Green Is Good Part 3:

Sustainability's Impact on Multifamily Performance

March 2022

Introduction

As established in the first two reports in this series, LEED-certified office achieves a measurable premium when it comes to both revenue and pricing performance. As investors expand their interest to other asset types in response to pandemic effects, multifamily has become a darling asset resilient to abrupt shifts in lifestyles. On the demand side, younger renters are increasingly eco-conscious; in a 2020 First Insight survey, 62% of Gen Z and Millennials said they prefer more sustainable brands. Given this landscape, how beneficial are green certifications to multifamily assets?

While green certifications like LEED represent a smaller portion of the overall inventory of multifamily properties as compared to office, it has been a growing area of focus for owners and developers in the space. LEED-certified multifamily buildings grew from 7.5% of Class-A urban inventory in "Gateway-Plus"* markets to **18.1% at the end of 2021**. As in our earlier studies in this series, we set out to determine if there is a measurable premium for rents and revenue for LEED-certified multifamily assets, while holding quality and class of buildings constant. Additionally, we examined how LEED certification affects performance of multifamily investment sales. What is the premium in sales price on a per-unit basis for these assets?

We analyzed LEED-certified buildings in urban, Gateway-Plus markets. Between 2000 and 2021, we found that LEED-certified properties generate a modest but consistent rent premium at the cost of slightly higher vacancy. An analysis of revenue per available square foot (RevPAF) showed that higher rents more than offset marginally lower occupancy. Sales pricing also achieved a premium for this period.

Also worth noting, multifamily is ahead of other product types in the development of green finance. Both Fannie Mae and Freddie Mac have established green loan and bond programs to incentivize multifamily owners to improve building efficiency and utilize sustainable designs to qualify for lower interest-rate debt. This represents an additional source of value accretion when comparing sustainable and conventional multifamily investments.

Key Findings

LEED-certified assets achieved **3.1% higher rents on average** compared to the non-certified set during the 2000-21 period.

Stabilized **occupancy averaged 75 basis points below** the non-certified set during the same period.

Sales pricing showed particularly robust premiums, **averaging 9.4% above non-certified sales** on a per-unit basis from 2000–21.

Government-sponsored enterprises (GSEs) have established significant incentive programs for multifamily assets that satisfy green building certifications, including lower interest rates and additional loan proceeds.

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* "Gateway-Plus" include New York City, Los Angeles, Chicago, San Francisco / San Jose, Seattle and Washington, D.C.

