refrigerator | New | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.01 | 90% | 100% | $0.10 | 1.0 | 6 |
| Retail | Refrigerator | Existing | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.00 | 90% | 100% | $0.09 | 1.0 | 0 |
| Retail | Refrigerator | New | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.01 | 12 | $0.00 | 90% | 100% | $0.09 | 1.0 | 0 |
| Retail | Room Cooling | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 9959.94 | 15 | $4,000.81 | 25% | 62% | $0.06 | 2.1 | 252 |
| Retail | Room Cooling | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 6032.83 | 15 | $2,000.41 | 25% | 95% | $0.05 | 2.6 | 255 |
| Retail | Room Cooling | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 6021.36 | 15 | $2,000.41 | 75% | 95% | $0.05 | 2.6 | 19 |
| Retail | Room Cooling | Existing | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.08 | 12 | $0.02 | 90% | 100% | $0.03 | 3.7 | 11 |
| Retail | Room Cooling | New | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.08 | 12 | $0.02 | 90% | 100% | $0.03 | 3.7 | 0 |
| Retail | Servers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.20 | 4 | $0.94 | 95% | 86% | $1.68 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Servers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.20 | 4 | $0.94 | 95% | 86% | $1.69 | 0.1 | 0 |
| Retail | Servers | Existing | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.08 | 4 | $0.11 | 90% | 100% | $0.49 | 0.2 | 0 |
| Retail | Servers | New | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.08 | 4 | $0.11 | 90% | 100% | $0.49 | 0.2 | 0 |
| Retail | Space Heat | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 4397.12 | 10 | $69.26 | 100% | 72% | $0.00 | 32.6 | 571 |
| Retail | Space Heat | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 1025.99 | 15 | $1,685.00 | 95% | 95% | $0.23 | 0.4 | 0 |
| Retail | Space Heat | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 674.23 | 15 | $1,685.00 | 95% | 95% | $0.35 | 0.3 | 0 |
| Retail | Space Heat | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 16132.13 | 15 | $4,000.81 | 25% | 62% | $0.04 | 2.9 | 289 |
| Retail | Space Heat | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 9771.38 | 15 | $2,000.41 | 25% | 95% | $0.03 | 3.5 | 292 |
| Retail | Space Heat | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 9771.38 | 15 | $2,000.41 | 75% | 95% | $0.03 | 3.5 | 21 |
| Retail | Space Heat | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2579.64 | 15 | $1,573.98 | 25% | 99% | $0.09 | 1.2 | 81 |
| Retail | Space Heat | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2579.64 | 15 | $839.46 | 25% | 99% | $0.05 | 2.2 | 2 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Space Heat | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 19312.15 | 15 | ###### | 90% | 100% | $0.45 | 0.2 | 0 |
| Retail | Space Heat | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 4397.12 | 7 | $6,295.92 | 95% | 85% | $0.33 | 0.3 | 0 |
| Retail | Space Heat | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 727.84 | 20 | ###### | 75% | 99% | $13.09 | 0.0 | 0 |
| Retail | Space Heat | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 727.84 | 20 | ###### | 75% | 99% | $13.09 | 0.0 | 0 |
| Retail | Space Heat | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 4690.26 | 7 | $1,706.19 | 95% | 75% | $0.08 | 1.1 | 417 |
| Retail | Space Heat | Existing | Wall Insulation | R-13 | Average Existing Insulation | Per SqFt of Wall Insulation | 13665.75 | 15 | $1,762.80 | 10% | 66% | $0.02 | 5.5 | 117 |
| Retail | Space Heat | Existing | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 11167.29 | 15 | $1,084.80 | 10% | 95% | $0.01 | 7.3 | 143 |
| Retail | Space Heat | New | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 11167.29 | 15 | $1,084.80 | 50% | 95% | $0.01 | 7.3 | 20 |
| Retail | Vending Machines | Existing | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 223.10 | 5 | $29.51 | 100% | 50% | $0.04 | 2.2 | 366 |
| Retail | Vending Machines | New | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 223.10 | 5 | $29.51 | 100% | 50% | $0.04 | 2.2 | 9 |
| Retail | Vending Machines | Existing | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 56.16 | 5 | $26.23 | 100% | 50% | $0.14 | 0.6 | 0 |
| Retail | Vending Machines | New | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 56.16 | 5 | $26.23 | 100% | 50% | $0.14 | 0.6 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Vending Machines | Existing | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.02 | 90% | 100% | $0.27 | 0.4 | 0 |
| Retail | Vending Machines | New | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.02 | 90% | 100% | $0.27 | 0.4 | 0 |
| Retail | Ventilation and Circulation | Existing | CO sensors for parking garage exhaust fans | CO sensors for parking garage exhaust fans | Standard Ventilation | Per Fan Motor HP | 1845.65 | 5 | $268.63 | 1% | 85% | $0.04 | 2.1 | 51 |
| Retail | Ventilation and Circulation | New | CO sensors for parking garage exhaust fans | CO sensors for parking garage exhaust fans | Standard Ventilation | Per Fan Motor HP | 1845.65 | 5 | $268.63 | 1% | 85% | $0.04 | 2.1 | 1 |
| Retail | Ventilation and Circulation | Existing | Downsizing motor during retrofit | Downsizing motor during retrofit | Larger hp standard motor | Per Motor | 32.32 | 20 | $6,627.29 | 10% | 95% | $25.33 | 0.0 | 0 |
| Retail | Ventilation and Circulation | Existing | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 733.90 | 15 | $891.47 | 15% | 95% | $0.17 | 0.6 | 0 |
| Retail | Ventilation and Circulation | New | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 733.90 | 15 | $891.47 | 15% | 95% | $0.17 | 0.6 | 0 |
| Retail | Ventilation and Circulation | Existing | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 217.90 | 18 | $895.08 | 75% | 95% | $0.53 | 0.2 | 0 |
| Retail | Ventilation and Circulation | New | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 217.90 | 18 | $895.08 | 75% | 95% | $0.53 | 0.2 | 0 |
| Retail | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 66.69 | 15 | $2.00 | 95% | 76% | $0.00 | 24.8 | 157 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 66.69 | 15 | $2.00 | 95% | 76% | $0.00 | 24.8 | 4 |
| Retail | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 34.05 | 15 | $2.00 | 95% | 76% | $0.01 | 12.7 | 78 |
| Retail | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 34.05 | 15 | $2.00 | 95% | 76% | $0.01 | 12.7 | 2 |
| Retail | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 52.27 | 15 | $2.00 | 95% | 76% | $0.01 | 19.5 | 122 |
| Retail | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 52.27 | 15 | $2.00 | 95% | 76% | $0.01 | 19.5 | 3 |
| Retail | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 33.91 | 15 | $2.00 | 95% | 76% | $0.01 | 12.6 | 77 |
| Retail | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 33.91 | 15 | $2.00 | 95% | 76% | $0.01 | 12.6 | 2 |
| Retail | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 38.46 | 15 | $2.00 | 95% | 76% | $0.01 | 14.3 | 89 |
| Retail | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, | Per Building | 38.46 | 15 | $2.00 | 95% | 76% | $0.01 | 14.3 | 2 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1200-3600 RPM | | | | | | | | | |
| Retail | Ventilation and Circulation | Existing | VFD on HVAC Fan | VFD on HVAC Fan | Standard Motor | Per HVAC Fan Motor VFD (assuming 50 HP average) | 281.19 | 13 | $53.07 | 75% | 98% | $0.03 | 3.5 | 649 |
| Retail | Ventilation and Circulation | Existing | VFD on HVAC Pump | VFD on HVAC Pump | Standard Motor | Per HVAC Pump Motor VFD (assuming 50 HP average) | 78.16 | 13 | $17.53 | 75% | 98% | $0.03 | 3.0 | 171 |
| Retail | Water Heat GT 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 155.40 | 25 | $833.35 | 5% | 100% | $0.61 | 0.2 | 0 |
| Retail | Water Heat GT 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 67.84 | 25 | $833.35 | 25% | 100% | $1.40 | 0.1 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.09 | 11 | $9.26 | 100% | 34% | $0.19 | 0.5 | 0 |
| Retail | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.09 | 11 | $9.26 | 100% | 34% | $0.19 | 0.5 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 15.95 | 11 | $22.50 | 100% | 95% | $0.24 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 15.95 | 11 | $22.50 | 100% | 95% | $0.24 | 0.4 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.22 | 11 | $13.23 | 100% | 95% | $0.27 | 0.4 | 0 |
| Retail | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.22 | 11 | $13.23 | 100% | 95% | $0.27 | 0.4 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 8.06 | 10 | $6.71 | 100% | 25% | $0.15 | 0.6 | 0 |
| Retail | Water Heat GT 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 8.06 | 10 | $6.71 | 100% | 55% | $0.15 | 0.6 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 390.84 | 14 | $950.00 | 50% | 95% | $0.36 | 0.3 | 0 |
| Retail | Water Heat GT 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 170.62 | 14 | $950.00 | 50% | 95% | $0.82 | 0.1 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 23.37 | 8 | $117.50 | 50% | 75% | $1.06 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Water Heat GT 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 74.40 | 14 | $21.74 | 100% | 95% | $0.04 | 2.4 | 2 |
| Retail | Water Heat GT 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 3.89 | 15 | $224.27 | 75% | 90% | $8.16 | 0.0 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 380.28 | 7 | $63.10 | 95% | 81% | $0.04 | 2.4 | 8 |
| Retail | Water Heat GT 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 166.01 | 7 | $63.10 | 75% | 81% | $0.09 | 1.1 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 278.13 | 7 | $50.00 | 95% | 73% | $0.04 | 2.2 | 0 |
| Retail | Water Heat GT 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 121.42 | 7 | $50.00 | 75% | 73% | $0.10 | 1.0 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 81.26 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 2 |
| Retail | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 81.26 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 57.36 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Retail | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 57.36 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 33.46 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Retail | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 33.46 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 38.24 | 12 | $4.05 | 95% | 25% | $0.02 | 5.9 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 19.21 | 9 | $1.01 | 75% | 85% | $0.01 | 9.3 | 0 |
| Retail | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 19.21 | 9 | $1.01 | 75% | 85% | $0.01 | 9.3 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 14.41 | 9 | $0.76 | 75% | 75% | $0.01 | 9.3 | 0 |
| Retail | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 14.41 | 9 | $0.76 | 75% | 75% | $0.01 | 9.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 9.61 | 9 | $0.50 | 75% | 50% | $0.01 | 9.3 | 0 |
| Retail | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 9.61 | 9 | $0.50 | 75% | 50% | $0.01 | 9.3 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 9.61 | 9 | $0.50 | 75% | 35% | $0.01 | 9.3 | 0 |
| Retail | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 9.61 | 9 | $0.50 | 75% | 35% | $0.01 | 9.3 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.02 | 15 | $1.18 | 100% | 100% | $32.92 | 0.0 | 0 |
| Retail | Water Heat GT 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.02 | 15 | $1.18 | 100% | 100% | $32.92 | 0.0 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 52.58 | 12 | $490.80 | 75% | 85% | $1.50 | 0.1 | 0 |
| Retail | Water Heat GT 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 52.58 | 12 | $490.80 | 75% | 85% | $1.50 | 0.1 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.01 | 10 | $0.02 | 90% | 100% | $0.51 | 0.2 | 0 |
| Retail | Water Heat GT 55 Gal | New | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.01 | 10 | $0.02 | 90% | 100% | $0.51 | 0.2 | 0 |
| Retail | Water Heat GT 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 108.78 | 2 | $17.00 | 75% | 94% | $0.11 | 0.8 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Water Heat LE 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 141.24 | 25 | $833.35 | 5% | 100% | $0.67 | 0.2 | 0 |
| Retail | Water Heat LE 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 140.68 | 25 | $833.35 | 25% | 100% | $0.67 | 0.2 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.09 | 11 | $9.26 | 100% | 34% | $0.19 | 0.5 | 0 |
| Retail | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.09 | 11 | $9.26 | 100% | 34% | $0.19 | 0.5 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 15.95 | 11 | $22.50 | 100% | 95% | $0.24 | 0.4 | 0 |
| Retail | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 15.95 | 11 | $22.50 | 100% | 95% | $0.24 | 0.4 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.22 | 11 | $13.23 | 100% | 95% | $0.27 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 8.22 | 11 | $13.23 | 100% | 95% | $0.27 | 0.4 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 8.06 | 10 | $6.71 | 100% | 25% | $0.15 | 0.6 | 0 |
| Retail | Water Heat LE 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 8.06 | 10 | $6.71 | 100% | 55% | $0.15 | 0.6 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 355.22 | 14 | $950.00 | 50% | 95% | $0.39 | 0.3 | 0 |
| Retail | Water Heat LE 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 353.81 | 14 | $950.00 | 50% | 95% | $0.39 | 0.3 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 21.24 | 8 | $117.50 | 50% | 75% | $1.16 | 0.1 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 74.40 | 14 | $21.74 | 100% | 95% | $0.04 | 2.4 | 99 |
| Retail | Water Heat LE 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 3.53 | 15 | $224.27 | 75% | 90% | $8.98 | 0.0 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 342.06 | 7 | $63.10 | 95% | 81% | $0.04 | 2.2 | 334 |
| Retail | Water Heat LE 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 340.70 | 7 | $63.10 | 75% | 81% | $0.04 | 2.2 | 7 |
| Retail | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 248.30 | 7 | $50.00 | 95% | 73% | $0.05 | 2.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Water Heat LE 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 247.31 | 7 | $50.00 | 75% | 73% | $0.05 | 2.0 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 172.43 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 229 |
