

LANDLORD-TENANT ENERGY PARTNERSHIP ANALYSIS: WHY LANDLORDS SHOULD TAKE THE LEAD ON INSTALLING SUBMETER TECHNOLOGY

INTRODUCTION

It is well established that measuring and monitoring building energy use (otherwise known as benchmarking) provides critical information to help commercial and retail landlords and tenants save energy, lower operational and maintenance costs, and keep people healthy and comfortable. Access to utility data plays a key role in monitoring and improving the performance of buildings and spaces, but in many locations where a tenant has a full-service or a gross lease, and actual energy consumption is not provided, tenants have no incentive to pay attention to how much energy they consume.

An even greater opportunity missed is from a growing number of tenants who do care about how much energy they consume, but due to the lease structure, struggle to obtain energy use data to identify the most cost-effective actions to reduce consumption in their leased space—which would also contribute to better whole-building performance. Fortunately, it is now possible to submeter individual tenant spaces to collect better detailed information on energy consumption and spur efficiency action. But, has submeter technology advanced enough to meet tenant needs to obtain energy use data and is there a solid business case for tenants to invest in this type of technology?

A recent analysis by the Landlord-Tenant Energy Partnership—an initiative led by the Institute for Market Transformation (IMT), the International Council of Shopping Centers (ICSC), and the Retail Industry Leaders Association (RILA)—found that while advances continue to be made in submeter technology's quality and affordability, the ability to invest in the technology is still beyond the grasp of typical commercial and retail tenants. In most cases, landlords remain best positioned to lead the way on building energy management.

About the Landlord Tenant Energy Partnership: The Landlord-Tenant Energy Partnership (LTEP) is a coordinated national effort to accelerate the adoption of energy efficiency solutions in commercial, retail, and industrial buildings. LTEP provides one-on-one expert guidance, facilitates collaboration with forward-thinking real estate practitioners such as landlords, tenants, and operators who strive to improve building performance, and unleashes industry best practices and practical tools to help any company realize the benefits of high-performing buildings.



TOP 5 REASONS FOR LANDLORDS TO INSTALL SUBMETERS

In addition to being able to uncover significant energy, cost, and carbon savings opportunities, there are other noteworthy benefits that landlords are able to reap by investing in submeters for their tenant spaces. IMT's research identified the following top five benefits.



1. SUBMETERING CREATES TRANSPARENCY AND ACCOUNTABILITY TO PROMOTE BUILDING EFFICIENCY PRACTICES.

Imagine if you were to reshape energy consumption data and awareness to be more symbiotic in the way the building is operated. The U.S. Environmental Protection Agency's (EPA) [Successes in Sustainability: Landlords and Tenants Team Up to Improve Energy Efficiency](#) highlights [Vornado Realty Trust \(Vornado\)](#), one of the largest real estate investment trusts (REIT) in the U.S. for doing exactly that. Across the company's New York City portfolio, each Vornado tenant is submetered, has access to view its energy consumption, and can learn how to apply simple operational measures to reduce consumption and save money. In addition, Vornado has positioned itself as a partner to its tenants by hosting convenings on sustainability topics, sharing resources, and guiding them to utility incentives. As a result of Vornado communicating the value of the data with their tenants, it is able to influence energy consumption behavior to help maintain more efficient buildings that perform better and drive cost savings and value.



2. SUBMETERING PROVIDES COST CERTAINTY AND BETTER ENERGY MEASUREMENT AND VERIFICATION (EM&V).

To date, submetering technology has evolved from a hardware that requires a person to physically record data from a dial to a spreadsheet into more sophisticated cloud-based wireless devices that churn out real-time data to a dashboard with analytics overlaid that can identify problems. This allows landlords to cut the amount of labor, time, and resources needed to physically read each meter, and instead provides automated data visualizations. Today's submeters are designed to predict issues before they occur, creating a level of transparency not seen before. For example, automated submeters help building operators track the usage of equipment and lighting to ensure energy isn't wasted during scheduled non-working hours.

By collaborating with tenants on an integrated whole-building submetering solution, it ensures that the landlord is able to recoup energy costs by billing tenants for their actual energy use. It also allows the tenant to forgo many of the individual approval struggles it typically encounters for energy data access and further motivates action to reduce consumption.