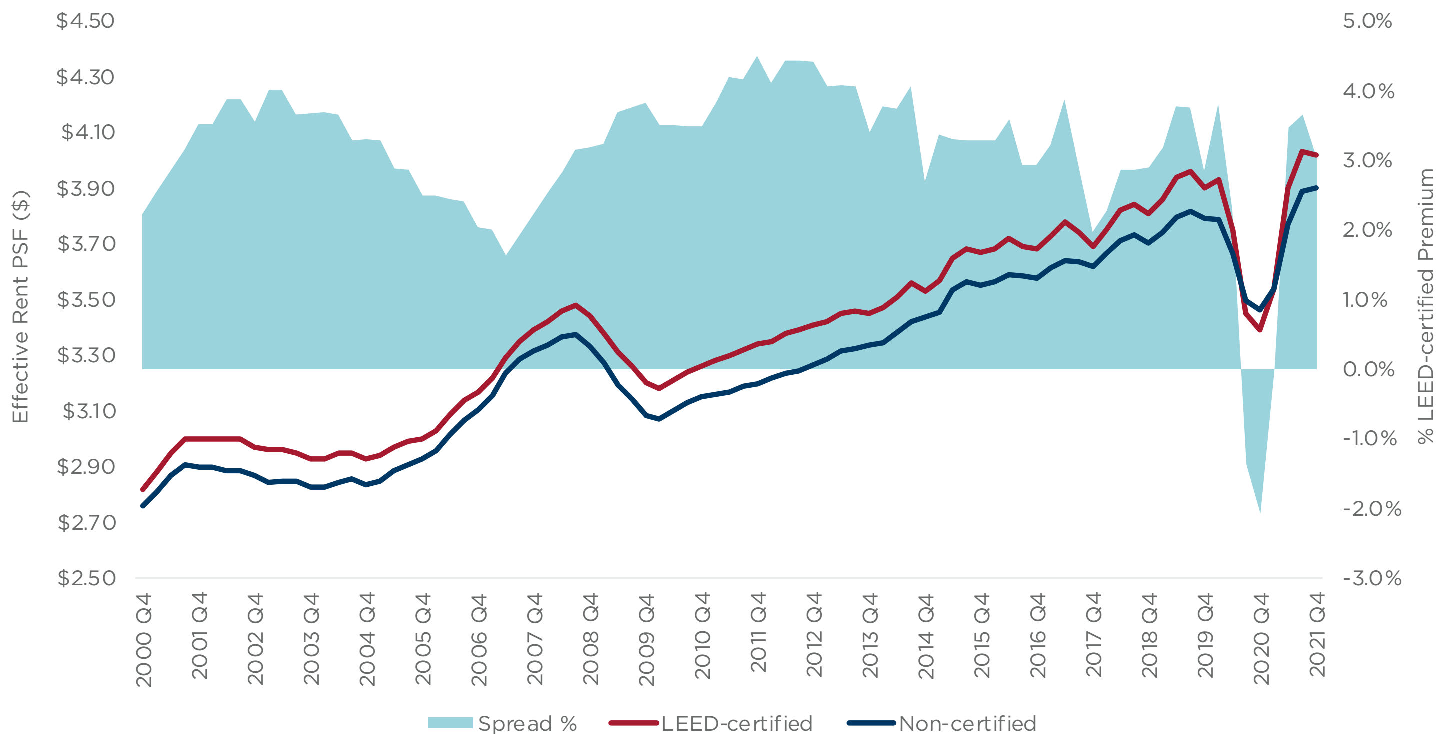
LEED-certified Multifamily Properties Earn Higher Rents

The selection criteria for our multifamily analysis was similar to our previous office analyses. Utilizing CoStar data, we set the following parameters:

- Class-A properties only
- 50+ units
- CBD + urban submarkets
- Gateway-Plus markets: New York City, Los Angeles, Chicago, San Francisco / San Jose, Seattle and Washington, DC
- Examining 2000–21 timespan for both rental and sales rates

LEED-certified multifamily assets have consistently achieved higher rents than otherwise comparable, non-certified properties. Between Q1 2000 and Q4 2021, **the LEED rent premium averaged 3.1%**. This premium peaked at 4.5% in Q4 of 2011 and moderated somewhat thereafter, dropping temporarily to negative 2.1% at the outset of the pandemic. The LEED premium quickly rebounded to typical levels (3.0%) by Q4 2021, suggesting resilience in pricing as we continue through the recovery period.

