

Energy Efficiency: A Smart Investment for Multifamily Owners

Energy efficiency investments improve the long-term financial and operational viability of properties, reduce resident turnover, and create healthier more comfortable living environments for residents. Recently, a number of programs have launched to help owners invest in energy efficiency upgrades, and provide owners with the necessary tools to make informed investment decisions.



FINANCIAL STABILITY

The cost of energy is the largest controllable operating expense in multifamily housing.¹ An estimated \$16 billion in savings is available from energy efficiency in multifamily buildings nationwide.² Nearly \$700 million in Georgia alone.³ For owners, investments in energy efficiency can result in significantly reduced operating costs that increase net operating income, providing a greater return on investment for the owner and long-term financial stability of the property.



MARKETABILITY

Residents are becoming more knowledgeable about the benefits of energy and water efficiency. As a result, consumer demand for high-efficiency buildings has increased. Investments to improve the performance and sustainability of a property can increase the marketability.⁴



REDUCED TURNOVER

Reduced resident turnover provides stability for renters and owners alike. Reducing turnover saves owner expenses, typically around \$1,000 per unit, but can easily grow to up to \$5,000 per unit depending on the capital replacements.⁵ Resident retention is the most important criteria in enhancing the value of the building and community.



HEALTH AND SAFETY

Retrofits improve the health, safety and comfort of building residents. Residents living in apartments with better ventilation, programmable thermostats, and lighting, have measurably better physical and mental health outcomes. They are less likely to suffer from asthma and other respiratory ailments, and cardiovascular disease.⁶ Healthier residents miss fewer days of work and school, and are less likely to use unsafe, informal heat sources that create higher risk of home fires.



ENERGY BURDEN

In Atlanta, low-income multifamily households spend 16 percent or more of their incomes on utilities—three times the energy burden of the city's average household. Most troubling of all is that Atlanta was found to have the third highest energy burden in the Southeast. Cost-effective energy retrofits reduce energy and electricity consumption, and costs related to cooling and heating homes, helping families become more financially stable.⁷

CASE STUDIES

OPTION 1

SIMPLE UPGRADE



FRIENDSHIP COURT IN CHARLOTTESVILLE, VA.

Photo by Rudy Matthews

Friendship Court, a 150 unit affordable multifamily property located in Charlottesville, Virginia struggled for years with higher water bills due to outdated fixtures. To reduce water consumption and costs, the National Housing Trust invested in simple water efficiency upgrades for Friendship Court, a 150-unit affordable multifamily property located in Charlottesville, Virginia. Work was completed in renter-occupied units and took no more than 20 minutes to complete per unit.

KEY BUILDING IMPROVEMENTS: WATER

- 0.8 gpf toilets
- 1.5 gpm kitchen faucet aerators
- 1 gpm bathroom faucet aerators

PERFORMANCE DATA

68% annual water savings
Annual water and associated cost savings of **\$102,000**

OPTION 2

MODERATE REHABILITATION

Rea Ventures Group, LLC, in partnership with Southface, developed a prescriptive approach to rehabilitate its portfolio of 14 rural multifamily properties. Rea Ventures used a quick-turnaround process to install energy and water efficiency measures in 418 units, while residents remained in their homes.⁸

Meeting thresholds for utility rebate incentives was also a goal for Rea Ventures. They participated in the Georgia Power Home Energy Improvement Program and based upon whole-house comprehensive savings of 15 percent, they were eligible to receive up to \$800 per unit in rebates.

KEY ENERGY-EFFICIENCY MEASURES:

HVAC

- SEER 14.5 HSPF 8.2 heat pump
- Ducts in conditioned space

ENVELOPE

- R-38 blown ceiling insulation in vented attic
- Double-pane low-e vinyl windows
- Insulated metal doors
- Improved airtightness

LIGHTING, APPLIANCES, AND WATER HEATING

- 100% CFL and linear fluorescent lamps
- Low-flow fixtures
- Electric Water heater efficiency upgrade to 0.93 EF

PERFORMANCE DATA

Average **15%–20%** energy savings
Annual energy cost savings **\$78,000**

OPTION 3

FULL REHABILITATION



THE COMMONS AT IMPERIAL HOTEL

Photo: National Church Residences

The Commons at Imperial Hotel is a comprehensive historic and sustainable redevelopment of Atlanta's 104-year old historic Imperial Hotel in to state of the art permanent supportive housing, that provides 90-units of affordable housing and a suite of supportive services for residents.

