

Market	TRM Section	End Use	Measure	Changes
Residential	2.1.2	Appliances	Clothes Dryer	<ul style="list-style-type: none"> Updated End Use Subcategory for consistency
Residential	2.1.8	Appliances	Air Purifier	<ul style="list-style-type: none"> Updated baseline and proposed case to ENERGY STAR Version 3.0 Clarified PM2.5 CADR is the correct CADR metric
Residential	2.2.1	Appliance Recycling	Refrigerator & Freezer Recycling	<ul style="list-style-type: none"> Updated primary refrigerator, secondary refrigerator, and freezer deemed savings values for JCPL using updated parameters from latest JCPL EM&V Report Added part-time use factor (PTF) as an explicit calculation parameter Updated measure description
Residential	2.3.1	HVAC	Air Source Heat Pumps Mini-Split Heat Pumps, and PTHPs	<ul style="list-style-type: none"> Added PTHP (Packaged Terminal Heat Pump) to measure description; added applicable baseline and efficient equipment equations and parameters for PTHP throughout
Residential	2.3.12	HVAC	Ceiling Fan	<ul style="list-style-type: none"> Updated F_{FH} value Updated HRS_{light} to align with screw based lighting hours of use
Residential	2.3.2	HVAC	Central AC, Mini-split AC, and PTAC	<ul style="list-style-type: none"> Corrected PTAC baseline and efficient case efficiencies to use EER, not EER2 Corrected peak demand equation for air conditioners to use EER2 Updated references
Residential	2.3.3	HVAC	Water Source Heat Pump	<ul style="list-style-type: none"> Added clarification for fuel switching Corrected EER for GSHP baseline Corrected appendix references Added guidance for unknown motor type
Residential	2.3.4	HVAC	Gas Forced Air and Hydronic Heating	<ul style="list-style-type: none"> Text edited for better alignment with C&I Gas Forced Air and Hydronic Heating measure 3.5.6 Annual fuel savings algorithm updated to reflect capacity out, instead of capacity in Oversizing factor adjusted to 1.0 Updated Capout parameter to Btu/hr to correctly calculate ΔkWh Updated annual fuel savings algorithm conversion to calculate $\Delta Therms$ as a result of Capout parameter update
Residential	2.3.5	HVAC	High Efficiency Bathroom Exhaust Fan	<ul style="list-style-type: none"> Updated parameters table to include support for spot exhaust fan use in addition to continuous use Updated CF table to include support for spot use in addition to continuous use
Residential	2.3.7	HVAC	Duct Sealing and Duct Insulation	<ul style="list-style-type: none"> Removed reference to RUL since this is an RF measure whose benefit does not cease at the end of the host equipment life
Residential	2.3.8	HVAC	Heat or Energy Recovery Ventilator	<ul style="list-style-type: none"> Revised footnote to reference Appendix E for EER2, SEER2, and HSPF2 values Corrected table references in the parameters table Corrected units in the parameters table Updated outdated reference links Added last access dates for reference links
Residential	2.3.9	HVAC	Maintenance	<ul style="list-style-type: none"> Updating measure lifecycle description to three years

Residential	2.3.11	HVAC	Filter Whistle	<ul style="list-style-type: none"> Removed ISR variable from measure parameters, ISR values are documented in Appendix J
Residential	2.3.13	HVAC	Smart Thermostat	<ul style="list-style-type: none"> Removed ISR variable from measure parameters, ISR values are documented in Appendix J
Residential	2.4.1	Lighting	Lamps & Fixtures	<ul style="list-style-type: none"> Removed negative sign, 0.03412 factor and Eff_{heat} from fuel savings algorithm Added $\times 10$ conversion factor Updated F_{FH} value Added nightlight measure life Added coincident factor for exterior lighting Removed ISR variable from measure parameters, ISR values are documented in Appendix J Updated language regarding direct install program baseline
Residential	2.4.2	Lighting	Occupancy Sensor	<ul style="list-style-type: none"> Added the $\times 10$ conversion factor for heating penalty calculation Updated References
Residential	2.5.3	Plug Load	Smart Strip	<ul style="list-style-type: none"> Removed ISR variable from measure parameters, ISR values are documented in Appendix J
Residential	2.6.1	Shell	Air Sealing	<ul style="list-style-type: none"> Added default ΔCFM values for outlet gaskets and weateherstripping Added yield for spray foam based on FY2021 NJ Clean Energy Program Protocols Addendum
Residential	2.6.2	Shell	Insulation	<ul style="list-style-type: none"> Updated annual fuel savings constant of 1,000 to derive therms Updated CDD basis temperature to 72°F Corrected gas, fuel oil, and propane conversions
Residential	2.6.3	Shell	Window Insulation	<ul style="list-style-type: none"> Corrected HDD values using the same temperature basis of 65°F
Residential	2.7.1	Water Heating	Heat Pump Water Heater	<ul style="list-style-type: none"> Fixed broken reference links Revised baseline descriptions Added midstream baseline default fuel splits Fixed parameter names
Residential	2.7.4	Water Heating	Tankless Water Heater	<ul style="list-style-type: none"> Corrected natural gas peak day factor
Residential	2.7.6	Water Heating	Water Heating Setback	<ul style="list-style-type: none"> Included surface area for storage tanks with 60 and 75 gallon capacities. Updated recovery efficiencies of HPWH and gas water heater
Residential	2.7.7	Water heating	Faucet Aerators and Showerheads	<ul style="list-style-type: none"> Added EREP baseline type Updated default values for UEF and average number of people per household Updated references
Residential	2.7.8	Water Heating	Thermostatic Showerhead	<ul style="list-style-type: none"> Updated the order of the savings algorithm to be consistent with faucet aerator and showerhead measure Added/updated some parameter descriptions Updated references

