



SHOWCASE PROJECT: COMMONBOND COMMUNITIES: GREENVALE PLACE

SOLUTION OVERVIEW

Greenvale Place is a five-building, two-story apartment development with 96 residential units. The apartment units range from one to three bedrooms and were built in the early 1970s. Each of the five buildings has one main boiler plant providing common and residential area heating to the building via hot water baseboard radiators. The property experiences more than three-and-a-half times the number of heating days versus cooling days based on a 30-year average.

Rents at Greenvale Place are subsidized by a Section 8 project-based rental assistance contract and households must qualify under applicable income restrictions. The ownership entity is Greenvale Place of Northfield, Inc., a Minnesota 501(c)(3) corporation. CommonBond Communities is the sponsor and appoints the five board members of Greenvale Place. In June 2016, Greenvale Place began participating in the Multi-Family Energy Efficiency Program sponsored by the property's utility providers, Xcel Energy and CenterPoint Energy.

SECTOR TYPE

Multifamily

LOCATION

Northfield, Minnesota

PROJECT SIZE

58,490 Square Feet

FINANCIAL OVERVIEW

Project Cost: \$86,000*

SOLUTIONS

By participating in the Multi-Family Energy Efficiency Program, Greenvale Place received a full energy audit that identified a variety of projects and property management suggestions to reduce utility consumption. The audit report categorized the identified energy- and water-savings activities by total project cost and their direct impact/reduction on consumption.

The Multi-Family Energy Efficiency Program then covered the cost for items categorized as direct-install to be completed at Greenvale Place, including:

- Upgrading all incandescent lighting to more efficient CFL, addressing almost 800 lamps;
- Replacing all 96 shower heads with more efficient low-flow heads; and
- Changing approximately 180 bathroom and kitchen aerators to more efficient low-flow devices.

The audit also noted a property management activity that Greenvale Place staff were able to implement immediately: lowering the temperature of all domestic hot water heaters supplying all buildings to 120° F to conserve energy. While one building was already set at this temperature, the others were between 5 and 30 degrees higher – reflecting up to 25 percent above the recommended level. Greenvale Place staff gradually reduced the temperatures over time, so as not to disrupt resident comfort.

For next steps, the report also identified several energy- and water-savings projects that Greenvale Place could pursue, for which the utility provider would then provide rebates based on the combined actual savings achieved in each building.

- Greenvale Place initially added some of these projects to the scope of a planned capital improvement project which included replacing all building exterior doors and weather stripping.
- The next project (taking place through autumn of 2017) is LED lighting retrofits, which will replace all fluorescent lighting in all common areas as well as the exterior lighting.
- Additional projects to be completed by Greenvale Place in 2017 include upgrading domestic hot water heaters, hot water boilers, and exhaust fans to more efficient models.

Greenvale Place's goal in completing these projects will be to achieve energy- and water-savings percentages high enough to take advantage of the Multi-Family Energy Efficiency Program's tiered rebate incentives. The Program and audit report address each building individually, rebating 50 percent of the cost when forecasted/achieved savings for the building are at least 15 percent, and 70 percent of the cost when the savings reach 20 percent or higher.

Greenvale Place recognizes that the Multi-Family Energy Efficiency Program's audit, report, and identified projects do not address the building envelope or any efficiency upgrades prior to the time of the audit, and thus do not capture the full energy- and water-savings potential of the property. As Greenvale Place aims to reach or exceed 20 percent savings for the property as a whole, the staff will therefore assess and include other maintenance, replacement, and capital improvement situations as opportunities to achieve additional savings, such as through window, siding, or roof replacements.

OTHER BENEFITS

Greenvale Place anticipates there will be increased resident satisfaction with the new lighting being installed, and in the future anticipates that better air filtering will also lead to a more comfortable experience for the residents.

*Expected total cost for the projects identified in the utility program's audit report; anticipated rebate incentives of \$39,000 reduce the expected total net project cost to approximately \$47,000.

Annual Energy Use

(Source EUI)

Baseline(2015)
143 kBtu/sq.ft.

Expected(2018)
121 kBtu/sq.ft.

Energy Savings

15%

Annual Energy Cost

Baseline(2015)
\$65,600

Expected(2018)
\$55,800

Cost Savings

\$9,800



Greenvale Place Aerial Photo



Greenvale Place Exterior



Greenvale Place Back