| Retail | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 172.43 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 6 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 121.72 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Retail | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 121.72 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 71.00 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Retail | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 71.00 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 81.14 | 12 | $4.05 | 95% | 25% | $0.01 | 12.5 | 36 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 40.76 | 9 | $1.01 | 75% | 85% | $0.00 | 19.8 | 48 |
| Retail | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 40.76 | 9 | $1.01 | 75% | 85% | $0.00 | 19.8 | 1 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 30.57 | 9 | $0.76 | 75% | 75% | $0.00 | 19.8 | 0 |
| Retail | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 30.57 | 9 | $0.76 | 75% | 75% | $0.00 | 19.8 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 20.38 | 9 | $0.50 | 75% | 50% | $0.00 | 19.8 | 0 |
| Retail | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 20.38 | 9 | $0.50 | 75% | 50% | $0.00 | 19.8 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 20.38 | 9 | $0.50 | 75% | 35% | $0.00 | 19.8 | 10 |
| Retail | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 20.38 | 9 | $0.50 | 75% | 35% | $0.00 | 19.8 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.08 | 15 | $0.91 | 100% | 100% | $5.59 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Retail | Water Heat LE 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.08 | 15 | $0.91 | 100% | 100% | $5.59 | 0.0 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 111.57 | 12 | $490.80 | 75% | 85% | $0.71 | 0.1 | 0 |
| Retail | Water Heat LE 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 111.57 | 12 | $490.80 | 75% | 85% | $0.71 | 0.1 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.06 | 10 | $0.15 | 90% | 100% | $0.42 | 0.2 | 0 |
| Retail | Water Heat LE 55 Gal | New | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.06 | 10 | $0.15 | 90% | 100% | $0.42 | 0.2 | 0 |
| Retail | Water Heat LE 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 98.87 | 2 | $17.00 | 75% | 94% | $0.12 | 0.7 | 0 |
| Warehouse | Computers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.20 | 4 | $2.49 | 95% | 86% | $4.63 | 0.0 | 0 |
| Warehouse | Computers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.20 | 4 | $2.49 | 95% | 86% | $4.46 | 0.0 | 0 |
| Warehouse | Computers | Existing | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.05 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 207 |
| Warehouse | Computers | New | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | Per Building | 0.05 | 4 | $0.00 | 90% | 100% | $0.00 | 2,996.0 | 6 |
| Warehouse | Computers | Existing | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 980.05 | 5 | $217.79 | 50% | 80% | $0.07 | 1.3 | 434 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Computers | New | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 980.05 | 5 | $217.79 | 50% | 80% | $0.07 | 1.3 | 10 |
| Warehouse | Cooling Chillers | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 3632.09 | 10 | $182.23 | 100% | 76% | $0.01 | 12.3 | 202 |
| Warehouse | Cooling Chillers | New | Active chilled beam cooling | Active chilled beam cooling | Standard Building Design and Cooling System | Per Building | 3052.94 | 15 | ###### | 60% | 100% | $4.12 | 0.0 | 0 |
| Warehouse | Cooling Chillers | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 44.73 | 20 | $7,114.95 | 95% | 95% | $19.64 | 0.0 | 0 |
| Warehouse | Cooling Chillers | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 44.58 | 20 | $7,114.95 | 95% | 95% | $19.71 | 0.0 | 0 |
| Warehouse | Cooling Chillers | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 15.26 | 15 | $1,685.00 | 95% | 95% | $15.61 | 0.0 | 0 |
| Warehouse | Cooling Chillers | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 765.85 | 10 | $9,859.56 | 95% | 91% | $2.32 | 0.1 | 0 |
| Warehouse | Cooling Chillers | New | Automated control system | Automated control system | Baseline DX | Per Building | 763.23 | 10 | $9,859.56 | 95% | 91% | $2.32 | 0.1 | 0 |
| Warehouse | Cooling Chillers | Existing | Ceiling Insulation | R-24.4 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 9671.31 | 15 | ###### | 25% | 62% | $0.16 | 0.8 | 0 |
| Warehouse | Cooling Chillers | Existing | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 5481.88 | 15 | $6,071.42 | 25% | 95% | $0.16 | 0.8 | 0 |
| Warehouse | Cooling Chillers | New | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 5463.15 | 15 | $6,071.42 | 75% | 95% | $0.16 | 0.8 | 0 |
| Warehouse | Cooling Chillers | Existing | Chilled Water Reset, Optimizer System for Chiller(s) | Chilled Water Reset, Optimizer System for Chiller(s) | 0 | Per Building | 306.34 | 10 | $11,287.59 | 95% | 81% | $6.63 | 0.0 | 0 |
| Warehouse | Cooling Chillers | Existing | Chiller Tuneup/Diagnostics | Chiller Tuneup/Diagnostics | Existing Conditions | Per Building | 1225.36 | 10 | $3,334.61 | 25% | 24% | $0.49 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.23 | 20 | $0.59 | 90% | 100% | $0.31 | 0.4 | 0 |
| Warehouse | Cooling Chillers | New | Chillers < 150 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.58 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.23 | 20 | $0.59 | 90% | 100% | $0.31 | 0.4 | 0 |
| Warehouse | Cooling Chillers | Existing | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.08 | 20 | $0.20 | 90% | 100% | $0.31 | 0.4 | 0 |
| Warehouse | Cooling Chillers | New | Chillers < 150 tons (screw) - High Efficiency | High Efficiency - 0.71 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.08 | 20 | $0.20 | 90% | 100% | $0.31 | 0.4 | 0 |
| Warehouse | Cooling Chillers | Existing | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.17 | 20 | $0.44 | 90% | 100% | $0.31 | 0.4 | 0 |
| Warehouse | Cooling Chillers | New | Chillers < 150 tons (screw) - Premium Efficiency | Premium Efficiency - 0.63 kW/ton (full load) - Chillers < 150 tons (screw) | Standard Efficiency - 0.775 kW/ton (full load) - Chillers < 150 tons (screw) | Per Building | 0.17 | 20 | $0.44 | 90% | 100% | $0.31 | 0.4 | 0 |
| Warehouse | Cooling Chillers | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 3063.41 | 15 | ###### | 95% | 75% | $1.15 | 0.1 | 0 |
| Warehouse | Cooling Chillers | Existing | Cooling Tower Optimization | Cooling Tower Optimization | Existing Conditions | Per Building | 47.71 | 8 | $611.35 | 10% | 90% | $2.69 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Cooling Chillers | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 2289.70 | 7 | ###### | 75% | 85% | $1.68 | 0.1 | 0 |
| Warehouse | Cooling Chillers | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 157.19 | 20 | ###### | 75% | 99% | $135.30 | 0.0 | 0 |
| Warehouse | Cooling Chillers | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 156.66 | 20 | ###### | 75% | 99% | $135.77 | 0.0 | 0 |
| Warehouse | Cooling Chillers | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2586.88 | 30 | $76.88 | 20% | 84% | $0.00 | 44.7 | 27 |
| Warehouse | Cooling Chillers | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 2578.04 | 30 | $76.88 | 80% | 84% | $0.00 | 44.6 | 3 |
| Warehouse | Cooling Chillers | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 2450.72 | 7 | $4,489.57 | 75% | 75% | $0.42 | 0.3 | 0 |
| Warehouse | Cooling Chillers | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2757.06 | 18 | ###### | 1% | 98% | $2.68 | 0.1 | 0 |
| Warehouse | Cooling Chillers | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 2747.64 | 18 | ###### | 1% | 98% | $2.69 | 0.1 | 0 |
| Warehouse | Cooling Chillers | Existing | VFD on cooling tower fans | VFD on cooling tower fans | Base single-speed fan | Per Cooling Tower Motor VFD | 651.20 | 13 | $372.36 | 75% | 98% | $0.09 | 1.4 | 27 |
| Warehouse | Cooling Chillers | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 7724.57 | 15 | $3,322.16 | 10% | 66% | $0.06 | 2.0 | 25 |
| Warehouse | Cooling Chillers | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 5105.68 | 15 | $1,661.08 | 10% | 95% | $0.05 | 2.7 | 24 |
| Warehouse | Cooling Chillers | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 5088.23 | 15 | $1,661.08 | 50% | 95% | $0.05 | 2.7 | 3 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Cooling Chillers | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 765.85 | 5 | $578.77 | 50% | 95% | $0.23 | 0.5 | 0 |
| Warehouse | Cooling Chillers | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 763.23 | 5 | $578.77 | 50% | 95% | $0.23 | 0.5 | 0 |
| Warehouse | Cooling DX | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 4930.26 | 10 | $182.23 | 100% | 76% | $0.01 | 16.7 | 378 |
| Warehouse | Cooling DX | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 394.42 | 20 | $7,114.95 | 95% | 95% | $2.23 | 0.1 | 0 |
| Warehouse | Cooling DX | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 382.23 | 20 | $7,114.95 | 95% | 95% | $2.30 | 0.1 | 0 |
| Warehouse | Cooling DX | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 20.15 | 15 | $1,685.00 | 95% | 95% | $11.82 | 0.0 | 0 |
| Warehouse | Cooling DX | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 1039.58 | 10 | $9,859.56 | 95% | 91% | $1.71 | 0.1 | 0 |
| Warehouse | Cooling DX | New | Automated control system | Automated control system | Baseline DX | Per Building | 1007.46 | 10 | $9,859.56 | 95% | 91% | $1.76 | 0.1 | 0 |
| Warehouse | Cooling DX | Existing | Ceiling Insulation | R-24.4 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 13128.02 | 15 | ###### | 25% | 62% | $0.12 | 1.1 | 119 |
| Warehouse | Cooling DX | Existing | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 7441.21 | 15 | $6,071.42 | 25% | 95% | $0.12 | 1.1 | 113 |
| Warehouse | Cooling DX | New | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 7211.30 | 15 | $6,071.42 | 75% | 95% | $0.12 | 1.0 | 8 |
| Warehouse | Cooling DX | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 4158.33 | 15 | $15,761.40 | 95% | 95% | $0.54 | 0.2 | 0 |
| Warehouse | Cooling DX | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 2321.45 | 5 | $3,000.74 | 95% | 45% | $0.39 | 0.3 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Cooling DX | Existing | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.06 | 15 | $0.44 | 90% | 100% | $1.05 | 0.1 | 0 |
| Warehouse | Cooling DX | New | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.06 | 15 | $0.44 | 90% | 100% | $1.05 | 0.1 | 0 |
| Warehouse | Cooling DX | Existing | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.09 | 15 | $0.70 | 90% | 100% | $1.08 | 0.1 | 0 |
| Warehouse | Cooling DX | New | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | Per Building | 0.09 | 15 | $0.70 | 90% | 100% | $1.08 | 0.1 | 0 |
| Warehouse | Cooling DX | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2162.33 | 15 | $4,141.67 | 5% | 99% | $0.27 | 0.5 | 0 |
| Warehouse | Cooling DX | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 2095.52 | 15 | $2,208.89 | 5% | 99% | $0.15 | 0.8 | 0 |
| Warehouse | Cooling DX | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 473.31 | 15 | $10,716.92 | 95% | 87% | $3.20 | 0.0 | 0 |
| Warehouse | Cooling DX | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 473.31 | 15 | $8,144.86 | 45% | 80% | $2.43 | 0.1 | 0 |
| Warehouse | Cooling DX | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 9818.27 | 15 | ###### | 90% | 100% | $3.43 | 0.0 | 0 |
| Warehouse | Cooling DX | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 3022.38 | 7 | ###### | 95% | 85% | $1.27 | 0.1 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Cooling DX | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1386.11 | 20 | ###### | 75% | 99% | $15.34 | 0.0 | 0 |
| Warehouse | Cooling DX | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1343.28 | 20 | ###### | 75% | 99% | $15.83 | 0.0 | 0 |
| Warehouse | Cooling DX | Existing | HVAC Diagnostic/Air Conditioner Tune Up | HVAC Diagnostic/Air Conditioner Tune Up | No Tune Up | Per Building | 2321.45 | 10 | $3,081.84 | 95% | 24% | $0.24 | 0.5 | 0 |
| Warehouse | Cooling DX | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3511.47 | 30 | $76.88 | 20% | 84% | $0.00 | 60.7 | 51 |
| Warehouse | Cooling DX | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3402.98 | 30 | $76.88 | 80% | 84% | $0.00 | 58.9 | 5 |
| Warehouse | Cooling DX | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 7933.09 | 10 | $13,717.65 | 10% | 45% | $0.31 | 0.4 | 0 |
| Warehouse | Cooling DX | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 3326.66 | 7 | $4,489.57 | 95% | 75% | $0.31 | 0.3 | 0 |
| Warehouse | Cooling DX | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3742.49 | 18 | ###### | 1% | 98% | $1.97 | 0.1 | 0 |
| Warehouse | Cooling DX | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3626.86 | 18 | ###### | 1% | 98% | $2.04 | 0.1 | 0 |
| Warehouse | Cooling DX | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 10485.48 | 15 | $3,322.16 | 10% | 66% | $0.04 | 2.7 | 46 |
| Warehouse | Cooling DX | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 6930.54 | 15 | $1,661.08 | 10% | 95% | $0.03 | 3.6 | 45 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Cooling DX | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 6716.41 | 15 | $1,661.08 | 50% | 95% | $0.03 | 3.5 | 6 |
| Warehouse | Cooling DX | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1039.58 | 5 | $578.77 | 50% | 95% | $0.17 | 0.6 | 0 |
| Warehouse | Cooling DX | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1007.46 | 5 | $578.77 | 50% | 95% | $0.17 | 0.6 | 0 |
| Warehouse | Fax | Existing | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 12 |
| Warehouse | Fax | New | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | Per Building | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 379.4 | 0 |
| Warehouse | Flat Screen Monitors | Existing | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.01 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 26 |
| Warehouse | Flat Screen Monitors | New | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | Per Building | 0.01 | 4 | $0.00 | 90% | 100% | $0.00 | 743.5 | 0 |
