



Smart energy economics to cut costs and increase value

How to improve energy efficiency and resilience across your real estate portfolio

Examining energy challenges from a portfolio perspective

For real estate leaders today, energy has shifted from a predictable line item to a growing business concern. It shows up across the portfolio in operating budgets, tenant conversations, development timelines and risk planning. Every portfolio therefore requires comprehensive energy-smart strategies.

Several forces are converging to create an urgent need for forward-thinking, proactive responses to evolving energy challenges.

Buildings place tremendous demands on our energy infrastructure, especially in energy-intensive sectors like advanced manufacturing, data centers, life sciences and healthcare. All in, **buildings consume 75% of all electricity** in the U.S. Demand is only increasing amid industrial onshoring, automation, building and vehicle electrification, and AI-driven data center growth. By 2030, total electricity use in the U.S. is set to **increase by 25%**, according to ICF.

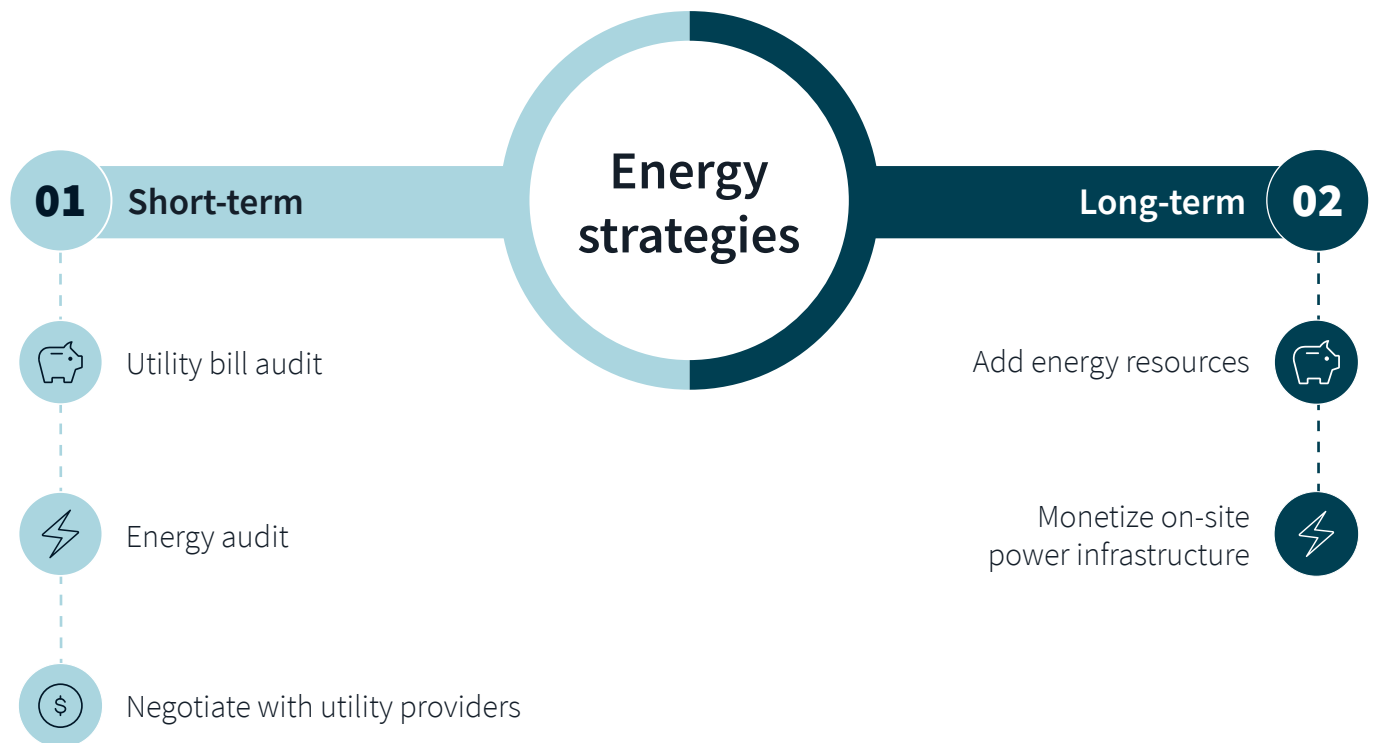
In most U.S. markets, grids already operate near capacity, load is growing faster than grid infrastructure can handle and deferred maintenance is reducing its ability to respond to this demand.

Meanwhile in real estate, aging equipment which is ill-equipped to deal with modern power demands and extreme weather are making outages more frequent. The impacts are portfolio-wide: disruptions affect business as usual. And energy availability and reliability questions surface earlier in development, retrofit and capital planning, limiting options and fueling risk of higher costs and delayed projects.

