



THE LANDLORD-TENANT
ENERGY PARTNERSHIP

EFFICIENCY TOOLKIT

Six strategies for landlords and tenants
to internalize energy efficiency and
maximize savings

INTRODUCTION

We know energy efficiency can be overwhelming... but it doesn't have to be.

In a world where energy efficiency and sustainability are increasingly common terms in both the private and public sector, traditional capital planning can be frustrating when budgets are shrinking and demands are increasing. The Landlord-Tenant Energy Partnership addresses these issues by optimizing landlord-tenant relationships to create and deploy win-win solutions that make it easy to use energy efficiency to decrease energy use, save money, and achieve internal and external energy and sustainability goals.

A TOOLKIT TAILOR-MADE FOR LANDLORDS & TENANTS

A direct response to industry feedback, this toolkit gives landlords and tenants the essential strategies and key questions they should start asking to act on energy efficiency today, no matter their business focus or interests. The toolkit is not a linear step-by-step guide. Instead, it is a tool that is designed to meet you where you are and allow you to prioritize savings opportunities for maximum return.

Whether you're juggling investor pressures, ambitious greenhouse gas emissions reduction goals, a downsized budget, or a desire to make a public sustainability splash—or a combination of all of the above—this toolkit, accompanied by one-on-one guidance from the experts at the Institute for Market Transformation (IMT), can help get you to your goals.

Start your journey by taking a three-minute energy assessment at the [Landlord-Tenant Energy Partnership website](#). You'll receive a customized scorecard that prioritizes toolkit strategies by your biggest opportunities for progress.

Then, join the Landlord-Tenant Energy Partnership to take action, track progress, and go deeper via one-on-one interactions with the Partnership team and participants.

Let's get started.

SIX STRATEGIES TO INTERNALIZE ENERGY EFFICIENCY AND MAXIMIZE SAVINGS



UNDERSTAND ENERGY USE..... 04

Tracking energy use is a vital step before you can begin planning how to reduce energy. If your company doesn't already have access to energy-use data, this section will guide you on a variety of measurement options that can meet your goals.



DEPLOY COMPANY-WIDE BUILDING AND TENANT SPACE PERFORMANCE POLICIES 08

Creating company policies for your building's energy management and sustainability goals can help ensure smoother processes down the line. Policies can be instigated at various building life-cycle phases including acquisition/site selection, lease/purchase, procurement and design, and construction.



FINANCE PROJECTS 14

Whether early on in the journey or in the late stages, your company will likely hit a financing barrier and need to strategize on capital solutions before instigating more energy efficiency measures. This section will analyze both internal and external financing options available to companies, no matter the size of company.



INFLUENCE BEHAVIOR 17

Changing the status quo is never easy but this section will help guide you through proven tactics to incentivizing energy efficient and sustainable behavior.



MEASURE & MAINTAIN PROGRESS 20

Once your company has achieved a certain level of energy efficiency and sustainability, you will want to measure and ensure progress is maintained. This section will guide you through ways to successfully continue your new programs.



EARN RECOGNITION 22

Awarding successful endeavors and a job well done is an important part of transforming your company and driving market demand for efficient buildings. This section will begin to walk you through the options available to award your company, tenants, or employees for their successful energy efficiency programs.



STRATEGY 1

UNDERSTAND ENERGY USE

Understanding building energy use, as well as monitoring it on a regular basis, is a fundamental step in harnessing and maximizing potential energy and financial savings. With greater data access and transparency, tenants and landlords can begin to optimize their spaces and find mutually beneficial strategies.

ACTION 1

BENCHMARK YOUR ENERGY USE & SET A SAVINGS GOAL

To change how a building or space consumes energy and set goals for improvement, you must begin by gathering the data that will help you understand how it is using energy now.

KEY CONSIDERATIONS

Get on the path to uncovering how your company currently uses and manages energy by asking the following questions:

- 1 How are utility bills processed internally? Which departments are a part of processing?
- 2 Does anyone review utility bills for errors? If yes, and errors are found, how are errors addressed and corrected?
- 3 Is total energy use (kWh), also known as electricity, recorded from the utility bills in a centralized database (such as a spreadsheet or cloud-based tracking software) or is this data accessed directly from the utility?
- 4 **LANDLORD** Do buildings have submeters so each tenant's utility consumption is separately measured?
- 5 **TENANT** If a tenant space or building is not directly metered by the utility provider, is the landlord able to provide data on kWh consumed?
- 6 **TENANT** Does your landlord provide a portal you can log into to download tenant energy-use data?

USE ENERGY STAR PORTFOLIO MANAGER TO GET A BASELINE

After inventorying energy use, set up a free user profile in [ENERGY STAR Portfolio Manager](#). Portfolio Manager is a comprehensive tool for any building owner or tenant to track energy use, obtain a portfolio-wide view of consumption by site, and compare performance across similar property types. It also informs users if the local utility can provide energy-use history, which can significantly reduce employee time dedicated to searching for this data internally.

SET AN INTERNAL ENERGY SAVINGS GOAL

Setting an internal savings goal can fully tune all departments into the benefits of benchmarking. This can involve shifts in operations and changes in staff responsibilities, as well as setting an energy-saving goal based on available staff resources and the savings opportunities identified. [Strategy 4](#) will address this in more detail.

ESTIMATED ANNUAL ENERGY SAVINGS: **2.4%**¹

AVAILABLE RESOURCES

[Benchmarking Starter Kit](#)

This tool from ENERGY STAR will guide you through the steps needed to begin benchmarking.

