Building Efficiency 305 - Building Performance Benefits Multifamily Buildings in Miami-Dade County

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Building Performance Benefits

Miami-Dade's County's Building Efficiency 305 (BE 305) Program seeks to promote improved building performance, through water and energy efficiency, in large existing private and public buildings that are 20,000 square feet and above. In Miami-Dade, there are approximately 3,300 multifamily buildings in this size range, which constitute 68% of the total floor space.

Increased building efficiency can lower water and electricity (utility) bills for both building owners and tenants. Building owners, tenants, and our community in general can realize substantial economic, social, and environmental benefits through improved building efficiency. Economically, efficiency lowers operating costs and frees up monetary resources, allowing building owners to reinvest in their properties. From a social perspective, more efficient buildings increase the health and comfort of tenants. Improved building performance also results in reduced air pollution and helps preserve critical water resources.

Efficiency benefits are increased in public and low-to-moderate income housing since tenants in this type of housing typically pay a higher percentage of their household income on utility bills and the quality of the building stock is generally lower. Nationally low-income households have over triple the energy burden of higher-income families.[1]

Assessing Building Performance

Access to building performance data can drive efficiency improvements in multifamily housing which lowers utility bills for residents, contributes to greater local housing affordability; and creates new jobs and services related to efficiency. Tracking and sharing data about a building's total energy and water usage, called benchmarking and transparency, is a key component of the BE305 program. Over time, this data can be used

by building owners, operators, governments, and tenants to understand a building's efficiency compared to similar buildings and to make smarter, data-driven decisions and more cost-effective investments.

Measuring and Prioritizing Efficiency Actions

Owners of multifamily buildings need information on utility usage in order to identify areas of waste and target building system improvements. In many cases, simply having whole building water and energy data can drive efficiency projects by allowing owners to track trends and compare to similar buildings in their region or within their own portfolios. Without whole building benchmarking performance data to use as a baseline, it is difficult to quantify potential savings from investments in energy and water efficiency in multifamily buildings. For example, the City of Seattle used benchmarking data to understand the energy use of its high-rise multifamily buildings. It found that the most inefficient properties had the highest savings potential with a high-rise multifamily building able to save $31,000 annually if efficiency was improved to match median performing buildings.[2]

Additionally, buildings with lower efficiency have the largest opportunity to reap significant returns on energy and water improvements and upgrades. Tracking and sharing building performance data allows for the development of programs and policies that prioritize buildings with the largest potential savings and help connect building owners to existing efficiency programs and financing options for improvements.

Lastly, benchmarked building performance data would also give the County and other government policymakers, utilities, and lenders the ability to design and implement new policies, incentives, and financial products that advance building efficiency efforts.

Access to Financing

Lenders increasingly require benchmarking data upon application for financing. This means that benchmarking data could directly open access to financing for repairs in the future. For instance,

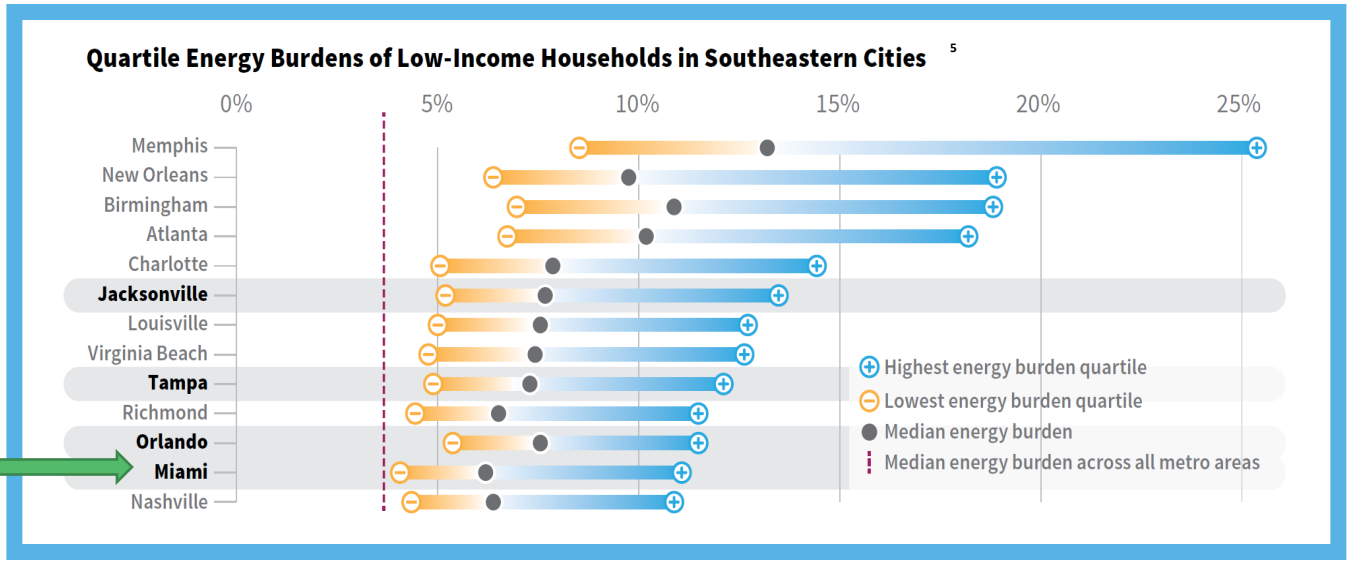
Fannie Mae and Freddie Mac, the largest multifamily mortgage investors in the United States require benchmarking as a prerequisite for loan applications to their Green Refinance Plus mortgage product and their Green Advantage programs respectively.[3]

