

Case Study

Utility incentives cover 90% of an upgrade at a senior living apartment complex.

By taking a comprehensive approach, Titan Energy was a strategic partner that resulted in a 90% reduction of project cost by securing utility incentives.

CHALLENGE

Titan Energy worked with a high rise assisted living complex to find energy savings and utility incentive programs to cover costs associated with the building efficiency upgrades. The residential building with 328 living spaces supports elderly, low income and special needs residents. By finding ways to cut operational costs, they could divert much needed funds to providing meals to residents.

APPROACH AND SOLUTION

Titan Energy engaged in a technical assessment identifying energy saving opportunities ultimately including prescriptive air sealing, hot water conservation, lighting upgrades and refrigeration replacements. The area utility company contributed over 90% toward the energy upgrades totalling over \$392,950. These energy efficient upgrades are expected to save over \$109,300 annually.

The blower door tests of each of the 328 residential units allowed Titan Energy to understand where prescriptive air sealing needs to be applied. The utility offered incentives covering the complete cost for air sealing of the building as Titan Energy was able to ensure Indoor Air Quality ("IAQ") standards were met.

AT A GLANCE

- ▲ **Building Type:** High-rise Assisted Living Community
- ▲ **Programs:** Affordable Housing, Section 202 Supportive Housing for the Elderly Program
- ▲ **Services Performed:**
 - Air sealing
 - Hot water conservation measures incl. installation of low-flow, high efficiency shower heads and faucets
 - Lighting upgrades
 - Installation of ENERGY STAR © certified refrigerators

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Photos of residential living area before (left) and after energy efficient LED lighting upgrade.

NATURAL GAS CONSERVATION MEASURES AND RESULTS

Hot water conservation measures included replacing inefficient showerheads and faucet aerators with low-flow, high efficiency alternatives. From the technical assessment, each apartment was outfitted with 1 low-flow showerhead or handheld showerhead, 1 dual thread aerator, and 1 flip swivel aerator.

ELECTRICITY REDUCTION MEASURES AND RESULTS

To reduce electricity consumption in common shared spaces as well as residential units, over 3,400 fixtures were replaced with high efficiency LED fixtures. Tier 3 building controls were installed and commissioned with the facility management staff being trained in how to adjust controls as needed for building use. These measures were able to reduce energy costs by \$78,979 and, much to the delight of residents, improved lighting quality throughout the building.

NATURAL GAS

- ▲ Annual Reduction: 24,292 ccf
- ▲ Lifetime: 341,662 ccf
- ▲ Peak Reduction: 215.05 ccf
- ▲ Annual Energy Cost Savings: \$30,365

ELECTRICITY

- ▲ Annual Reduction: 394,893 kWh
- ▲ Lifetime: 3,621,798 kWh
- ▲ kW Reduction:
 - 35.45 KW [Summer]
 - 26.92 KW [Winter]
- ▲ Annual Energy Cost Savings: \$78,979

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