[Primer: Portfolio Manager: What Data is Required to Benchmark Your Property?](#)

Use this ENERGY STAR primer to understand the types of data required to benchmark buildings.

[Infographic: Benchmarking: Saving Energy and Money](#)

This infographic from IMT explains the benefits of benchmarking at a glance.

[BuildingRating.org](#)

Search this comprehensive database maintained by IMT to understand which U.S. cities and states require benchmarking and transparency around building energy and water use.

[Finding Utilities that Provide Energy Data for Benchmarking](#)

This interactive map from ENERGY STAR shows service territories of utilities providing customers with energy data.

[Tenant Data Request Sample Letter](#)

ENERGY STAR's sample letter requesting energy data from tenants when energy bills are available for a portion of the space.

[Checklist: Energy Use & Greenhouse Gas Introduction](#)

An introduction to energy use and greenhouse gas emissions specific to facilities and operations from the Sustainable Apparel Coalition.

ACTION 2

GO DEEPER WITH AN ENERGY AUDIT

Used in conjunction with benchmarking, which gives a broad overview of energy usage by building type, audits zero in on specific areas within a building that are ripe for energy efficiency improvements. Going beyond the monetary savings of energy efficiency, audits can uncover non-energy specific benefits that can get more people on board and gain stakeholder buy-in. A landlord can request an energy audit for an entire portfolio or select buildings to inform capital expenditures. Tenants, on the other hand, should consider an energy audit to gain a better picture of efficiency improvements that can be applied to a tenant's leased space.

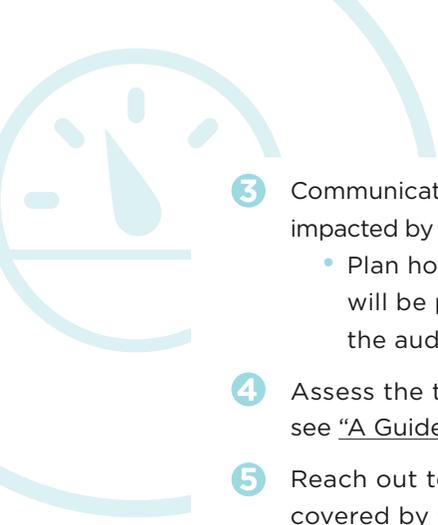
KEY CONSIDERATIONS

To prepare for an audit, designate a project manager who will be responsible for coordinating internal support, executing the audit, and collecting the following information to determine how much energy a building or tenant space consumes for heating, cooling, or other equipment.

- 1 Gather 12 months of historical use data of electric, natural gas, and water.

TENANT If tenant is not billed directly by the utility provider, request from the landlord monthly kWh usage for leased space or check your local utility provider's website for historical use data.
- 2 List total square footage, age of building, and any other relevant information such as hours of operations, use type, etc.

TENANT Tenants can find this information either in an executed lease or by contacting the building manager.

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- 3 Communicate with facilities department, occupants, and any other department that may be impacted by the audit to ensure they know what to expect leading up to, during, and after the audit.
 - Plan how to delegate responsibilities during the audit and determine how the findings will be put into action. This should include assigning a point of contact who will oversee the audit as well as ensuing communications once the audit is completed.
 - 4 Assess the type of audit (Level I, II, or III). For more information on different audit options, see [“A Guide to Energy Audits”](#) from the U.S. Department of Energy.
 - 5 Reach out to the local utility to determine if any audit costs are covered. If the cost is not covered by the utility, find a trusted third-party provider to perform an audit.

Note: The above information can be tracked in a simple spreadsheet.

AVAILABLE RESOURCES

[Facility Energy Checklist](#)

Use this checklist from the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) to find practical steps to conserve energy in buildings with central heating plants or facilities with thermal distribution.

[A Guide to Energy Audits](#)

An introduction to what an energy audit is and explanations of the different options from DOE and Pacific Northwest National Laboratory.

ACTION 3

INSTALL AN ENERGY MANAGEMENT INFORMATION SYSTEM (EMIS)

An EMIS gathers building energy performance information in a central database to identify problems and address them strategically. Data is visualized and monitored to pinpoint inefficiencies or unexpected energy increases in a building or space. Energy use is tracked in real time or historically.

KEY CONSIDERATIONS

- 1 Assemble an internal team with expertise in:
 - Repair & maintenance
 - Facilities management
 - Information Technology (IT)
 - Procurement
 - Operations
- 2 Use the resources listed below to review EMIS options. Once preferences have been identified, draft an RFP to be sent to at least 3-5 vendors.
- 3 When evaluating vendor proposals closely consider the following:
 - Do they clearly understand the problem you are trying to solve?
 - If selected, how do they structure technical support during the development, implementation, and ongoing maintenance phases of the contract?

- Is there an option to increase technical support hours?
- What is the warranty for the equipment? What is not covered under the warranty?
- What is the termination clause?

- 4 Once a vendor is selected, work with your internal team to:
- Draft an implementation plan which incorporates custom software requirements to meet your company's needs.
 - Identify resources needed to install equipment.
 - Estimate roll-out schedule for portfolio-wide installations.
 - Train staff to use the software. Vendors often offer training support and provide an option to add this service later in the deployment stage.

ESTIMATED ENERGY SAVINGS: **33%²**

AVAILABLE RESOURCES

[Guide: How to Choose the Right EMIS](#)

Use this questionnaire from IMT to select the EMIS for a portfolio or a single building.