SPOTLIGHT

KIMCO'S SUBMETERING PROGRAM UNLEASHES BIG SAVINGS

Although the cost to install submeters may not pencil out for tenants, it certainly can for landlords. For example, a 2018 Green Lease Leaders case study highlights [Kimco Realty Corp.](#) (Kimco), one of the largest owners of open-air shopping centers in the U.S., which installed submeters in most of its 8,500 leased tenant spaces. By installing submeters that each cost between \$1,500–2,000, Kimco was able to save millions of dollars in improved cost recovery as a landlord. This project was executed with ease because Kimco incorporated lease language that allowed it to share the cost of improvements with its tenants. Submetering is part of Kimco's larger efforts to responsibly manage utility consumption. The REIT was able to pursue its submetering program by deploying capital on behalf of its tenants, amortizing the cost for connectivity and IT equipment, and netting mutually beneficial energy savings in the process.

SPOTLIGHT

USING THE GREEN LEASE AS A TOOL TO INCREASE BENEFITS FOR LANDLORDS AND TENANTS

A green lease aligns costs and benefits to encourage both landlords and tenants to apply smart practices such as submetering to reduce energy, water, and raw material consumption in commercial and retail buildings. Although green leases are not widely used yet, government agencies with large portfolios such as the General Services Administration (GSA) and a growing number of innovative private sector building owners and tenants have been modifying conventional leases to address split incentives and enable collaborative efforts to drive higher-performing buildings, as is highlighted by IMT and the U.S. Department of Energy's (DOE) Green Lease Leaders program.

Established by IMT and the DOE Better Buildings Alliance in 2014, Green Lease Leaders recognizes landlord and tenant companies and real estate teams for their efforts to integrate energy efficiency and sustainability language into lease clauses. One of the qualifying credits for landlords to obtain Green Lease Leader recognition is to include a clause in their standard lease or establish corporate guidelines requiring submetering of leased spaces greater than 5,000 square feet.

To date, the program has lauded the efforts of companies representing 1.8 billion square feet of commercial space across the U.S. One of these leaders is Kimco Realty Corp. (Kimco), which first earned the recognition in 2014. To learn more about how Kimco unlocks energy- and water-saving opportunities via submetering, download this [Green Lease Leaders case study series](#). Visit the [Green Lease Leaders](#) website to see who else is turning their leases into a vehicle for higher performance and [greenleaselibrary.com](#) for sample language, case studies, and other green lease resources.



3. SUBMETERING PREDICTS SYSTEMS AND EQUIPMENT FAILURE BEFORE THEY OCCUR.

Real-time submeters provide users data on equipment that goes beyond knowing if the equipment is on or not. By evaluating how much energy is consumed, the data can inform whether or not a piece of equipment is functioning correctly or may need servicing or replacement. Submetering can also support Fault Detection Diagnostics and Predictive Maintenance to identify issues prior to failure such as overheating or leaking systems. This equates to less equipment down time and fewer calls from unhappy tenants.



4. SUBMETERING PROVIDES INFORMATION THAT CAN BE USED TO MOTIVATE BEHAVIOR CHANGE IN TENANTS TO REDUCE ENERGY USE.

Tenants consume a vast amount of energy in buildings. For example, plug and process loads such as computers and other devices account for 33 percent of an office building's energy consumption and is projected to increase 49 percent by 2030, according to the National Renewable Energy Lab. Information gained from submetering combined with smart tenant engagement strategies increases occupant awareness about easy-to-adopt energy-saving actions, and contribute towards whole-building energy savings. As demonstrated by the General Services Administration (GSA), submeters allow landlords to collect occupant energy use and provide individuals with data to help monitor behavior in a transparent way. GSA recommends using energy display dashboards, monthly reports and fliers, emails, and web-based portals as methods to provide building occupants information on their individual energy use. Real-world examples of effective tenant engagement strategies to save energy can also be found in this Green Lease Leaders case study series.

SPOTLIGHT

EXAMINING THE TENANT QUEST FOR UTILITY DATA: WHAT'S BARRING TENANTS FROM DEPLOYING SUBMETERS

To better understand tenant concerns and barriers in accessing utility data for their spaces, in the spring of 2017, the Landlord-Tenant Energy Partnership evaluated the available cloud-based submeter solutions on the market and whether or not it was financially feasible for a tenant to invest in the technology to meet their energy data needs.

