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BREAKING DOWN THE BOTTOM LINE

THE BUSINESS CASE FOR ENERGY EFFICIENCY IN BUILDINGS



ABOUT CITY ENERGY PROJECT AND THE CITY ENERGY PROJECT RESOURCE COLLECTION

A joint initiative of the Institute for Market Transformation and the Natural Resources Defense Council, the City Energy Project supported bold yet practical ways to deploy energy efficiency at the city level to boost local economies, reduce pollution, and create healthier, more prosperous communities nationwide.

The project has partnered with more than 20 local governments across the U.S. since 2013 to design locally appropriate energy efficiency policies and programs. Building upon the past successes and innovation of cities, the City Energy Project established best-in-class practices for energy efficiency to be customized and replicated nationwide. Models and recommendations have been distilled into the City Energy Project Resource Library. This curated set of resources contains the necessary blueprints for a city government to craft and implement customized solutions to productively manage energy efficiency initiatives across commercial, multifamily, and public buildings in its jurisdiction.

For more information on the participating cities and counties in the City Energy Project, and to search the City Energy Project Resource Library, visit cityenergyproject.org.

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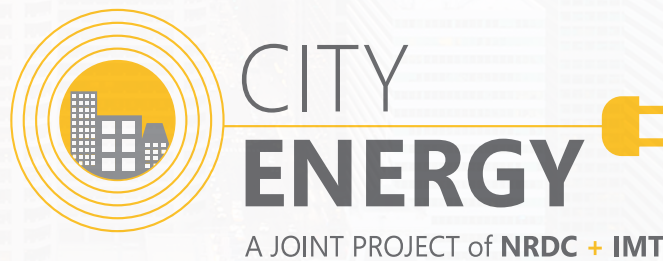




TABLE OF CONTENTS

INTRODUCTION	4
THE HARD NUMBERS: OPERATING COSTS, NET INCOME, AND VALUE	6
BEYOND THE FINANCIAL ARITHMETIC: COMPANY VALUES AND MARKET SIGNALS.....	11
BUILDING THE BUSINESS CASE WITH DATA	14
OPERATIONALIZING THE BUSINESS CASE: ACQUISITIONS, ENERGY MANAGEMENT, AND RETROFITS	18
CONCLUSION.....	21



INTRODUCTION

Why should businesses care about energy efficiency in buildings? Why should companies put their staff effort and limited budget resources into documenting, analyzing, and reducing their energy use?

Familiar elements at the core of the business case remain the same as energy efficiency advocates have argued for decades—that energy efficiency reduces costs, improves building operations and comfort, and increases overall value. Furthermore, as the industry and the world have evolved, new dimensions of the business case have emerged. Climate change and sustainability have become prominent priorities in business as well as politics. Building design, multiple certification programs, and building energy codes increasingly reflect the prime importance of energy efficiency—and now, are advancing further to address on-site renewables and building-to-grid integration, as well as water conservation and waste reduction. As of May 2020, more than 30 American cities had adopted energy performance benchmarking and transparency requirements. Meanwhile, technical tools for monitoring, analysis, and energy management have also become more powerful and widely accessible.

Energy efficiency is now a fundamental part of doing business in real estate and property management. If companies miss out, they risk falling behind in terms of market competitiveness.

This report provides a multidimensional, in-depth look at the business case for energy efficiency in buildings. It provides an overview of the basic financial arithmetic of energy savings, avoided operating costs, net income, and value, as well as a summary of case study data on what this arithmetic has meant to real projects and companies. It discusses other market drivers for energy efficiency and sustainability, including the increasing importance of environmental, social, and governance (ESG) principles and certification. It looks beyond the question of *why* to the more complicated issue of *how*—how to define and justify the business case for specific projects, buildings, and portfolios, and how to operationalize efficiency and energy management with budgeting, contracting, and staff operations.

The core of this report is the firsthand commentary of executives at three real estate companies, each at the leading edge of efficiency and sustainability in its respective subsector (high-profile commercial adaptive reuse, medical buildings, and multifamily residential), and each with its own approach to the business case.