[Report: Transforming the Market through EMIS](#)

Learn how owners, technology providers, and third-party actors such as utility implementers and local governments can transform the commercial real estate market through EMIS in this report from IMT.

[Report: A Primer on Organizational Use of EMIS](#)

Review the basics of EMIS and how to integrate EMIS into company operations in this report from Lawrence Berkeley National Laboratory.

STRATEGY 2

DEPLOY COMPANY-WIDE BUILDING OR TENANT SPACE PERFORMANCE POLICIES

Building performance policies ensure consistent operations are captured throughout the lifecycle of the building. These policies can be as short as a paragraph or can be several pages long, and can be applied at various stages of the building lifecycle.

ACTION 1

SITE SELECTION CRITERIA

Generally, site selections do not happen every year, so take advantage when the opportunity arises. Having a process in place for selecting an efficient site will keep down the costs for operational expenses over the length of the lease or until disposition of property.

KEY CONSIDERATIONS

- 1 TENANT** Create a list of site selection criteria to guide real estate brokers, and any potential or current landlords/owners in the search.
 - This list should include any important building characteristics. For example, ask internal stakeholders if having a green-certified building (such as LEED or ENERGY STAR) is important.
 - Use this list to assess the status of a landlord's sustainable building features and operational efficiencies. Eliminate buildings whose site performance does not align with sustainability goals. Real estate brokers might see this process as added work, which might lead them to not adopt your recommendations as standard practice. To avoid this pitfall, present the financial case for considering these recommendations to the broker and anyone involved in the leasing transaction. Present examples of how not considering these recommendations has cost the company money. Demonstrate the value added and the cost savings.
- 2 LANDLORD** Proudly promote to brokers the company's strategies toward operating your buildings to the highest standards. Set the stage from the beginning with prospective tenants that efficiency and comfort are top priorities. Whenever possible, include this in the information the broker provides to his clients, in the tenant welcome packet, and on the company website. Share building upgrades that have occurred within the past three years and provide high-level strategy for continuous improvement in the near-term to inform high-performance building characteristics.
 - Display or communicate ENERGY STAR scores, as well as any green certifications (such as LEED) whenever available.
 - Whenever possible, demonstrate how elements in the building can reduce operating expenses and improve occupant comfort over the length of the lease.
- 3** Landlords and tenants can provide real estate brokers with a brief description of the sustainability strategy and how this will directly improve occupant experience. This will set the tone early and communicate how the company handles energy and sustainability. For example: If a landlord has implemented a tenant portal that is used to improve

communications between landlord and tenant by sharing how much energy a tenant uses, as well as recommendations on how to reduce energy consumption. Explain how regular use of this portal can save a tenant in operational expenses.

- Set real estate broker guidelines for rating the environmental impact of new spaces' environmental impact.

ESTIMATED ENERGY SAVINGS: 35%³

AVAILABLE RESOURCES

[Report: Green Lease Questionnaire for Tenants](#)

This IMT questionnaire is for tenants to evaluate building features and operations.

[Report: Sample Premises Questionnaire](#)

This sample questionnaire from RILA is for retail tenants to align a landlord-operated building with company-wide energy and sustainability goals.

[Tool: Green Procurement Compilation](#)

This U.S. General Services Administration (GSA) tool helps better address green/sustainable procurement issues and questions.

ACTION 2

DEPLOY EFFICIENT BUILD-OUT STANDARDS

Developing efficient build-out standards provides a minimum set of energy efficiency guidelines reflecting the company's environmental strategy that can be referenced and implemented by internal and external parties. Build-out standards help to streamline and simplify upgrades and renovations to incorporate energy efficiency as standard practice. These documents can be periodically updated to account for improvements in technology, as well as new methods that can be applied to improving the overall performance of your space or building.

KEY CONSIDERATIONS

In developing build-out standards, be sure to:

- 1 Use efficient build-out guides for establishing a consistent design standard, communicating priorities, and protocol for management of contractors, vendors, and internal operations and facilities staff.
- 2 Develop a policy that requires all renovation and new construction to adhere to these standards.
- 3 Properly vet contractor knowledge in designing and executing efficient spaces to ensure contractor can track and verify environmental goals while building a space that meets company design and operational standards.
 - Require vendors to acknowledge the company's environmental goals and how the work performed by the vendor will be performed to the best of their ability to adhere to the goals stated in the build-out standards.

ESTIMATED ENERGY SAVINGS: 9-20%⁴

AVAILABLE RESOURCES

[Report: Sustainable Solutions for the Office](#)

This IMT report offers landlords and tenant solutions to build out a more sustainable and energy-efficient space.

[Report: Creating a High-Performance Workplace: Portland's Green Tenant Improvement Guide](#)

This comprehensive guidebook from the City of Portland Bureau of Planning and Sustainability looks at the design and construction of a green office and includes worksheets to track sustainability metrics.

[Report: Energy Performance Opportunities in Commercial Office Buildings](#)

From the Urban Land Institute, this is a short guide of energy efficient measures aligned to the best-case, tenant build-out schedule.

[Report: EPA Commercial Building Design](#)

This step-by-step guide offers tips to assemble a team, set energy goals, develop a design, and achieve ENERGY STAR certification.

[Report: High-Performance Tenant Build-Out: A Primer for Tenants](#)

This guide from the Institute for Building Efficiency walks through common energy efficiency improvements and overlays them with green leasing considerations.

[Guide: Higg Materials Sustainability Index](#)

Review the impacts of material production used in the apparel, footwear, and home textile industries in this guide from the Center for Retail Compliance.

