

Commercial/Historic - DEEP ENERGY RETROFIT



Union Block Building implements IBEA energy cost savings measures through a deep energy retrofit with Bruss Construction - Claremont, NH

Building Overview

Built in 1897, the 32,715 square foot Union Block building is listed on the National Register of Historic Places and is a cornerstone building for downtown Claremont. With rising fuel costs threatening the viable operation of this unique landmark, a team of energy efficiency professionals collaborated to identify and implement cost effective solutions to improve building durability, increase occupant safety and comfort, and reduce energy use.

IBEA's Role

IBEA helped secure funding from the New Hampshire Community Development Finance Authority, Southwestern Community Services and Retail Merchants Association in the form of grants, tax credits and loans to reduce the costs of construction. IBEA also used infra-red imaging under depressurized conditions as part of the measurement and verification (M&V) process during and after construction. The M&V process ensured products were installed to manufacturer's specifications and performance metrics were met, as required by the Southwestern Community Services funding agreement.

Results

The Union Block project demonstrates how much we can improve New Hampshire's historic building stock at a reasonable cost. By reducing energy loads, installing a more cost-effective heating system, and improving occupant safety and comfort, the

Union Block building shows how to update historic buildings to meet modern safety codes and minimize energy demands.

Impact

The IBEA and Bruss Construction collaboration resulted in a 60% reduction in energy demand and 75% reduction in energy cost, all while keeping Union Block a historic center to Claremont's business district. The building remained operational through the entire six month evaluation and renovation process.

- \$58,658 Energy costs savings per year
- 406,310 Emissions reductions (CO2 lbs/yr)
- 32,715 square foot - Commercial office and life skills services building
- Energy project cost: \$572,225

