

Estimated Useful Life (EUL)

Volume	Section	Measure #	Measure Name	TRM 9.0 EUL (Years)
2 Residential	2.1 Lighting	2.1.1	Omni-Directional Light Emitting Diode (LED) Lamps - Standard Baseline	8
2 Residential	2.1 Lighting	2.1.1	Omni-Directional Light Emitting Diode (LED) Lamps - Low Income Baseline	10
2 Residential	2.1 Lighting	2.1.1	Omni-Directional Light Emitting Diode (LED) Lamps - Standard Baseline (EISA Compliant Lamps)	8
2 Residential	2.1 Lighting	2.1.1	Omni-Directional Light Emitting Diode (LED) Lamps - Low Income Baseline (EISA Compliant Lamps)	10
2 Residential	2.1 Lighting	2.1.2	Specialty and Directional LED Lamps - ≤ 17,500 Rated Measure Life (Non-EISA Compliant Lamps)	16
2 Residential	2.1 Lighting	2.1.2	Specialty and Directional LED Lamps - > 17,500 Rated Measure Life (Non-EISA Compliant Lamps)	20
2 Residential	2.2 HVAC	2.2.1	Air Conditioner (AC) and Heat Pump (HP) Tune-Ups	5
2 Residential	2.2 HVAC	2.2.2	Duct Sealing	18
2 Residential	2.2 HVAC	2.2.3	Ground Source Heat Pumps (GSHP)	20
2 Residential	2.2 HVAC	2.2.4	Central ACs and HPs - ACs	18
2 Residential	2.2 HVAC	2.2.4	Central ACs and HPs - HPs	15
2 Residential	2.2 HVAC	2.2.5	Mini-Split ACs and HPs - ACs	18
2 Residential	2.2 HVAC	2.2.5	Mini-Split ACs and HPs - HPs	15
2 Residential	2.2 HVAC	2.2.6	Large Capacity Split System and Packaged ACs and HPs - ACs	18
2 Residential	2.2 HVAC	2.2.6	Large Capacity Split System and Packaged ACs and HPs - HPs	15
2 Residential	2.2 HVAC	2.2.7	Packaged Terminal HPs (PTHP)	15
2 Residential	2.2 HVAC	2.2.8	Room Air Conditioners (RAC)	10
2 Residential	2.2 HVAC	2.2.9	Connected Thermostats	11
2 Residential	2.2 HVAC	2.2.10	Smart Thermostat Load Management	1
2 Residential	2.2 HVAC	2.2.11	Evaporative Cooling	15
2 Residential	2.3 Envelope	2.3.1	Air Infiltration	11
2 Residential	2.3 Envelope	2.3.2	Ceiling Insulation	25
2 Residential	2.3 Envelope	2.3.3	Attic Encapsulation	25
2 Residential	2.3 Envelope	2.3.4	Wall Insulation	25
2 Residential	2.3 Envelope	2.3.5	Floor Insulation	25
2 Residential	2.3 Envelope	2.3.6	Windows	25
2 Residential	2.3 Envelope	2.3.7	Storm Windows	20
2 Residential	2.3 Envelope	2.3.8	Solar Screens	10
2 Residential	2.3 Envelope	2.3.9	Cool Roofs	15
2 Residential	2.4 Water Heating	2.4.1	Faucet Aerators	10
2 Residential	2.4 Water Heating	2.4.2	Low-Flow Showerheads (LFSH)	10
2 Residential	2.4 Water Heating	2.4.3	Water Heater Pipe Insulation	13
2 Residential	2.4 Water Heating	2.4.4	Water Heater Tank Insulation	7
2 Residential	2.4 Water Heating	2.4.5	Water Heater Installations - Electric Tankless and Fuel Substitution (Gas and Electric Tankless)	20
2 Residential	2.4 Water Heating	2.4.5	Water Heater Installations - Electric Tankless and Fuel Substitution (Gas Storage)	11
2 Residential	2.4 Water Heating	2.4.6	Heat Pump Water Heaters (HPWH)	13

2 Residential	2.4 Water Heating	2.4.7	Solar Water Heaters	15
2 Residential	2.4 Water Heating	2.4.8	Showerhead Temperature Sensitive Restrictor Valves (TSRV)	10
2 Residential	2.4 Water Heating	2.4.9	Tub Spout and Showerhead TSRVs	10
2 Residential	2.5 Appliances	2.5.1	Ceiling Fans	10
2 Residential	2.5 Appliances	2.5.2	Clothes Washers	11
2 Residential	2.5 Appliances	2.5.3	Clothes Dryers	16
2 Residential	2.5 Appliances	2.5.4	Dishwashers	15
2 Residential	2.5 Appliances	2.5.5	Refrigerators	16
2 Residential	2.5 Appliances	2.5.6	Freezers	22
2 Residential	2.5 Appliances	2.5.7	Pool Pumps	10
2 Residential	2.5 Appliances	2.5.8	Air Purifiers	9
2 Residential	2.5 Appliances	2.5.9	Advanced Power Strips (APS)	10
2 Residential	2.5 Appliances	2.5.10	Electric Vehicle Supply Equipment (EVSE)	10
2 Residential	2.5 Appliances	2.5.11	Refrigerator/Freezer Recycling	8