Tenant Awareness of Efficiency

When building energy and water performance data is publicly accessible, tenants can factor in energy and water costs prior to signing a lease. This helps tenants understand the full cost of a unit aside from the rent and serves as an important consumer protection. As tenants seek to lower their energy and water bills and increase the affordability of rental space, consumer demand increases for efficient buildings, creating incentives for building owners to invest in efficiency measures. Building owners also benefit because higher-efficiency properties achieve higher rental prices, sales prices, and occupancy rates than less-efficient properties.

Affordable and Public Multifamily Housing – Directing Resources to Those with the Greatest Need

Studies show that in subsidized affordable housing, utility costs account for roughly 22% of a building's operating budget. Tracking these costs and investing in energy and water efficiency allows owners to make informed investment decisions that can particularly benefit low-income tenants. These tenants are more likely to have negative health effects and live in outdated buildings that lack



climate control, are insufficiently cooled, and are poorly insulated, impacting the health and livelihood of residents, while also wasting money on utility bills.

When cross-referenced with information on affordability, benchmarking data can help to ensure that policies adequately address the needs of affordable multifamily properties while avoiding unequitable impacts on this sector. Improving housing affordability utility costs can be significant for multifamily building owners. Affordable housing programs establish restrictions on tenant rent contributions including a "reasonable consumption" of utilities. When utilities are paid by the tenant, they receive a "utility allowance" which is a credit toward their total rent contribution. These are calculated using current utility rates and may not cover the actual cost of a tenant's consumption, especially in properties that are inefficient. Access to the data that results from benchmarking enables better utility allowance modeling to more accurately reflect the utility burden tenants carry. Better utility allowance models encourage owners to invest in efficiency so that a smaller piece of the rent they receive goes to utility bills. If their building is more efficient, the proportion of rent they receive that goes to utility bills is lower and tenants experience increased comfort and health benefits.

In its 2017 annual report, the Florida Department of Agricultural and Consumer Services provided details on a Multifamily Retrofit Demonstration Projects Data Analysis Report.[4] The energy efficiency retrofits were implemented in multifamily housing facilities in the Pinellas County and West Palm Beach Housing Authorities based on targeted walk-though energy audits. The result was an average decrease in daily energy usage of 13.34 percent in Pinellas County Housing Authority and 30.4 percent in West Palm Beach Housing Authority. Repairs to leaks in ductwork provided the greatest return on investment and significantly reduced maintenance work hours for these building owners as well.

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[1] http://aceee.org/press/2016/04/report-energy-burden-low-income

[2] "Building Energy Benchmarking Analysis Report 2013 Data." Seattle (City of Seattle), 2015.

[3] "Energy Transparency in the Mutifamily Housing Sector." Krukowski and Burr, 2012.

[4] https://www.freshfromflorida.com/content/download/79009/2320944/2017_Office_of_Energy_Annual_Report.pdf

[5] "Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities." ACEEE, 2016.