

Embedding Sustainability in Real Estate Transactions

Acquisitions and dispositions present a significant opportunity to create value through investments in energy efficiency, health, and building resilience. Understanding the potential value of a high-performing, sustainable building allows buyers and sellers to better assess and price the deal going in, to underwrite sustainability investments to drive higher returns, to market the value created by these investments to tenants, and to communicate this value to buyers when buying or selling an asset.

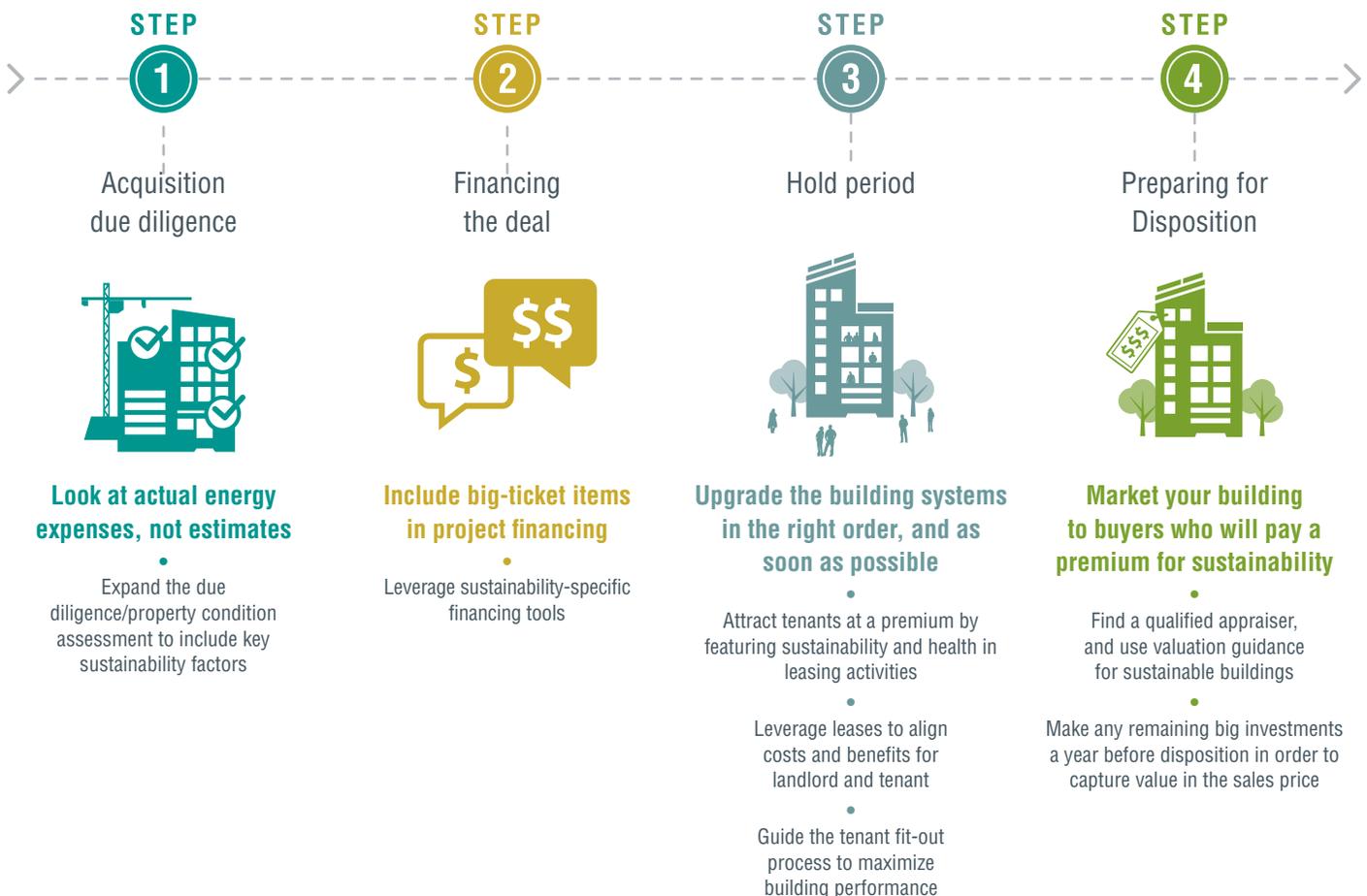
The potential value at stake for embedding sustainability is significant, and in some cases can represent a 50 percent-plus increase in asset value over the lifetime of an investment.¹

This ULI toolkit provides guidelines on how to incorporate the value of sustainability in transactions. It includes best practices from more than 30 ULI real estate leaders actively involved in real estate transactions.