LEED-certified vs. Non-certified Effective Rent Premium

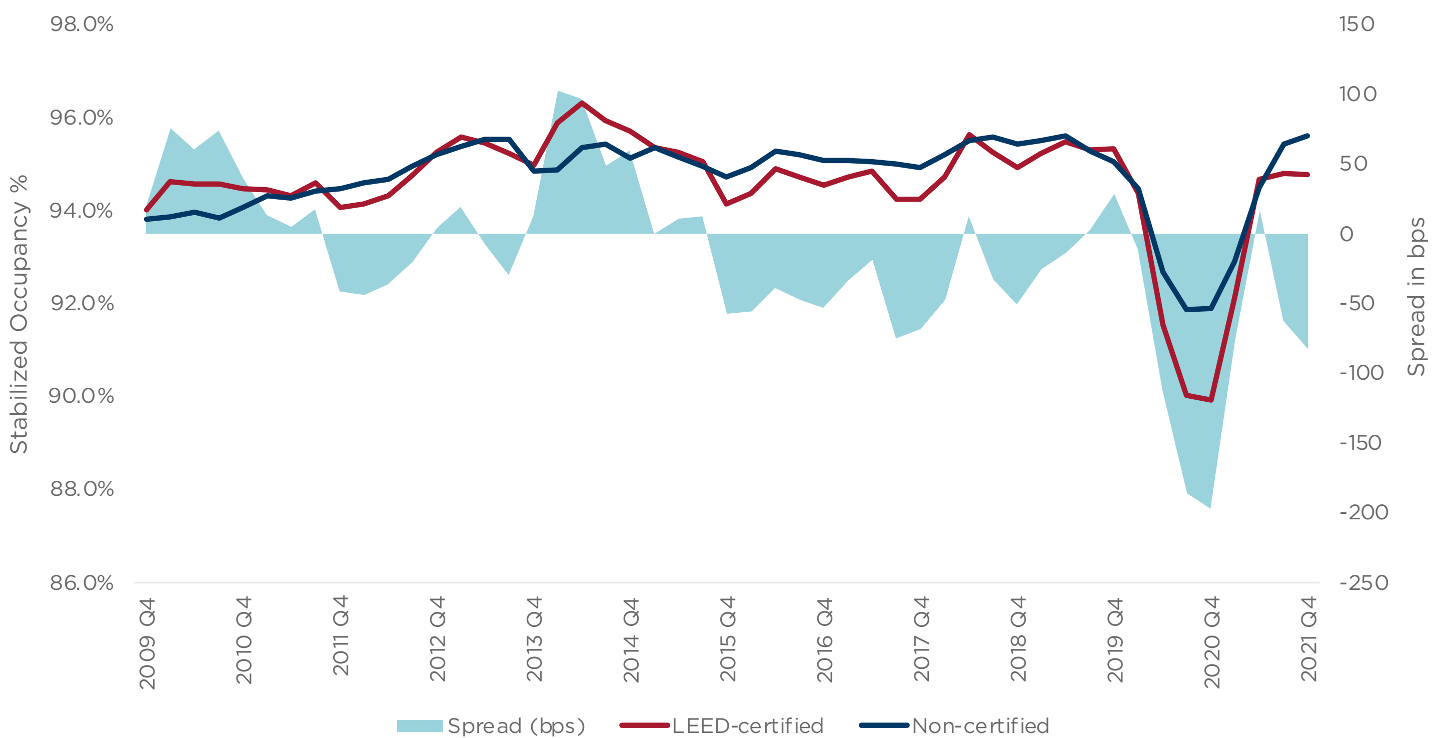


Source: CoStar, Cushman & Wakefield Research

But They Typically Have Lower Occupancies

Post-stabilization, LEED-certified property occupancy has averaged 75 basis points below that of non-certified properties over the 2000 to 2021 period. Stabilized occupancy was significantly affected during the pandemic and the LEED-certified dataset was more heavily affected, falling as much as 197 basis points below non-certified in Q4 2020. Since that point, the difference has moderated, reaching -83 basis points in Q4 2021. This raises the question: which has been more powerful, the rental premium or the occupancy deficit in comparative cash flows? To answer this question, we use a combined measure: revenue per available square foot (RevPAF).

