C&I 2019 Energy Efficiency Program Guidelines

New Commercial Refrigeration Compressor Rack Systems

Following is the minimum information required for energy conservation measures (ECM's) related to replacement of refrigeration compressor rack systems. Projects applying for incentives related to this measure must comply with all applicable requirements listed herein.

Required Project Documentation
All projects must provide the following documentation.

A. A detailed scope of work that contains all equipment in the proposed measure and includes existing system operation.
B. A cost proposal as provided to the customer, including labor and material cost.
C. An engineering analysis of the estimated energy savings based on implementation of the proposed measure.
D. The engineering analysis must include both summer peak kW savings and annual kWh savings.

Required Technical Data
In order to qualify for full incentives, the new system must meet the following criteria:

1. The new system energy consumption must be at least 20% less than the existing system energy consumption.
2. The new refrigeration compressors must be rated in accordance with AHRI Standard 540 -2015. EER or COP calculations must be provided for the new system.
3. The equipment data sheets must show the system refrigerating capacity (Btu/h) and its maximum power input (watts). Those values must be calculated using the accepted industry polynomial formula for refrigeration system with multiple compressors based on AHRI Standard 540-2015.
4. All regression coefficients used in the power and refrigerating capacity calculations must be provided by the equipment manufacturer.
5. The new system suction groups shall include control systems that use floating suction pressure control logic to reset the target suction pressure temperature based on the temperature requirements of the attached refrigeration display cases or walk-ins. See NYSECC for exceptions.
6. Liquid subcooling shall be provided for all low-temperature compressor systems with a design cooling capacity equal to or greater than 100,000 Btu/hr (29.3 kW) with a design-saturated suction temperature of -10°F or lower.
7. The sub-cooled liquid temperature shall be controlled at a maximum temperature setpoint of 50°F at the exit of the subcooler