Becca Rushin is Vice President for Sustainability and Social Responsibility at [Jamestown LP](#). Jamestown is a design-focused real estate investment and management company with a mission to transform spaces into high-profile innovation hubs and community centers. Since its founding in 1983, Jamestown has executed transactions in excess of \$35 billion. As of December 31, 2019, the company has assets under management of \$12 billion. Jamestown's current and previous projects include Chelsea Market in New York City; Industry City in Brooklyn, N.Y.; Ponce City Market in Atlanta; Ghirardelli Square in San Francisco; and the Innovation and Design Building in Boston. Jamestown has earned numerous distinctions as an industry leader in energy efficiency and sustainability, including recognition as a 2020 ENERGY STAR Partner of the Year and a 2020 Gold Level Green Lease Leader by IMT.




Ryan Yetzer serves as Capital Projects Manager for [Physicians Realty Trust \(NYSE: DOC\)](#). Headquartered in Milwaukee, DOC is a real estate investment trust focusing on the acquisition and management of healthcare properties. Since its founding in 2013, DOC has grown into one of the nation's leading companies in healthcare real estate, with a portfolio of over 14 million square feet and nearly \$4.8 billion in gross real estate investments as of March 2020. DOC is also an industry leader in sustainability, with [IREM® Certified Sustainability Property](#), [Green Lease Leader Gold](#), and LEED designations, all supported by a comprehensive corporate strategy for implementing ESG initiatives and sustainable investments.



Joe Recchie is the founder of [Praxia Partners](#), an owner, developer, and manager of multifamily and senior housing projects in Columbus, Ohio. Driven by a mission of putting social justice into practice, Praxia supports enterprises and projects embodying innovation, environmental stewardship, equitable community development, and advanced design. At a public hearing in March 2020, Recchie provided unsolicited [public testimony](#) in support of a proposed energy performance benchmarking ordinance for the City of Columbus, citing the benefits of energy efficiency and benchmarking for Columbus residents, the environment, and property owners.

In the end, as the insights from these companies show, the business case will vary from company to company and building to building, based on corporate values, building stock, staff capacity, and local market conditions. Data collection and analysis are crucial.

So read on, see what resonates the most for your company, and make your own business case for energy efficiency.



THE HARD NUMBERS: OPERATING COSTS, NET INCOME, AND VALUE

The heart of the business case for energy efficiency is simple—saving energy saves money. More specifically, by reducing utility bills, energy efficiency (as well as water conservation) raises net operating income (NOI) and increases profits in the long term.

But complexities lurk just below the surface. Efficiency measures involve up-front costs for equipment and installation. How can my company justify the initial outlay, especially in comparison with other opportunities to use that cash? And what about cases where tenants pay the utility bills?

NET INCOME AND PRESENT VALUE

Increased NOI means increased property value, according to a widely applied valuation method called [income capitalization](#). The arithmetic is simple—NOI is divided by a capitalization rate, which is market based and commonly lies between 5 and 10 percent. Thus, an upgrade that reduces energy costs by \$10,000 per year, in turn raising NOI by the same amount, could increase the value of the property by \$100,000 to \$200,000.

Considered through the lens of income capitalization, energy efficiency commonly yields incremental present value in the range of 1.5 to 4 times that of every dollar invested. In 2015, the Institute for Market Transformation produced several [commercial and multifamily case studies](#) looking at these returns and value effects. Highlights from some of these case studies are presented in Table 1.

Table 1. Summary of Financial Returns from Energy-Efficiency Improvements

PROJECT NAME	BUILDING TYPE AND FLOOR AREA	EFFICIENCY MEASURES	UPGRADE COST	ANNUAL UTILITY SAVINGS	NET PRESENT VALUE	ANNUAL ROI	NOTES
University of Minnesota, Biological Sciences, St. Paul, MN	Laboratory (207,115 sq. ft.)	Retrocommissioning	\$450,000	\$242,000 (46%)	\$1,582,881	0.6	Estimated 600 percent total return on investment
Self-Help Credit Union, Wilmington, NC	Mixed use, including office (440,000 sq. ft.)	Energy management system, central chiller	\$128,007 after utility rebate of \$2,709	\$11,100 (21%)	\$138,666	0.22	Building earned Energy Star® certification. Net present value shown for utility savings only, not including functional value of new chiller
Self-Help Credit Union, Greensboro, NC	Office space (88,000 sq. ft.)	Lighting and HVAC	\$50,926	\$8,111 (6.4%)	\$80,818	0.13	Unleveraged internal rate of return of 18 percent
CheckMate Realty and Development, Chicago, IL	Affordable multifamily housing (27,140 sq. ft.)	Roof and attic insulation; air sealing; replaced boiler burners; adjusted controls; water-saving fixtures; compact fluorescent lamps	\$30,200 (fixtures and lamps provided free by utility)	Not reported in study	\$80,952	0.37	Owner pays for heat and hot water, plus common-area electricity. Financial returns shown here for owner, not including tenant utility savings