¹ Figure based on Interviews with 30 real estate leaders who had used a combination of the 11 actions listed in this toolkit to generate from \$0.50 to over \$10 per square foot per year in increased net operating income, and to increase the sales value of their properties more than 50 percent versus a business-as-usual approach.

11 STRATEGIC OPPORTUNITIES TO EMBED SUSTAINABILITY IN REAL ESTATE TRANSACTIONS

Key strategic opportunities for embedding sustainability in real estate transactions can be organized according to the step in the real estate lifecycle, as represented below:



1 ACQUISITION DUE DILIGENCE



1 LOOK AT ACTUAL ENERGY EXPENSES, NOT ESTIMATES

An office building in the top 25 percent in terms of energy efficiency performance will save owners and tenants \$0.50 per square foot per year compared with an “average” building; a building in the bottom 25 percent in energy performance will cost owners and tenants an extra \$0.30 per square foot or more per year.² For a 100,000-square-foot building at a 5 percent cap rate, this represents created value of \$1 million to \$1.6 million, or an operating expense difference of \$500,000 to \$800,000 over a 10-year hold.

During due diligence, review actual energy bills (and bills for water and waste, if available) and benchmark the building against similar buildings using Energy Star’s Portfolio Manager tool. Include the actual—not estimated—energy expenses in the initial calculations of net operating income (NOI) and asset value. If improvements are planned, include the projected energy consumption in future cash flow projections.

2 EXPAND THE DUE DILIGENCE/PROPERTY CONDITION ASSESSMENT TO INCLUDE KEY SUSTAINABILITY FACTORS

The property condition assessment (PCA) can uncover a number of opportunities to add value during underwriting and the hold period, as well as a number of risks that could affect long-term value and NOI—but only if you ask the right questions. For example, prospective buyers should do the following:

- **Check the building’s green certification (and certification potential).** Has the certification lapsed? If so, is the building certifiable at minimal cost? Regaining LEED (Leadership in Energy and Environmental Design) or BREEAM (Building Research Establishment Environmental Assessment Method) certification can be costly, and buyers should not pay a premium for a building on which certification has lapsed. Lapsed certification can also present an opportunity to drive value: if a building has an energy performance in the top 25 percent of comparable buildings, it can earn an Energy Star certification in many cases for as little as \$0.05 per square foot.

- **Conduct building commissioning (or at least review available commissioning reports).** According to a major study, commissioning an existing building saves \$0.27 per square foot in energy expenses, on average, with a simple payback of nine months (or created value of \$500,000 for a 100,000-square-foot building at a 5 percent cap rate).³ In markets where energy audits or commissioning is mandatory, any savvy buyer should review these reports.
- **Identify cost recovery opportunities in current leases (and plan to use these in future leases).** Reviewing leases for cost recovery opportunities during the PCA can help buyers target the investments they want to underwrite into a deal and to identify opportunities to reduce capital expenses over the lifetime of the building. Leases without cost recovery often lead to underinvestment in energy and water efficiency, which also leads to relatively higher operating costs for tenants. Leases with cost recovery clauses for energy and water efficiency allow owners to make investments that reduce tenant operating expenses and lead to higher long-term value for the owners.
- **Analyze extreme weather models and long-term climate risks.** Most buyers currently look at federal flood maps, which are based on historical flooding and may not reflect current risks of extreme weather and coastal flooding. To enhance due diligence, a PCA should include modeling of future flood risks and sea-level rise, which could significantly affect a property’s NOI over the hold period (through increases in the future cost of insurance, property taxes, or other management expenses).
- **Understand a building’s “health status.”** A building that is currently “unhealthy”—i.e., that has poor ventilation, has high levels of indoor air pollutants, or provides little access to daylight—is a significant liability and can lead to tenant turnover and increased employee complaints to property management. Buyers should consider interviewing the on-site team to understand the nature of tenant requests that might reveal issues that traditional due diligence might not uncover.

² The Environmental Protection Agency’s Energy Star savings estimate is \$0.54 per square foot for an Energy Star building compared with a non-Energy Star building. www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/earn-recognition/energy-star-certification.

³ Evan Mills et al., “The Cost Effectiveness of Commissioning New and Existing Commercial Buildings: Lessons from 224 Buildings,” paper presented at the National Conference on Building Commissioning, May 4–6, 2005, https://www.bcxa.org/ncbc/2005/proceedings/19_Piette_NCBC2005.pdf.