Volatile energy pricing has become common in recent years. Between 2020 and 2025, U.S. commercial electricity prices increased by approximately 33% after remaining flat for the previous five year period, JLL figures show.

For all the challenges, this moment also creates opportunity. This playbook outlines quick wins, such as cutting energy use and negotiating with utility companies, and longer-term strategies for optimizing how your buildings use, manage and source energy. These approaches reduce your exposure to market volatility, improve financial performance and reduce disruption.

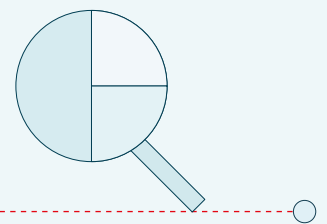




Short-term steps to improve energy economics

Strategic energy management starts with a series of quick wins. Utility bill audits and energy assessments are clear entry points to pinpoint immediate inefficiencies and savings and lay the groundwork for longer-term success.

Strategy 1: Pinpoint overcharges through a utility bill audit



A utility bill audit is an easy way to start reducing energy costs. Experts conduct a deep-dive analysis of your energy invoices to ensure accurate billing, including identifying any potential special rate structures that were previously overlooked, and to recover historical overcharges.

Billing errors from incorrect tariffs, meter issues and clerical mistakes are increasingly common and often go unnoticed, resulting in substantial financial losses. When historical audits identify overcharges, companies typically recover 1%-5% of their portfolio's annual energy spend across electricity, gas, water and waste.

A detailed utility bill audit is especially recommended if you:

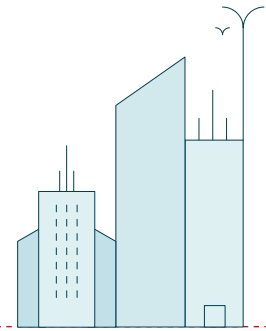
- Spend more than \$5 million annually on utilities or have an average annual spend per account of at least \$40,000
- Lack the resources for a line-by-line bill reconciliation or a robust utility management system

- Are concerned about complex or changing utility rates

The strategy in action: A large railway transportation company wanted to ensure billing accuracy across its vast portfolio of U.S. properties. After a competitive bid, JLL and a specialist partner collected 36 months of data for the company's 118 electricity accounts and 25 natural gas accounts, segmented by state and utility to ensure correct rate schedules and tariff structures were applied.

This granular approach resulted in 143 individual models performing line-by-line reconciliation of all charges, auditing more than 5,148 invoices and 35,050 individual invoice charges. The analysis of electricity and natural gas delivery invoices found over \$200,000 in potentially recoverable overcharges.

Strategy 2: Improve building efficiency with an energy audit and retro-commissioning



Energy inefficiency from aging equipment, bottlenecked systems and outdated practices can cost building owners and occupiers significant sums each year. An on-site review of building operational performance can pinpoint no- and low-cost improvements and highlight cost-effective measures to save you time, resources and dollars.

An energy audit brings in our experts to observe buildings and systems and consult with facilities teams to gather information about energy usage. Depending on the size of the portfolio, this process typically takes 8-12 weeks.

Once complete, you get a roadmap for energy conservation measures designed to generate immediate returns. Recommendations typically include optimization measures, such as adjusting controls for temperature and lighting systems,

or capital improvements, like replacing HVAC equipment or non-LED lighting.

The strategy in action: A financial services client with more than 2,500 real estate holdings across the U.S. wanted to cut its energy use as part of wider sustainability plans. Through energy audits and engineering services, JLL identified more than \$1.2 million in annual energy savings and pathways to achieve 15% emissions reductions.

The insights led to retro-commissioning projects, including fixes for immediate needs of a proprietary and unsupported HVAC controls system. Interventions during site walks led to an immediate 30% reduction in energy costs. The team also found potential savings of more than \$2 million on a chiller replacement construction project.

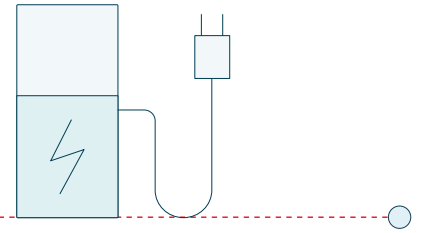


Did you know?

Using less energy is the fastest way to curb rising energy costs, while supporting operational efficiency and compliance. After an audit, our clients typically **reduce energy use by 20-30%**, save hundreds of thousands of dollars a year on existing bills, and catch issues before they become expenses.