“In Columbus, the capitalization rate for investment property will be in the range of 6.5 percent, which means that \$1 of income per year produces about \$14 of capitalized value,” says Praxia’s Joe Recchie. “If you are in California, because areas increase in value so rapidly, you have a different calculus. Their capitalization rate for similar income-producing properties is about 3.5 percent. So that means the properties are much more valuable. A dollar of periodic income increased in California results in about \$33 in value.

“Think about that in terms of energy efficiency,” he explains. “Saving one dollar per year in my property can produce \$14 in value in Columbus. If I’m in California, that \$1 in savings is \$33 in value. Then think about long-term return on equity. Why wouldn’t you pursue this?”

RECOVERING THE COSTS OF EFFICIENCY UPGRADES FROM TENANTS

Even when tenants pay energy bills, property owners can recover the costs of energy efficiency investments through [green leasing](#) agreements or negotiated management fees. Amortizing the initial costs of energy efficiency investments through tenant agreements can allow companies to stretch their capital budgets and avoid having to rely on outside financing. Taken together, these returns (reduced owner-paid energy bills and/or cost recovery from tenants) typically exceed the cost of capital for building owners, thus justifying energy efficiency investments even relative to opportunity costs.

“Many recent leases include language that provides the owner the option to amortize capital expenditures if it is an improvement that will reduce the tenant’s operating expenses,” says DOC’s Yetzer. “As part of our ESG strategy, we look for properties with longer-than-average remaining lease terms to extend our energy-saving project ROI. In these instances, we can reduce costs for tenants and the company simultaneously, all while improving the property and contributing to a healthier community. Since these investments are recovered, it does not extend our capital expenditures budget.”

Jamestown’s Rushin adds, “We also began using green leasing provisions early on. As you know, there can be split incentives. An owner may be hesitant to pay for an efficiency project when all of the financial benefits are realized by a tenant, but that shouldn’t be a barrier to get the project completed. Green lease provisions streamline and validate the process. An owner might be able to use language in a green lease that says the tenant will provide utility data. Green leasing provisions allow capital expenses to be passed through if they save energy. You don’t have to, but at least it opens up another conversation with the tenant about what that means.”



AFFORDABILITY, RISK REDUCTION, AND LONG-TERM TENANT RETENTION

Particularly with affordable housing, reducing utility costs creates long-term value and reduces investor risk by helping to ensure that tenants can afford to stay in their homes. Recchie is particularly focused on this, and offers up the following insight:

“Good value for your neighbors includes the whole package of what you offer, and our value proposition includes quality housing. So while an initial low rent is certainly one of our objectives, high quality such that those low rents can be preserved over a very long period of time is also an objective.

“Affordable housing is highly sensitive to utility costs because residents have limited income. Because housing and utilities are combined costs in the measurement of affordability, it’s critically important that we pay attention to the second component—the energy costs that the tenant bears.

“With affordable housing, it’s very clear to all parties that utility costs can be a significant burden for the tenant, whether it’s included in the rent, or paid to the utility as a separate bill. I’ve been doing this a long time, 42 years, and I’ve been able to predict a couple of things. One is that incomes are not growing as fast as operating expenses. In fact, incomes have stagnated during most of my professional life. They have almost flatlined for 40 years. Yet expenses continue to rise, and realistically, energy costs are expected to rise faster than other costs, except for healthcare and education.