3 INCLUDE BIG-TICKET ITEMS IN PROJECT FINANCING

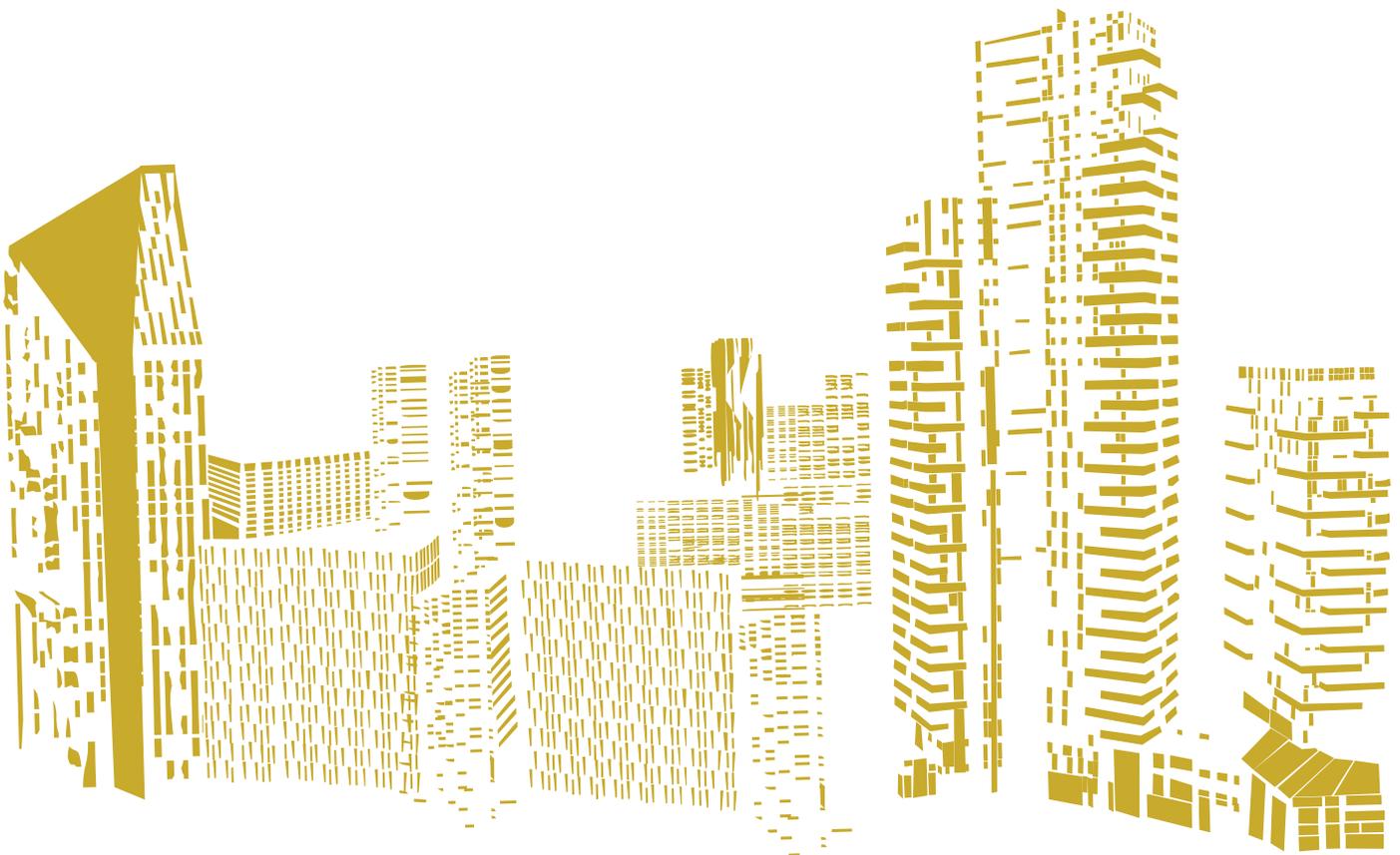
Major investments—such as those associated with repositioning a building—are most attractive when completed using acquisition financing. This is because acquisition financing is the lowest cost of capital a building will see in its life cycle: many borrowers can get debt at a cost of 2 to 5 percent when underwriting a purchase, but would have to expend working capital (with an internal hurdle rate of 15 to 20 percent) during their hold period. Financing investments in more efficient technologies upfront can change the perception of an investment from “long payback” to generator of an immediate positive net present value (NPV)—and often produce an annual internal rate of return (IRR) of 12 percent or more.