| Warehouse | Freezer | Existing | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.00 | 3.2 | 1 |
| Warehouse | Freezer | New | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.00 | 3.2 | 0 |
| Warehouse | Heat Pump | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 7156.71 | 10 | $182.23 | 100% | 76% | $0.00 | 20.6 | 798 |
| Warehouse | Heat Pump | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 349.14 | 20 | $7,114.95 | 95% | 95% | $2.52 | 0.0 | 0 |
| Warehouse | Heat Pump | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 337.48 | 20 | $7,114.95 | 95% | 95% | $2.60 | 0.0 | 0 |
| Warehouse | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.09 | 15 | $0.14 | 90% | 100% | $0.22 | 0.5 | 0 |
| Warehouse | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.09 | 15 | $0.14 | 90% | 100% | $0.22 | 0.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.17 | 15 | $0.28 | 90% | 100% | $0.23 | 0.4 | 0 |
| Warehouse | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.17 | 15 | $0.28 | 90% | 100% | $0.23 | 0.4 | 0 |
| Warehouse | Heat Pump | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 651.57 | 15 | $1,685.00 | 95% | 95% | $0.37 | 0.3 | 0 |
| Warehouse | Heat Pump | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 431.67 | 15 | $1,685.00 | 95% | 95% | $0.55 | 0.2 | 0 |
| Warehouse | Heat Pump | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 1851.05 | 10 | $9,859.56 | 95% | 91% | $0.96 | 0.1 | 0 |
| Warehouse | Heat Pump | New | Automated control system | Automated control system | Baseline DX | Per Building | 1789.24 | 10 | $9,859.56 | 95% | 91% | $0.99 | 0.1 | 0 |
| Warehouse | Heat Pump | Existing | Ceiling Insulation | R-24.4 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 23375.39 | 15 | ###### | 25% | 62% | $0.07 | 1.6 | 321 |
| Warehouse | Heat Pump | Existing | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 13249.62 | 15 | $6,071.42 | 25% | 95% | $0.06 | 1.6 | 306 |
| Warehouse | Heat Pump | New | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 12807.21 | 15 | $6,071.42 | 75% | 95% | $0.07 | 1.5 | 23 |
| Warehouse | Heat Pump | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 3680.95 | 15 | $14,931.85 | 95% | 95% | $0.57 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Heat Pump | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 2054.95 | 5 | $3,000.74 | 95% | 45% | $0.44 | 0.2 | 0 |
| Warehouse | Heat Pump | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 3552.32 | 15 | $4,141.67 | 5% | 99% | $0.16 | 0.6 | 0 |
| Warehouse | Heat Pump | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 3433.71 | 15 | $2,208.89 | 5% | 99% | $0.09 | 1.1 | 0 |
| Warehouse | Heat Pump | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 418.97 | 15 | $10,716.92 | 95% | 87% | $3.62 | 0.0 | 0 |
| Warehouse | Heat Pump | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 418.97 | 15 | $8,144.86 | 45% | 80% | $2.75 | 0.0 | 0 |
| Warehouse | Heat Pump | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 5367.73 | 7 | ###### | 95% | 85% | $0.71 | 0.1 | 0 |
| Warehouse | Heat Pump | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1764.72 | 20 | ###### | 75% | 99% | $12.05 | 0.0 | 0 |
| Warehouse | Heat Pump | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 1705.80 | 20 | ###### | 75% | 99% | $12.47 | 0.0 | 0 |
| Warehouse | Heat Pump | Existing | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.70 | 15 | $31.10 | 90% | 100% | $6.30 | 0.0 | 0 |
| Warehouse | Heat Pump | New | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.70 | 15 | $31.10 | 90% | 100% | $6.30 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Heat Pump | Existing | HVAC Diagnostic/Heat Pump Tune Up | HVAC Diagnostic/Heat Pump Tune Up | No Tune Up | Per Building | 2054.95 | 10 | $2,919.64 | 95% | 24% | $0.26 | 0.4 | 0 |
| Warehouse | Heat Pump | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3108.36 | 30 | $76.88 | 20% | 84% | $0.00 | 44.8 | 65 |
| Warehouse | Heat Pump | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 3004.57 | 30 | $76.88 | 80% | 84% | $0.00 | 43.3 | 6 |
| Warehouse | Heat Pump | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 7933.09 | 10 | $13,717.65 | 10% | 45% | $0.31 | 0.3 | 0 |
| Warehouse | Heat Pump | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 5923.36 | 7 | $4,489.57 | 95% | 75% | $0.18 | 0.5 | 0 |
| Warehouse | Heat Pump | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3312.86 | 18 | ###### | 1% | 98% | $2.23 | 0.1 | 0 |
| Warehouse | Heat Pump | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 3202.24 | 18 | ###### | 1% | 98% | $2.31 | 0.1 | 0 |
| Warehouse | Heat Pump | Existing | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 21990.15 | 15 | ###### | 50% | 95% | $3.85 | 0.0 | 0 |
| Warehouse | Heat Pump | New | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 21255.90 | 15 | ###### | 95% | 95% | $3.98 | 0.0 | 0 |
| Warehouse | Heat Pump | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 18670.15 | 15 | $3,322.16 | 10% | 66% | $0.03 | 4.1 | 124 |
| Warehouse | Heat Pump | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 12340.33 | 15 | $1,661.08 | 10% | 95% | $0.02 | 5.4 | 122 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Heat Pump | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 11928.28 | 15 | $1,661.08 | 50% | 95% | $0.02 | 5.2 | 17 |
| Warehouse | Heat Pump | Existing | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.48 | 15 | $2.88 | 90% | 100% | $0.84 | 0.1 | 0 |
| Warehouse | Heat Pump | New | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | Per Building | 0.48 | 15 | $2.88 | 90% | 100% | $0.84 | 0.1 | 0 |
| Warehouse | Heat Pump | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1851.05 | 5 | $578.77 | 50% | 95% | $0.09 | 0.9 | 0 |
| Warehouse | Heat Pump | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 1789.24 | 5 | $578.77 | 50% | 95% | $0.10 | 0.9 | 0 |
| Warehouse | Lighting Exterior | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 960.87 | 10 | $100.00 | 85% | 45% | $0.02 | 5.2 | 137 |
| Warehouse | Lighting Exterior | Existing | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 2690.43 | 8 | $225.00 | 50% | 45% | $0.02 | 5.4 | 240 |
| Warehouse | Lighting Exterior | New | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 2690.43 | 8 | $225.00 | 50% | 75% | $0.02 | 5.4 | 10 |
| Warehouse | Lighting Exterior | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 2306.08 | 8 | $324.61 | 10% | 100% | $0.03 | 3.2 | 82 |
| Warehouse | Lighting Interior Fluorescent | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 2281.05 | 10 | $100.00 | 85% | 45% | $0.01 | 12.4 | 0 |
| Warehouse | Lighting Interior Fluorescent | Existing | Delamping fixtures | Delamping fixtures | 0 | Per Delamped Fixture | 69.48 | 13 | $6.00 | 0% | 85% | $0.01 | 7.8 | 0 |
| Warehouse | Lighting Interior Fluorescent | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 2528.35 | 8 | $7,817.51 | 65% | 100% | $0.65 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Lighting Interior Fluorescent | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 6158.84 | 10 | $2,511.16 | 10% | 98% | $0.07 | 1.3 | 644 |
| Warehouse | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent High Performance - Above Standard | Above Standard Fluorescent High Performance T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.09 | 13 | $0.15 | 90% | 100% | $0.25 | 0.4 | 0 |
| Warehouse | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent Reduced Wattage - Above Standard | Above Standard Fluorescent Reduced Wattage T-8 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.08 | 13 | $0.50 | 90% | 100% | $0.97 | 0.1 | 0 |
| Warehouse | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T5 - Above Standard | Above Standard Fluorescent T-5 | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.13 | 13 | $0.30 | 90% | 100% | $0.36 | 0.3 | 0 |
| Warehouse | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T8 - Above Standard | Above Standard Fluorescent T8 Interior Lighting | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.03 | 13 | $0.13 | 90% | 100% | $0.76 | 0.1 | 0 |
| Warehouse | Lighting Interior Fluorescent | Existing | Lighting Interior - LED Tube - Above Standard | Above Standard LED Tube | Standard Fluorescent EISA T12 Interior Lighting | Per Building | 0.21 | 20 | $1.58 | 90% | 100% | $0.93 | 0.1 | 0 |
| Warehouse | Lighting Interior Fluorescent | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 5474.53 | 8 | $1,512.04 | 90% | 98% | $0.06 | 1.6 | 1,298 |
| Warehouse | Lighting Interior Fluorescent | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 5474.53 | 8 | $324.61 | 10% | 99% | $0.01 | 7.6 | 191 |
| Warehouse | Lighting Interior HID | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 372.70 | 10 | $100.00 | 85% | 45% | $0.05 | 2.0 | 34 |
| Warehouse | Lighting Interior HID | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 413.11 | 8 | $7,817.51 | 65% | 100% | $3.97 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Lighting Interior HID | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 1006.29 | 10 | $2,511.16 | 10% | 98% | $0.45 | 0.2 | 0 |
| Warehouse | Lighting Interior HID | Existing | Lighting Interior - Efficient Metal Halide - Above Standard | Efficient Metal Halide | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.03 | 15 | $0.03 | 90% | 100% | $0.14 | 0.8 | 0 |
| Warehouse | Lighting Interior HID | Existing | Lighting Interior - High Bay Fluorescent High Output - Above Standard | High Bay Fluorescent High Output (HO) | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.10 | 15 | $0.05 | 90% | 100% | $0.08 | 1.4 | 711 |
| Warehouse | Lighting Interior HID | Existing | Lighting Interior - High Bay LED - Above Standard | High Bay LED | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.16 | 20 | $0.06 | 90% | 100% | $0.05 | 2.4 | 62 |
| Warehouse | Lighting Interior HID | Existing | Lighting Interior - Induction - Above Standard | Induction | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | Per Building | 0.13 | 20 | -$0.02 | 90% | 100% | -$0.02 | 999.0 | 0 |
| Warehouse | Lighting Interior HID | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 894.48 | 8 | $1,512.04 | 90% | 98% | $0.35 | 0.3 | 0 |
| Warehouse | Lighting Interior HID | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 894.48 | 8 | $324.61 | 10% | 99% | $0.08 | 1.2 | 22 |
| Warehouse | Lighting Interior Other | Existing | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Incandescent Exit Sign | Per Exit Sign | 15.21 | 10 | $3.80 | 95% | 25% | $0.04 | 2.2 | 1 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Lighting Interior Other | New | HE Lighting Fixtures/Design 10% better than code (New Construction) | HE Lighting Fixtures/Design 10% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.19 | 15 | $0.12 | 100% | 100% | $0.09 | 1.1 | 0 |
| Warehouse | Lighting Interior Other | New | HE Lighting Fixtures/Design 15% better than code (New Construction) | HE Lighting Fixtures/Design 15% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.28 | 15 | $0.12 | 100% | 100% | $0.06 | 1.7 | 0 |
| Warehouse | Lighting Interior Other | New | HE Lighting Fixtures/Design 30% better than code (New Construction) | HE Lighting Fixtures/Design 30% better than code (New Construction) | Standard Lighting Power Density (LPD) | Per Building | 0.56 | 15 | $0.25 | 100% | 100% | $0.06 | 1.7 | 323 |
| Warehouse | Lighting Interior Other | New | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 3402.25 | 8 | $7,817.51 | 65% | 100% | $0.48 | 0.2 | 0 |
| Warehouse | Lighting Interior Other | Existing | LED exit sign | LED exit sign | CFL Exit Sign | Per Exit Sign | 11.28 | 16 | $4.80 | 95% | 50% | $0.06 | 1.9 | 7 |
| Warehouse | Lighting Interior Other | New | Light Pipes | Light Pipes | Standard lighting system | Per Building | 8287.57 | 10 | $2,511.16 | 30% | 98% | $0.05 | 1.8 | 57 |
| Warehouse | Lighting Interior Other | New | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 7366.73 | 8 | $1,512.04 | 90% | 98% | $0.04 | 2.2 | 15 |
| Warehouse | Lighting Interior Other | Existing | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 29.43 | 30 | $3.00 | 75% | 95% | $0.01 | 11.3 | 26 |
| Warehouse | Lighting Interior Other | New | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 29.43 | 30 | $3.00 | 75% | 95% | $0.01 | 11.3 | 0 |
| Warehouse | Lighting Interior Screw Base | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 52.88 | 10 | $100.00 | 85% | 45% | $0.34 | 0.3 | 0 |
| Warehouse | Lighting Interior Screw Base | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 58.61 | 8 | $7,817.51 | 65% | 100% | $28.00 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Lighting Interior Screw Base | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 142.78 | 10 | $2,511.16 | 10% | 98% | $3.17 | 0.0 | 0 |
| Warehouse | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base CFL - Above Standard | CFL | EISA Standard Incandescent | Per Building | 0.01 | 5 | $0.00 | 90% | 100% | $0.01 | 9.6 | 164 |
| Warehouse | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base Incandescent - Backstop EISA Standard | Backstop EISA Standard Incandescent | EISA Standard Incandescent | Per Building | 0.01 | 2 | $0.00 | 90% | 100% | $0.01 | 5.5 | 0 |
| Warehouse | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base LED - Above Standard | LED | EISA Standard Incandescent | Per Building | 0.02 | 12 | $0.00 | 90% | 100% | $0.04 | 2.6 | 236 |
| Warehouse | Lighting Interior Screw Base | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 126.91 | 8 | $1,512.04 | 90% | 98% | $2.50 | 0.0 | 0 |
| Warehouse | Lighting Interior Screw Base | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 126.91 | 8 | $324.61 | 10% | 99% | $0.54 | 0.2 | 0 |
| Warehouse | Other Plug Load | Existing | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 5.82 | 15 | $0.56 | 75% | 75% | $0.01 | 7.7 | 5 |
| Warehouse | Other Plug Load | New | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 5.82 | 15 | $0.56 | 75% | 75% | $0.01 | 7.7 | 0 |
| Warehouse | Other Plug Load | Existing | Elevators | Elevators | Standard Elevator | Per Elevator Cab | 6960.00 | 16 | ###### | 75% | 90% | $6.49 | 0.0 | 0 |
| Warehouse | Other Plug Load | New | Elevators | Elevators | Standard Elevator | Per Elevator Cab | 6960.00 | 16 | ###### | 100% | 90% | $6.49 | 0.0 | 0 |