ACTION 3

CREATE SUSTAINABLE OPERATIONS

While build-outs, energy management systems, and high-performance leasing (also known as green or energy-aligned leasing) are all vital tools on your journey toward more efficient buildings and spaces, there are many other opportunities to further influence efficiency in daily operations.

KEY CONSIDERATIONS

In any efficient operations strategy, there are two components: physical building standards and employee-driven operations. When looking beyond physical building requirements:

- 1 Identify easily adoptable solutions that encourage more efficient practices and keep the property operating at optimal efficiency. For example: Promote nationally recognized events such as Earth Day and provide recommendations on how an occupant can reduce the energy and waste they produce in a workday.
- 2 Task the operations and facilities team to implement monthly or quarterly checklists verifying equipment set points have not drifted out of programmed range. Alternatively, if a building has an EMIS or building management system (BMS), assign someone to regularly monitor it for fluctuations.

Example: Consider scheduling cleaning for office spaces one hour after regular business hours to minimize after-hours use of energy.

ESTIMATED ENERGY SAVINGS: 5-20%⁵

AVAILABLE RESOURCES

[Sustainable Operations for Modern Office](#)

This IMT guide provides strategies to save energy and water in office space.

[Corporate Clean Energy Plan](#)

RILA's retail guide looks at how to integrate a renewable energy plan.

[The Value of Sustainability in Retail Stores](#)

This compilation from the Center for Retail Compliance offers retail-specific resources to help incorporate sustainability into stores.

[Retail Sustainability Management Resource Library](#)

This list contains sustainability management resources aimed at setting and meeting company-wide goals, from the Center for Retail Compliance.

[Retail Energy Management Resource Library](#)

This list of energy management resources is aimed at setting and meeting company-wide goals, from the Center for Retail Compliance.

[Operations and Maintenance Best Practices](#)

A guide from DOE EERE on how to achieve operational efficiency in any space.

[Tool: Sustainable Facilities Tool - Agency Green Building Practices](#)

Access high-performance building policies and strategies, tools and training, best practices and case studies.

[Manual: Science-based Target Setting Manual](#)

A guide to set internal energy and sustainability goals with a direct, science-based approach, from the Sustainability, Help, Information, Frameworks/Findings and Tools (SHIFT) platform from the Sustainability Initiative at MIT Sloan and Valutus.

ACTION 4

USE HIGH-PERFORMANCE CLAUSES (A.K.A. GREEN LEASE LANGUAGE)

Incorporating green lease clauses—also known as high-performance or energy-aligned lease clauses—into existing leases streamlines decision making and investments in efficiency solutions for landlords and tenants.

KEY CONSIDERATIONS

When implementing high-performance leasing language, be sure to:

- 1 Coordinate with operations, repair, and maintenance staff to list projects and costs incurred over a full calendar year that could have been averted if the current lease had incorporated language addressing the issue.
 - Use the above findings to recommend high-performance or green lease revisions and to present the business case for leasing language to the legal department and real estate team. Showcasing hard evidence of cost implications will help provide concrete reasons for standardizing green lease language into future transactions.

- If you're not sure where to start, take a quick assessment of your leasing practices under the Green Lease Leaders program at www.greenleaseleaders.com. The assessment provides guiding questions to help a landlord and tenant determine how to operationalize efficiency through leasing and in facility operations.

- 2 Apply for recognition through the [Green Lease Leaders](#) program to demonstrate commitment to sustainable efforts. See this guide's [Earn Recognition strategy](#) for more information on this process.

Consider the following to streamline the high-performance lease process:

- 1 To determine the appropriate modifications to include efficiency clauses in existing or new lease structure, begin by evaluating your company's top sustainability goals.
- 2 Work across internal departments to establish roles in the high-performance leasing process. Each department have specific roles and responsibilities that can inform lease language. For example: Check in with operations to learn how specific lease clauses may have negatively impacted operations and required capital improvement dollars to resolve the issue
- 3 Provide legal team with sample language that aligns with the company's environmental goals to minimize environmental and efficiency-specific clauses being stricken out of the lease negotiation and review.
 - Explain how these elements can reduce operating expenses over the length of the lease, reduce company risk, align with long-term company strategy, and avoid unnecessary spending.
- 4 Consider evaluating historical expenditures on maintenance costs that could have been avoided if a clause was included in the lease.
- 5 Review the various categories high-performance lease clauses cover and select those that most align with your strategy.
- 6 Consider presenting the selected lease clauses, financing savings, and business case to your legal and real estate team to improve alignment of priorities between each department.

ESTIMATED ENERGY SAVINGS: 11-22%⁶

AVAILABLE RESOURCES

[Report: Energy Efficiency Lease Guidance](#)

A guide from the Natural Resources Defense Council (NRDC) for property owners and tenants to negotiate commercial leases.

[Report: Green Leasing: An Effective Tenant/Landlord Strategy for Energy Efficiency](#)

A primer from A Better City on green leasing features lease clauses and forecasts the trend of energy benchmarking ordinances.

[Report: High Performance Lease Criteria and Sample Lease Language](#)

A matrix from the U.S. General Services Administration (GSA) of high-performance lease language ranging from simple to innovative.

[Report: Making Efficiency Work for You](#)

IMT's guide for small business owners and tenants to navigate energy efficiency and high-performance lease clauses.

[Report: Retail Green Lease Primer](#)

IMT's breakdown of lease modifications, provisions, and costs and benefits for retail tenants and landlords.

