

Commissioning - Retail Renovation & Addition Green's Appliances Albany, New York

Program

NYSDA New Construction Program

Scope of Services

- Project Scoping
- Design Assistance
- DOE-2.1E Whole Building Modeling
- Cost Benefit Analysis
- Incentive Calculation & Reporting
- LEED Optimize Energy Performance
- LEED Fundamental Commissioning
- LEED Enhanced Commissioning

Level of Involvement

NCP Technical Assistance Provider
LEED Commissioning Authority

Facility Size

18,000 sq. ft.

Facility Type

Retail

Project Goals

LEED-NC for Retail Pilot Rating System

Green's Appliances is an existing 10,000 square foot retail building located in Colonie, New York. This project involved the partial renovation of the existing facility and the construction of an 8,000 sq. ft. addition. The exterior walls consist of a CMU masonry construction with an overall exterior wall construction has a U-factor of 0.084 Btu/hr.°F·ft².

The air-conditioning component of the heating, ventilation and air-conditioning (HVAC) consists of an air-cooled packaged system with gas fired heating. The baseline operating efficiency of the unit is based on the guidelines presented in ASHRAE Standard 90.1-2004.

The lighting fixtures consist of a variety of high efficiency fixtures, including T5 and T8 bulbs as well as high output metal halide track lighting in the retail space. The enhanced lighting provides an overall power density of 1.02 watts per square foot.



Green's Appliances

The primary goal of commissioning is to deliver a fully functional, fine-tuned building with complete documentation and an adequately trained operating and maintenance staff. This commissioning process is a quality control based approach to document the installation of the equipment via the completion of construction checklists, verification of proper system operation by witnessing the testing of the system operation, and verification of staff training and record documentation. Commissioning is a systematic process to ensure that building systems are designed, installed and perform interactively according to the owner's programmatic and operational needs and the design intent. Commissioning is thus the owner's means of verifying that the planning, design, construction, and operational processes are achieving their goals and ensuring the delivery of a high quality building with maximum asset value. Commissioning is recognized by organizations such as ASHRAE, USDOE, and the USGBC to promote consistently successful construction projects.

The commissioning activities include verifying that the proper project documentation had been delivered and that personnel were properly trained on the equipment. We ensured that the start-up reports and TAB reports were done and followed by functional testing that demonstrated that the equipment and systems were performing in accordance with the design intent.