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Volume	Section	Measure #	Measure Name	TRM 9.0 EUL (Years)
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - Halogen Lamps	1.5
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - High-Intensity Discharge (HID) Lamps	15
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - Integrated-Ballast Cold Cathode Fluorescent Lamps (CCFL)	4.5
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - Integrated-Ballast Compact Fluorescent Lamps (CFL)	2.5
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - Integral Light Emitting Diode (LED) Lamps	9
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - LED Fixtures	15
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - LED Corn Cob Lamps	15
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - LED Tubes (TLED)	15
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - Modular CFL and CCFL Fixtures	15
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - T8 and T5 Linear Fluorescent Lamps	15
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - New Construction Interior Fixtures & Controls	14
3 Non-Residential	2.1 Lighting	2.1.1	Lamps and Fixtures - New Construction Exterior Fixtures	15
3 Non-Residential	2.1 Lighting	2.1.2	Lighting Controls - Occupancy Sensors	10
3 Non-Residential	2.1 Lighting	2.1.2	Lighting Controls - Daylighting Controls	10
3 Non-Residential	2.1 Lighting	2.1.2	Lighting Controls - Time Clocks	10
3 Non-Residential	2.1 Lighting	2.1.2	Lighting Controls - Tuning Controls	10
3 Non-Residential	2.1 Lighting	2.1.2	Lighting Controls - New Construction Interior Fixtures & Controls	14
3 Non-Residential	2.1 Lighting	2.1.3	LED Traffic Signals - 8" and 12" Red, Green, and Yellow Balls	6
3 Non-Residential	2.1 Lighting	2.1.3	LED Traffic Signals - 8" and 12" Red, Green, and Yellow Arrows	6
3 Non-Residential	2.1 Lighting	2.1.3	LED Traffic Signals - Large (16" x 18") Pedestrian Signals	5
3 Non-Residential	2.1 Lighting	2.1.3	LED Traffic Signals - Small (12" x 12") Pedestrian Signals	5
3 Non-Residential	2.2 HVAC	2.2.1	Air Conditioner (AC) and Heat Pump (HP) Tune-Ups	5
3 Non-Residential	2.2 HVAC	2.2.2	Split-System/Packaged ACs and HPs	15
3 Non-Residential	2.2 HVAC	2.2.3	Chillers (Screw, Scroll, and Reciprocating)	20
3 Non-Residential	2.2 HVAC	2.2.3	Chillers (Centrifugal)	25
3 Non-Residential	2.2 HVAC	2.2.4	Packaged Terminal ACs and HPs (PTAC/PTHP)	15
3 Non-Residential	2.2 HVAC	2.2.4	Room Air Conditioners (RAC)	10
3 Non-Residential	2.2 HVAC	2.2.5	Computer Room Air Conditioners (CRAC)	15
3 Non-Residential	2.2 HVAC	2.2.6	Computer Room Air Handlers (CRAH) - Premium Efficiency Motors	15
3 Non-Residential	2.2 HVAC	2.2.6	Computer Room Air Handlers (CRAH) - HVAC VFDs	15