[Report: Retail RTU Green Lease Language](#)

IMT's niche resource for retail properties with rooftop units.

[Report: Selling Efficient Spaces: Brokers Bring Green into the Equation](#)

NEEA explains why brokers should be interested in high performance buildings and green leasing.

[Report: Working Together for Sustainability: The RMI-BOMA Guide for Landlords and Tenants](#)

A framework for instituting cooperative relationships between landlords and tenants, from the Rocky Mountain Institute (RMI).

[Report: Retail Green Leasing](#)

A guide from IMT and DOE with sample lease clauses tailored for retail tenants and landlords.

[Report: High-Performance Lease Criteria and Sample Lease Language](#)

This draft document intends to standardize GSA's approach to high performance leasing.

[Report: NYU Green Lease Guide](#)

Leasing guide with high performance clauses that are pertinent to rented offices, classrooms, and residences from New York University Schack Institute of Real Estate Center for the Sustainable Built Environment.



STRATEGY 3

FINANCE PROJECTS

While some energy efficiency solutions are free or low-cost to tenants and landlords, higher energy-savings opportunities require planning and larger budgets that may fall outside the capital planning cycle and typical funding channels. These tools and suggestions begin that discussion and will help to evaluate the best financing options.

ACTION 1

EXPLORE INTERNAL FINANCING OPTIONS

In an ideal world, every project with compelling financial returns could secure funding through a company's standard project proposal process. However, finance teams have many strategic priorities to consider when allocating funds, and often energy projects compete with other departments for limited resources. Because estimated cost savings from energy projects are easily quantifiable, energy projects are excellent candidates for internal financing approaches.

KEY CONSIDERATIONS

When considering internal financing, talk with your finance team and discuss how energy projects fit within the company's strategic priorities.

- 1 What other initiatives might be competing for approval?
- 2 How does the finance team prefer to review project proposals?
- 3 Consult with your energy team to estimate the extent to which an alternative funding strategy will help you reach your energy goals.
- 4 Determine the appropriate KPI's and performance metrics to be able to measure impact and success of the proposed project in terms the finance team understands.
- 5 Before proposing a project, consider the following questions:
 - Does the project require collaboration from other internal departments?
 - Will this project reduce spending? Who will benefit from those savings?
 - Are there social and employee benefits to this project?
 - Are there any indirect benefits from the project?
 - What are the risks of doing the project?
 - What are the risks of not doing the project?

AVAILABLE RESOURCES

[Report: Internal Financing Guide](#)

This IMT-RILA guide helps energy managers and finance professionals at retail companies understand internal financing approaches.

[Financing Small Commercial Building Energy Performance Upgrades](#)

This National Institute for Building Sciences overview is for small commercial buildings seeking to finance energy efficiency upgrades.

[Comprehensive Energy Project Planning Case Study](#)

This RILA case study details one grocery store chain's energy efficiency implementations.

ACTION 2

CONSIDER EXTERNAL FINANCING MECHANISMS

Few investments are as overwhelmingly beneficial as energy efficiency projects. Projects can reduce operating expenses, improve budget forecasting, build confidence among socially responsible investors, and strengthen brands. Even though internal capital is often hard to acquire, energy projects are so compelling that companies have many opportunities to fund them using external sources of capital. Utilizing these sources of capital will ensure your company does not leave money and energy savings on the table.

External financing is available for a variety of projects; big or small, individual location or facilities-wide. There are financing mechanisms that are very low-risk with moderate rewards, and there are some that require more risk but offer greater potential reward.

KEY CONSIDERATIONS

As you begin to develop an external financing strategy:

- 1 Talk to your internal finance team to learn about the company's history and comfort working with energy service providers.
- 2 Consider working with IMT to identify which alternative solution(s) may be a good fit to finance a project(s).
- 3 Consider reaching out to a lender or energy service providers who offer external financing such as on-bill financing options to learn more about how they can help meet project goals.

AVAILABLE RESOURCES

[Report: External Financing Guide](#)

This IMT-RILA guide helps energy managers and finance professionals at retail companies understand how to use external financing for energy projects.

[Report: Energy Efficiency Finance Calculator](#)

This DOE Better Buildings tool matches basic project information to external financing options best suited to specific energy projects. (Note: This link triggers a file download.)

[The Benefits of PACE Financing for Commercial Real Estate Companies](#)

PACEnation provides this overview of PACE financing for commercial spaces.

[11 Ways to Finance Commercial Real Estate Energy Retrofits](#)

From CCIM, this list details possible ways to finance an energy efficiency retrofit.

[Energy Efficiency Finance for Commercial Buildings: Insights from Lenders](#)

IMT synthesized interviews and discussions with lenders on current market barriers hindering wide-spread energy efficiency implementation.

[Report: Private Sector Investment and Sustainable Development](#)

From SHIFT, this report summarizes incentivizing and financing energy efficiency and sustainability improvements in the private sector.

ACTION 3

RESEARCH REBATES AND INCENTIVES

State or utility incentives could make the difference between meeting or missing your budget for energy projects. While these rebates can fluctuate from year to year, there are increasingly more tools available to help you budget and streamline the process. Whether you choose to view the payback as an added financial bonus or you're required to specifically budget for them, they are a worthwhile consideration.