Strategy 3: Talk to your utility providers



Another way to tackle rising energy costs and mitigate supply risks is to rethink your approach to energy procurement. Start by taking a close look at your existing agreements with utility providers. Is there room to renegotiate your energy contracts to secure more favorable terms and cost guarantees? Rather than accepting standard published tariffs, large energy users can usually enroll in cost-saving programs or, in the case of unique load profiles, even discuss custom rate structures with their utility provider. Custom rate structures may include:

- Time-of-use (TOU) pricing modifications
- Demand charge restructuring
- Interruptible service discounts
- Economic development incentives
- Large load factor tariffs

Organizations with significant energy use and longer-term timeframes can also consider alternative contract structures, such as power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs), that hedge against future price volatility through fixed-price contracts that generally last between 10 and 25 years.

At a high level, a PPA allows you to secure energy pricing over time by contracting directly with a third-party renewable energy developer, typically tied to assets like wind or solar. In traditional PPAs, the buyer (also known as the offtaker) takes delivery of electricity while reducing exposure to fluctuating utility prices.

VPPAs take a different approach. Rather than delivering power directly, these financial agreements are tied to market prices, enabling you to lock in a fixed rate while the electricity itself is sold into the grid. In this way, VPPAs can

improve price predictability and support new renewable generation in alignment with portfolio goals.

For CRE leaders considering alternative contracts, the key questions are less about contract and more about fit: Does a PPA or VPPA align with our load, risk tolerance, occupancy structure and location?

The strategy in action: A multinational business software company spent more than a year searching for a renewable, flexible and price-competitive energy solution to power its corporate headquarters. It was a challenging ask because most PPAs have at least 20 year terms and the underlying power producers typically provide more power than needed. Leadership turned to

JLL as their trusted partner to help find the best path forward.

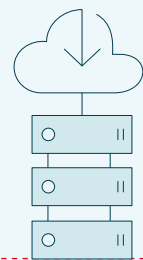
Our Energy Advisory team identified two options: an off-the-shelf deal from a solar project with excess capacity or a wind project less than 50 miles from the headquarters campus. After the team provided a like-for-like comparison of the two deals, the client agreed to an eight-year, 3 MW PPA sourced from the wind project, without increasing their existing energy budget. During its term, the contract is projected to save \$1 million, while delivering price certainty and reducing carbon emissions — proof that the right energy deal prioritizes economics without sacrificing environmental goals.



Long-term measures to level up energy economics

While audits and utilities negotiations can deliver quick wins, investing in your energy infrastructure can generate substantial, long-term gains — protecting your real estate portfolio from future pricing and supply challenges.

Strategy 4: Add energy resources to create long-term revenue streams



The next level of energy management involves generating and storing it on-site.

Distributed Energy Resources (DERs) are smaller-scale energy generation, storage and management technologies — like rooftop solar panels and battery storage — located close to where energy is consumed, rather than at large, centralized power plants. Localized systems of DERs are known as microgrids.

With today's occupiers and building owners alike expecting reliable power and preferring energy-efficient buildings, DERs that improve energy reliability are now a growing consideration in leasing decisions.

Although installing these systems requires capital investment, real estate owners can transform buildings from cost centers into revenue generators, producing multiple revenue streams while enhancing operational resilience and value for tenants. JLL research shows that shifting to active energy generation and management on-site can **increase an owner's revenue by 25-50%**.

Did you know?

Nearly 700 microgrids exist in the U.S., but most are concentrated in seven states, reflecting the regional variation in DER development.



DERs equally provide backup power during outages, ensuring uninterrupted operations and reducing reliance on an increasingly strained public grid. The U.S. Department of Energy warns that power outages could become 100 times more common by 2030 if dependable power plants continue to be closed without adequate replacement. Their models project annual outage hours could surge from single digits today to over 800 hours per year, fundamentally impacting grid reliability.

