



FINANCE

HIGH-PERFORMANCE BUILDINGS AND PROPERTY VALUE

A Primer for Lenders



ACKNOWLEDGMENTS



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The Institute for Market Transformation (IMT) is a 501(c)(3) nonprofit organization with a mission to promote energy efficiency in buildings. Founded in 1996 and based in Washington, D.C., IMT envisions a future in which the social, environmental, and economic value of energy efficiency is realized and all buildings are highly efficient. Such a future requires market transformation, a process of strategic intervention in the market to remove the barriers to broader adoption of energy efficiency.

IMT offers expertise in the disciplines of building energy performance policy, energy efficiency finance, commercial real estate engagement and green leasing, and building energy codes. With a focus on long-term strategies, IMT's activities include technical and market research, policy and program development and deployment, and promotion of best practices and knowledge exchange. IMT's efforts lead to important new policy outcomes, widespread changes in practice, and ultimately, lasting market shifts toward greater energy efficiency, with substantial benefits for the economy and the environment.

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INTRODUCTION

High-performance commercial buildings (often described as “green”) are becoming increasingly common in the marketplace. Recognizing this market growth, this guide aims to help lenders understand the valuation of high-performance buildings.

From a risk management perspective, lenders would be well-advised to assess green and energy-efficient building features, as collateral risks may be reduced if green premiums on such properties are being paid in the marketplace. In addition, green building features also guard against obsolescence and its associated risk to lenders. And on top of this, lenders are in a unique position to insist on well-informed appraisals, as they commission appraisals during project due-diligence. This process can be enhanced by finding competent appraisers and developing comprehensive scope of services requests.

Each of the elements described in this report may have an impact on building value, and the more information that is

provided to assist the appraiser, the smoother the process will be for all involved. Credible appraisals must be well-supported by market data and information. In the case of a high-performance building, this includes information on the subject property that helps explain why it stands out from its conventional peers. A range of documentation, including capital improvements, engineering reports, tenant retention rates, and comparable sales can be used by appraisers to analyze market trends. Attention should be paid to how green and energy-efficient features might influence absorption trends, rental rates, cap rates, credit quality of tenants, collection losses, tenant satisfaction, months vacant (or downtime between leases), and renewal probabilities of tenants.

FOUR COMPONENTS OF VALUE AND HOW GREEN FITS IN

Four components of value—revenue, occupancy, operating expenses, and risk—shed light on the value of high-performance buildings. Paralleling a standard operating statement, these categories also make the case for green appraisal value and should be considered by lenders both during appraisal and underwriting.

1. Revenue

In many markets, rental premiums are emerging in high-performance buildings as many of today's best tenants are increasingly willing to pay a premium for green spaces. For these tenants, leasing green space is an opportunity to demonstrate a commitment to sustainability, attract the best employees, and improve productivity. With green on the shopping list of many firms, trophy office buildings in leading U.S. markets are chasing the best rents by making green investments increasingly common.

National studies for commercial office buildings support this trend in rental rates, as certified high-performance buildings outperform their conventional peers by a wide margin (see chart on page 5). For an underperforming property, investments in green features may result in better positioning of the asset within the marketplace and help keep rents up, and lenders can encourage these investments by recognizing that buildings that can demand greater rents are inherently less risky and more valuable.

