

C&I 2021 Energy Efficiency Program Guidelines

Early Replacement Projects

The following is the minimum information required for energy conservation measures (ECM's) related to early replacement of equipment.

For a measure to be eligible for early replacement incentives:

1. At the time of application, the existing equipment cannot exceed its Effective Useful Life (EUL) and should have at least 1 year of its EUL remaining (See table below for more details on the EUL of eligible equipment).
2. The existing equipment must be fully functioning.

Required Project Documentation

Projects with measures listed in the Technical Resource Manual (TRM) which includes those measures in the table below must provide the first set of requirements. Projects with measures not listed in the TRM must include all requirements on this sheet.

All Projects Require Submission of the Following:

- A. A detailed scope of work that contains all equipment in the proposed measure and sequence of operation for the existing system.
- B. A formal cost proposal for the proposed energy efficient equipment
- C. A formal cost proposal for the code-compliant equipment which must include make, model number, and efficiency of the equipment. Data sheets for the code compliant equipment must be provided for verification.
- D. Proof of equipment functionality
 - a. Supported by Con Edison pre-inspection while equipment is operating, BMS trend data, equipment service log
- E. Cooling/heating capacity of the existing equipment and the new energy efficient equipment and its efficiency rating if applicable
 - a. Supported by manufacturer's equipment data sheets or industry standard performance testing results for existing equipment
 - b. Supported by manufacturer's equipment data sheets or AHRI certificate for new equipment
- F. Age of the existing equipment
 - a. Original invoice, bill of sale, construction permit, service log, or nameplate date

All Non TRM Measures Require the Following Additional Information

- G. An engineering analysis of estimated energy consumption of the existing equipment, estimated energy consumption of the code compliant equipment and the new proposed energy efficient equipment.
- H. Each engineering analysis must include both summer peak kW load and annual kWh usage, or the annual gas usage (in therms) for gas projects.
- I. Each analysis must be provided in a datasheet format such as Excel with savings calculations and algorithms. Calculations in PDF files are not acceptable.

Effective Useful Life of Commercial & Industrial Measures

Category	Measures	EUL (years)
Compressed Air	Air Compressor	15
	Refrigerated Air Dryer	15
Domestic Hot Water	Indirect Water Heater	15
	Storage Tank Water Heater	15
	Tankless Water Heater	20
	Heat Pump Water Heater – Air Source (HPWH)	10
Heating, Ventilation and Air Conditioning (HVAC)	Air Conditioner (Rooftop Unit, PTAC)	15
	Heat Pump (Air Source, PTHP)	15
	Heat Pump (Water Source)	25
	Chiller (Air and Water Cooled)/ Air Handler	20
	Cooling Tower	15
	Combination Boiler & Water Heater	20
	Condensing Gas-Fired Unit Heater for Space Heating	18
	Boiler (Hot Water, Steel Water Tube)	24
	Boiler (Hot Water, Steel Fire Tube)	25
	Boiler (Hot Water, Cast Iron)	35
	Boiler (Steam, Steel Water Tube)	30
	Boiler (Steam, Steel Fire Tube)	25
	Boiler (Steam, Cast Iron)	30
	Furnace (Gas-Fired)	18
	Unit Heater (Gas-Fired)	13
Infrared Gas Space Heater	17	
Refrigeration	Air Cooled Refrigeration Condenser	15
	Equipment (Condensers, Compressors, and Sub-Cooling)	15
	Refrigerated Case/ Walk-in Cooler or Freezer	15
Other	Clothes Washers	14
	High Performance Glazing (Windows)	20

**Please note that EUL values listed above are subject to change per the latest version of the TRM (Appendix P). The EUL values listed in the current TRM will take precedence.*