LEED-certified vs Non-certified Stabilized Occupancy



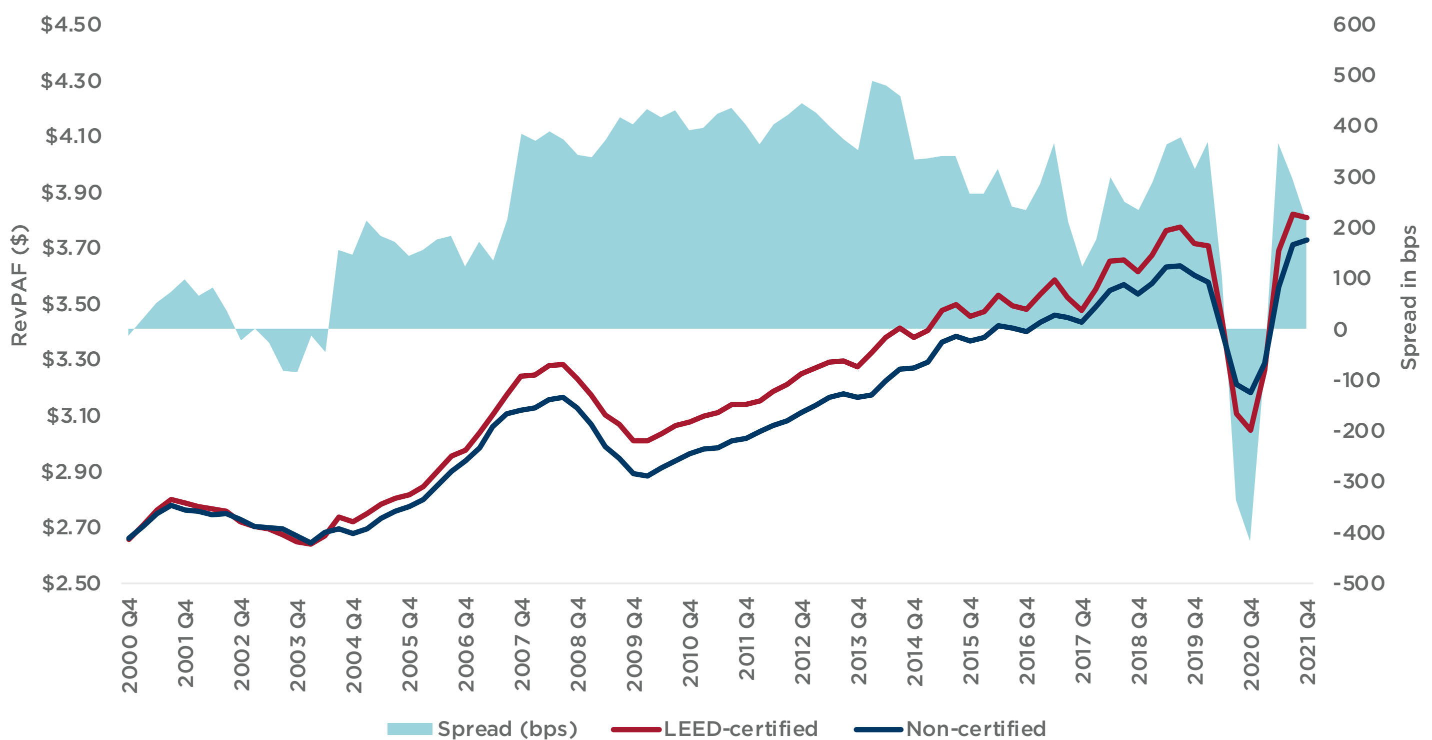
Source: CoStar, Cushman & Wakefield Research

Between 2000 and 2021, we found that LEED-certified properties generate a modest but consistent rent premium at the cost of slightly higher vacancy.

Rents Mattered More, Resulting in Persistent Cash Flow Premiums

Utilizing stabilized occupancy, we can determine how RevPAF (the product of occupancy and rental rate) has performed between the two datasets. Over the 2000-19 period, LEED-certified assets provided a consistent premium over the non-certified, averaging 2.3%. In other words, **LEED rental premiums have been more powerful than the occupancy deficit**. LEED-certified assets were more impacted by the pandemic than non-certified assets. In Q4 2020, RevPAF for LEED-certified was 4.2% below non-LEED. However, by Q4 2021 LEED-certified occupancy had strongly rebounded, driving the RevPAF premium back to 2.1%.