“So if you’re renting out affordable housing, you are essentially competing with the utility for the consumer’s dollars. Why wouldn’t you produce something more affordable on the utility front, so that you can collect more rent? And even if the rent is the same dollar amount, with an energy-efficient property you have reduced your risk because you have a renter who’s more able to pay rent than if they had to pay more to the utility company (which, by the way, has the power of automatic shutoff).



“Investors understand that lowering the share of utility costs reduces their risk in the project. Risk mitigation is a big part of an institutional investor’s analysis.”

*Joe Recchie, Founder,
Praxia Partners*

“In particular with affordable housing, you have a pretty sophisticated class of investors—institutional investors who have a lot of understanding of asset management and long-term value. They are committed because of the nature of the low-income housing tax credit, or the restrictions of tax-exempt bond financing. They pay attention because they must stay in their deals for many years. It breaks that chain of short-term thinking. And the investors understand that lowering the share of utility costs reduces their risk in the project. Risk mitigation is a big part of an institutional investor’s analysis.

“If you are carrying forward with [triple-bottom line analysis](#) [profit, people, planet], you are going to drive to answers thinking out 20 to 30 years, not two years. Most developers produce real estate that is sold or refinanced in six years. Everybody that makes a decision about the property—the original builder, the buyer, the REIT, the insurance company, whoever is involved in it down the line—they’re all looking at a six-year-or-less decision matrix.

“Affordable housing is at a different extreme, in that you are making restrictions on the property that last a very long time—30-year land-use restrictions. We are not solving for a stabilized rent in year two. We’re solving for estimated performance 15 and 30 years out. That’s how you make long-term decisions that benefit your neighbors, your investors, and yourself. You have to be able to think long term, and out of that comes value.

“The average turnover in multifamily housing is about 30 percent per year. The average occupancy of all multifamily housing in Columbus, Ohio, is about 91 percent. Appraisal value is subject to a pro forma FHA assumption of no more than 93 percent occupancy. Their history is that you can’t do better than that. But our housing, for more than 20 years, has averaged between 99 and 100 percent. We have senior tenants that took occupancy when they were 62—they’re with us at 82. We have families that have raised their children, and now their children have children—they’re with us.

“My point is that consumers make decisions based on the whole value proposition of the projects. If we have a compelling offer that includes quality housing and low energy costs, it will attract consumers. This is the most basic element of business. You have a good price, you attract consumers. If you have a poor offer, you do not attract consumers.”





BEYOND THE FINANCIAL ARITHMETIC: COMPANY VALUES AND MARKET SIGNALS

The business case is also driven by factors that resist financial quantification but are equally important, or indeed even more important, to key decision makers and market stakeholders.

COMPANY VALUES

Increasingly, corporate boards and investors are demanding that companies apply [ESG](#) principles to their investments and operations. Energy efficiency in buildings is an essential way to implement these principles, and to concretely contribute to climate action and environmental responsibility.

“When I began working here at the end of 2012, Jamestown had just formally launched its [Jamestown Green](#) sustainability initiative,” says Rushin. “Our executives truly believe that by implementing projects with increased sustainability and reduced impact, we increase the value of our buildings. I think also for many investors, sustainability is a proxy for good management.

“I fill out a lot of [investor] questionnaires asking about our certifications, what we’re doing for climate change mitigation, and other key ESG issues,” she says, noting, “As more companies are paying more attention to this, those questionnaires are catching up with the best practices that we are already following. It’s really great to be ahead of the questions, in a way that doesn’t just check the box as an exercise, but really has a meaningful impact on our operations.”

Yetzer notes, “On many levels, ESG principles have been an integral element to our business practices since our founding, but in recent years, we have formalized our approach. By publishing our comprehensive ESG strategy in our inaugural ESG Report in June 2020, we ensure that our ESG investments are made thoughtfully to maximize both the environmental and financial benefits.

“Our leadership and Board of Trustees are passionate about sustainability,” he adds. “All DOC environmental projects stem from our alignment to our G2 Sustainability strategy—a

“We have a big footprint—14+ million square feet over more than 260 buildings—so we know our actions can make a significant difference. By focusing our efforts on reducing our carbon footprint and maximizing returns, we can fulfill our sustainability targets while also meeting our financial goals.”