KEY CONSIDERATIONS

- 1 For companies with a national portfolio of properties, evaluate participation as a customer to [The Edison Electric Institute \(EEI\)](#). Participating companies will be connected to a key customer account manager by region that can help minimize the work of finding the appropriate rebate programs for your company's portfolio.
- 2 Assess hiring an outside consultant or company well versed in rebate programs and able to manage the application and execution process. In many cases, the cost for this service is justified by the rebate dollars obtained, along with the energy and dollar savings achieved from those projects.

AVAILABLE RESOURCES

[Report: DSIRE: Database of State Incentives for Renewables & Efficiency](#)

DSIRE is a comprehensive source on incentives and policies that support renewable energy and energy efficiency.

[State and Local Energy Efficiency Programs](#)

From the U.S. Small Business Administration, this is alphabetical list of states and their local energy efficiency resources and programs.

[Federal Energy Management Program \(FEMP\) Energy Incentive Program](#)

From DOE EERE, this is a federally generated list of state energy efficiency resources.

[ENERGY STAR Rebate Finder](#)

Utility incentive and rebate finder via a simple zip code search.

[The Edison Electric Institute \(EEI\)](#)

Members of EEI have access to resources and experts who can guide them through a variety of energy efficiency and implementation issues.

STRATEGY 4

INFLUENCE BEHAVIOR

If energy efficiency was a two-part process, technology would be on one side and behavior change on the other. Oftentimes influencing behavior change can be harder than installing technology, but with the following suggestions and resources, behavior change is possible.

ACTION 1

GET STAKEHOLDER BUY-IN

To execute on energy efficiency solutions, it is essential to collaborate across departments and gain internal stakeholder buy-in. Aim to ask questions that:

- Determine the impact efficiency projects can have on different departments.
- Clearly outline the operational and financial risks associated with the project.
- Provide an understanding of the project benefits, including savings.

KEY CONSIDERATIONS

These questions can guide the workflow and approval process:

- 1 When do events like annual and long-term planning, as well as quarterly forecasting, start and end? This will determine the timing for your request. If budgets have already been submitted for the year, it may be difficult to secure support from another department that may have to allocate funds for your project.
- 2 Does your company have public sustainability commitments or other strategic goals? Leverage these commitments and the connection to your project when pitching ideas.
- 3 Does the proposal presentation explicitly show alignment with the company's priorities?
- 4 Would utilizing external financing help complete projects that would not get funded otherwise? Learn more about this in [Strategy 3, "Finance Projects."](#)
- 5 Will the proposal impact other performance elements (sales, staff time, etc.)? What metrics define those impacts? For example: Swapping out incandescent lamps with LEDs will reduce employee injury from climbing ladders to replace light bulbs.
- 6 Have peer companies worked on similar projects? What can you learn from their experiences?

Refer to the Retail Industry Leaders Association's [Workflow Approval Guide](#) for the comprehensive step-by-step recommendations to achieving internal collaboration and buy-in for projects.

AVAILABLE RESOURCES:

[Workflow Approval Guide](#)

An infographic from RILA details how an internal approval process works to streamline efficiency upgrades and decisions.

[Inventory and Guide: Being an Effective Change Agent](#)

From the Embedding Project, an inventory and guide for CEOs on how to successfully integrate sustainability across the company.

ACTION 2**DEPLOY OPERATIONAL TRAINING AND TOOLS**

Ensuring a building or tenant space operates at optimal levels requires developing tools that keep systems operating as they were intended. Equally important is having a trained workforce that is technically knowledgeable to ensure that building and tenant systems are operating at optimal efficiency over a building's lifecycle.

KEY CONSIDERATIONS

When developing training and tools for landlords and tenants along with building managers and operators be sure to:

- 1 Make learning materials available digitally and during new employee orientation. For example: Landlord tenant portal has dedicated section on energy and sustainability programs or on rotation in elevator and lobby monitors.
- 2 Develop a system for ongoing education to keep current employees informed of the latest technology or system updates and tools.

ESTIMATED ENERGY SAVINGS: 10%+⁷

AVAILABLE RESOURCES

[Increasing Tenant Engagement through Plug Load Management](#)

A IMT case study demonstrating how to engage employees to drive efficiency behavior.

[Success in Sustainability: Landlords and Tenants Team Up to Improve Energy Efficiency](#)

A comprehensive guide from DOE Better Buildings for both landlords and tenants on how to integrate energy efficiency solutions into your space.

ACTION 3**ENGAGE OCCUPANTS**

With 70 percent of a building's energy use under the direct control of the tenant, dedicating resources to educate tenants and occupants about energy efficiency strategies significantly lowers whole-building energy use. Occupant engagement does not have to be extensive or complicated. There are programs, events, and tools to slowly and iteratively integrate energy efficiency into the workplace.

KEY CONSIDERATIONS

To get started on an occupant engagement strategy, consider the following:

- 1 **LANDLORD** Develop a communications strategy highlighting building performance and company sustainability goals.
 - This strategy should include specific guidance for how property managers and owners, tenant representatives, sustainability managers, and facilities staff can help meet these goals. Consider adding sustainability strategic communications to existing required training for staff.

- 2 **LANDLORD** Gain a better understanding of tenant's interest in and capacity for energy and sustainability programs at the building level. Not all tenants will be at the same place, so it helps to get a general understanding of status. This can be achieved with an occupant survey or questionnaire.
- 3 **TENANT** Use resources from national programs to promote efficiency throughout the year. These events can be used to raise awareness and promote healthy competition to reduce energy by department, floor, or building. Start by signing up for events like [Daylight Hour](#) and [Energy Efficiency Day](#) to gain access to free resources. Examples: Earth Day, energy efficiency day, daylight hour.