3 Non-Residential	2.2 HVAC	2.2.7	HVAC Variable Frequency Drives (VFD)	15
3 Non-Residential	2.2 HVAC	2.2.8	Condenser Air Evaporative Pre-Cooling	10
3 Non-Residential	2.2 HVAC	2.2.9	High-Volume Low-Speed (HVLS) Fans	9
3 Non-Residential	2.2 HVAC	2.2.10	Small Commercial Evaporative Cooling	15
3 Non-Residential	2.3 Envelope	2.3.1	Cool Roofs	15
3 Non-Residential	2.3 Envelope	2.3.2	Window Treatments	10
3 Non-Residential	2.3 Envelope	2.3.3	Entrance and Exit Door Air Infiltration	11
3 Non-Residential	2.4 Food Service	2.4.1	Combination Ovens	12
3 Non-Residential	2.4 Food Service	2.4.2	Electric Convection Ovens	12
3 Non-Residential	2.4 Food Service	2.4.3	Commercial Dishwashers - Under Counter	10
3 Non-Residential	2.4 Food Service	2.4.3	Commercial Dishwashers - Stationary Single Tank Door	15
3 Non-Residential	2.4 Food Service	2.4.3	Commercial Dishwashers - Single Tank Conveyor	20
3 Non-Residential	2.4 Food Service	2.4.3	Commercial Dishwashers - Multiple Tank Conveyor	20
3 Non-Residential	2.4 Food Service	2.4.3	Commercial Dishwashers - Pot, Pan, and Utensil	10
3 Non-Residential	2.4 Food Service	2.4.4	Hot Food Holding Cabinets (HFHC)	12
3 Non-Residential	2.4 Food Service	2.4.5	Electric Fryers	12
3 Non-Residential	2.4 Food Service	2.4.6	Electric Steam Cookers	12
3 Non-Residential	2.4 Food Service	2.4.7	Ice Makers	8.5
3 Non-Residential	2.4 Food Service	2.4.8	Demand Controlled Kitchen Ventilation (DCKV)	15
3 Non-Residential	2.4 Food Service	2.4.9	Pre-Rinse Spray Valves (PRSV)	5
3 Non-Residential	2.4 Food Service	2.4.10	Vacuum-Sealing and Packaging Machines	10
3 Non-Residential	2.5 Refrigeration	2.5.1	Door Heater Controls	12
3 Non-Residential	2.5 Refrigeration	2.5.2	Electronically Commutated Motors (ECM) Evaporator Fan Motors	15
3 Non-Residential	2.5 Refrigeration	2.5.3	Electronic Defrost Controls	10
3 Non-Residential	2.5 Refrigeration	2.5.4	Evaporator Fan Controls	16
3 Non-Residential	2.5 Refrigeration	2.5.5	Night Covers for Open Refrigerated Display Cases	5
3 Non-Residential	2.5 Refrigeration	2.5.6	Solid and Glass Door Reach-Ins	12
3 Non-Residential	2.5 Refrigeration	2.5.7	Strip Curtains for Walk-In Refrigerated Storage	4
3 Non-Residential	2.5 Refrigeration	2.5.8	Zero-Energy Doors for Refrigerated Cases	12
3 Non-Residential	2.5 Refrigeration	2.5.9	Door Gaskets for Walk-In and Reach-In Coolers and Freezers	3
3 Non-Residential	2.5 Refrigeration	2.5.10	High Speed Doors for Cold Storage	5
3 Non-Residential	2.6 Water Heating	2.6.1	Central Domestic Hot Water (DHW) Controls	15
3 Non-Residential	2.6 Water Heating	2.6.2	Showerhead Temperature Sensitive Restrictor Valves (TSRV)	10
3 Non-Residential	2.6 Water Heating	2.6.3	Tub Spout and Showerhead TSRVs	10
3 Non-Residential	2.7 Miscellaneous	2.7.1	Vending Machine Controls	5
3 Non-Residential	2.7 Miscellaneous	2.7.2	Lodging Guest Room Occupancy Sensor Controls	10
3 Non-Residential	2.7 Miscellaneous	2.7.3	Pump-Off Controllers	15
3 Non-Residential	2.7 Miscellaneous	2.7.4	Pool Pumps	10
3 Non-Residential	2.7 Miscellaneous	2.7.5	Computer Power Management	3

3 Non-Residential	2.7 Miscellaneous	2.7.6	Premium Efficiency Motors	15
3 Non-Residential	2.7 Miscellaneous	2.7.7	Electric Vehicle Supply Equipment (EVSE)	10
3 Non-Residential	2.7 Miscellaneous	2.7.8	VFDs for Water Pumping	12.5
3 Non-Residential	2.7 Miscellaneous	2.7.9	Steam Trap Repair and Replacement - Standard Steam Traps	6
3 Non-Residential	2.7 Miscellaneous	2.7.9	Steam Trap Repair and Replacement - Venturi Steam Traps	20
3 Non-Residential	2.7 Miscellaneous	2.7.10	Hydraulic Gear Lubricants	10
3 Non-Residential	2.7 Miscellaneous	2.7.11	Hydraulic Oils	10

Section	Measure #	Measure Name	TRM 9.0 EUL (Years)
2.1 HVAC	2.1.1	Air Conditioning Tune-Ups	5
2.1 HVAC	2.1.2	Ground Source Heat Pumps (GSHP)	20
2.1 HVAC	2.1.3	Variable Refrigerant Flow (VRF) Systems	15
2.2 Whole House	2.2.1	Residential New Construction	23
2.3 Renewables	2.3.1	Non-Residential Solar Photovoltaics (PV)	30
2.3 Renewables	2.3.2	Residential Solar Photovoltaics (PV)	30
2.3 Renewables	2.3.3	Solar Shingles	N/a
2.3 Renewables	2.3.4	Solar Attic Fans	15
2.4 Miscellaneous	2.4.1	Behavioral Measures	1
2.4 Miscellaneous	2.4.2	Air Compressors Less than 75 hp	10
2.4 Miscellaneous	2.4.3	Commercial Retro-Commissioning (RCx)	5
2.4 Miscellaneous	2.4.4	Thermal Energy Storage (TES)	15
2.5 Load Management	2.5.1	Residential Load Curtailment	N/a
2.5 Load Management	2.5.2	Non-Residential Load Curtailment	N/a