LEED-certified vs Non-certified RevPAF



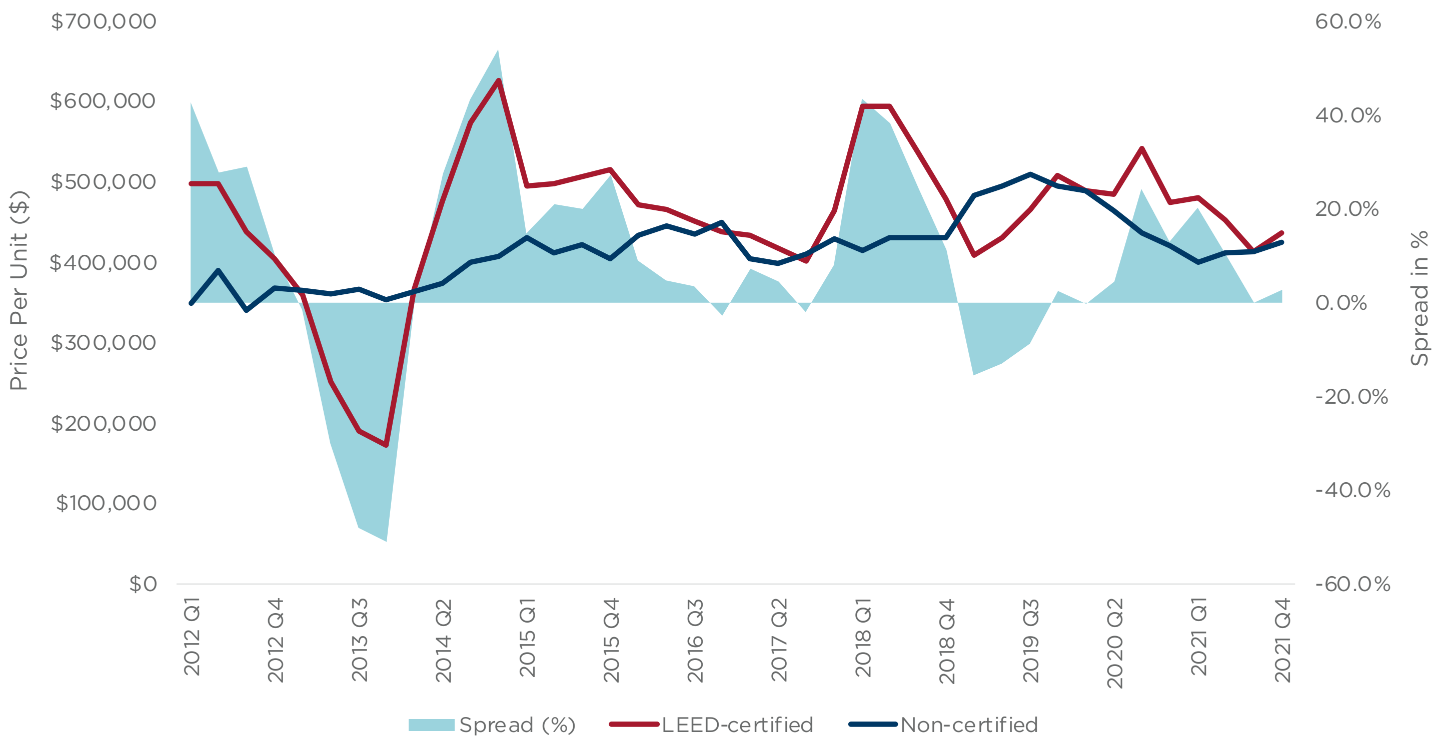
Source: CoStar, Cushman & Wakefield Research

As the percentage of the multifamily inventory that include sustainable commitments continues to grow, performance gains will also become clearer.

Pricing Premiums

LEED-certified multifamily assets have also performed better in terms of investment sales. LEED-certified assets averaged a 9.4% sales premium from 2012 to 2021. However, the dataset was highly variable, ranging from -51.1% to +54.0% for LEED-certified assets. During the pandemic, the premium maintained a 9.4% average premium, albeit with less oscillation. As of Q4 2021, the premium on a rolling four-quarter basis was 2.7%. The variability in the data suggests that investors should be discerning on a granular level considering market, vintage and quality, in addition to LEED-certified status.