Ryan Yetzer, Physicians Realty

practical approach in which being ‘green’ through our capital initiatives equates to a ‘green’ cash return via cost savings over time.”

He continues, “As part of implementing this strategy, one of the toughest challenges we face is evaluating all of the consulting, data collection, and reporting tools available. There is a lot of fluff out there, and just because something has ‘sustainability’ in the name doesn’t mean there is a business case behind it. We’ve found that if we are thoughtful about the sustainability projects we pursue using G2 as a guide, and with the right partnerships in place, we will have the support of our stakeholders to move forward, benefiting our operational efficiency, investor returns, tenant satisfaction.

“At DOC, we have a big footprint—14+ million square feet over more than 260 buildings—so we know our actions can make a significant difference. By focusing our efforts on reducing our carbon footprint and maximizing returns, we can fulfill our sustainability targets while also meeting our financial goals.”

Recchie’s decisions on efficiency are also driven by personal and company values. “I have a background in construction, law, and business, all of which I combine to support community development initiatives—not only trying to find innovative ways to solve or address social problems, but also to execute on that in a way that has long-term benefit and to steward assets, once constructed, in a proper manner,” he says. “That is probably the single advantage of being an entrepreneur—to be able to do things the way you believe.

“That’s where energy efficiency comes into it,” he explains. “If you’re producing something that you believe is good for the environment, has economic benefit, and is equitable to your neighbors, you are going to pay close attention to the quality of what’s built, the quality of what’s specified, and its longevity. That all just makes good sense.”

THE “GREEN PREMIUM” AND THE “NON-GREEN CHALLENGES”: STAKEHOLDER RECOGNITION AND MARKET DEMAND FOR SUSTAINABILITY

Advanced energy performance and sustainability can lead to certifications that are widely recognized in the market, and thus create branding benefits for both landlords and tenants. In turn, market players widely recognize a “green premium” for sustainable and efficient properties, which is reflected in [rents](#), [sale prices](#), and [occupancy rates](#), as noted in Table 2.

“I used to be asked a lot about the green premium, such as when I was talking about a certification project: ‘How much more is it going to cost to green this project?’ But now I talk about the barriers that non-green buildings face.”

Becca Rushin, Vice President for Sustainability and Social Responsibility, Jamestown LP

Table 2. Summary of the “Green Premium” for Rents, Sales, and Occupancy Rates

PARAMETER	DOCUMENTED INCREMENTAL EFFECT OF “GREEN PREMIUM” FOR LEED CERTIFICATION	DOCUMENTED INCREMENTAL EFFECT OF “GREEN PREMIUM” FOR ENERGY STAR CERTIFICATION
Rent	15–17 percent	7.3–8.6 percent
Sale prices	10–31 percent	6–10 percent
Occupancy rates	16–18 percent	10–11 percent

Source: [Energy Efficiency & Financial Performance: A Review of Studies in the Market](#). U.S. Department of Energy Better Buildings initiative, December 2015

Conversely, there are challenges for non-green buildings as a growing share of the market views the absence of ESG responsibility and sustainable operations as a sign that a company is behind the times, inattentive to details, disconnected from broader community goals, and generally less worthy as partners in investments and leases.

“We came to realize that if you don’t do environmental measures, you’ll be in trouble, whether it’s trying to lease a space or sell a building,” says Rushin. “I used to be asked a lot about the “green premium,” such as when I was talking about a certification project: ‘How much more is it going to cost to green this project?’

“But now I talk about the value of being green. Most of our competitors’ buildings that our potential tenants might be considering are LEED-certified. More and more frequently, we get questionnaires from tenants such as [the U.S. General Services Administration], asking about certifications and other sustainability features.

“We do work all around the country and the overwhelming majority of our tenants believe in climate change and care about the environment, the health of their workforce, and maximizing efficiencies,” Rushin says. “We do an annual tenant engagement survey, and we include sustainability questions. For the past few years, to my surprise, the main reason that tenants are interested in sustainability relates to health and well-being of employees. The second reason is their corporate mission, and cost savings is third.”