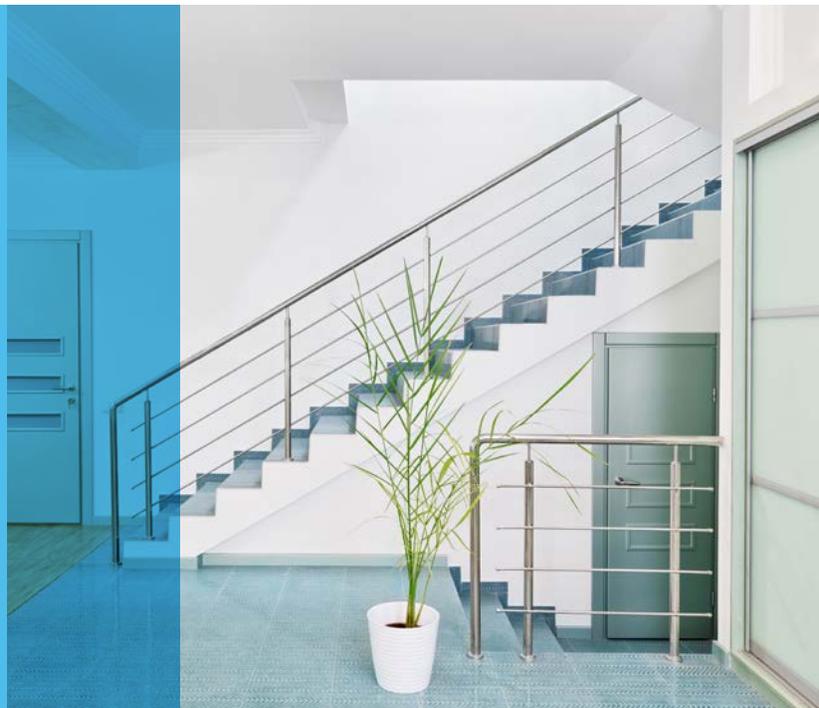
2. Occupancy

If it can be demonstrated that green features will result in higher building occupancy, a detailed analysis of the occupancy benefits must be made to the underwriter to justify an increase in asset value. Savings may be experienced as a result of tenant retention and the corresponding reduction in lost rents, reduced retrofit costs upon releasing of space, lower vacancy at turn over, and improved lease terms. Along with this potential occupancy premium, quicker absorption may be experienced in new properties or those that have been repositioned as green. Lenders can incorporate verified occupancy data, provided by owners, into their risk assessments and appraisal scope of services.

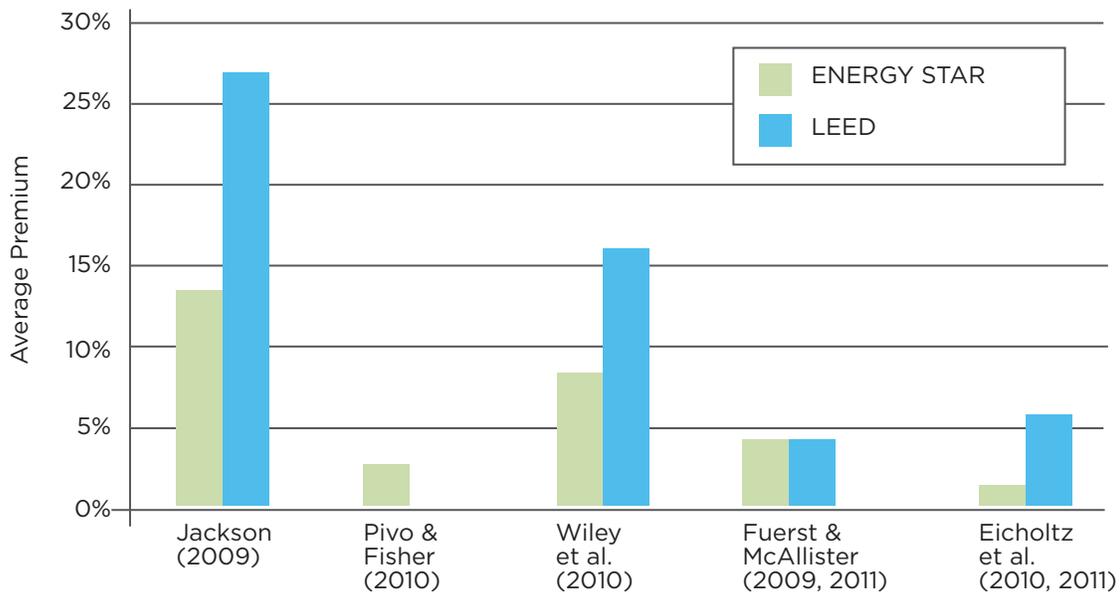
The table on page 5 approximates the potential for occupancy premiums to impact value. Although some studies indicate the potential for a greater occupancy premium, this diagram demonstrates the effects of a conservative two percent occupancy swing.

