



Energy Improvement Plan

Luther Manor

3131 Hillcrest Road
Dubuque, IA 52001

Grant Awarded August 2014
Community Foundation of Greater Dubuque

700 Locust Street, Suite 195, Dubuque, IA 52001
563-588-2700

Overview

Site Details

- Type of Facility: Senior Care Community
- Square Footage: 110,000
- Year Constructed: 1969
- Green Champion: Troy Smith
- Operating Budget: \$9,118,081

Energy Performance

- Annual Energy Cost: \$171,444
- Annual Energy Use: 12,818,306 kBtu
- Energy Use Index (EUI): 117 kBtu/sf
- Benchmark EUI: 126 kBtu/sf

Project Background

Luther Manor provides long term care, short term rehabilitation, Memory Care, Outpatient Therapy, Independent Living Apartments & Townhomes, and Care at Home Services.

The building is owned by Luther Manor and has a number of additions. The Wendt Willows and Catered Living wings were added in the 1980s. An administrative building was added in 1991 the Memory Care Center was added in 2000. The most recent renovation was a new office suite and physical therapy space. Our recommendations included:

- Extensive lighting retrofit that includes replacing T12 lamps with T8, replacing HID exterior lighting with LEDs, installing new LED exit signs, and installing occupancy sensors.
- There is a significant roof opening that is a source for conditioned air leakage that needs to be sealed off.
- New weather-stripping to be added to garage doors.
- Insulation added to hot water pipes.

These retrofits in combination with the Petal Project's low and no-cost recommendations total an estimated **5.7% energy savings**.

| Description | Estimated Annual Energy Savings (kBtu) | | Estimated Annual Cost Savings | | ACTUAL Project Costs | Estimated Payback |
|--------------------------|--|-------------|-------------------------------|--|----------------------|-------------------|
| Lighting | 210,870 | 1.6% | \$5,800 | | \$35,050 | 6.0 years |
| Seal roof opening | 201,838 | 1.6% | \$1,700 | | \$3,884 | 2.3 years |
| Weather-stripping doors | 10,000 | 0.1% | \$90 | | \$300 | 3.3 years |
| Insulate hot water pipes | 246,615 | 1.9% | \$2,100 | | \$880 | 0.4 years |
| Petal Certification | 64,092 | 0.5% | \$857 | | | |
| TOTAL | 733,415 | 5.7% | \$10,547 | | \$40,114 | 3.8 years |

Grant Award: \$20,057
Match Required: \$20,057



Grants to Green (G2G) is a grant program run by the Community Foundation of Greater Dubuque that pays up to \$50,000 for energy improvements to help a nonprofit save money on utility bills and strengthen its operations. For more information visit: www.dbqfoundation.org/g2g