DOC’s Yetzer adds, “Especially if you’re a publicly-traded company, sustainability must be a visible and thoughtful part of your business. If you’re not engaging in the sustainability space, or if you’re only doing it to check a box, you miss a key opportunity to engage with your tenants and stakeholders.”



BUILDING THE BUSINESS CASE WITH DATA

Identifying projects and assessing the business case for investing in efficiency requires thorough assessment of building features, operations, and operating costs. Gathering all the necessary information can be daunting. Fortunately, technical tools for monitoring, analysis, and energy management have become more powerful and widely accessible, allowing businesses to efficiently identify opportunities, define the financial business case, and track results for specific buildings and projects.

CITY BENCHMARKING REQUIREMENTS AND DATA

City and county requirements on energy performance benchmarking may compel building owners to collect and report key data on building energy consumption, plus basic operating characteristics. Among other benefits, the compilation and disclosure of such data creates a starting point for existing and prospective owners to find and assess opportunities for efficiency improvements (and associated profit and value).

“Generally speaking, regulation has a negative connotation, particularly where there might be a perceived cost,” notes Rushin. “But the way we see it, these ordinances help level the playing field, and push all owners at least to measure their building energy performance.”

“That helps us when we buy buildings—to have better data available. Looking at it like a miles-per-gallon sticker on a car, we see value in that. As people like to say, you can’t manage what you don’t measure. Furthermore, our tenants, our investors—all of our main stakeholders—also expect us to know how our buildings are doing.”

Rushin notes that there’s an assumption that as the property owner, Jamestown has all the data. “However, the reality is that it can actually be hard to get accurate whole-building data,” she says. “A lot of our tenants might have direct utility accounts. The building I’m in now has five landlord-paid utility accounts but hundreds of tenant accounts between the multifamily portion and some retail spaces.”

“There is a gap between data you need for reporting and the financial data you need to make business decisions on efficiency projects.”

Becca Rushin, Vice President for Sustainability and Social Responsibility, Jamestown LP

In this regard, benchmarking legislation is helpful because it simplifies access to data. “In most cities, legislation requires tenants to give data to the landlord, or involves a process by which the utility provides it,” Rushin explains. “The regulation gives us a lot more flexibility, and is another tool in our toolbox to get the information we need anyway.

“These days, if we’re considering buying a building in, say, New York, the first thing I do is to look up whether or not they complied with local laws,” she says. “What is their ENERGY STAR score? How does the energy intensity compare? If there was an energy audit requirement, did they submit it? The requirements give more data to the market, and I think that has value.”

What she finds can influence the company’s path forward. “This doesn’t mean we wouldn’t buy a non-green building,” she says, “but it changes our strategy. If we’re looking at a building with a high ENERGY STAR score, I would be thinking immediately about certifying it, and assuming that the low-hanging fruit has been picked, what next-level stuff can we do—battery storage or some other clean tech project. On the other hand, if a building is poor-performing or not benchmarked in ENERGY STAR, we stage our engagement differently. That goes into the acquisitions budget, capital planning, and so on.”

BEYOND BENCHMARKING: DATA ANALYSIS AND FINANCIAL ASSESSMENT OF PROJECTS

Projecting and tracking the energy impacts and financial performance of projects requires some combination of engineering and financial assessments. An excellent starting point is the U.S. Environmental Protection Agency’s ENERGY STAR program, which offers [tools for assessing cash flow and financial impacts from efficiency upgrades](#), from the perspectives of owners, investors, and tenants. For more ambitious portfolio-wide efforts, still more advanced data approaches are needed.



“We directly manage about 60 percent of our portfolio, representing approximately 70 percent of our square footage. The remaining properties are primarily single-tenant managed directly by our healthcare partners, so obtaining data for these properties can be a challenge,” says Yetzer. “We use Engie [a licensed retail electricity provider] to aggregate utility metrics data and serve as a central clearinghouse for payments, which has helped tremendously in our data management.

“We partner with ENERGY STAR Portfolio Manager and [Measurabl](#) to further enhance our data analytics. While the initial setup of these systems is time-consuming, the results are worth it so that we may easily view baselines, analyze trends, and focus our efforts on properties with high degrees of variance.”