ESTIMATED ENERGY SAVINGS: 10-30%⁸

AVAILABLE RESOURCES

[A Study of Occupant Engagement](#)

This study from Perkins+Will looks at how occupant engagement and technology coupled in commercial buildings improves energy efficiency.

[Report: ENERGY STAR Communications Toolkit](#)

This toolkit provides compelling reasons and resources for communications efforts as part of an organization's energy management program.

[Report: Engaging Employees to Drive Efficiency Behavior](#)

From DOE Better Buildings, this document examines behavior change strategies to effectively communicate with employees, including specific language and techniques for gaining buy-in.

[Report: Successes in Sustainability: Landlords and Tenants Team Up to Improve Energy Efficiency](#)

These DOE Better Buildings case studies featuring how different building sectors approach tenant and employee engagement.

[Report: Successful Strategies for Engaging Tenants to Improve Energy Efficiency](#)

This DOE Better Buildings presentation is on successful strategies to engage tenants in energy efficiency.

[Fitwel Building Checklists and Reference Materials](#)

Guidance from Fitwel on building certification systems to integrate building, and tenant health and well-being.

[Successful Strategies for Engaging Tenants to Improve Energy Efficiency](#)

Via DOE Better Buildings, access success stories from companies who have integrated energy efficiency strategies into their portfolios.

MEASURE & MAINTAIN PROGRESS

Strategy 1 outlines how benchmarking energy data and audits inform the types of upgrades and retrofits a landlord or tenant can take to address energy inefficiencies. Ongoing measuring and verification will ensure sustainability strategies perform as designed and remain viable.

ACTION 1

ESTABLISH MEASUREMENT AND VERIFICATION (M&V) ESSENTIALS

Verify that installed equipment is achieving projected savings by incorporating M&V into business operations. Simple checklists can be reviewed on a scheduled basis or consider deploying more rigorous measurement and verification requiring assistance from external vendors or a consultant.

KEY CONSIDERATIONS

Identify the following when establishing M&V protocol:

- 1 Write an owner-operator manual during the design and implementation process that outlines performance requirements for all equipment.

Sample note: Office floor X is divided into four zones. Zone 1 HVAC, lighting, and plug loads are designed to turn on and off automatically according to the defined company standard operating hours. Zones 2-4 are manually programmed and will require HVAC adjustments to reflect outdoor seasonal temperature changes.

- 2 Step-by-step instructions to calculate baseline energy use.
 - Provide optimal performance range specifications for equipment. (For example: HVAC temperature set points during winter verses summer months.)
- 3 Provide guidance and design recommendations to determine the appropriate settings for equipment to perform at optimal levels and monitor for retuning to maintain optimal performance for the duration of a lease.

AVAILABLE RESOURCES

[Report: Standard Measurement and Verification Plan for Lighting Retrofit Projects for Buildings and Building Sites](#)

From Pacific Northwest National Laboratory, a detailed framework for measuring and verifying lighting retrofit projects.

[Fact Sheet: Rooftop Unit Measurement and Verification](#)

Use this fact sheet from DOE Better Buildings Alliance to inform processes around RTU M&V.

[Advanced RTU Campaign](#)

Produced by Advanced Rooftop Unit Campaign from ASHRAE and RILA, these case studies and guidance demonstrate the benefits of efficient RTU technology.

ACTION 2**ESTABLISH ONGOING COMMISSIONING**

Over time, building equipment will drift from its original set points, causing a space or building to operate less efficiently. Left unchecked, this drift in efficiency can cost money and cause occupant discomfort. One way to guarantee a building and its equipment are functioning optimally is to schedule “tune ups” regularly via ongoing commissioning. Unlike the day-to-day M&V strategy outlined in Action 1, the ongoing commissioning process consists of a deeper analysis and improved processes that start with benchmarking a building’s energy use, setting goal performance standards or key performance indicators (KPIs) for equipment such as HVACs, and then monitoring the equipment and scheduling regular technical maintenance as needed.

Ongoing commissioning allows staff to:

- Track building equipment performance
- Verify energy consumption and savings with monitored data
- Test equipment for faults
- Correct issues identified by tests
- Update associated documentation and staff training

KEY CONSIDERATIONS

When developing an ongoing commissioning plan:

- 1 Determine the scope and frequency in which ongoing commissioning should be scheduled. For example, ongoing commissioning will occur continuously.
- 2 Develop criteria for how much can be accomplished internally versus hiring an outside consultant.

ESTIMATED ENERGY SAVINGS: 5-20%⁹

AVAILABLE RESOURCES

[Report: Why Ongoing Commissioning Can Lead to Better-Performing Buildings](#)

This *GreenBiz* article briefly outlines the steps needed for ongoing commissioning.

[Report: Ongoing Commissioning: Continuously Achieving Energy Savings](#)

This presentation from ASHRAE’s Rocky Mountain chapter looks at ongoing commissioning and the different approaches to commissioning in existing buildings.

[Report: Best Practices in Commissioning Existing Buildings](#)

From the Building Commissioning Association, this is a general scope for ongoing commissioning practices.

[Report: Ongoing Commissioning](#)

This ENERGY STAR presentation explains commissioning in existing buildings and how EMIS streamlines practices.



STRATEGY 6

EARN RECOGNITION

At the core of any energy efficiency strategy is increased sustainability of your building or tenant space and increased productivity of occupants. However, hard earned energy savings shouldn't go unrewarded. Today there are a variety of options to recognize staff achievements and further promote your company's environmental commitments.