| Warehouse | Other Plug Load | Existing | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 6.71 | 4 | $0.67 | 100% | 20% | $0.04 | 2.4 | 2 |
| Warehouse | Other Plug Load | New | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 6.71 | 4 | $0.67 | 100% | 20% | $0.04 | 2.4 | 0 |
| Warehouse | Other Plug Load | Existing | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 827.65 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 232 |
| Warehouse | Other Plug Load | New | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 827.65 | 10 | $0.00 | 95% | 20% | $0.00 | 999.0 | 6 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Other Plug Load | Existing | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.40 | 5 | $1.66 | 95% | 20% | $1.24 | 0.1 | 0 |
| Warehouse | Other Plug Load | New | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 0.40 | 5 | $1.66 | 95% | 20% | $1.24 | 0.1 | 0 |
| Warehouse | Other Plug Load | Existing | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 225.05 | 5 | $38.11 | 95% | 95% | $0.05 | 1.8 | 81 |
| Warehouse | Other Plug Load | New | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 225.05 | 5 | $38.11 | 95% | 95% | $0.05 | 1.8 | 2 |
| Warehouse | Other Plug Load | Existing | VFD on Process | VFD on Process | Standard Motor | Per Process Motor VFD | 3319.25 | 15 | $11,000.00 | 55% | 98% | $0.47 | 0.2 | 0 |
| Warehouse | Photo Copiers | Existing | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 1 |
| Warehouse | Photo Copiers | New | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | Per Building | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,630.0 | 0 |
| Warehouse | Printers | Existing | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.02 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 12 |
| Warehouse | Printers | New | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | Per Building | 0.02 | 5 | $0.00 | 90% | 100% | $0.00 | 4,559.7 | 0 |
| Warehouse | Refrigerator | Existing | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.10 | 1.0 | 0 |
| Warehouse | Refrigerator | New | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.10 | 1.0 | 0 |
| Warehouse | Refrigerator | Existing | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.10 | 1.0 | 36 |
| Warehouse | Refrigerator | New | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.10 | 1.0 | 2 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Refrigerator | Existing | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.09 | 1.0 | 0 |
| Warehouse | Refrigerator | New | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | Per Building | 0.00 | 12 | $0.00 | 90% | 100% | $0.09 | 1.0 | 0 |
| Warehouse | Room Cooling | Existing | Ceiling Insulation | R-24.4 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 11623.18 | 15 | ###### | 25% | 62% | $0.13 | 0.9 | 0 |
| Warehouse | Room Cooling | Existing | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 6588.24 | 15 | $6,071.42 | 25% | 95% | $0.13 | 0.9 | 0 |
| Warehouse | Room Cooling | New | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 6575.71 | 15 | $6,071.42 | 75% | 95% | $0.13 | 0.9 | 0 |
| Warehouse | Room Cooling | Existing | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.03 | 12 | $0.02 | 90% | 100% | $0.12 | 1.0 | 0 |
| Warehouse | Room Cooling | New | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | Per Building | 0.03 | 12 | $0.02 | 90% | 100% | $0.12 | 1.0 | 0 |
| Warehouse | Servers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.17 | 4 | $2.49 | 95% | 86% | $5.45 | 0.0 | 0 |
| Warehouse | Servers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.17 | 4 | $2.49 | 95% | 86% | $5.47 | 0.0 | 0 |
| Warehouse | Servers | Existing | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.02 | 4 | $0.03 | 90% | 100% | $0.49 | 0.2 | 0 |
| Warehouse | Servers | New | Server - High Efficiency | High Efficiency Server | Standard Server | Per Building | 0.02 | 4 | $0.03 | 90% | 100% | $0.49 | 0.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Space Heat | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 3248.95 | 10 | $182.23 | 100% | 76% | $0.01 | 9.1 | 6 |
| Warehouse | Space Heat | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 758.09 | 15 | $1,685.00 | 95% | 95% | $0.31 | 0.3 | 0 |
| Warehouse | Space Heat | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 498.17 | 15 | $1,685.00 | 95% | 95% | $0.48 | 0.2 | 0 |
| Warehouse | Space Heat | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 1082.98 | 10 | $9,859.56 | 95% | 91% | $1.64 | 0.1 | 0 |
| Warehouse | Space Heat | New | Automated control system | Automated control system | Baseline DX | Per Building | 1082.98 | 10 | $9,859.56 | 95% | 91% | $1.64 | 0.1 | 0 |
| Warehouse | Space Heat | Existing | Ceiling Insulation | R-24.4 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 13676.13 | 15 | ###### | 25% | 62% | $0.11 | 0.9 | 0 |
| Warehouse | Space Heat | Existing | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 7751.89 | 15 | $6,071.42 | 25% | 95% | $0.11 | 0.9 | 0 |
| Warehouse | Space Heat | New | Ceiling Insulation | R-38 | R-24.4 | Per SqFt ofCeiling Insulation | 7751.89 | 15 | $6,071.42 | 75% | 95% | $0.11 | 0.9 | 0 |
| Warehouse | Space Heat | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1906.05 | 15 | $4,141.67 | 5% | 99% | $0.31 | 0.3 | 0 |
| Warehouse | Space Heat | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 1906.05 | 15 | $2,208.89 | 5% | 99% | $0.16 | 0.6 | 0 |
| Warehouse | Space Heat | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 14269.40 | 15 | ###### | 90% | 100% | $2.36 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Space Heat | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 3248.95 | 7 | ###### | 95% | 85% | $1.18 | 0.1 | 0 |
| Warehouse | Space Heat | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 625.65 | 20 | ###### | 75% | 99% | $33.99 | 0.0 | 0 |
| Warehouse | Space Heat | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 625.65 | 20 | ###### | 75% | 99% | $33.99 | 0.0 | 0 |
| Warehouse | Space Heat | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 3465.55 | 7 | $4,489.57 | 95% | 75% | $0.30 | 0.3 | 0 |
| Warehouse | Space Heat | Existing | Wall Insulation | R-14 | Average Existing Insulation | Per SqFt of Wall Insulation | 10923.26 | 15 | $3,322.16 | 10% | 66% | $0.04 | 2.3 | 1 |
| Warehouse | Space Heat | Existing | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 7219.90 | 15 | $1,661.08 | 10% | 95% | $0.03 | 3.1 | 1 |
| Warehouse | Space Heat | New | Wall Insulation | R-21 | R-14 | Per SqFt of Wall Insulation | 7219.90 | 15 | $1,661.08 | 50% | 95% | $0.03 | 3.2 | 0 |
| Warehouse | Vending Machines | Existing | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 311.61 | 5 | $41.22 | 100% | 50% | $0.04 | 2.2 | 230 |
| Warehouse | Vending Machines | New | Beverage machine control | Beverage machine control | Vending machine with no sensor | Per Beverage Vending Machine | 311.61 | 5 | $41.22 | 100% | 50% | $0.04 | 2.2 | 6 |
| Warehouse | Vending Machines | Existing | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 78.44 | 5 | $36.64 | 100% | 50% | $0.14 | 0.6 | 0 |
| Warehouse | Vending Machines | New | Non-cooled snack control | Non-cooled snack control | Vending machine with no sensor | Per Snack Vending Machine | 78.44 | 5 | $36.64 | 100% | 50% | $0.14 | 0.6 | 0 |
| Warehouse | Vending Machines | Existing | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.01 | 90% | 100% | $0.27 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Vending Machines | New | Vending Machines - ENERGY STAR - High Efficiency | ENERGY STAR Vending Machines - High Efficiency | Standard Vending Machines | Per Building | 0.01 | 14 | $0.01 | 90% | 100% | $0.27 | 0.4 | 0 |
| Warehouse | Ventilation and Circulation | Existing | Downsizing motor during retrofit | Downsizing motor during retrofit | Larger hp standard motor | Per Motor | 64.78 | 20 | ###### | 10% | 95% | $33.25 | 0.0 | 0 |
| Warehouse | Ventilation and Circulation | Existing | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 1471.14 | 15 | $3,430.96 | 15% | 95% | $0.33 | 0.3 | 0 |
| Warehouse | Ventilation and Circulation | New | ECM Motors for split systems | ECM Motors for split systems | Standard Motor | Per Building | 1471.14 | 15 | $3,430.96 | 15% | 95% | $0.33 | 0.3 | 0 |
| Warehouse | Ventilation and Circulation | Existing | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 1423.66 | 18 | $3,444.85 | 75% | 95% | $0.31 | 0.4 | 0 |
| Warehouse | Ventilation and Circulation | New | Electronically Commutated Motors (ECM) on an Air Handler Unit | Electronically Commutated Motors (ECM) on an Air Handler Unit | Assumes 67% eff. .35 HP PSC motor operating 2000 hours per year is replaced with 85% eff. ECPM motor | Per Air Handler Recirculating Fan Motor (1 HP or less) | 1423.66 | 18 | $3,444.85 | 75% | 95% | $0.31 | 0.4 | 0 |
| Warehouse | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 133.69 | 15 | $5.27 | 95% | 76% | $0.01 | 19.1 | 142 |
| Warehouse | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 1-15 HP, 1200-3600 RPM | Standard (NEMA) Motor 1-15 HP, 1200-3600 RPM | Per Building | 133.69 | 15 | $5.27 | 95% | 76% | $0.01 | 19.1 | 3 |
| Warehouse | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 68.25 | 15 | $5.27 | 95% | 76% | $0.01 | 9.8 | 70 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 125-200 HP, 1200-3600 RPM | Standard (NEMA) Motor 125-200 HP, 1200-3600 RPM | Per Building | 68.25 | 15 | $5.27 | 95% | 76% | $0.01 | 9.8 | 2 |
| Warehouse | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 104.78 | 15 | $5.27 | 95% | 76% | $0.01 | 15.0 | 110 |
| Warehouse | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 20-40 HP, 1200-3600 RPM | Standard (NEMA) Motor 20-40 HP, 1200-3600 RPM | Per Building | 104.78 | 15 | $5.27 | 95% | 76% | $0.01 | 15.0 | 3 |
| Warehouse | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 67.97 | 15 | $5.27 | 95% | 76% | $0.01 | 9.7 | 70 |
| Warehouse | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 250-500 HP, 1200-3600 RPM | Standard (NEMA) Motor 250-500 HP, 1200-3600 RPM | Per Building | 67.97 | 15 | $5.27 | 95% | 76% | $0.01 | 9.7 | 2 |
| Warehouse | Ventilation and Circulation | Existing | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 77.10 | 15 | $5.27 | 95% | 76% | $0.01 | 11.0 | 80 |
| Warehouse | Ventilation and Circulation | New | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Enhanced (Ultra-PE) Motor 50-100 HP, 1200-3600 RPM | Standard (NEMA) Motor 50-100 HP, 1200-3600 RPM | Per Building | 77.10 | 15 | $5.27 | 95% | 76% | $0.01 | 11.0 | 2 |
| Warehouse | Ventilation and Circulation | Existing | VFD on HVAC Fan | VFD on HVAC Fan | Standard Motor | Per HVAC Fan Motor VFD (assuming 50 HP average) | 1371.12 | 13 | $279.27 | 75% | 98% | $0.03 | 3.3 | 1,424 |
| Warehouse | Ventilation and Circulation | Existing | VFD on HVAC Pump | VFD on HVAC Pump | Standard Motor | Per HVAC Pump Motor VFD (assuming 50 HP average) | 224.01 | 13 | $92.26 | 75% | 98% | $0.06 | 1.6 | 204 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Water Heat GT 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 1121.58 | 25 | $833.35 | 5% | 100% | $0.08 | 1.4 | 1 |
| Warehouse | Water Heat GT 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 489.63 | 25 | $833.35 | 25% | 100% | $0.19 | 0.6 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.30 | 11 | $24.38 | 100% | 34% | $0.19 | 0.5 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.30 | 11 | $24.38 | 100% | 34% | $0.19 | 0.5 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 41.96 | 11 | $59.20 | 100% | 95% | $0.24 | 0.4 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 41.96 | 11 | $59.20 | 100% | 95% | $0.24 | 0.4 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.62 | 11 | $34.82 | 100% | 95% | $0.27 | 0.4 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Water Heat GT 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.62 | 11 | $34.82 | 100% | 95% | $0.27 | 0.4 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 9.50 | 10 | $7.92 | 100% | 25% | $0.15 | 0.7 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 9.50 | 10 | $7.92 | 100% | 55% | $0.15 | 0.7 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 2820.78 | 14 | $950.00 | 50% | 95% | $0.05 | 2.1 | 21 |
| Warehouse | Water Heat GT 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 1231.41 | 14 | $950.00 | 50% | 95% | $0.11 | 0.9 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 168.70 | 8 | $117.50 | 50% | 75% | $0.15 | 0.7 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 74.40 | 14 | $21.74 | 100% | 100% | $0.04 | 2.4 | 1 |
| Warehouse | Water Heat GT 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 28.04 | 15 | $224.27 | 75% | 90% | $1.13 | 0.1 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 2744.58 | 7 | $63.10 | 95% | 92% | $0.01 | 17.6 | 74 |
| Warehouse | Water Heat GT 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1198.14 | 7 | $63.10 | 75% | 92% | $0.01 | 7.7 | 1 |
| Warehouse | Water Heat GT 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 2007.31 | 7 | $50.00 | 95% | 83% | $0.01 | 16.2 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Water Heat GT 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 876.29 | 7 | $50.00 | 75% | 83% | $0.01 | 7.1 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 335.17 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 8 |
| Warehouse | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 335.17 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 236.59 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 236.59 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 138.01 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 138.01 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 157.73 | 12 | $2.13 | 95% | 25% | $0.00 | 46.6 | 1 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.10 | 9 | $2.65 | 75% | 85% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.10 | 9 | $2.65 | 75% | 85% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 5.32 | 9 | $1.99 | 75% | 75% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 5.32 | 9 | $1.99 | 75% | 75% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 3.55 | 9 | $1.33 | 75% | 50% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 3.55 | 9 | $1.33 | 75% | 50% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 3.55 | 9 | $1.33 | 75% | 35% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 3.55 | 9 | $1.33 | 75% | 35% | $0.07 | 1.3 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.05 | 15 | $0.45 | 100% | 100% | $4.56 | 0.0 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Water Heat GT 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.05 | 15 | $0.45 | 100% | 100% | $4.56 | 0.0 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 216.87 | 12 | $258.29 | 75% | 85% | $0.19 | 0.5 | 0 |