Rushin says, “We realized that there is a gap between data you need for reporting and the financial data you need to make business decisions on efficiency projects. Most of the data I report to third parties is focused on whole-building consumption. There is no requirement to report utility costs, and it’s typically not included in the whole-building data I get from utilities. While you can look at consumption and identify opportunities for improvement, and even extrapolate costs, it’s more difficult to account for demand charges and other utility bill complexities.

“Like most landlords, in the past there were times it was difficult to know what we were actually spending on utilities,” she says. “We could run some rough reports, with a lot of manual processing, to derive a number. But even then, it was hard to get the big picture.




“I sought to really get to the bottom of this with a utility automation project. We use [ENERGY STAR Portfolio Manager](#) for the simplest level of information and benchmarking. It’s a good tool, it’s required, so I decided early on to stick with it. We are also an active member of [ULI Greenprint Center for Building Performance](#), and through that membership we have access to the [Measurabl](#) platform. Those two tools, ENERGY STAR and Measurabl, are our main tools for energy reporting. Whatever is in ENERGY STAR for energy, water, and waste populates the data fields in Measurabl. In addition, within Measurabl, we track projects, audits, and certifications. We can also upload proposals into the platform. Our team fills it with as much information as they have, and then I myself and my team of consultants can glean energy efficiency information from that.

“We really aimed to get more information on what we were spending, all in a timely way. Some buildings report their energy use only once a year. If I get a report today about energy use 10 months ago in some property, that’s not so useful.

“We decided to put in place a platform to manage utility expenses. We selected a vendor that is able to customize a scope to meet the needs of our individual properties. They can help us with supply contracts, utility budgets, and generally they provide better baseline analytics on what we’re spending on utilities. We can compare budgeted vs. actual, this year vs. prior years, focusing only on the bills that we are paying.

“It’s not all of the information that we need to report. I still need to get energy use from tenant-paid accounts into ENERGY STAR somehow. Still, all this has been a huge step forward in helping us understand what we were spending and how we can find savings in our own bottom line.”





OPERATIONALIZING THE BUSINESS CASE: ACQUISITIONS, ENERGY MANAGEMENT, AND RETROFITS

Once you and your company have determined which investments to pursue and what returns to expect, you then need to execute and track the project. This requires several operational elements.

MONITORING AND ENERGY MANAGEMENT WITHIN BUILDINGS

Data management requires examining performance at both the building level and the portfolio level. Doing so may warrant bringing in external help. “Shortly after I started at Jamestown, we piloted a software for real-time energy modeling based on 15-minute interval data, as opposed to waiting until you get your bill to see that you have a spike,” says Rushin. “We did that to give our engineers a more detailed picture of how their buildings were starting up or shutting down. One of our main goals was to find anomalies—a pump that is turning on when it shouldn’t be on at 3 a.m.—and making a simple operational change to save a lot of money.

“We piloted the technology at some of our more simple office properties,” she continues. “After evaluating the results of the pilot, we partnered with [Aquicore](#). They manage a majority of our portfolio now, about 14 or 15 buildings. Working through them helps streamline our operations and schedule. It also helps us to manage peak demand, because a lot of our utility expenses are driven not by how much we use energy, but also by what time of day we use it. Again, you need to measure it in order to manage it. So that’s another way for us to do so.”

BUDGETING AND ACQUISITIONS

How and when will you pay for projects? At Jamestown, efficiency initiatives are not an afterthought—they are considered from the pre-acquisitions phase and remain integrated throughout the lifecycle of each project. Integrating sustainability is part of Jamestown’s strategic “hands on” approach, and sustainability efforts are coordinated between Jamestown’s in-house teams.

“For many firms, big ticket items—a new boiler, or a new chiller—will get picked up in a property condition assessment [PCA] during due diligence, and aren’t driven much by sustainability,” says Rushin.

“But at Jamestown, I have the ability to step in and say, ‘I see your plan to replace the boiler in year 5. Here are some efficient options to consider, or here’s how much you could save by doing that replacement sooner.’”

She continues, “We identify some smaller-scale measures through an audit during the acquisitions process for new buildings. We’ve beefed up the scope of our PCAs to include more detail on things like lighting and plumbing, just to identify any big opportunities. Other times, we’ll do a deeper energy study in year one, when we have more time.”