KEY BUILDING IMPROVEMENTS: HVAC

- High efficiency HVAC system
- Energy recovery system replaced inefficient central boiler, chiller system

ENVELOPE

- Energy efficiency windows
- Building skin
- R-20 open-cell spray foam insulation in walls
- Continuous R-30 roof insulation

LIGHTING & APPLIANCES

- High efficiency LED and CFL lighting
- ENERGY STAR® appliances

WATER

- High-efficiency water heating

PERFORMANCE DATA

32% overall energy savings
Annual energy cost savings of **\$23,000**



RESOURCES TO IMPROVE ENERGY EFFICIENCY

Recently, Georgia Power has started to expand their energy efficiency offerings to include programs specifically tailored to low income multifamily and single family housing.

ENERGY ASSESSMENT AND SOLUTIONS PROGRAM

Beginning in September 2017, Georgia Power will offer a new Energy Assessment and Solutions Program (EASP) which provides incentives and rebates for existing low income single-family and multifamily properties. Eligible single-family properties are those that meet current federal guidelines for income level of 200% of the federal annual poverty level. Eligible multifamily properties include: public housing, housing subsidized through the LIHTC, RD, or HUD, and unsubsidized properties in census tracts that qualify for New Markets Tax Credits.

The EASP program offers whole-building or direct installation pathways for implementing eligible energy efficiency measures such as smart thermostats, efficient lighting, air sealing, and others. Final program details will be available from Georgia Power in September 2017.

HOME ENERGY INCENTIVE PROGRAM

The Georgia Power Home Energy Improvement Program (HEIP) helps existing single family and multifamily properties reduce energy use by providing rebates and incentives for the installation of qualifying energy savings improvements. These improvements can be implemented in a Whole House approach, based on the property achieving a 25% electricity (kWh) savings, or through individual energy efficiency improvements.

Participation in the 2017 Multifamily Whole House HEIP program is limited. An application for a reservation must be made in advance and approved prior to any rebates being paid.

For more information on Georgia Power's EASP program and HEIP:

<http://residential.georgiapower.com/products-programs/home-improvement/multi-family-home-improvements/>

AUTOMATED BENCHMARKING TOOL

Georgia Power's Automated Benchmarking Tool provides eligible commercial and multifamily property owners with aggregate electricity usage data, for upload to ENERGY STAR Portfolio Manager. This new tool will allow property owners to track and benchmark the energy usage of their properties, and make data-driven investments in energy efficiency that can lower operating expenses and improve the health and comfort of residents.

For more information on Georgia Power's Automated Benchmarking Tool:

<https://www.georgiapower.com/business/energy-efficiency/automated-benchmark-tool.cshtml>

“Green building provides better value for our residents and better value for our investors.” — ERIC J. BUFFENBARGER, CFO REA VENTURES GROUP, LLC

ABOUT ENERGY EFFICIENCY FOR ALL

The mission of Energy Efficiency for All is to bring together the energy and housing sectors to tap the benefits of energy efficiency for millions of Americans living on limited incomes. We work with a range of partners in 13 states to promote effective utility energy efficiency programs for affordable building owners and healthy and affordable housing for residents. We blend expertise in affordable housing, energy efficiency, building ownership, and utility engagement. We work to support local groups by providing tools and resources that can help them increase energy efficiency opportunities for underserved tenants in their states. Local partners include Southface, Enterprise Community Partners, Partnership for Southern Equity, Georgia Watch, and Groundswell.

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For more information visit: <http://www.energyefficiencyforall.org>

To learn more about how energy efficiency can improve affordable multifamily housing in Georgia communities, please contact: **Alex Trachtenberg**, Southface, atrachtenberg@southface.org, 404-604-3592 or **Dana Bartolomei**, National Housing Trust, dbartolomei@nhtinc.org, 202-333-8931 ext. 140.

Endnotes:

- 1 National Housing Trust, *Partnering for Success: An Action Guide for Advancing Utility Energy Efficiency Funding for Multifamily Rental Housing*, 2013.
- 2 McKinsey & Company, *Unlocking Energy Efficiency in the U.S. Economy*, 2009.
- 3 Optimal Energy, *Affordable Multifamily Energy Efficiency Potential Study*, commissioned by Natural Resources Defense Council, 2015.
- 4 World Green Building Council, *The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors, and Occupants*, 2013.
- 5 Property Management Minutes, *Turnover Totals, The Financial Benefits of Reducing Moveouts*, 2015. Retrieved from: <http://propertymanagementminutes.com/turnover-totals-the-financial-benefit-of-reducing-moveouts/>
- 6 Hilary Thomson, Sian Thomas, Eva Sellström, and Mark Petticrew, *Housing Improvements for Health and Associated Socio-Economic Outcomes: Cochrane Database of Systematic Reviews*, 2010.
- 7 Drehbol, A. and Ross, L. 2016. *Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities*.
- 8 U.S. Department of Energy, Southface and Rea Ventures, *Rehabilitations of USDA Multifamily Homes*, 2015. Retrieved from: <http://www.reaventures.com/pdf/building-america-case-study.pdf>