- *For the evaluation, the Energy Partnership reached out to tenant companies in the private sector. Participating tenants broadly sought to use submetering as a tool to drive better energy data transparency and provide information on the energy they consume on a monthly or annual basis.*
- *Initially, tenants were attracted to obtaining real-time interval data. However, while this is offered by the products on the market, these types of perks came at a cost that exceeded typical tenant ROI thresholds.*
- *In addition to financial hurdles, tenants attempting to obtain energy use data via a submeter solution were likely to experience other roadblocks such as IT security requirements and landlord approvals.*

SPOTLIGHT

VENDOR PERSPECTIVE: AQUICORE

Across the U.S., tenants are the major driver of energy consumption in commercial buildings. Several tenants—retailers, in particular—are motivated to reduce energy consumption and control their expenses. However, they often lack building and energy management expertise on staff. Moreover, retail tenants frequently lack permission to physically connect to the building systems and infrastructure to effectively monitor and manage energy expenses. The combination of these factors prevents them from being successful at robust energy management. Due to the nature of real estate ownership and management, landlords are required to staff personnel with engineering and energy management expertise. They also have the authority to implement infrastructure changes and can do it at a much greater scale and therefore a cheaper price point. This perspective provided by Anna Buglaeva, Vice President of Growth at Aquicore, a leading IoT solution provider for commercial real estate operations that regularly deals with these challenges, coincides with feedback IMT has heard directly from members of the Landlord-Tenant Energy Partnership and other CRE stakeholders in the private sector.



5. SUBMETERING FUTURE-PROOFS BUILDINGS FOR GREEN BUILDING CERTIFICATION REQUIREMENTS, INDUSTRY RECOGNITION, AND COMPLIANCE WITH CITY AND STATE REGULATIONS.






Achieving green building certification: A majority of the existing building performance legislation across the U.S. requires landlords to track and report building performance data via the EPA's free ENERGY STAR Portfolio Manager tool. Using the performance data submitted by building owners, Portfolio Manager generates a 1-100 ENERGY STAR score and awards ENERGY STAR certifications to building performing in the top 25 percent. Submetering allows landlords to provide more accurate whole-building data, and can garner landlords and tenants prestigious recognition for their buildings' performance. More recently, the EPA developed [ENERGY STAR for tenants](#), a performance-based recognition for occupied tenant spaces. ENERGY STAR for tenants provides a framework for collecting submetered data and offers [best practice resources](#) to substantially reduce operational cost savings. To date, [39 tenants and landlords](#) have received recognition in the ENERGY STAR for tenants charter program, which ended in the summer of 2018.

Complying with local laws: As cities adopt more aggressive building energy performance policies to meet their climate goals, landlords will need access to energy usage data to comply. Submeter-specific regulations have already been passed in New York City and San Francisco, where each city has implemented a submetering ordinance requiring non-residential buildings greater than 25,000 square feet to install submeters for any tenant space greater than 2,550 square feet (sq. ft.) in San Francisco and 5,000 sq. ft. in New York. This policy trend is likely to grow in more cities across the U.S. in the coming years.

CONCLUSION

Commercial and retail tenants are beginning to understand the immense value of obtaining energy use data to improve performance in their spaces and shape the way they are operated. Technology for doing this is improving rapidly, with a large and growing number of submeter options now available to obtain actionable energy use data, providing a significant return on investment (ROI) for landlords in terms of energy, water, and cost savings. In addition to investors and businesses demanding more transparency on sustainability, states and cities are setting ambitious climate goals as climate risk concerns and extreme weather events mount. These climate goals will be achieved in part through effective building performance policies, more of which are being passed in cities every year and requiring some form of reporting from building owners, which submeters can provide. Meanwhile, the significant ROI that landlords are able to achieve is not the same for tenants if they invest in the technology, and tenants that seek to install submeters on their own consistently run into IT security and permission barriers. Considering these factors, commercial and retail landlords have the most to gain by investing in a tailored submeter technology—using it to improve operations, develop a collaborative relationship with tenants, and ignite the enormous potential to further improve whole-building performance and generate enormous savings.

WANT TO GET STARTED?

-  Download [IMT's questionnaire](#) to get a better sense of energy management technology options on the market and receive recommendations on the types of systems that might best meet your needs.
-  Visit us at www.landlordtenantenergypartnership.org or send us an email at energypartnership@imt.org to learn more about the Landlord-Tenant Energy Partnership and how to get involved.
-  Download the [Green Lease Leaders case study series](#) on using the lease to galvanize landlord-tenant engagement and higher performing buildings.
-  Download the [Green Lease Leaders landlord reference guide](#) for submeter language to include in your lease as well as other energy-saving clauses and corporate documentation.
-  Use the [GSA's Sustainable Facilities Tool](#) on Metering & Submetering.