Buyers should use acquisition financing as an opportunity for early replacement of major systems and for future-proofing the building. An energy audit or advanced commissioning is an excellent tool for spotting these investment opportunities, but at a minimum buyers should think proactively and get estimates for upgrades of the building envelope (windows and insulation) and mechanical systems (boilers, chillers, cooling towers), and introduction of on-site power generation (cogeneration, renewable energy systems) as they look to build their capital stack.

4 LEVERAGE SUSTAINABILITY-SPECIFIC FINANCING TOOLS

Sustainability-specific financial products can present an opportunity to reduce redevelopment costs, align the cost and benefit between owners and tenants, move possible capital expense projects off balance sheet, and move capital expenses into longer-term financing. Energy savings performance contracts (ESPCs), energy service agreements (ESAs), and commercial property-assessed clean energy (CPACE) financing are all tools owners can use to leverage sustainability upgrades. Also, larger real estate investment trusts (REITs) and institutional investors that hold real estate assets can issue their own green bonds to finance energy efficiency and green building projects.

For renewable energy and energy storage, power purchase agreements (PPAs) and solar leases can help reduce the building’s energy expenses and even generate additional revenue or rental income. Moving some of these costs off balance sheet can also help protect against their being “value engineered” out of a major repositioning project.





5 UPGRADE THE BUILDING SYSTEMS IN THE RIGHT ORDER, AND AS SOON AS POSSIBLE

The repositioning process puts significant pressure on first costs, leading to a prioritization of smaller measures over deeper investments that may have a more significant return on investment (ROI) over the lifetime of the building. However, from a long-term-value perspective, making all major investments in a coordinated way will maximize long-term value and reduce life-cycle expenses. For example, high-performance windows and better building insulation enable maximum downsizing of heating, ventilation, and air-conditioning systems. If the chiller is replaced before improvements are made to the windows and building envelope, it will be oversized for the future needs of the building and would be a waste of money and energy. The sooner these big investments are put in place, the sooner they can start reducing operating expenses and providing a better experience for current and prospective tenants.

6 ATTRACT TENANTS AT A PREMIUM BY FEATURING SUSTAINABILITY AND HEALTH IN LEASING ACTIVITIES

Leading owners promote the direct benefit of lower operating expenses as well as indirect impacts on employee attraction, engagement, and productivity. Companies in the top quartile of employee engagement achieve a 37 percent reduction in absenteeism, as much as a 65 percent reduction in turnover, and a 22 percent increase in profitability compared with those in the bottom quartile.⁴ Studies show that a healthy building can be worth over \$10 per square foot per year to tenants in the form of reduced employee turnover and absenteeism, higher job satisfaction, and improved productivity.⁵

For example, a 70,000-square-foot office building in Seattle that replaced its windows with smart glass reduced its energy consumption by 18 percent (\$0.40 per square foot), but the energy savings paled in comparison with the impact of improved tenant retention and attraction that resulted from addressing occupant comfort. By providing improved thermal comfort, the owner was able to renew existing tenants and lease two empty floors for \$5 per square foot more than before the window replacement. Owners can communicate the health value to prospective tenants through materials provided to the broker community and through broker trainings in the value offered by a sustainable building.

7 LEVERAGE LEASES TO ALIGN COSTS AND BENEFITS FOR LANDLORD AND TENANT

Owners should look for opportunities to share the cost of and value created from capital investments with tenants and encourage them to operate their space efficiently. One tool to achieve this is a green lease—a lease with specific clauses that help the owner and tenant align their interests to maximize the building's performance.

One key element of a green lease is the cost recovery clause, through which owners can pass through capital expenses over the lifetime of a building while ensuring that tenants still see a net improvement in their utility bills. This makes any investment that can pay back the cost over the lifetime of the tenant's lease an attractive investment to pursue. *(Links to model lease provisions and additional resources for aligning costs and benefits to maximize value are available on the Resources page.)*

8 GUIDE THE TENANT FIT-OUT PROCESS TO MAXIMIZE BUILDING PERFORMANCE

Office tenants consume 50 percent of an office building's energy and water.⁶ A key step in embedding sustainability in real estate transactions is to work with tenants to maximize the lifetime savings of their fit-outs. Programs such as ULI's Tenant Energy Optimization Program (TEOP) can help tenants cut 30 to 50 percent of their energy use, earn an IRR above 25 percent on those fit-outs, and reduce operating expenses. High-impact steps include installation of energy-efficient lighting and supplemental heating and cooling controls, implementing daylighting and shading strategies, and applying automated plug-load management that aligns with a tenant's operating hours. *(More information on TEOP and other landlord/tenant resources are available on the Resources page.)*

⁴ Susan Sorenson, "How Employee Engagement Drives Growth," Gallup, June 20, 2013, <https://www.gallup.com/workplace/236927/employee-engagement-drives-growth.aspx>.

