

C&I Energy Efficiency Program Guidelines

New Commercial Refrigerated Display Cases

The following is the minimum information required for energy conservation measures (ECM's) related to installation of new refrigerated cases. Projects applying for incentives related to new refrigerated cases 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 materials
- 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.
- E. The existing equipment should be used as a baseline for energy savings. The analysis must be provided in a datasheet format such as Excel with savings calculations and algorithms. The engineering analysis must show code compliant refrigerated case energy consumption and proposed refrigerated case energy consumption.

Required Technical Data

All incentive applications must include the following technical data:

1. **The Maximum Daily Energy Consumption (MDEC) must be less than the calculated Energy Use Limit required by Code in order to qualify for incentives. That value could be derived from Table C403.2.14 of the Code.**
2. Quantity of existing refrigerated cases to be replaced
3. Quantity of new refrigerated cases to be installed
4. Make and model number of all new refrigerated cases
5. Provide equipment class, family code, operating mode, rating temperature for each refrigerated case as listed in the New York State/NYC Energy Conservation Code **(See the sample table below)**
6. Maximum Daily Energy Consumption of each refrigerated case (MDEC) in kWh
7. Total Display Area (ft²) - TDA
8. Total power rating of each refrigerated case in kW
9. Quantity of fan motors in each new refrigerated cases
10. Fan motor type (ECM, PSC, etc) and kW rating
11. Quantity of lamps in each refrigerated case
12. Lamp type and wattage (LED, Fluorescent, etc)
13. Quantity of compressors (if applicable) in each refrigerated case and the kW rating of each compressor
14. Is refrigerated case equipped with lighting control? If so, what type? (dimmer, timer, etc).
15. Is refrigerated case equipped with evaporator fan control?

Sample Table

Equipment Make & Model	Equipment Class	Family Code	Operating Mode	Rating Temperature	Energy Use Limits(kWh/Day) or Max Daily Energy Consumption	NYCECC Compliant?	Total Display Area (ft ²)	Volume (ft ³)	Length (ft)	Number of Doors
XXXXX RNL9999	VOP.RC.M	Vertical Open	Remote condensing	Medium	45 kwh/day	Yes	35	N/A	12	4
XYX RTM 00119	VCS.SC.I	Vertical transparent door	Self-contained	Ice cream	60 kWh/day	No	N/A	50	8	2

References:

http://www.ahrinet.org/App_Content/ahri/files/STANDARDS/ANSI/ANSI_AHRI_Standard_1200_I-P_2013.pdf

http://www1.nyc.gov/assets/buildings/apps/pdf_viewer/viewer.html?file=2016ECC_CHC4.pdf§ion=energy_code_2016