

SUSTAINABLE CPC: A STUDY IN SAVINGS

Energy Retrofit & Modernization | Garden Style Complex



BUILDING PROFILE

Year Constructed 1952-1956

Size 31 Buildings, 188 Apartments,

810 Rooms, 157,412 Gross Square Feet

HVAC System Individual Gas Furnaces

Utilities Provided Electricity, Gas, Water & Sewer

by Owner

This complex was overdue for upgrades – individual gas furnaces, hot water heaters, and lighting fixtures were original to the buildings' 1950s construction, and a lack of gutters was causing moisture problems in all buildings. CPC assisted the ownership by financing a comprehensive energy retrofit that improved resident health and comfort while drastically lowering their utility bills.

PROJECT PROFILE

Construction and Permanent Loan Loan Type

Loan Offering \$1.1 million

ADDITIONAL LOAN PROCEEDS SUPPORT ENERGY AND WATER EFFICIENCY

Historical Income (NOI)

\$173,944



Income with Energy Savings (Adjusted NOI)

\$264,364



Additional Available Loan Proceeds

\$450,000

SAVINGS SNAPSHOT

As a result of the extensive renovations and upgrades, the property reduced its gas bills by \$450 per dwelling unit and saved 24% on the total annual utility cost.

The new hot water heaters were so efficient that only 50% of the systems needed to be replaced; the rest were removed and discontinued.

UTILITY	ANNUAL EXPENSE BEFORE (\$/APARTMENT)	ANNUAL EXPENSE AFTER (\$/APARTMENT)	EXPENSE DIFFERENCE
Heating (Gas)	\$560	\$360	-36%
Hot Water (Gas)	\$430	\$180	-58%
Electricity	\$520	\$530	+2%
Water & Sewer	\$440	\$410	-7%
Total	\$1,950	\$1,480	-24%

UPGRADE COST AND SAVINGS

The graphic below outlines the cost and potential savings associated with upgrading certain components to new, energy efficient models. Use this graphic to help you estimate the cost savings of installing similar upgrades in your building.

KEY

Per Apartment



REFRIGERATORS



FIXTURES



VENTILATION

EXISTING CONDITION

Old refrigerators running 1200 kWh / year each

UPGRADE OPTION

INSTALLATION COST

\$500

SIMPLE PAYBACK (YRS) 5.0

ESTIMATED ANNUAL SAVINGS \$100

RETURN ON INVESTMENT (ROI) 20.0%

EXISTING CONDITION

UPGRADE OPTION

INSTALLATION COST \$20

> SIMPLE PAYBACK (YRS) 6.7

ESTIMATED ANNUAL SAVINGS \$3

RETURN ON INVESTMENT (ROI) 15.0%

EXISTING CONDITION

UPGRADE OPTION

INSTALLATION COST

\$620

SIMPLE PAYBACK (YRS) 2.1

ESTIMATED ANNUAL SAVINGS \$290

RETURN ON **INVESTMENT (ROI)** 46.8%



LIGHTING





HEAT & HOT WATER

EXISTING CONDITION

UPGRADE OPTION

INSTALLATION COST \$90

SIMPLE PAYBACK (YRS)

ESTIMATED ANNUAL SAVINGS

\$70

RETURN ON INVESTMENT (ROI)





EXISTING CONDITION

UPGRADE OPTION

INSTALLATION COST \$3,300

SIMPLE PAYBACK (YRS)

ESTIMATED ANNUAL SAVINGS

\$160

RETURN ON INVESTMENT (ROI)

FEATURED UPGRADE

SEALED COMBUSTION FURNACES **& WATER HEATERS**

Historically, atmospheric combustion was the standard technology for fuel-fired furnaces and hot water heaters. Today, sealed combustion technology is the new standard, and even a perfectly working atmospheric system is worth replacing for energy savings, safety, and tenant comfort. Replacing an atmospheric furnace goes hand in hand with other energy efficiency improvements eliminating the need for indoor combustion air allows the building to have a tighter envelope while meeting code requirements. Unlike older technology, sealed combustion models carry little to no risk of toxic exhaust gases entering indoors, are smaller in size, and are easier to maintain.

IS THIS UPGRADE RIGHT FOR YOU?

If any of the following apply, then yes!

- ✓ Old atmospheric furnaces, boilers, or hot water heaters
- Furnaces or hot water heaters serving individual units or larger systems serving an entire building