| Warehouse | Water Heat GT 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 216.87 | 12 | $258.29 | 75% | 85% | $0.19 | 0.5 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.02 | 10 | $0.01 | 90% | 100% | $0.07 | 1.4 | 10 |
| Warehouse | Water Heat GT 55 Gal | New | Water Heater GT 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater GT 55 Gal - EF 2.2 | Federal Standard 2015 Heat Pump Water Heater GT 55 Gal - EF 1.97 | Per Building | 0.02 | 10 | $0.01 | 90% | 100% | $0.07 | 1.4 | 0 |
| Warehouse | Water Heat GT 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 785.11 | 2 | $17.00 | 75% | 94% | $0.01 | 5.9 | 10 |
| Warehouse | Water Heat LE 55 Gal | Existing | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 1019.37 | 25 | $833.35 | 5% | 100% | $0.09 | 1.3 | 8 |
| Warehouse | Water Heat LE 55 Gal | New | Drainwater Heat Recovery Water Heater | Drainwater Heat Recovery Water Heater | No Heat Exchanger | Per Water Heater | 1015.33 | 25 | $833.35 | 25% | 100% | $0.09 | 1.3 | 1 |
| Warehouse | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.30 | 11 | $24.38 | 100% | 34% | $0.19 | 0.5 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.30 | 11 | $24.38 | 100% | 34% | $0.19 | 0.5 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 41.96 | 11 | $59.20 | 100% | 95% | $0.24 | 0.4 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2016 Clothes Washer - MEF 1.72 and WF 8.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 41.96 | 11 | $59.20 | 100% | 95% | $0.24 | 0.4 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.62 | 11 | $34.82 | 100% | 95% | $0.27 | 0.4 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | ENERGY STAR Clothes Washers (Electric Water Heating) | ENERGY STAR Most Efficient Clothes Washer - MEF 2.4 and WF 4.5 (Electric DHW & Dryer) | Federal Standard 2018 Clothes Washer - MEF 2.0 and WF 6.0 (Electric DHW & Dryer) | Per Residential Clothes Washer | 21.62 | 11 | $34.82 | 100% | 95% | $0.27 | 0.4 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 9.50 | 10 | $7.92 | 100% | 25% | $0.15 | 0.7 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | ENERGY STAR Dishwashers (Electric Water Heating) | ENERGY STAR Dishwasher - 295 kWh/yr and 4.25 gal/cycle | Federal Standard 2014 Dishwasher - 307 kWh/yr and 5.0 gal/cycle | Per Residential Dishwasher | 9.50 | 10 | $7.92 | 100% | 55% | $0.15 | 0.7 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 2563.71 | 14 | $950.00 | 50% | 95% | $0.05 | 1.9 | 253 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Water Heat LE 55 Gal | New | Heat Recovery Unit | Heat Recovery Unit (De-superheater) | Base Water Heating | Per Water Heater | 2553.55 | 14 | $950.00 | 50% | 95% | $0.05 | 1.9 | 6 |
| Warehouse | Water Heat LE 55 Gal | Existing | Heat Trap | Heat Trap | No Heat Trap on Water Heater | Per Water Heater | 153.32 | 8 | $117.50 | 50% | 75% | $0.16 | 0.6 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Hot Water (DHW) Pipe Insulation | Hot Water (DHW) Pipe Insulation | No insulation present | Per Linear Foot of Hot Water Pipe Insulation | 74.40 | 14 | $21.74 | 100% | 100% | $0.04 | 2.4 | 16 |
| Warehouse | Water Heat LE 55 Gal | Existing | Hot Water Circulation Pump Time-Clock | Hot Water Circulation Pump Time-Clock | No Time Clock | Per 1000 sqft | 25.48 | 15 | $224.27 | 75% | 90% | $1.24 | 0.1 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 2468.73 | 7 | $63.10 | 95% | 92% | $0.01 | 15.8 | 885 |
| Warehouse | Water Heat LE 55 Gal | New | Insulating Blanket (R=11) | Insulating Blanket (R=11) | No Insulating Blanket on Water Heater | Per Tank Wrap | 2458.95 | 7 | $63.10 | 75% | 92% | $0.01 | 15.8 | 14 |
| Warehouse | Water Heat LE 55 Gal | Existing | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1792.03 | 7 | $50.00 | 95% | 83% | $0.01 | 14.5 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | Insulating Blanket (R=6.7) | Insulating Blanket (R=6.7) | No Insulating Blanket on Water Heater | Per Tank Wrap | 1784.93 | 7 | $50.00 | 75% | 83% | $0.01 | 14.4 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 711.20 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 234 |
| Warehouse | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 0.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 711.20 | 12 | $0.00 | 95% | 75% | $0.00 | 999.0 | 4 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 502.02 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.0 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 502.02 | 12 | $0.00 | 95% | 50% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 292.85 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | Low-Flow Faucet Aerators | 1.5 GPM | 2.2 GPM (Federal Code) | Per Faucet Aerator | 292.85 | 12 | $0.00 | 95% | 35% | $0.00 | 999.0 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Faucet Aerators | 2.2 GPM (Federal Code) | 3.0 GPM | Per Faucet Aerator | 334.68 | 12 | $2.13 | 95% | 25% | $0.00 | 98.9 | 37 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 15.06 | 9 | $2.65 | 75% | 85% | $0.03 | 2.8 | 4 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Warehouse | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.5 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 15.06 | 9 | $2.65 | 75% | 85% | $0.03 | 2.8 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 11.29 | 9 | $1.99 | 75% | 75% | $0.03 | 2.8 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 1.75 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 11.29 | 9 | $1.99 | 75% | 75% | $0.03 | 2.8 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.53 | 9 | $1.33 | 75% | 50% | $0.03 | 2.8 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.0 GPM | 2.5 GPM (Federal Code) | Per Showerhead | 7.53 | 9 | $1.33 | 75% | 50% | $0.03 | 2.8 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 7.53 | 9 | $1.33 | 75% | 35% | $0.03 | 2.8 | 1 |
| Warehouse | Water Heat LE 55 Gal | New | Low-Flow Showerheads | 2.5 GPM (Federal Code) | 3.0 GPM | Per Showerhead | 7.53 | 9 | $1.33 | 75% | 35% | $0.03 | 2.8 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.21 | 15 | $0.35 | 100% | 100% | $0.78 | 0.1 | 0 |
| Warehouse | Water Heat LE 55 Gal | New | Solar Water Heater | Solar Water Heater | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.21 | 15 | $0.35 | 100% | 100% | $0.78 | 0.1 | 0 |
| Warehouse | Water Heat LE 55 Gal | Existing | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 460.19 | 12 | $258.29 | 75% | 85% | $0.09 | 1.1 | 136 |
| Warehouse | Water Heat LE 55 Gal | New | Ultrasonic Faucet Control | Ultrasonic Faucet Control | Manual Faucet Control | Per Faucet Aerator | 460.19 | 12 | $258.29 | 75% | 85% | $0.09 | 1.1 | 3 |
| Warehouse | Water Heat LE 55 Gal | Existing | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.17 | 10 | $0.06 | 90% | 100% | $0.06 | 1.7 | 779 |
| Warehouse | Water Heat LE 55 Gal | New | Water Heater LE 55 Gal - Heat Pump - ENERGY STAR | ENERGY STAR Heat Pump Water Heater LE 55 Gal - EF 2.2 | Federal Standard 2015 Storage Water Heater LE 55 Gal - EF 0.95 | Per Building | 0.17 | 10 | $0.06 | 90% | 100% | $0.06 | 1.7 | 17 |
| Warehouse | Water Heat LE 55 Gal | Existing | Water Heater Thermostat Setback | Water Heater Thermostat Setback | Constant setpoint | Per Building | 713.56 | 2 | $17.00 | 75% | 94% | $0.02 | 5.4 | 119 |

## GNI Measure Details

### Table 7. GNI Measure Details

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Computers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 1.89 | 4 | $7.32 | 95% | 86% | $1.40 | 0.06 | 0 |
| Education | Computers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 1.97 | 4 | $7.32 | 95% | 86% | $1.35 | 0.06 | 0 |
| Education | Computers | Existing | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | 0 | 0.18 | 4 | $0.00 | 90% | 100% | $0.00 | 2,928.64 | 341 |
| Education | Computers | New | Computer - ENERGY STAR | ENERGY STAR Computer | Standard Computer | 0 | 0.18 | 4 | $0.00 | 90% | 100% | $0.00 | 2,928.64 | 10 |
| Education | Computers | Existing | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 9509.99 | 5 | $2,113.33 | 50% | 80% | $0.07 | 1.30 | 716 |
| Education | Computers | New | Network PC Power Management | Network PC Power Management | No Network PC Power Management System | Per PC Workstation Managed by Network PC Power Management | 9509.99 | 5 | $2,113.33 | 50% | 80% | $0.07 | 1.30 | 17 |
| Education | Cooking | Existing | Commercial Hot Food Holding Cabinets (Energy Star) | ENERGY STAR Hot Food Holding Cabinet | Standard Hot Food Holding Cabinet | Per Hot Food Holding Cabinet | 64.88 | 12 | $0.00 | 75% | 95% | $0.00 | 99,995.18 | 12 |
| Education | Cooking | New | Commercial Hot Food Holding Cabinets (Energy Star) | ENERGY STAR Hot Food Holding Cabinet | Standard Hot Food Holding Cabinet | Per Hot Food Holding Cabinet | 64.88 | 12 | $0.00 | 75% | 95% | $0.00 | 99,995.18 | 0 |
| Education | Cooking | Existing | Electric Steam cooker (Energy Star) | ENERGY STAR Steam Cooker | Standard Steam Cooker | Per Steam Cooker | 397.98 | 12 | $7.50 | 5% | 95% | $0.00 | 30.67 | 5 |
| Education | Cooking | New | Electric Steam cooker (Energy Star) | ENERGY STAR Steam Cooker | Standard Steam Cooker | Per Steam Cooker | 397.98 | 12 | $7.50 | 5% | 95% | $0.00 | 30.67 | 0 |
| Education | Cooking | Existing | Electric combination oven (Energy Star) | ENERGY STAR Combination Oven | Standard Combination Oven | Per Combination Oven | 238.79 | 12 | $0.00 | 90% | 90% | $0.00 | 368,039.29 | 48 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Cooking | New | Electric combination oven (Energy Star) | ENERGY STAR Combination Oven | Standard Combination Oven | Per Combination Oven | 238.79 | 12 | $0.00 | 90% | 90% | $0.00 | 368,039.29 | 1 |
| Education | Cooking | Existing | Electric convection oven (Energy Star) | ENERGY STAR Convection Oven | Standard Convection Oven | Per Convection Oven | 72.64 | 12 | $0.00 | 20% | 55% | $0.00 | 111,961.58 | 0 |
| Education | Cooking | New | Electric convection oven (Energy Star) | ENERGY STAR Convection Oven | Standard Convection Oven | Per Convection Oven | 72.64 | 12 | $0.00 | 20% | 55% | $0.00 | 111,961.58 | 0 |
| Education | Cooking | Existing | High Efficiency Fryers (Energy Star) | ENERGY STAR Fryer | Standard Fryer | Per Fryer | 35.69 | 12 | $7.88 | 0% | 95% | $0.04 | 2.62 | 0 |
| Education | Cooking | New | High Efficiency Fryers (Energy Star) | ENERGY STAR Fryer | Standard Fryer | Per Fryer | 35.69 | 12 | $7.88 | 0% | 95% | $0.04 | 2.62 | 0 |
| Education | Cooking | Existing | High Efficiency Griddle (Energy Star) | ENERGY STAR Griddle | Standard Griddle | Per Griddle | 35.80 | 12 | $0.00 | 95% | 95% | $0.00 | 110,339.19 | 8 |
| Education | Cooking | New | High Efficiency Griddle (Energy Star) | ENERGY STAR Griddle | Standard Griddle | Per Griddle | 35.80 | 12 | $0.00 | 95% | 95% | $0.00 | 110,339.19 | 0 |
| Education | Cooking | Existing | High Efficiency Induction Cooking | High Efficiency Induction Cooking | Standard Stovetop | Per Induction Stovetop | 118.66 | 12 | $112.28 | 95% | 95% | $0.15 | 0.61 | 0 |
| Education | Cooking | New | High Efficiency Induction Cooking | High Efficiency Induction Cooking | Standard Stovetop | Per Induction Stovetop | 118.66 | 12 | $112.28 | 95% | 95% | $0.15 | 0.61 | 0 |
| Education | Cooling Chillers | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 9748.31 | 10 | $536.49 | 100% | 67% | $0.01 | 11.88 | 66 |
| Education | Cooling Chillers | New | Active chilled beam cooling | Active chilled beam cooling | Standard Building Design and Cooling System | Per Building | 8581.50 | 15 | ###### | 60% | 100% | $4.32 | 0.03 | 0 |
| Education | Cooling Chillers | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 120.05 | 20 | $18,951.18 | 95% | 95% | $19.50 | 0.01 | 0 |
| Education | Cooling Chillers | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 101.90 | 20 | $18,951.18 | 95% | 95% | $22.97 | 0.01 | 0 |
| Education | Cooling Chillers | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 42.91 | 15 | $1,685.00 | 95% | 95% | $5.55 | 0.02 | 0 |
| Education | Cooling Chillers | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 2527.60 | 10 | ###### | 95% | 65% | $1.32 | 0.09 | 0 |
| Education | Cooling Chillers | New | Automated control system | Automated control system | Baseline DX | Per Building | 2145.37 | 10 | ###### | 95% | 65% | $1.56 | 0.08 | 0 |
| Education | Cooling Chillers | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 12637.99 | 15 | ###### | 25% | 62% | $0.27 | 0.49 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Cooling Chillers | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 16850.66 | 15 | $11,890.94 | 25% | 95% | $0.10 | 1.30 | 38 |
| Education | Cooling Chillers | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 14302.50 | 15 | $11,890.94 | 75% | 95% | $0.12 | 1.10 | 2 |
| Education | Cooling Chillers | Existing | Chilled Water Reset, Optimizer System for Chiller(s) | Chilled Water Reset, Optimizer System for Chiller(s) | 0 | Per Building | 1011.04 | 10 | ###### | 95% | 81% | $5.91 | 0.02 | 0 |
| Education | Cooling Chillers | Existing | Chiller Tuneup/Diagnostics | Chiller Tuneup/Diagnostics | Existing Conditions | Per Building | 4044.16 | 10 | $14,816.28 | 25% | 24% | $0.66 | 0.16 | 0 |
| Education | Cooling Chillers | Existing | Chillers 150-300 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.52 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | 0 | 0.21 | 20 | $0.81 | 90% | 100% | $0.48 | 0.25 | 0 |
| Education | Cooling Chillers | New | Chillers 150-300 tons (screw) - Advanced Efficiency | Advanced Efficiency - 0.52 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | 0 | 0.21 | 20 | $0.81 | 90% | 100% | $0.48 | 0.25 | 0 |
| Education | Cooling Chillers | Existing | Chillers 150-300 tons (screw) - High Efficiency | High Efficiency - 0.63 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | 0 | 0.07 | 20 | $0.25 | 90% | 100% | $0.48 | 0.25 | 0 |