ACTION 1

BECOME A GREEN LEASE LEADER

Green leases, also known as “high-performance” or “energy-aligned” leases, create win-win agreements for building owners and tenants by equitably aligning the costs and benefits of efficiency investments for both parties. Run by IMT in conjunction with the U.S. Department of Energy, [Green Lease Leaders™](#) recognizes forward-thinking companies and real estate practitioners who break down barriers to high-performance buildings by revolutionizing leases to incorporate energy efficiency and sustainability.

KEY CONSIDERATIONS

The following steps will set your company on a path to green lease recognition:

- 1 See the “[Deploy Company-wide Policies](#)” section of this toolkit, and review the key considerations of [Action 4](#) regarding how to use high-performance or green lease clauses.
- 2 Consider applying for formal recognition as a Green Lease Leader by reviewing program requirements. Start by taking a [quick online quiz](#) that will gauge your progress toward formal recognition.
- 3 Gain one-on-one technical assistance for updating your leasing practices to include performance-focused clauses by joining Green Lease Leaders as a participant and complete a lease assessment.
- 4 Apply for formal recognition as a Silver or Gold-level Green Lease Leader.

AVAILABLE RESOURCES

[Green Lease Leaders](#)

This website serves as a hub for those seeking national recognition for their green leasing efforts, information on how to become a Green Lease Leader, and guides plus case studies on green leasing strategies.

[Report: Basic Requirements: The Green Lease Standards](#)

Read this information from IMT to learn more about green leasing standards and how to become a Green Lease Leader.

[Green Lease Library](#)

This resource library regularly updated by IMT lists tools, guides, and checklists for anyone looking to integrate green leasing into their company.

ENDNOTES

- 1** Buildings that benchmark consistently have been shown to reduce energy use by an **average of 2.4 percent per year**. This can mean different things to each building sector. Per ENERGY STAR, a savings of 2.4 percent for three consecutive years is equivalent to the following: For a 500,000-square-foot office building, cumulative energy cost savings of \$120,000 and an increase in asset value of over \$1 million. For a medium-box retailer with 500 stores, cumulative energy cost savings of \$2.5 million and an increase in sales of 0.89 percent. For a full-service hotel chain with 100 properties, cumulative energy cost savings of \$4.1 million and an increase in revenue per available room of \$1.41. For an 800,000 square-foot school district, cumulative energy cost savings of \$140,000. Source: “Benchmarking and Energy Savings,” ENERGY STAR Portfolio Manager Data Trends, October 2012, https://www.energystar.gov/sites/default/files/buildings/tools/DataTrends_Savings_20121002.pdf
- 2** In general, EMIS technologies enable **10–20 percent site energy savings** in best practice implementations. Energy information systems can offer up to **33 percent savings, with a media annual portfolio savings of 8 percent**. Installing a new building automation system offers **10–15 percent savings**. Installing fault detection and diagnosis systems can achieve **2–11 percent whole-building potential savings**. Source: “A Primer on Organizational Use of Energy management Information Systems,” Lawrence Berkeley National Laboratory, November 2015, https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/A_Primer_on_Organizational_Use_of_EMIS_V1.1.pdf
- 3** Savings vary, but moving from an underperforming building to an efficient building offers immediate savings. For example, on average, ENERGY STAR-certified buildings use **35 percent less energy** than typical buildings nationwide. Source: “facts and Stats,” ENERGY STAR, <https://www.energystar.gov/buildings/about-us/facts-and-stats>
- 4** Owners of green buildings have reported that their ROI improved by **19.2 percent on average** for existing building green projects and **9.9 percent on average** for new projects. Source: “The Business Case for Green Buildings,” U.S. Green Building Council, Feb. 10, 2015, <https://www.usgbc.org/articles/business-case-green-building>
- 5** Building owners can save **5–20 percent annually** on their energy bills by implementing operations and maintenance best practices. Source: “Operations and maintenance reports,” ENERGY STAR, <https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/comprehensive-approach/operations-and>
- 6** Green leases have the potential to reduce energy consumption in U.S. office buildings by **11–22 percent**, reducing utility expenditures in commercial buildings by up to \$0.51 per square foot. Source: “What’s in a Green Lease?” Institute for Market Transformation, Washington, DC, 2015, <https://www.imt.org/resources/green-lease-impact-report/>
- 7** ENERGY STAR partners have demonstrated that it’s possible to save **10 percent** or more through employee education and behavior change. Source: “Save Energy,” ENERGY STAR, <https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/energy-occupants>
- 8** In its work with a pilot on Microsoft’s Washington state campus, Accenture found that smart building deployments that better engaged building managers and technicians in monitoring performance achieved an **average energy savings of 10–30 percent**. Source: “New Microsoft White Paper: ‘Smart’ Buildings Cut Energy Costs,” Microsoft Corporate Blogs, October 5, 2011, <https://blogs.microsoft.com/on-the-issues/2011/10/05/new-microsoft-white-paper-smart-buildings-cut-energy-costs/>
- 9** Research has estimated that ongoing commissioning has an initial energy savings potential of **5–20 percent**. Source: Upkeep Energy and Iconergy, “Ongoing Commissioning: Continuously Achieving Energy Savings,” Rocky Mountain ASHRAE Chapter, 2014 Technical Conference. https://rockymtnashrae.com/downloads/2014_Technical_Conference/ongoing_cx_with_fdd_upkeep_iconergy.pdf