

MULTIFAMILY HOUSING AND ENERGY EFFICIENCY

With approximately \$16 billion in possible savings at stake, multifamily buildings account for a quarter of the total energy efficiency savings potential in the United States.¹ Perhaps more importantly, energy efficiency upgrades act as a hedge against rising energy costs, providing much needed financial stability and sustainability for both property owners and tenants. With utility rates only expected to increase in the future, energy efficiency upgrades are essential to maintaining the current stock of affordable housing. According to ENERGY STAR, utility costs are the largest controllable expense in an apartment complex.² Proper management of energy usage can be the difference between insolvency and financial stability. Energy efficiency upgrades also increase the property value of buildings, provide safer, healthier environments for residents, and deliver tangible benefits to the community and the environment.

Financial Benefits

Multifamily buildings primarily house low to moderate income renters. Nationally, renters make up 88 percent of residents in multifamily buildings.¹ These renters have an average median income that is only 50 percent of homeowners.¹ According to the Joint Center for Housing Studies currently there is an affordable housing gap of 6.4 million units.¹ In addition new construction designed for low income populations is increasingly growing more unaffordable. The average rent for a low to moderate income apartment in an existing building is \$295 less than the rent for the same apartment in a new construction building.¹ In order to provide more affordable housing units, communities must seek to maintain the rental stock in existing buildings rather than simply turn to new construction.

Due to the income constraints of their residents, property owners are often unable to pass along utility rate increases to residents through increases in rent. In fact from 2001 to 2009, utility costs increased 23 percent in multifamily buildings, while rents increased only 7.5 percent in the same period.¹ In master metered buildings such disparities reduce available cash flow and may make it more difficult for owners to meet monthly debt obligations. In tenant metered buildings large increases in energy costs are a burden on tenants and may make it

Best Energy Practices for Multifamily Buildings

TIAA-CREF cut energy usage across in its portfolio properties by 9.1 percent in just two years.³ To do so the firm instituted a set of energy management initiatives. These included replacing incandescent lighting with ENERGY STAR CFLs, purchasing only ENERGY STAR rated appliances, installing programmable thermostats and training staff to operate vacant units more efficiently.

Source: ENERGY STAR Success Story: TIAA-CREF Multifamily Housing



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difficult for tenants to pay rent on time. Investments in energy efficiency cut utility bills in the short term and provide protection against runaway rate increases in the long term.

Reasons to Invest in Energy Upgrades

- Enhance asset competitiveness.⁴
- Improve net operating cash flow from day one.
- Hedge against utility rate increase risk.
- Stay ahead of future governmental regulation.
- Fund or finance a wide range of projects.
- Share costs and savings equitably with current tenants and future owners.
- Take advantage of incentives offered by utilities and local governments.

Source: energy UPgrade CALIFORNIA in San Francisco, California Energy Commission

were double the cost of these measures.¹ In New York's Energy \$mart Assisted Multifamily Program tenants saved on average \$298 annually from a combination of reduced energy bills and enhanced, healthier living environments.¹

Of particular importance to multifamily buildings are concerns over indoor air quality. Poor indoor air quality disproportionately affects minority and low income children. These children are 30 to 50 percent more likely to have a respiratory ailment than children from higher wealth backgrounds.⁵ Recent studies have shown that improved air quality as a result of efficiency upgrades reduces the incidences of cardiac and pulmonary ailments among residents. In

In addition to the challenge of rising energy costs, property owners often struggle to finance repair projects needed to maintain long term structural integrity. Between 1999 and 2009 twelve percent of the existing affordable housing stock was torn down due to the high cost of maintenance.¹ Operating savings from energy efficiency improvements can be used to create reserve funds to help finance capital projects. According to a recent report by Deutsche Bank, \$240 in energy efficiency savings can be leveraged to finance \$2480 in additional projects.¹ Local governments and utilities may offer tax incentives and/or rebates programs that make energy efficiency improvements even more cost effective.

Investing in energy efficiency not only stabilizes finances in the short term, but can pay off in the long term through increased property values. ENERGY STAR estimates that a 15 percent reduction in energy costs in a 250 unit, master metered building can increase asset value by over \$1 million.²

Tenant Benefits

Energy efficiency upgrades deliver both valuable direct and indirect benefits to tenants. The Journal of Epidemiology and Community Health found that the installation of efficiency improvements resulted in savings to tenants that

addition resident reports of depression and anxiety fell by half in a British residential building after installing measures that improved indoor air quality and allowed for more control of temperature and lighting.¹ Fire risk is also greatly reduced as residents no longer use ovens to heat cold apartments in the winter. Children are also less likely to fall out of open windows in the summer.¹

Community Benefits

Communities can benefit tremendously from energy efficiency investments. Job creation is one of the most visible and quantifiable of these benefits. It is estimated that 10.6 jobs are created for every \$1 million invested in residential energy efficiency upgrades.¹ Many contractors draw their labor force directly from the community. Property owners at the Riverdale Osborne Towers in Brooklyn, NY required that 15 percent of the workers on its \$4 million energy efficiency upgrade project either be a resident of the building or from the local community.¹ In addition to job creation every \$1 million invested in energy efficiency upgrades generates \$477,849 in gross domestic product, almost 25 percent more than GDP generated by new construction.¹



William Stewart, A Member of Veterans Green Jobs, Blows Cellulose Insulation into Interior Walls.

Source: National Energy Renewable Laboratory

It will come as no surprise that investing in energy efficiency upgrades also greatly benefits the environment. While only half of the current U.S. housing stock was built before 1980, this same 50 percent is responsible for 70 percent of greenhouse gas emissions.¹ In one of its Chicago multifamily buildings, TIAA-CREF has decreased energy usage costs in its multifamily portfolio by 13 percent in less than one year.³ This reduction not only saves \$50,000 annually but is equivalent to taking 130 cars off the road. TIAA-CREF is also installing CFL light bulbs in all of its apartment homes, saving residents \$7 million over the lifetime of the bulbs. This simple step has the same impact on emissions as taking 9,200 cars off the road.³

Energy upgrades empower property owners to stabilize the financial sustainability of their properties, while simultaneously decreasing net operating costs and providing a public good to the community. They are essential to maintaining the supply of affordable multifamily housing that traditionally serves low to moderate income renters. Efficiency improvements effectively remove some of the uncertainty surrounding energy rate hikes, providing stability for both owners and tenants.

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