| Education | Cooling Chillers | New | Chillers 150-300 tons (screw) - High Efficiency | High Efficiency - 0.63 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | 0 | 0.07 | 20 | $0.25 | 90% | 100% | $0.48 | 0.25 | 0 |
| Education | Cooling Chillers | Existing | Chillers 150-300 tons (screw) - Premium Efficiency | Premium Efficiency - 0.58 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150- | 0 | 0.13 | 20 | $0.51 | 90% | 100% | $0.48 | 0.25 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 300 tons (screw) | | | | | | | | | |
| Education | Cooling Chillers | New | Chillers 150-300 tons (screw) - Premium Efficiency | Premium Efficiency - 0.58 kW/ton (full load) - Chillers 150-300 tons (screw) | Standard Efficiency - 0.68 kW/ton (full load) - Chillers 150-300 tons (screw) | 0 | 0.13 | 20 | $0.51 | 90% | 100% | $0.48 | 0.25 | 0 |
| Education | Cooling Chillers | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 10110.39 | 15 | $111,122.14 | 95% | 75% | $1.55 | 0.08 | 0 |
| Education | Cooling Chillers | Existing | Cooling Tower Optimization | Cooling Tower Optimization | Existing Conditions | Per Building | 157.47 | 8 | $2,716.32 | 10% | 90% | $3.62 | 0.03 | 0 |
| Education | Cooling Chillers | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 6436.12 | 7 | ###### | 75% | 85% | $1.75 | 0.06 | 0 |
| Education | Cooling Chillers | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 518.80 | 20 | ###### | 75% | 99% | $109.20 | 0.00 | 0 |
| Education | Cooling Chillers | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 440.35 | 20 | ###### | 75% | 99% | $128.65 | 0.00 | 0 |
| Education | Cooling Chillers | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 8537.67 | 30 | $765.97 | 20% | 84% | $0.01 | 12.10 | 21 |
| Education | Cooling Chillers | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 7246.60 | 30 | $765.97 | 80% | 84% | $0.01 | 10.27 | 2 |
| Education | Cooling Chillers | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 14934.31 | 10 | ###### | 90% | 100% | $0.31 | 0.34 | 0 |
| Education | Cooling Chillers | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 8088.32 | 7 | $13,217.06 | 75% | 75% | $0.38 | 0.30 | 0 |
| Education | Cooling Chillers | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 9099.35 | 18 | ###### | 1% | 98% | $1.53 | 0.09 | 0 |
| Education | Cooling Chillers | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 7723.35 | 18 | ###### | 1% | 98% | $1.80 | 0.08 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Cooling Chillers | Existing | VFD on cooling tower fans | VFD on cooling tower fans | Base single-speed fan | Per Cooling Tower Motor VFD | 10027.41 | 13 | $2,740.51 | 75% | 98% | $0.04 | 2.72 | 80 |
| Education | Cooling Chillers | New | VFD on cooling tower fans | VFD on cooling tower fans | Base single-speed fan | Per Cooling Tower Motor VFD | 10027.41 | 13 | $2,740.51 | 90% | 100% | $0.04 | 2.72 | 2 |
| Education | Cooling Chillers | Existing | Wall Insulation | R-13 | Average Existing Insulation | Per SqFt of Wall Insulation | 11665.84 | 15 | $4,225.62 | 10% | 66% | $0.05 | 2.53 | 5 |
| Education | Cooling Chillers | Existing | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 19257.89 | 15 | $2,600.38 | 10% | 95% | $0.02 | 6.79 | 25 |
| Education | Cooling Chillers | New | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 16345.71 | 15 | $2,600.38 | 50% | 95% | $0.02 | 5.76 | 3 |
| Education | Cooling Chillers | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 2527.60 | 5 | $5,766.39 | 50% | 95% | $0.69 | 0.15 | 0 |
| Education | Cooling Chillers | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 2145.37 | 5 | $5,766.39 | 50% | 95% | $0.81 | 0.12 | 0 |
| Education | Cooling DX | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 10812.01 | 10 | $536.49 | 100% | 67% | $0.01 | 11.97 | 346 |
| Education | Cooling DX | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 864.96 | 20 | $18,951.18 | 95% | 95% | $2.71 | 0.05 | 0 |
| Education | Cooling DX | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 838.24 | 20 | $18,951.18 | 95% | 95% | $2.79 | 0.04 | 0 |
| Education | Cooling DX | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 54.34 | 15 | $1,685.00 | 95% | 95% | $4.38 | 0.03 | 0 |
| Education | Cooling DX | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 2803.40 | 10 | ###### | 95% | 65% | $1.19 | 0.09 | 0 |
| Education | Cooling DX | New | Automated control system | Automated control system | Baseline DX | Per Building | 2716.78 | 10 | ###### | 95% | 65% | $1.23 | 0.09 | 0 |
| Education | Cooling DX | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 14017.00 | 15 | ###### | 25% | 62% | $0.24 | 0.49 | 0 |
| Education | Cooling DX | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 18689.33 | 15 | $11,890.94 | 25% | 95% | $0.09 | 1.31 | 229 |
| Education | Cooling DX | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 18111.88 | 15 | $11,890.94 | 75% | 95% | $0.09 | 1.27 | 15 |
| Education | Cooling DX | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 11213.60 | 15 | ###### | 95% | 95% | $0.37 | 0.32 | 0 |
| Education | Cooling DX | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, | Per Building | 5090.91 | 5 | $5,648.18 | 95% | 45% | $0.33 | 0.30 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | EER=10.3, 10 tons | | | | | | | | | |
| Education | Cooling DX | Existing | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | 0 | 0.05 | 15 | $0.28 | 90% | 100% | $0.74 | 0.16 | 0 |
| Education | Cooling DX | New | DX Package 240 to 760 kBtuh - High Efficiency | High Efficiency - 10.5 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | 0 | 0.05 | 15 | $0.28 | 90% | 100% | $0.74 | 0.16 | 0 |
| Education | Cooling DX | Existing | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | 0 | 0.08 | 15 | $0.45 | 90% | 100% | $0.76 | 0.16 | 0 |
| Education | Cooling DX | New | DX Package 240 to 760 kBtuh - Premium Efficiency | Premium Efficiency - 10.8 EER - DX Package 240 to 760 kBtuh | Standard Efficiency - 10.0 EER - DX Package 240 to 760 kBtuh | 0 | 0.08 | 15 | $0.45 | 90% | 100% | $0.76 | 0.16 | 0 |
| Education | Cooling DX | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 5831.07 | 15 | $12,192.86 | 25% | 99% | $0.30 | 0.40 | 0 |
| Education | Cooling DX | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 5650.91 | 15 | $6,502.86 | 25% | 99% | $0.16 | 0.72 | 0 |
| Education | Cooling DX | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 1037.95 | 15 | ###### | 95% | 64% | $2.75 | 0.04 | 0 |
| Education | Cooling DX | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 1037.95 | 15 | ###### | 45% | 80% | $2.09 | 0.06 | 0 |
| Education | Cooling DX | Existing | Ductless Heat Pump | Ductless Heat Pump - SEER/EER 18/12.5, HSPF 10.0 | Existing HVAC system | Per Ductless Heat Pump Cooling Ton | 2.15 | 15 | ###### | 90% | 100% | ###### | 0.00 | 0 |
| Education | Cooling DX | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 8150.35 | 7 | ###### | 95% | 85% | $1.39 | 0.07 | 0 |
| Education | Cooling DX | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 3737.87 | 20 | ###### | 75% | 99% | $15.16 | 0.01 | 0 |
| Education | Cooling DX | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 3622.38 | 20 | ###### | 75% | 99% | $15.64 | 0.01 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Cooling DX | Existing | HVAC Diagnostic/Air Conditioner Tune Up | HVAC Diagnostic/Air Conditioner Tune Up | No Tune Up | Per Building | 5090.91 | 10 | $5,800.84 | 95% | 24% | $0.21 | 0.52 | 0 |
| Education | Cooling DX | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 9469.26 | 30 | $765.97 | 20% | 84% | $0.01 | 12.21 | 110 |
| Education | Cooling DX | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 9176.69 | 30 | $765.97 | 80% | 84% | $0.01 | 11.83 | 11 |
| Education | Cooling DX | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 14934.31 | 10 | ###### | 10% | 45% | $0.31 | 0.34 | 0 |
| Education | Cooling DX | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 8970.88 | 7 | $13,217.06 | 95% | 75% | $0.34 | 0.30 | 0 |
| Education | Cooling DX | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 10092.24 | 18 | ###### | 1% | 98% | $1.38 | 0.09 | 0 |
| Education | Cooling DX | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 9780.41 | 18 | ###### | 1% | 98% | $1.42 | 0.09 | 0 |
| Education | Cooling DX | Existing | Wall Insulation | R-13 | Average Existing Insulation | Per SqFt of Wall Insulation | 12938.77 | 15 | $4,225.62 | 10% | 66% | $0.05 | 2.55 | 28 |
| Education | Cooling DX | Existing | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 21359.24 | 15 | $2,600.38 | 10% | 95% | $0.02 | 6.85 | 130 |
| Education | Cooling DX | New | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 20699.29 | 15 | $2,600.38 | 50% | 95% | $0.02 | 6.63 | 16 |
| Education | Cooling DX | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 2803.40 | 5 | $5,766.39 | 50% | 95% | $0.62 | 0.16 | 0 |
| Education | Cooling DX | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 2716.78 | 5 | $5,766.39 | 50% | 95% | $0.64 | 0.16 | 0 |
| Education | Fax | Existing | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | 0 | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 370.90 | 7 |
| Education | Fax | New | Fax - ENERGY STAR | ENERGY STAR Fax | Standard Fax | 0 | 0.00 | 4 | $0.00 | 90% | 100% | $0.00 | 370.90 | 0 |
| Education | Flat Screen Monitors | Existing | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | 0 | 0.04 | 4 | $0.00 | 90% | 100% | $0.00 | 726.82 | 42 |
| Education | Flat Screen Monitors | New | Monitor - ENERGY STAR | ENERGY STAR Monitor | Standard Monitor | 0 | 0.04 | 4 | $0.00 | 90% | 100% | $0.00 | 726.82 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Freezer | Existing | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | 0 | 0.00 | 12 | $0.00 | 90% | 100% | $0.00 | 3.13 | 1 |
| Education | Freezer | New | Freezer (Residential) - ENERGY STAR | ENERGY STAR Freezer | Federal Standard 2015 Freezer | 0 | 0.00 | 12 | $0.00 | 90% | 100% | $0.00 | 3.13 | 0 |
| Education | Heat Pump | Existing | 7 day, two stage setback thermostat | Setback Thermostat with 7 day, two stage | Manual Thermostat | Per Building | 32779.53 | 10 | $536.49 | 100% | 67% | $0.00 | 31.42 | 387 |
| Education | Heat Pump | Existing | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 720.74 | 20 | $18,951.18 | 95% | 95% | $3.25 | 0.03 | 0 |
| Education | Heat Pump | New | Adding reflective roof treatment | Adding reflective roof treatment | Standard Roofing | Per Building | 690.62 | 20 | $18,951.18 | 95% | 95% | $3.39 | 0.03 | 0 |
| Education | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 0.15 | 15 | $0.09 | 90% | 100% | $0.09 | 1.16 | 0 |
| Education | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - High Efficiency | High Efficiency - 10.0 EER, 3.3 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 0.15 | 15 | $0.09 | 90% | 100% | $0.09 | 1.16 | 0 |
| Education | Heat Pump | Existing | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 0.28 | 15 | $0.18 | 90% | 100% | $0.09 | 1.11 | 151 |
| Education | Heat Pump | New | Air Source Heat Pump > 240 kBtuh - Premium Efficiency | Premium Efficiency - 10.5 EER, 3.4 COP - Air Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 0.28 | 15 | $0.18 | 90% | 100% | $0.09 | 1.11 | 5 |
| Education | Heat Pump | Existing | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 5546.39 | 15 | $1,685.00 | 95% | 95% | $0.04 | 2.35 | 107 |
| Education | Heat Pump | New | Air curtain technology | Air curtain technology | No Air Curtain | Per air curtain installed on entrance to building | 3537.17 | 15 | $1,685.00 | 95% | 95% | $0.07 | 1.50 | 1 |
| Education | Heat Pump | Existing | Automated control system | Automated control system | Baseline DX | Per Building | 10259.39 | 10 | ###### | 95% | 65% | $0.33 | 0.28 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Heat Pump | New | Automated control system | Automated control system | Baseline DX | Per Building | 9830.53 | 10 | ###### | 95% | 65% | $0.34 | 0.27 | 0 |
| Education | Heat Pump | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 51296.97 | 15 | ###### | 25% | 62% | $0.07 | 1.54 | 111 |
| Education | Heat Pump | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 68395.96 | 15 | $11,890.94 | 25% | 95% | $0.02 | 4.11 | 312 |
| Education | Heat Pump | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 65536.84 | 15 | $11,890.94 | 75% | 95% | $0.03 | 3.93 | 21 |
| Education | Heat Pump | Existing | Commercial energy recovery ventilation systems | Commercial energy recovery ventilation systems | No energy recovery ventilation system | Per Building | 9343.94 | 15 | ###### | 95% | 95% | $0.43 | 0.24 | 0 |
| Education | Heat Pump | Existing | DX Coil Cleaning | DX Coil Cleaning | Base DX Packaged System, EER=10.3, 10 tons | Per Building | 4242.10 | 5 | $5,648.18 | 95% | 45% | $0.40 | 0.22 | 0 |
| Education | Heat Pump | Existing | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 18804.05 | 15 | $12,192.86 | 25% | 99% | $0.09 | 1.10 | 90 |
| Education | Heat Pump | New | Demand controlled Ventilation and Circulating Systems | Demand controlled Ventilation and Circulating Systems | Standard Circulating System | Per Building | 18017.99 | 15 | $6,502.86 | 25% | 99% | $0.05 | 1.98 | 2 |
| Education | Heat Pump | Existing | Duct Insulation, Add R8 | R-8 | No Insulation | Per Building | 864.89 | 15 | ###### | 95% | 64% | $3.30 | 0.03 | 0 |
| Education | Heat Pump | Existing | Duct Testing & Sealing | Duct Testing & Sealing | Existing Conditions | Per Building | 864.89 | 15 | ###### | 45% | 80% | $2.51 | 0.04 | 0 |
| Education | Heat Pump | New | Facility Commissioning (New Construction) | Facility Commissioning | No Commissioning | Per Building | 29491.58 | 7 | ###### | 95% | 85% | $0.38 | 0.23 | 0 |
| Education | Heat Pump | Existing | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 9274.30 | 20 | ###### | 75% | 99% | $6.11 | 0.02 | 0 |
| Education | Heat Pump | New | Green Roof (New construction or roof replacement) | Green Roof | Standard Roofing | Per Building | 8886.61 | 20 | ###### | 75% | 99% | $6.37 | 0.02 | 0 |
| Education | Heat Pump | Existing | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 1.05 | 15 | $19.88 | 90% | 100% | $2.67 | 0.04 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Advanced Efficiency | | | | | | | | | | | |