Residential	2.7.9	Water Heating	Pipe Insulation	<ul style="list-style-type: none"> •Corrected baseline product of overall heat transfer coefficient and pipe area per foot from uninsulated pipe (UA/L baseline) •Corrected efficient case product of overall heat transfer coefficient and pipe area per foot from uninsulated pipe (UA/L qualified) •Updated the reference links and numbers
Commercial	3.10.10	Refrigeration	Evaporator Fan EC Motor	<ul style="list-style-type: none"> •Updated interactive effects for cooler to 1.38 and freezer to 1.76 •Removed separate interactive effects for different baseline motors •Updated/fixed interactive factor reference/citation link
Commercial	3.10.14	Refrigeration	High Speed Rollup Door - Refrigerated Warehouse	<ul style="list-style-type: none"> •Corrected error in savings algorithm •Corrected typo for EE parameter •Removed unused reference
Commercial	3.10.3	Refrigeration	Door Gaskets	<ul style="list-style-type: none"> •Updated RUL value to reflect 1/3 of the host refrigeration equipment EUL, as opposed to 1/3 of the door gasket EUL. Updated RUL/EUL logic •Confirmed the savings normalizing unit is per door •Removed dual baseline condition •Updated parameter denotation for number of doors •Updated references
Commercial	3.10.6	Refrigeration	Anti-sweat Heat Control	<ul style="list-style-type: none"> •Peak demand savings calculation updated to account for number of doors •Updated references
Commercial	3.10.7	Refrigeration	Defrost Controls	<ul style="list-style-type: none"> •Converted Eff_{RS} (Efficiency of typical refrigeration system) default cooler value from 3.35 COP to 1.05 kW/ton (cooler) •Converted Eff_{RS} (Efficiency of typical refrigeration system) default freezer value from 1.88 COP to 1.87 kW/ton •Updated measure life reference
Commercial	3.11.1	Water Heating	Storage Water Heater	<ul style="list-style-type: none"> •Updated constant in therm calculation •Updated standby loss constant
commercial	3.11.2	Water Heating	Tankless Water Heater	<ul style="list-style-type: none"> •Updated efficient case and description to confirm fuel switching eligibility •Added missing parameters to the parameters table •Updated references
Commercial	3.11.3	Water Heating	Heat Pump Water Heater	<ul style="list-style-type: none"> •Updated baseline case to include midstream •Updated references
Commercial	3.11.5	HVAC	Combination Boiler	<ul style="list-style-type: none"> •Added measure case with water storage tank •Updated references
Commercial	3.2.4	Appliances	Refrigerators	<ul style="list-style-type: none"> •Corrected kWhq and kWhb variable descriptions to reflect daily energy consumption •Updated PDF value to N/A •Repaired broken EUL reference link in the References section
Commercial	3.2.5	Appliances	Freezers	<ul style="list-style-type: none"> •Corrected kWhq and kWhb variable descriptions to reflect daily energy consumption •Updated EUL reference link in the References section
Commercial	3.4.1	Food Service	Ovens, Fryer, Steamer, Griddle	<ul style="list-style-type: none"> •Added combination ovens to this measure chapter •Updated the reference links