DEVELOPMENT CONSULTING

Building owners considering large-scale performance improvements should be advised to hire a third party to assess opportunities to improve building efficiency. Provided with third-party documentation, lenders can then evaluate the improvements' projected costs and benefits in order to assess project performance risk. In addition, a professionally designated real estate appraiser can anticipate these risks. Market analysis and feasibility studies are common services provided by valuation professionals in development consulting. These services can help position a property in the market, anticipate value opportunities, and protect against over-improvements, or "super adequacy" risks.



RENTAL PREMIUMS OF GREEN COMMERCIAL BUILDINGS IN THE U.S.



VALUE FROM OCCUPANCY PREMIUM OF TWO PERCENT CBD OFFICE IN SELECT MARKETS 100,000-SQ.-FT. BUILDINGS

Select Markets	CBD Gross Asking Rent	Annual Gross Income from Additional Occupancy	Incremental Net Operating Income*	Market Cap Rate	Incremental Value
San Francisco	\$68	\$136,000	\$102,000	4.50	\$2,266,667
Washington D.C.	\$54	\$108,000	\$81,000	5.25	\$1,542,857
Atlanta	\$24	\$48,000	\$36,000	6.75	\$533,333
Phoenix	\$22	\$44,000	\$33,000	6.25	\$528,000
Kansas City	\$17	\$34,000	\$25,500	8.00	\$318,750

*Assumes 25% non-recoverable expenses.
Rents: CBRE Global Research Gateway 2015; Cap rates: Integra Realty Resources Real Estate Value Trends 2015

FOUR COMPONENTS OF VALUE AND HOW GREEN FITS IN

3. Operating Expenses

The most straightforward value proposition for high-performance buildings is lower utility bills—realized from steadily improving energy codes, green certification requirements such as LEED and ENERGY STAR, and well-executed retrofits. The resulting energy savings reduce operating expenses and increase net operating income (NOI)—which can have positive effects on value. Depending on the lease structure, owners may only benefit from common area energy savings, as tenants often pay their own utility bills.

Regardless of the market, energy cost savings should be a clear indication to a lender that an asset is less risky, as operational savings will enhance an owner’s NOI and thus ability to repay outstanding loans. For example, lowering energy use by 10 percent on a 100,000-square-foot office that is paying \$2.50 per square foot for energy can translate into \$25,000 in NOI, or \$313,000 in asset value at an 8 percent cap rate. In premier markets with high rents,

energy savings may appear relatively small as a percent of operating income; however, low cap rates can catapult savings into high value per square foot. By contrast, in markets with lower rents, energy savings represent a much larger percentage of income and can greatly improve cash flow in spite of higher cap rates.

Operational savings can be achieved by reducing maintenance costs through efforts such as installing technology with a longer anticipated lifespan or more durable components such as LED lights. Other technologies and maintenance needs should be accounted for explicitly in owner documentation to justify positive value adjustments. Additional details on documenting energy efficiency savings and the effects on valuation can be found in the report *Recognition of Energy Costs and Energy Performance in Real Property Valuation: Considerations and Resources for Appraisers (Second Edition)*, a free resource from IMT and the Appraisal Institute. Provide a copy of this guide to your appraisers and ask your clients to do the same.