LEED-certified vs Non-certified Price Per Unit (4Q rolling Avg)



Source: CoStar, rolling four-quarter average

GSE Green Financing Incentives for Multifamily

Both Fannie Mae and Freddie Mac have developed programs for financing sustainability-enhanced multifamily projects. For Fannie Mae, the requirement for preferential pricing includes successfully passing and maintaining a recognized green certification (such as LEED, ENERGY STAR®, BREEAM and others). Fannie Mae also offers a "Green Rewards" pricing and loan-proceeds incentive package for owners who reduce asset energy and water consumption by at least 30%. According to their year-end report, Fannie Mae issued $13.5 billion in green loans in 2021, an increase of more than 3% from 2020 and a 400-fold increase from the $32 million issued in 2012, the first recorded year of the program. Freddie Mac similarly built its "Green Advantage" program, offering better pricing upon a 30% reduction in energy and water usage. According to their Q3 2021 report, Freddie Mac issued $64.3 billion across 2,309 green loans, accounting for 627,895 units over the past five years.

GSEs can also provide us with some level of quantification of the operational savings that green building certifications can impart to ownership and residents. Fannie Mae has tracked estimated savings for Multifamily Green MBS that either

satisfy green building certifications (like LEED) and Fannie Mae's Green Rewards program. Notably, this Multifamily MBS set, totaling $87.5 billion in issuances, is generally a fixed-income single asset security backed by one loan and one property. The estimated average annual savings for the certified dataset is $3,030 per million U.S. dollars issued by Fannie Mae. Notably, the value capture of these savings is divided between both ownership and tenants, as many multifamily assets pass utility costs directly to residents.

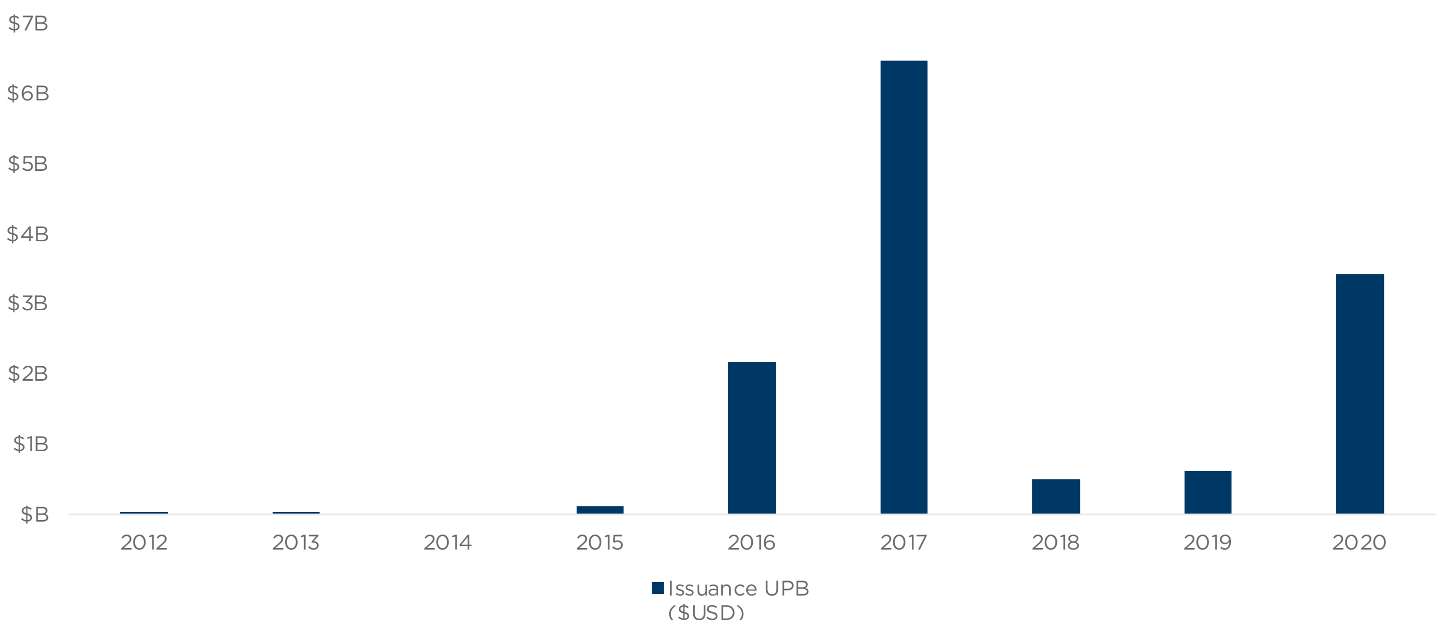
These cost savings are material. At a 4.0% cap rate, $3,030 cost savings / $1 million loan issuance is worth ~$75,000. Assuming a 55% loan-to-value ratio, then an example $1 million issuance would translate to a $1.8 million in asset value. **Thus a $75,000 cost savings would translate to a 4.1% premium in present value**. How much of these savings are captured by landlords versus residents can vary, but savvy owners of LEED-certified buildings should take note that **incorporating utilities into direct rents could enable full capture of these premiums**. In this scenario, residents would receive convenience and perhaps even a perceived discount in utility cost, while ownership could capture an additional margin through value bundling. The cost and efficiency savings encompassing 2012–20 are segmented below:

Utility Service Savings	Avg. Annual Energy Savings per $1M Issued	Avg. Annual Cost Savings per $1M Debt Issued
Energy	54973.1 kBtu	$1,649
Carbon Emissions	4.6 MTCO2e	$235
Water	6068 gallons	$1,146
TOTAL		**$3,030**

Source: Fannie Mae, ENERGY STAR, U.S. Department of Energy

Across Fannie Mae's 365 participating certified asset loans, these savings have grown to significant levels across categories. Over the timespan of the certification program, there has been an **estimated total savings of over 735,000 kBtu of energy; 61,742 metric tons of carbon dioxide and 81 million gallons of water**. While there were significant surges in the program in 2016 and 2017 as a large number of existing buildings joined the green certification program, there has been a steady rise in issuances in 2018-20, a trend that is almost certain to have continued to the present.

Fannie Mae Multifamily MBS Issuance for Green Building Certification



Source: Fannie Mae

Conclusion

Multifamily properties have illustrated a correlation between sustainable practices (as evidenced by fulfilling LEED certification) and historically higher performance, both for revenue and sale proceeds. While some LEED-certified assets may have experienced marginally lower occupancy than their non-certified counterparts during the pandemic, this has not offset the rent premium and is within typical bounds for stabilized multifamily product. LEED-certified assets also achieve stronger sales pricing on a per-unit basis. It should be noted that the performance premiums for sustainable multifamily assets have been less dramatic than in the office sector. The question is whether this will remain true in the future. For our part, we expect sustainability premiums to grow for multifamily assets, driven both by access to preferential financing (from the GSE programs as well as private lenders), the increasing incorporation of sustainability frameworks within institutional investment portfolios, and ultimately as sustainability features become more important differentiators to residents. As the percentage of the multifamily inventory that include sustainable commitments continues to grow, performance gains will also become clearer, including premiums for metrics such as cap rates.

While in the office sector, there is growing anecdotal evidence that tenants view sustainability as a necessity when choosing office space, this is not yet as obvious for multifamily tenants. However, with the more environmentally-conscious Gen Z set to become the dominant renting group in coming years, this could change and investors should consider positioning themselves accordingly.

While this study was focused specifically on “green” sustainability factors, we would note that multifamily is increasingly being incorporated to address other ESG strategies beyond the environmental. Housing affordability and accessibility has become an increasingly pressing issue, and investment incentives to address the “S” (social) in ESG is on the rise. Thus, multifamily assets are becoming a prime focus of multifaceted strategies seeking to fulfill all aspects of ESG.

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