⁵ Stok, "The Financial Case for High Performance Buildings: Why It Matters," October 2018, <https://stok.com/financial-case-for-high-performance-buildings-why-matters/>. Stok's report estimates a value of \$18 per square foot for tenants of a healthy building, in the form of reduced turnover, reduced absenteeism, and enhanced productivity. Kathleen McCormick, *The Business Case for Healthy Buildings: Insights from Early Adopters*, Urban Land Institute, 2018, <https://americas.uli.org/healthy-places/the-business-case-for-healthy-buildings-insights-for-early-adopters-report/>. This report offers examples of tenants seeing a measured value of \$10-plus per square foot from enhanced recruitment of top talent and employee retention, and the ability to reduce square footage when moving to a healthier building.

⁶ U.S. Department of Energy, *Energy Efficiency in Separate Tenant Spaces: A Feasibility Study*, April 2016, www.energystar.gov/sites/default/files/asset/document/DOE%20-%20Energy%20Efficiency%20in%20Separate%20Tenant%20Spaces_0.pdf.



9 MARKET YOUR BUILDING TO BUYERS WHO WILL PAY A PREMIUM FOR SUSTAINABILITY

Owners should proactively communicate key sustainable building attributes and related financial performance to transaction brokers. Owners can create the content for brokers to include in marketing materials, their online platforms, and the offering memorandum for likely buyers, and even consider training brokers in the sustainability value proposition for their buildings. A broker armed with the sustainability business case for a building can help expand the universe of potential buyers and argue the case for paying a premium for a sustainable building.

Positioning a building as sustainable also can allow an owner to attract a wider range of potential buyers than the average building. A growing pool of investors is looking to make their real estate investments more sustainable—and employing scoring systems and other tools to help them identify more-sustainable real estate assets. The largest global investors and sovereign wealth funds also have portfolios—with \$12 trillion in capital—governed by environmental, social, and governance (ESG) criteria. Real estate that also qualifies as a good ESG investment can thus tap into two major pools of capital investors that may be interested in a sustainable, high-performing building.

10 FIND A QUALIFIED APPRAISER, AND USE VALUATION GUIDANCE FOR SUSTAINABLE BUILDINGS

Sellers should ensure that they and prospective buyers are seeking sustainability-educated appraisers, or risk losing the opportunity to capture the asset value they have generated through sustainable investments during their hold period. The Appraisal Foundation has established educational requirements and methodology for appraisers on how to execute a “green appraisal.” In addition, the Appraisal Institute provides green appraisal addendums for use in analyzing commercial properties, as well as green training programs and a directory of qualified appraisers. *(More information on green appraisals is available on the Resources page.)*

11 MAKE ANY REMAINING BIG INVESTMENTS A YEAR BEFORE DISPOSITION IN ORDER TO CAPTURE VALUE IN THE SALES PRICE

If an investment can be shown to have a positive impact on NOI within the first 12 months of operation, it can be written into the future cash flows of the building and captured in the sales price, increasing the value of the asset immediately—and sometimes dramatically. In this way, a project with an eight-year payback and a 12 percent IRR can turn into a project with a one-year payback and an instant 12 percent profit.

Owners looking to sell within 18 months should consider a slate of long-payback, high-ROI investments similar to their list of potential investments for financing the deal. Top priorities include building envelope, major mechanical systems, and on-site renewable energy. A future owner will receive the benefits of lower operating expenses and higher NOI, and the seller gets an immediate payback for the investment that (when applying a cap rate) is often multiples of what the ROI would be if the asset was not being sold.

GOING DEEPER: ADDITIONAL RESOURCES TO EXECUTE SUSTAINABLE TRANSACTIONS

ULI has compiled a list of resources providing more detailed guidance on how to embed sustainability in key decisions in a building’s life cycle. This list of resources can be found on the accompanying document, “Resources for Embedding Sustainability in Real Estate Transactions.” As ULI’s work on embedding sustainability in real estate transactions continues, more resources and case studies will be added to this list to help buyers and sellers strategically integrate sustainability at the time of a transaction.

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