| Education | Heat Pump | New | Ground Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh - Advanced Efficiency | Advanced Efficiency - 16.2 EER 4.0 COP - Ground Source Heat Pump > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 1.05 | 15 | $19.88 | 90% | 100% | $2.67 | 0.04 | 0 |
| Education | Heat Pump | Existing | HVAC Diagnostic/Heat Pump Tune Up | HVAC Diagnostic/Heat Pump Tune Up | No Tune Up | Per Building | 4242.10 | 10 | $5,495.53 | 95% | 24% | $0.23 | 0.40 | 0 |
| Education | Heat Pump | Existing | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 7890.44 | 30 | $765.97 | 20% | 84% | $0.01 | 8.67 | 29 |
| Education | Heat Pump | New | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | High Efficiency Energy Star Windows & Skylights, .32 U-Factor | 0 | Per Building | 7560.60 | 30 | $765.97 | 80% | 84% | $0.01 | 8.31 | 3 |
| Education | Heat Pump | Existing | Outside Air Economizer | Outside Air Economizer | No Economizer | Per Building Sqft for Outside Economizer | 14934.31 | 10 | ###### | 10% | 45% | $0.31 | 0.30 | 0 |
| Education | Heat Pump | Existing | Re-commissioning (Existing Construction) | Re-commissioning (Existing Construction) | No Re-commissioning | Per Building | 32830.06 | 7 | $13,217.06 | 95% | 75% | $0.09 | 0.95 | 0 |
| Education | Heat Pump | Existing | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 8409.54 | 18 | ###### | 1% | 98% | $1.65 | 0.06 | 0 |
| Education | Heat Pump | New | Solid-state temperature controls | Solid-state temperature controls | 0 | Per Building | 8058.01 | 18 | ###### | 1% | 98% | $1.73 | 0.06 | 0 |
| Education | Heat Pump | Existing | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 121879.85 | 15 | ###### | 50% | 95% | $2.04 | 0.05 | 0 |
| Education | Heat Pump | New | Variable Refrigerant Flow Heat Pump | Variable Refrigerant Flow Heat Pump | Existing HVAC system | Per Building | 116784.98 | 15 | ###### | 95% | 95% | $2.13 | 0.05 | 0 |
| Education | Heat Pump | Existing | Wall Insulation | R-13 | Average Existing Insulation | Per SqFt of Wall Insulation | 47351.05 | 15 | $4,225.62 | 10% | 66% | $0.01 | 8.00 | 38 |
| Education | Heat Pump | Existing | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 78166.81 | 15 | $2,600.38 | 10% | 95% | $0.00 | 21.46 | 178 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Heat Pump | New | Wall Insulation | R-21 | R-13 | Per SqFt of Wall Insulation | 74899.25 | 15 | $2,600.38 | 50% | 95% | $0.00 | 20.56 | 24 |
| Education | Heat Pump | Existing | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 0.94 | 15 | $1.84 | 90% | 100% | $0.28 | 0.36 | 0 |
| Education | Heat Pump | New | Water Source Heat Pump Replacing Air Source Heat Pump > 240 kBtuh | Water Source Heat Pump - 12 EER, 4.2 COP - > 240 kBtuh | Standard Efficiency - 9.5 EER, 3.2 COP - Air Source Heat Pump > 240 kBtuh | 0 | 0.94 | 15 | $1.84 | 90% | 100% | $0.28 | 0.36 | 0 |
| Education | Heat Pump | Existing | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 10259.39 | 5 | $5,766.39 | 50% | 95% | $0.17 | 0.51 | 0 |
| Education | Heat Pump | New | Window Shade | Window Shade - Film or Screen | No Shade | Per Building | 9830.53 | 5 | $5,766.39 | 50% | 95% | $0.18 | 0.49 | 0 |
| Education | Lighting Exterior | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 2828.74 | 10 | $100.00 | 85% | 45% | $0.01 | 14.64 | 73 |
| Education | Lighting Exterior | Existing | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 7920.48 | 8 | $300.49 | 50% | 45% | $0.01 | 11.35 | 116 |
| Education | Lighting Exterior | New | Photocell Controls (outdoor) | Photocell Controls (outdoor) | No Outdoor Photocell Lighting Control | Per Building | 7920.48 | 8 | $300.49 | 50% | 75% | $0.01 | 11.35 | 5 |
| Education | Lighting Exterior | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 6788.98 | 8 | $358.78 | 10% | 100% | $0.01 | 8.15 | 21 |
| Education | Lighting Interior Fluorescent | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 12124.63 | 10 | $100.00 | 85% | 45% | $0.00 | 62.82 | 0 |
| Education | Lighting Interior Fluorescent | Existing | Delamping fixtures | Delamping fixtures | 0 | Per Delamped Fixture | 70.44 | 13 | $6.00 | 0% | 85% | $0.01 | 7.57 | 0 |
| Education | Lighting Interior Fluorescent | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 6040.03 | 8 | ###### | 65% | 100% | $0.54 | 0.17 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Lighting Interior Fluorescent | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 32736.50 | 10 | $6,688.65 | 10% | 98% | $0.04 | 2.54 | 658 |
| Education | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent High Performance - Above Standard | Above Standard Fluorescent High Performance T-8 | Standard Fluorescent EISA T12 Interior Lighting | 0 | 0.23 | 13 | $0.22 | 90% | 100% | $0.14 | 0.68 | 0 |
| Education | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent Reduced Wattage - Above Standard | Above Standard Fluorescent Reduced Wattage T-8 | Standard Fluorescent EISA T12 Interior Lighting | 0 | 0.23 | 13 | $0.92 | 90% | 100% | $0.63 | 0.16 | 0 |
| Education | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T5 - Above Standard | Above Standard Fluorescent T-5 | Standard Fluorescent EISA T12 Interior Lighting | 0 | 0.28 | 13 | $0.43 | 90% | 100% | $0.23 | 0.43 | 0 |
| Education | Lighting Interior Fluorescent | Existing | Lighting Interior - Fluorescent T8 - Above Standard | Above Standard Fluorescent T8 Interior Lighting | Standard Fluorescent EISA T12 Interior Lighting | 0 | 0.07 | 13 | $0.16 | 90% | 100% | $0.34 | 0.29 | 0 |
| Education | Lighting Interior Fluorescent | Existing | Lighting Interior - LED Tube - Above Standard | Above Standard LED Tube | Standard Fluorescent EISA T12 Interior Lighting | 0 | 0.46 | 20 | $2.91 | 90% | 100% | $0.78 | 0.13 | 0 |
| Education | Lighting Interior Fluorescent | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 29099.11 | 8 | $4,451.37 | 90% | 98% | $0.03 | 2.82 | 1,045 |
| Education | Lighting Interior Fluorescent | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 29099.11 | 8 | $358.78 | 10% | 99% | $0.00 | 34.99 | 94 |
| Education | Lighting Interior HID | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 69.93 | 10 | $100.00 | 85% | 45% | $0.26 | 0.36 | 0 |
| Education | Lighting Interior HID | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 34.84 | 8 | ###### | 65% | 100% | $92.98 | 0.00 | 0 |
| Education | Lighting Interior HID | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 188.81 | 10 | $6,688.65 | 10% | 98% | $6.38 | 0.01 | 0 |
| Education | Lighting Interior HID | Existing | Lighting Interior - Efficient Metal | Efficient Metal Halide | Standard HID Baseline - represents a | 0 | 0.00 | 15 | $0.00 | 90% | 100% | $0.08 | 1.29 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Halide - Above Standard | | mix of Mercury Vapor, High Pressure Sodium, Metal Halide | | | | | | | | | |
| Education | Lighting Interior HID | Existing | Lighting Interior - High Bay Fluorescent High Output - Above Standard | High Bay Fluorescent High Output (HO) | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | 0 | 0.01 | 15 | $0.00 | 90% | 100% | $0.06 | 1.80 | 22 |
| Education | Lighting Interior HID | Existing | Lighting Interior - High Bay LED - Above Standard | High Bay LED | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | 0 | 0.01 | 20 | $0.00 | 90% | 100% | $0.04 | 2.83 | 2 |
| Education | Lighting Interior HID | Existing | Lighting Interior - Induction - Above Standard | Induction | Standard HID Baseline - represents a mix of Mercury Vapor, High Pressure Sodium, Metal Halide | 0 | 0.01 | 20 | $0.00 | 90% | 100% | -$0.04 | 999.00 | 0 |
| Education | Lighting Interior HID | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 167.83 | 8 | $4,451.37 | 90% | 98% | $5.57 | 0.02 | 0 |
| Education | Lighting Interior HID | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 167.83 | 8 | $358.78 | 10% | 99% | $0.45 | 0.20 | 0 |
| Education | Lighting Interior Other | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 52.54 | 10 | $100.00 | 90% | 100% | $0.34 | 0.27 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Lighting Interior Other | Existing | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Exit Sign Retrofit: Compact Fluorescent, replacing incandescent | Incandescent Exit Sign | Per Exit Sign | 76.04 | 10 | $19.00 | 95% | 25% | $0.04 | 2.07 | 1 |
| Education | Lighting Interior Other | New | HE Lighting Fixtures/Design 10% better than code (New Construction) | HE Lighting Fixtures/Design 10% better than code (New Construction) | Standard Lighting Power Density (LPD) | 0 | 0.28 | 15 | $0.13 | 100% | 100% | $0.06 | 1.61 | 0 |
| Education | Lighting Interior Other | New | HE Lighting Fixtures/Design 15% better than code (New Construction) | HE Lighting Fixtures/Design 15% better than code (New Construction) | Standard Lighting Power Density (LPD) | 0 | 0.42 | 15 | $0.19 | 100% | 100% | $0.06 | 1.61 | 0 |
| Education | Lighting Interior Other | New | HE Lighting Fixtures/Design 30% better than code (New Construction) | HE Lighting Fixtures/Design 30% better than code (New Construction) | Standard Lighting Power Density (LPD) | 0 | 0.85 | 15 | $0.38 | 100% | 100% | $0.06 | 1.61 | 287 |
| Education | Lighting Interior Other | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 26.17 | 8 | ###### | 90% | 100% | $123.75 | 0.00 | 0 |
| Education | Lighting Interior Other | New | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 6845.66 | 8 | ###### | 65% | 100% | $0.47 | 0.19 | 0 |
| Education | Lighting Interior Other | Existing | LED exit sign | LED exit sign | CFL Exit Sign | Per Exit Sign | 56.41 | 16 | $24.00 | 95% | 50% | $0.06 | 1.79 | 6 |
| Education | Lighting Interior Other | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 141.85 | 10 | $6,688.65 | 90% | 100% | $8.49 | 0.01 | 0 |
| Education | Lighting Interior Other | New | Light Pipes | Light Pipes | Standard lighting system | Per Building | 37102.96 | 10 | $6,688.65 | 30% | 98% | $0.03 | 2.87 | 47 |
| Education | Lighting Interior Other | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 126.09 | 8 | $4,451.37 | 90% | 100% | $7.41 | 0.01 | 0 |
| Education | Lighting Interior Other | New | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 32980.41 | 8 | $4,451.37 | 90% | 98% | $0.03 | 3.20 | 4 |
| Education | Lighting Interior Other | Existing | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 147.17 | 30 | $15.00 | 75% | 95% | $0.01 | 8.39 | 22 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Lighting Interior Other | New | Photoluminescent Exit Sign | Photoluminescent Exit Sign | Incandescent exit sign | Per Exit Sign | 147.17 | 30 | $15.00 | 75% | 95% | $0.01 | 8.39 | 0 |
| Education | Lighting Interior Other | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 126.09 | 8 | $358.78 | 90% | 100% | $0.60 | 0.15 | 0 |
| Education | Lighting Interior Screw Base | Existing | Central lighting control system | Central lighting control system | Replace manual switches or no control | Per Building | 135.70 | 10 | $100.00 | 85% | 45% | $0.13 | 0.70 | 0 |
| Education | Lighting Interior Screw Base | Existing | Indoor Daylight Sensors | Indoor Daylight Sensors | No Indoor Daylighting Controls | Per Building | 67.60 | 8 | ###### | 65% | 100% | $47.91 | 0.00 | 0 |
| Education | Lighting Interior Screw Base | Existing | Light Pipes | Light Pipes | Standard lighting system | Per Building | 366.38 | 10 | $6,688.65 | 10% | 98% | $3.29 | 0.03 | 0 |
| Education | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base CFL - Above Standard | CFL | EISA Standard Incandescent | 0 | 0.02 | 5 | $0.00 | 90% | 100% | $0.01 | 9.46 | 8 |
| Education | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base Incandescent - Backstop EISA Standard | Backstop EISA Standard Incandescent | EISA Standard Incandescent | 0 | 0.01 | 2 | $0.00 | 90% | 100% | $0.01 | 5.37 | 0 |
| Education | Lighting Interior Screw Base | Existing | Lighting Interior - Screw Base LED - Above Standard | LED | EISA Standard Incandescent | 0 | 0.02 | 12 | $0.00 | 90% | 100% | $0.04 | 2.51 | 82 |
| Education | Lighting Interior Screw Base | Existing | Occupancy sensor, wall or ceiling mounted | Occupancy sensor, wall or ceiling mounted | Manual Wall Switch | Per Occupancy Sensor | 325.67 | 8 | $4,451.37 | 90% | 98% | $2.87 | 0.03 | 0 |
| Education | Lighting Interior Screw Base | Existing | Time clock control | Time clock control | No Time Clock | Per Time Clock | 325.67 | 8 | $358.78 | 10% | 99% | $0.23 | 0.39 | 0 |
| Education | Other Plug Load | Existing | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 58.23 | 15 | $5.60 | 75% | 75% | $0.01 | 7.52 | 8 |
| Education | Other Plug Load | New | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | 15HP irrigation pump 91% efficient operates 12hrs/day, 3 days/week | Standard Irrigation Pump | Per Commercial Irrigation Pump Motor | 58.23 | 15 | $5.60 | 75% | 75% | $0.01 | 7.52 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Other Plug Load | Existing | Elevators | Elevators | Standard Elevator | Per Elevator Cab | 6960.00 | 16 | ###### | 75% | 90% | $6.49 | 0.02 | 0 |
| Education | Other Plug Load | New | Elevators | Elevators | Standard Elevator | Per Elevator Cab | 6960.00 | 16 | ###### | 100% | 90% | $6.49 | 0.02 | 0 |
| Education | Other Plug Load | Existing | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 24.35 | 4 | $2.42 | 100% | 20% | $0.04 | 2.39 | 1 |
| Education | Other Plug Load | New | Energy Star - Scanners | Energy Star - Scanners | Standard Scanner | Per Scanner | 24.35 | 4 | $2.42 | 100% | 20% | $0.04 | 2.39 | 0 |
| Education | Other Plug Load | Existing | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 914.78 | 10 | $0.00 | 95% | 20% | $0.00 | 0.00 | 0 |
| Education | Other Plug Load | New | Energy Star - Water Cooler | Energy Star - Water Cooler | Std Water Cooler | Per Water Cooler | 914.78 | 10 | $0.00 | 95% | 20% | $0.00 | 0.00 | 0 |
| Education | Other Plug Load | Existing | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 1.19 | 5 | $4.88 | 95% | 20% | $1.24 | 0.07 | 0 |
| Education | Other Plug Load | New | Energy Star Battery Charging System (for small cordless products) | Energy Star Battery Charging System (for small cordless products) | Standard Battery Charger | Per Battery Charger | 1.19 | 5 | $4.88 | 95% | 20% | $1.24 | 0.07 | 0 |