ENERGY SAVINGS CREATE VALUE BY INCREASING NOI: COMMERCIAL BUILDINGS

Energy Saved	Savings per Square Foot	Value per Square Foot
Baseline	-	-
5%	\$0.13	\$2.38
10%	\$0.25	\$4.76
15%	\$0.38	\$7.14
25%	\$0.63	\$11.90

*Income capitalization approach to value. Assumes owner is responsible for utilities, energy baseline \$2.50/SF/YR, cap rate 5.25%

4. Risk

Of the four components of value, lenders and underwriters are most focused on the risks associated with high-performance buildings, and how these risks affect value. High-performance buildings can offer protection against changing consumer preferences, increasing energy prices, and local green building ordinances. In addition, better market positioning is more likely to protect the going-out cap rate. Recognizing the relative safety of high-performing assets, one major insurer now offers discounts for high-performance buildings.

The table on page 10 outlines several common project risks, such as market and performance risk, in the context of the three approaches to building valuation. Additional resources addressing retrofits and risk are available from Rocky Mountain Institute and the U.N. Environmental Program, and are referenced in the additional resources section on page 9.

Valuation

Appraisers will reconcile the primary approaches to valuation (income, cost, and sales comparison), assigning relative weights to each based on quality and quantity of available data. For instance, if a recent sale of a high-performance building occurred, the sales comparison approach may take on greater significance. The chart below outlines the calculations that comprise the income capitalization approach to value. Viewed in the context of an operating statement, green building performance and value can show up across the board in quantifiable property metrics and favorable adjustments made during appraisal and underwriting.



INCOME CAPITALIZATION OF GREEN BUILDINGS*

Gross Revenue	(higher rents)
- Vacancy	(lower vacancy vs. market)
<hr/>	
=Effective Revenue	(Revenue up)
- Operating Expenses	(lower utility bills, maintenance, reserves)
<hr/>	
=Net Operating Income	(NOI up)
NOI/Cap Rate = Value	(lower cap rate)

*Income capitalization shown for simplicity. An appraisal using a discounted cash flow is likely to reflect similar performance adjustments.



Working with Owners and Appraisers

Scope of Services: Valuing a high-performing asset should call for an expanded scope of services in the appraisal that accounts for the complexity of high-performance buildings. Require that green elements are built into the scope of services provided to appraisers bidding on the assignment. The appraiser is the one who develops a scope of work for the appraisal, but the lender can make a scope of services request in the bidding for the assignment. One way lenders can address this is to include a task to complete the Appraisal Institute's *Commercial Green and Energy Efficient Addendum* in appraisal assignment requests.¹ This Addendum helps commercial appraisers research and analyze market behavior on green and energy efficiency issues.

Find a Qualified Appraiser: Lenders can insist on appraisers who have experience with high-performing assets and local market knowledge. Asking for a professionally designated appraiser (such as those who carry the MAI, SRA, or SRPA designations conferred by

the Appraisal Institute) can help ensure that the appraiser meets these standards. Additionally, ask whether the appraiser has received any specialized education on the valuation of sustainable buildings. Later during the review stage, as the underwriter is analyzing the appraisal, a more detailed review and additional consultations with the owner's technical consultants may be necessary.

Data Request List: It is critical that owners provide as much data as possible. Examples include: a market study with comparable properties, energy audits or bills, equipment specifications and monitoring plans, construction or retrofit costs, a pro forma, and other due diligence. Information on tenant demand for green features—preferably with a list of tenant representative contact information—can help as well.

Interview with Appraiser/Appraisal Manager: In this case, the owner tells the story by designating a knowledgeable resource to describe green attributes to the appraiser. This designee could be an owner, architect, or consultant.