				<ul style="list-style-type: none"> •Note added to measure description pointing users to the Advanced Rooftop Controls section if this measure involves installation of either dual enthalpy economizer controls or a supply fan VFD on constant-volume, single-speed rooftop units (RTUs) •Clarified the use of equipment EUL and host RUL in measure life section
Commercial	3.5.13	HVAC	Demand Controlled Ventilation	<ul style="list-style-type: none"> •Updated measure life reference
Commercial	3.5.17	HVAC	EC Motors	<ul style="list-style-type: none"> •Corrected conversion factor in annual fuel savings algorithm
Commercial	3.5.18	HVAC	Economizer Controls	<ul style="list-style-type: none"> •Added note directing users to the Advanced Rooftop Controls section when the measure includes DCV or a supply fan VFD on constant-volume, single-speed RTUs • Updated reference links
Commercial	3.5.2	HVAC	Air Source Heat Pumps and Mini-Split Heat Pumps	<ul style="list-style-type: none"> •Added clarification on fuel switching savings calculations •Clarified demand savings calculations based on SEER/SEER2 and EER/EER2 metrics
Commercial	3.5.21	HVAC	Smart Thermostats	<ul style="list-style-type: none"> •Added conversion factor from kBtu to therms
Commercial	3.5.23	HVAC	Maintenance	<ul style="list-style-type: none"> •Added EER rated systems to kWh algorithm
Commercial	3.5.3	HVAC	Geothermal and Water Source Heat Pumps	<ul style="list-style-type: none"> •Added clarification on fuel switching savings calculations
Commercial	3.5.4	HVAC	Gas Heat Pumps	<ul style="list-style-type: none"> •Value for GPD parameter updated to point user to Table 3-390. •Value for PDF parameter updated to reference Table 3-131 in the 3.11 Water Heating section, pointing user to Appendix G.
Commercial	3.5.6	HVAC	Gas Forced Air and Hydronic Heating	<ul style="list-style-type: none"> •Text edited for better alignment with Residential Gas Forced Air and Hydronic Heating measure 2.3.4 •Oversizing factor adjusted to 1.0 as an interim solution for the PY6 TRM, parameter will undergo additional research for future improvement •Updated Cap_{out} parameter to Btu/hr to correctly calculate ΔkWh •Updated annual fuel savings algorithm conversion to calculate ΔTherms as a result of Cap_{out} parameter update
Commercial	3.6.2	Shell	Commercial and Industrial Air Sealing	<ul style="list-style-type: none"> •Updated CDD values to use a 72°F temperature basis for consistency with other insulation and sealing measures •Corrected HDD values using a 65°F temperature basis
Commercial	3.6.3	Shell	Dock Door Seals and Shelter	<ul style="list-style-type: none"> •Added CF and PDF variables to the parameters table. •Updated enthalpy calculations and cooling days to reference a 75°F temperature basis for CDD
Commercial	3.6.4	Shell	High Speed Overhead Doors	<ul style="list-style-type: none"> •Clarified eligible building types •Updated enthalpy calculations and cooling days to reference a 75°F temperature basis
Commercial	3.6.6	Shell	Wall Insulation	<ul style="list-style-type: none"> •Correcting constant in therms equation •Updated CDD temperature basis to 72°F •Corrected HDD values using a 65°F temperature basis
Commercial	3.7.1	Lighting	Lighting Fixtures	<ul style="list-style-type: none"> •Updated Hours of Use and Coincidence Factors values for Grocery, Retail (Large), Warehouse/Industrial (Large), and Warehouse/Industrial (Small) building types •Removal of control-based demand savings, use lighting controls measure 3.7.2 to calculate control-specific savings •Updated References

Commercial	3.7.2	Lighting	Lighting Controls	<ul style="list-style-type: none"> •Removed ISR from measure chapter •Corrected order of baseline savings percentage and measure case savings percentage in energy savings algorithms •Updated SVG parameter definitions and values •Added hours of use table
Commercial	3.7.3	Lighting	Delamping	<ul style="list-style-type: none"> •Added ×10 MMBtu-to-Therms conversion factor in fuel savings algorithm •Updated References
Commercial	3.7.4	Lighting	Exit Signs	<ul style="list-style-type: none"> •Added ×10 MMBtu-to-Therms conversion factor in fuel savings algorithm •Updated References
Commercial	3.7.5	Lighting	LED Sign	<ul style="list-style-type: none"> •Added ×10 MMBtu-to-Therms conversion factor in fuel savings algorithm •Removal of RUL language in Measure Life Section •Updated References
Commercial	3.8.3	Motors & Drives	VFD	<ul style="list-style-type: none"> •Note added to measure description pointing users to the Advanced Rooftop Controls section if the measure involves additional installation of either DCV or dual enthalpy economizer controls on constant-volume, single-speed rooftop units (RTUs)
Commercial	3.9.6	Food Service	Vending Machine Controls	<ul style="list-style-type: none"> •Updated broken reference links •Added hours by building type table •Updated hours variable and description •Consolidated annual energy savings algorithms
Commercial	3.9.8	Plug Load	Lithium Ion Fork Truck Batteries	<ul style="list-style-type: none"> •Corrected energy savings for propane and diesel and added midstream savings •Added ΔGallons and Net ΔMMBTU savings