| Education | Other Plug Load | Existing | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 2183.77 | 5 | $369.83 | 95% | 95% | $0.05 | 1.71 | 133 |
| Education | Other Plug Load | New | Occupancy sensor controls/Smart Strip | Occupancy sensor controls/Smart Strip | Computers, other plug loads | Per Advanced Power Strip | 2183.77 | 5 | $369.83 | 95% | 95% | $0.05 | 1.71 | 3 |
| Education | Photo Copiers | Existing | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | 0 | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,593.40 | 1 |
| Education | Photo Copiers | New | Copiers - ENERGY STAR | ENERGY STAR Copiers | Standard Copiers | 0 | 0.00 | 6 | $0.00 | 90% | 100% | $0.00 | 1,593.40 | 0 |
| Education | Pool Pump | Existing | Pool Pump - Two Speed | Pool Pump - Two Speed | Pool Pump - Constant Speed | 0 | 0.01 | 10 | $0.00 | 100% | 100% | $0.00 | 0.00 | 0 |
| Education | Pool Pump | New | Pool Pump - Two Speed | Pool Pump - Two Speed | Pool Pump - Constant Speed | 0 | 0.01 | 10 | $0.00 | 100% | 100% | $0.00 | 0.00 | 0 |
| Education | Pool Pump | Existing | Pool Pump - VSD | Pool Pump - VSD | Pool Pump - Constant Speed | 0 | 0.03 | 10 | $0.00 | 100% | 100% | $0.00 | 0.00 | 0 |
| Education | Pool Pump | New | Pool Pump - VSD | Pool Pump - VSD | Pool Pump - Constant Speed | 0 | 0.03 | 10 | $0.00 | 100% | 100% | $0.00 | 0.00 | 0 |
| Education | Printers | Existing | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | 0 | 0.05 | 5 | $0.00 | 90% | 100% | $0.00 | 4,457.26 | 17 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Printers | New | Printers - ENERGY STAR | ENERGY STAR Printers | Standard Printers | 0 | 0.05 | 5 | $0.00 | 90% | 100% | $0.00 | 4,457.26 | 0 |
| Education | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 2359.11 | 12 | $161.48 | 50% | 100% | $0.01 | 8.78 | 238 |
| Education | Refrigeration | New | Anti-sweat heat (ASH) controls - Cooler | Anti-sweat heat (ASH) controls - Cooler | ASH without controls | Per refrigerated/freezer case unit door | 2359.11 | 12 | $161.48 | 50% | 100% | $0.01 | 8.78 | 6 |
| Education | Refrigeration | Existing | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 4342.28 | 12 | $161.48 | 50% | 100% | $0.01 | 16.16 | 462 |
| Education | Refrigeration | New | Anti-sweat heat (ASH) controls - Freezer | Anti-sweat heat (ASH) controls - Freezer | ASH without controls | Per refrigerated/freezer case unit door | 4342.28 | 12 | $161.48 | 50% | 100% | $0.01 | 16.16 | 12 |
| Education | Refrigeration | Existing | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 614.05 | 8 | $99.68 | 95% | 80% | $0.03 | 2.64 | 117 |
| Education | Refrigeration | New | Auto-closer: Walk-In Cooler | Auto-closer: Walk-In Cooler | No Auto-closer on Walk-in Cooler | Per Walk-in Cooler Door | 614.05 | 8 | $99.68 | 95% | 80% | $0.03 | 2.64 | 3 |
| Education | Refrigeration | Existing | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 1481.78 | 8 | $99.68 | 95% | 80% | $0.01 | 6.36 | 282 |
| Education | Refrigeration | New | Auto-closer:Walk-In Freezer | Auto-closer:Walk-In Freezer | No Auto-closer on Walk-in Freezer | Per Walk-in Freezer Door | 1481.78 | 8 | $99.68 | 95% | 80% | $0.01 | 6.36 | 7 |
| Education | Refrigeration | Existing | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Standard Solid Door Refrigerator & Freezer | Per Solid Door Commercial Refrigerator/Freezer Energy Star | 3.01 | 12 | $0.94 | 95% | 81% | $0.05 | 1.93 | 1 |
| Education | Refrigeration | New | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Commercial Solid Door Refrigerator & Freezer (Energy Star) | Standard Solid Door Refrigerator & Freezer | Per Solid Door Commercial Refrigerator/Freezer Energy Star | 3.01 | 12 | $0.94 | 95% | 81% | $0.05 | 1.93 | 0 |
| Education | Refrigeration | Existing | Compressor VSD retrofit | Compressor VSD retrofit | Base Refrigeration System - Grocery | Per Refrigerator/Freezer Compressor Motor HP | 238.70 | 15 | $136.00 | 70% | 86% | $0.08 | 1.26 | 23 |
| Education | Refrigeration | Existing | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 238.34 | 10 | $1,405.74 | 60% | 80% | $1.06 | 0.09 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Refrigeration | New | Demand Defrost Electric | Demand Defrost Electric | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Fan | 238.34 | 10 | $1,405.74 | 60% | 80% | $1.06 | 0.09 | 0 |
| Education | Refrigeration | Existing | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 59.59 | 10 | $1,405.74 | 90% | 100% | $4.25 | 0.02 | 0 |
| Education | Refrigeration | New | Demand Hot Gas Defrost | Demand Hot Gas Defrost | Base Refrigeration System - Grocery | Per Walk-in Refrigerator/Freezer Evaporator Coil | 59.59 | 10 | $1,405.74 | 90% | 100% | $4.25 | 0.02 | 0 |
| Education | Refrigeration | Existing | Door Gasket - Cooler | Door Gasket - Cooler | Existing Gasket | Per linear foot of gasket on walk-in or reach-in cooler | 230.03 | 4 | $51.12 | 95% | 90% | $0.08 | 1.06 | 49 |
| Education | Refrigeration | Existing | Door Gasket - Freezer | Door Gasket - Freezer | Existing Gasket | Per linear foot of gasket on walk-in or reach-in freezer | 805.11 | 4 | $51.12 | 95% | 90% | $0.02 | 3.72 | 172 |
| Education | Refrigeration | Existing | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 721.69 | 15 | $464.38 | 95% | 93% | $0.09 | 1.12 | 131 |
| Education | Refrigeration | New | ECM Case Motors | ECM Case Motors | Standard Case Motor | Per Refrigerator/Freezer Case Motor | 721.69 | 15 | $464.38 | 95% | 93% | $0.09 | 1.12 | 3 |
| Education | Refrigeration | Existing | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 320.10 | 15 | $428.47 | 10% | 95% | $0.19 | 0.54 | 0 |
| Education | Refrigeration | New | Economizer for Walk-in Coolers | Economizer for Walk-in Coolers | No Economizer | Per Walk-in | 320.10 | 15 | $428.47 | 5% | 95% | $0.19 | 0.54 | 0 |
| Education | Refrigeration | Existing | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 808.94 | 15 | $76.68 | 90% | 100% | $0.01 | 7.59 | 0 |
| Education | Refrigeration | New | Efficient compressor motor | Efficient compressor motor | Standard Compressor Motor | Per Refrigeration Equipment Compressor Motor | 808.94 | 15 | $76.68 | 90% | 100% | $0.01 | 7.59 | 0 |
| Education | Refrigeration | Existing | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 179.15 | 15 | $82.86 | 65% | 75% | $0.07 | 1.56 | 23 |
| Education | Refrigeration | New | Floating head pressure controller | Floating head pressure controller | Standard head pressure control | Per Refrigerator/Freezer Rated Horsepower of Compressor | 179.15 | 15 | $82.86 | 95% | 75% | $0.07 | 1.56 | 1 |
| Education | Refrigeration | Existing | High Efficiency Ice Makers | High Efficiency Ice Makers | Standard Ice Maker | Per Air-cooled Ice Maker | 23.72 | 10 | $52.80 | 75% | 55% | $0.40 | 0.23 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Refrigeration | New | High Efficiency Ice Makers | High Efficiency Ice Makers | Standard Ice Maker | Per Air-cooled Ice Maker | 23.72 | 10 | $52.80 | 95% | 55% | $0.40 | 0.23 | 0 |
| Education | Refrigeration | Existing | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 172.82 | 15 | $123.88 | 50% | 85% | $0.10 | 1.00 | 18 |
| Education | Refrigeration | New | High R-Value Glass Doors | High R-Value Glass Doors | Standard Glass Door | Per low-temperature (below 0°F) glass display case door | 172.82 | 15 | $123.88 | 95% | 92% | $0.10 | 1.00 | 1 |
| Education | Refrigeration | Existing | Insulation for bare suction lines | Insulation for bare suction lines | No Insulation | Per linear feet of walk-in cooler/freezer suction line | 552.77 | 11 | $295.47 | 95% | 50% | $0.09 | 1.04 | 41 |
| Education | Refrigeration | Existing | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 805.27 | 8 | $613.63 | 95% | 80% | $0.16 | 0.56 | 0 |
| Education | Refrigeration | New | LED Refrigerated Case Door Lighting | LED Refrigerated Case Door Lighting | Standard Case Door Lighting | Per cooler or freezer display case door | 805.27 | 8 | $613.63 | 95% | 80% | $0.16 | 0.56 | 0 |
| Education | Refrigeration | Existing | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 172.82 | 15 | $123.88 | 50% | 95% | $0.10 | 1.00 | 0 |
| Education | Refrigeration | New | No-heat glass doors | No-heat glass doors | Standard low-temp reach-in | Per low-temperature (below 0°F) glass display case door | 172.82 | 15 | $123.88 | 95% | 95% | $0.10 | 1.00 | 0 |
| Education | Refrigeration | Existing | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 4374.42 | 15 | $2,348.23 | 95% | 86% | $0.08 | 1.34 | 896 |
| Education | Refrigeration | New | Quick acting freezer doors | Quick acting freezer doors | Standard Freezer Doors | Per Sqft of Freezer Door | 4374.42 | 15 | $2,348.23 | 95% | 86% | $0.08 | 1.34 | 22 |
| Education | Refrigeration | Existing | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 276.86 | 15 | $576.72 | 95% | 49% | $0.29 | 0.35 | 0 |
| Education | Refrigeration | New | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC to ECM Evaporator Fan Motor | Reach-in PSC Motor | Per Evaporator Fan Motor | 276.86 | 15 | $576.72 | 0% | 49% | $0.29 | 0.35 | 0 |
| Education | Refrigeration | Existing | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole to ECM Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 1093.28 | 15 | $576.72 | 95% | 49% | $0.07 | 1.36 | 128 |
| Education | Refrigeration | New | Reach-in Shaded Pole to ECM | Reach-in Shaded Pole to ECM | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 1093.28 | 15 | $576.72 | 0% | 49% | $0.07 | 1.36 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Evaporator Fan Motor | Evaporator Fan Motor | | | | | | | | | | |
| Education | Refrigeration | Existing | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 816.42 | 15 | $576.72 | 95% | 49% | $0.10 | 1.02 | 95 |
| Education | Refrigeration | New | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole to PSC Evaporator Fan Motor | Reach-in Shaded Pole Motor | Per Evaporator Fan Motor | 816.42 | 15 | $576.72 | 0% | 49% | $0.10 | 1.02 | 0 |
| Education | Refrigeration | Existing | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 2048.67 | 3 | $6,252.70 | 10% | 85% | $1.42 | 0.06 | 0 |
| Education | Refrigeration | New | Refrigeration Commissioning | Refrigeration Commissioning | Base Refrigeration System - Grocery | Per 1000 Building Sqft | 2048.67 | 3 | $6,252.70 | 5% | 90% | $1.42 | 0.06 | 0 |
| Education | Refrigeration | Existing | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 1007.19 | 4 | $101.98 | 95% | 78% | $0.04 | 2.33 | 187 |
| Education | Refrigeration | New | Strip curtains for walk-ins | Strip curtains for walk-ins | Base Refrigeration System - Grocery | Per square foot of strip curtain area | 1545.54 | 4 | $101.98 | 95% | 78% | $0.02 | 3.58 | 7 |
| Education | Refrigeration | Existing | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 527.79 | 15 | $319.49 | 75% | 49% | $0.09 | 1.19 | 49 |
| Education | Refrigeration | New | Walk-in PSC to ECM | Walk-in PSC to ECM | Walk-in PSC Motor | Per walk-in cooler or freezer motor | 527.79 | 15 | $319.49 | 95% | 49% | $0.09 | 1.19 | 2 |
| Education | Refrigeration | Existing | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 1412.13 | 15 | $319.49 | 75% | 49% | $0.03 | 3.18 | 130 |
| Education | Refrigeration | New | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole to ECM | Walk-in Shaded Pole Motor | Per walk-in cooler or freezer motor | 1412.13 | 15 | $319.49 | 95% | 49% | $0.03 | 3.18 | 4 |
| Education | Refrigeration | Existing | eCube | eCube | No eCube | Per Walk-in | 1561.65 | 9 | $509.90 | 95% | 95% | $0.06 | 1.44 | 353 |
| Education | Refrigeration | New | eCube | eCube | No eCube | Per Walk-in | 1561.65 | 9 | $509.90 | 95% | 95% | $0.06 | 1.44 | 9 |
| Education | Refrigerator | Existing | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | 0 | 0.01 | 12 | $0.00 | 90% | 100% | $0.09 | 1.02 | 0 |
| Education | Refrigerator | New | Refrigerator - CEE Tier 2 | CEE Tier 2 Refrigerator | Federal Standard 2015 Refrigerator | 0 | 0.01 | 12 | $0.00 | 90% | 100% | $0.09 | 1.02 | 0 |

| Segment | End Use | Construction Vintage | Measure Name | Measure Description | Baseline Description | Unit Description | Savings per Unit (kWh) | Measure Life | Incremental Cost ($) | Technical Feasibility | Incomplete Factor | Levelized Cost ($/kWh) | TRC B/C Ratio | Achievable Potential (MWh) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education | Refrigerator | Existing | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | 0 | 0.01 | 12 | $0.00 | 90% | 100% | $0.10 | 1.02 | 78 |
| Education | Refrigerator | New | Refrigerator - CEE Tier 3 | CEE Tier 3 Refrigerator | Federal Standard 2015 Refrigerator | 0 | 0.01 | 12 | $0.00 | 90% | 100% | $0.10 | 1.02 | 5 |
| Education | Refrigerator | Existing | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | 0 | 0.00 | 12 | $0.00 | 90% | 100% | $0.09 | 1.02 | 0 |
| Education | Refrigerator | New | Refrigerator - ENERGY STAR | ENERGY STAR Refrigerator | Federal Standard 2015 Refrigerator | 0 | 0.00 | 12 | $0.00 | 90% | 100% | $0.09 | 1.02 | 0 |
| Education | Room Cooling | Existing | Ceiling Insulation | R-20 | Average Existing Insulation | Per SqFt ofCeiling Insulation | 12410.25 | 15 | ###### | 25% | 62% | $0.27 | 0.49 | 0 |
| Education | Room Cooling | Existing | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 16547.00 | 15 | $11,890.94 | 25% | 95% | $0.10 | 1.30 | 83 |
| Education | Room Cooling | New | Ceiling Insulation | R-30 | R-20 | Per SqFt ofCeiling Insulation | 16515.55 | 15 | $11,890.94 | 75% | 95% | $0.10 | 1.30 | 6 |
| Education | Room Cooling | Existing | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | 0 | 0.03 | 12 | $0.01 | 90% | 100% | $0.08 | 1.36 | 5 |
| Education | Room Cooling | New | ENERGY STAR Room Air Conditioner | ENERGY STAR Room AC - CEER/EER 11.2/11.3 (8,000-13,999 Btuh) | Federal Standard 2014 Room AC - CEER/EER 10.9/11.0 (8,000-13,999 Btuh) | 0 | 0.03 | 12 | $0.01 | 90% | 100% | $0.08 | 1.36 | 0 |
| Education | Servers | Existing | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.66 | 4 | $7.32 | 95% | 86% | $4.00 | 0.02 | 0 |
| Education | Servers | New | 80 Plus | 80 Plus - Server/Desktop | Standard personal computer, desktop | Per Building | 0.66 | 4 | $7.32 | 95% | 86% | $4.02 | 0.02 | 0 |
| Education | Servers | Existing | Server - High Efficiency | High Efficiency Server | Standard Server | 0 | 0.03 | 4 | $0.00 | 90% | 100% | $0.00 | 0.00 | 0 |