¹ Available at: http://www.appraisalinstitute.org/assets/1/29/AI_821_Green_Commercial_Interactive.pdf

ADDITIONAL RESOURCES

1. Summary of efficiency and property value studies:
www.imt.org/finance-and-real-estate/green-building-and-value
2. *Recognition of Energy Costs and Energy Performance in Real Property Valuation: Considerations and Resources for Appraisers*, IMT and Appraisal Institute, 2012.
www.imt.org/resources/detail/recognition-of-energy-costs-and-energy-performance
3. *Value Beyond Cost Savings: How to Underwrite Sustainable Properties*, Scott Muldavin, 2010.
www.greenbuildingfc.com/Documents/Value%20Beyond%20Cost%20Savings--Final.pdf
4. *How to Calculate and Present Deep Retrofit Value*, Bendewald et al., 2014. http://www.rmi.org/retrofit_depot_deepretrofitvalue
5. *Unlocking the Energy Efficiency Retrofit Investment Opportunity: A Checklist for Real Estate Owners and Asset Managers*, U.N. Environmental Program: Finance Initiative, January 2014.
www.unepfi.org/work_streams/property
6. *Greening Our Built World: Costs, Benefits and Strategies*, Greg Kats, 2009, Island Press
7. *Residential Green Valuation Tools*, Sandra K. Adomatis, 2014, Appraisal Institute, http://www.appraisalinstitute.org/residential-green-valuation-tools/?F_Sort=10
8. Appraisal Institute Valuation of Sustainable Buildings Program Registry (Residential), www.myappraisalinstitute.org/findappraiser/green_sustainability_residential.aspx
9. Appraisal Institute Valuation of Sustainable Buildings Program Registry (Commercial), www.myappraisalinstitute.org/findappraiser/green_sustainability_commercial.aspx

GREEN ASSET VALUE: POSITIVE CONSIDERATIONS & DOWNSIDE RISKS

APPRAISAL APPROACH	POSITIVE CONSIDERATIONS FOR ASSET VALUE	POTENTIAL GREEN DOWNSIDE RISK
<p>Income Capitalization The best option for high-performance buildings due to the relatively low number of comparable properties</p>	<p>Market Profile</p> <ul style="list-style-type: none"> • Do the best tenants in market prefer green or efficient buildings? • Are tenants looking for certifications? <p>Tenancy From Lease-Up to Turnover:</p> <ul style="list-style-type: none"> • Does market show a premium for Lease-up/ Absorption; Vacancy and Retention, Downtime; Collection Losses? <p>Lease Structure</p> <ul style="list-style-type: none"> • Does lease structure benefit tenants or owner? • Recoveries, TI, Maintenance, Expense Sharing <p>Utility Costs</p> <ul style="list-style-type: none"> • Has the building been commissioned? • Are energy audits/historical use data credible? • Do low energy costs convey competitive advantage? <p>Income and Expenses Analysis</p> <ul style="list-style-type: none"> • Potential Rent and Vacancy premiums? • Do green practices (daytime cleaning) or materials (durability, lower reserves) reduce expenses? • Are insurance rates lower? <p>Investment Trends and Risk</p> <ul style="list-style-type: none"> • Do likely buyers display a preference for green assets and will this lower reversion risk? 	<ul style="list-style-type: none"> • Is the asset in a market that does not value green buildings? • Does the third party commissioning or auditing firm have a track record? What is their realization rate on projected savings? • Is the building an early adopter of any unproven green technologies? • Is there an additional demand on property managers, engineers to understand green systems? • Do managers make tenants partners in optimizing building performance? • Potential for smaller, less experienced owners of green buildings to have a higher risk profile vs. institutional players
<p>Cost Weighs the value of the green features against any premium</p>	<ul style="list-style-type: none"> • When construction cost estimates are available from architects or estimators, do offsetting incentives, reductions to cost of other components, and long-run benefits offset premiums? Can these be supported by life-cycle or cost-benefit analysis? 	<ul style="list-style-type: none"> • Is the green premium for a project too high to offset benefits?
<p>Sales Comparison Provides an opportunity to weigh the asset against green and conventional peers</p>	<p>Physical Characteristics:</p> <ul style="list-style-type: none"> • Is the property of higher quality? <p>Economic Characteristics:</p> <ul style="list-style-type: none"> • Is the property more marketable than its peers? • Would the market consider the asset less risky? 	



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