Jamestown also coordinates its actions with local requirements. “Our assessments often check multiple boxes—for example, we review benchmarking disclosures and also consider the energy assessment requirements from local municipalities. If an assessment has already been completed, we incorporate the assessment results into our budgeting process.

“We’ve made very good, steady incremental progress so far. Back in 2012, we set a target of 20 percent savings by 2024, compared to a 2014 baseline. Now as we’re getting close to meeting those targets, the low-hanging fruit has been picked, and we are looking at more aggressive approaches, involving different project structures.” Rushin continues to evaluate tools and methods that can evolve as the company does. “Jamestown has never done any on-bill financing, or PACE, and to date, we haven’t ever used an ESCO or a managed energy service agreement. But I’m considering it now,” she says.



“It’s important to collaborate with all in-house teams. My job is to help them get projects implemented, which helps Jamestown achieve our goals while increasing NOI and the tenant satisfaction.”

Becca Rushin, Vice President for Sustainability and Social Responsibility, Jamestown LP

OPERATIONS STAFF AND CONSULTANT ENGAGEMENT

At DOC, Yetzer reports that asset and property management staff are thrilled to see efficiency upgrades completed at their properties, which typically reduces operating expenses, decreases maintenance needs, and increases tenant satisfaction. “We use case studies to promote our sustainability actions and report to stakeholders, a valuable tool when presenting future upgrade options to management and tenants.”

When engaging external consultants and contractors, it requires time and research. Yetzer notes, “Sustainability is an emerging market for contractors in terms of services, financing upgrades, and performing audits. It’s critical to find good partners willing to collaborate on their approach so that you may understand key benefits, such as financing rates, profit margins, and the return on investment.”

At Jamestown, close and constant engagement between the sustainability team and operations teams is key. “It’s important to collaborate with all in-house teams,” says Rushin. “My job is to help them get projects implemented, which helps Jamestown achieve our goals while increasing NOI and the tenant satisfaction. I’ve definitely seen a lot of openness among our operators to bringing in these third parties, as long as they trust them.

“Many firms rolling out these platforms are concerned about resistance from engineering teams,” says Rushin. “Our engineers appreciate having an additional layer of information. They’d rather get a text alert on their phone instead of having to find something manually. So definitely over the years, the building operators have realized that this information can help them do their job better.

“Years ago, I used to be the one always asking teams for information,” she continues. “I’m sure it got a little annoying. Now, they see my department and my role as something that can help them be more successful in their role. I’m asking them for information, but the tenants want to know what their ENERGY STAR score is. The sustainability team’s work puts the building staff in better position to respond. And they recognize that.”

CONCLUSION

On the fundamental question of why and how to pursue energy efficiency, these conversations reveal common themes, but with different angles for each company—from simple, familiar arithmetic about cost savings to deeper implications about value and capital budget savings, and from mission-driven concerns about climate change and corporate responsibility to a recognition that energy efficiency is still ultimately about the bottom line. Ultimately, though, they all agree—energy efficiency is not only the right thing to do, it's also good business for their companies.



ABOUT INSTITUTE FOR MARKET TRANSFORMATION AND NATURAL RESOURCES DEFENSE COUNCIL

ABOUT INSTITUTE FOR MARKET TRANSFORMATION

The Institute for Market Transformation (IMT) is a national 501(c)(3) nonprofit organization that catalyzes widespread and sustained demand for energy-efficient buildings. Founded in 1996 and based in Washington, D.C., IMT specializes in driving the intersection of real estate and public policy to make buildings more productive, affordable, valuable, and resilient. A trusted, non-partisan leader, IMT focuses on innovative and pragmatic solutions that fuel greater investment in energy-efficient buildings to meet local market priorities. IMT offers hands-on technical assistance and market research, alongside expertise in policy and program development and deployment and promotion of best practices and knowledge exchange. Its efforts lead to important policy outcomes, widespread changes in real estate practices, and lasting market demand for energy efficiency—resulting in greater benefits for all people, the economy, and the environment. Visit us at www.imt.org and follow us on Twitter [@IMT_speaks](https://twitter.com/IMT_speaks).



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