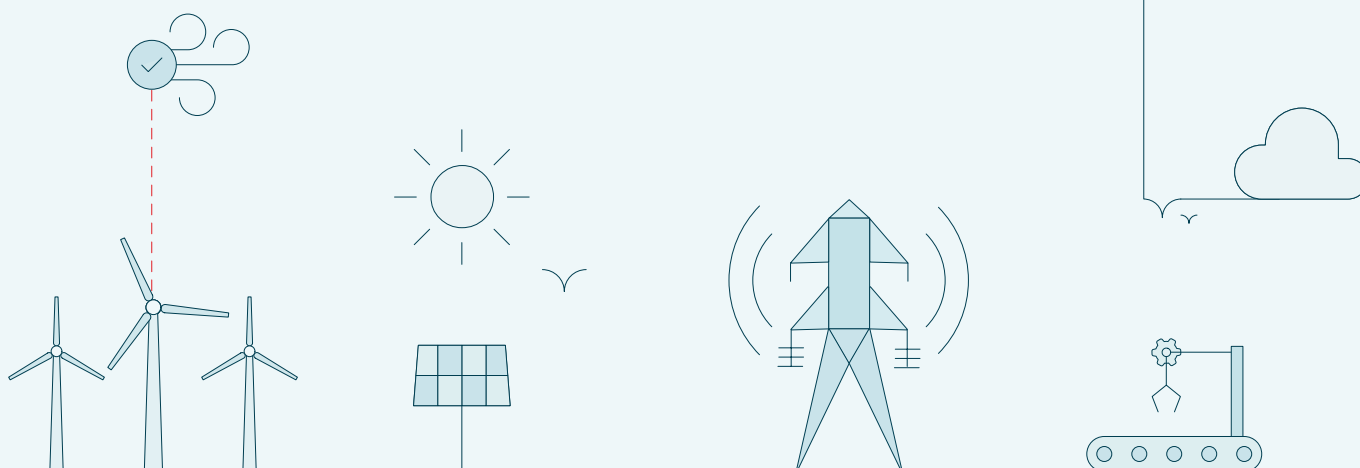
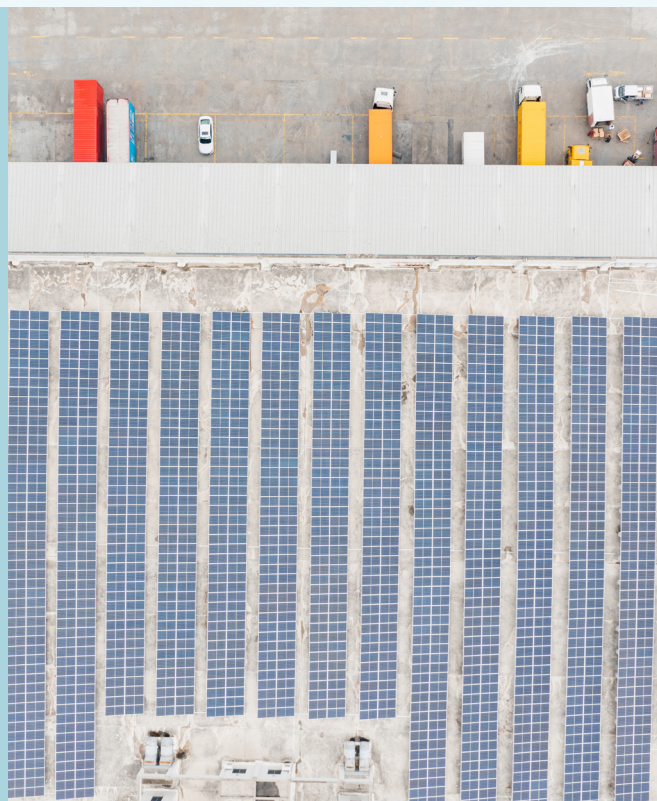
The strategy in action: A North American transportation and logistics company needed to develop a cutting-edge facility that could support large-scale transloading (transferring items between different types of transportation), while controlling energy costs. They consulted JLL's Energy Advisory team to help them pick the best fit for their unique needs.

We designed a comprehensive energy infrastructure featuring a 20-megawatt (MW) solar

array and a 10 MW 4-hour (40 MWh) battery energy storage system. This setup spans roughly 100 acres, powering facility operations and on-site EV charging for transportation vehicles. After evaluating ownership and procurement approaches, we identified \$2.5 million in annual energy source savings, after an initial payback period. The long-term win: lower energy costs for a power-intensive operation, supported by infrastructure that strengthens energy security.

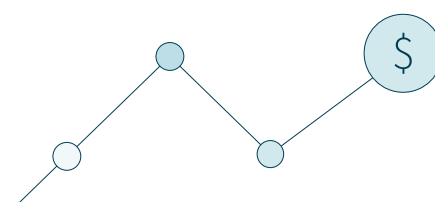
Energy-intensive facilities such as large manufacturing plants, logistics operations and pharmaceutical sites with variable, high-demand loads present the strongest use cases for comprehensive DER systems. Organizations with critical processes should ask:

- How would a power outage or disruption impact our day-to-day operations?
- How quickly do small disruptions snowball into bigger problems?
- Which operations are so critical that cost becomes secondary?
- How does the cost of disruption compare to higher rents for buildings where energy supply is more reliable?





Strategy 5: Monetize on-site power infrastructure



In some locations, property owners can create new revenue streams by selling excess energy back to the main grid, to tenants or to neighboring businesses. Feasibility depends on utility regulations, market conditions and local incentives.

The strategy in action: The Washington Metropolitan Area Transit Authority (WMATA), one of the nation's largest transit systems, saw an opportunity to monetize its extensive land assets through solar panels. It sought JLL's expertise to reduce regional emissions while creating new revenue streams. With our help, WMATA engaged a third party to install and operate 11 acres of photovoltaic solar panels — enough to power the equivalent of 1,100 homes — over existing parking lots and garages at four stations, creating the region's largest aggregate solar project.

Lease revenue from the project will generate \$25 million in additional revenue for WMATA over the next 25 years. By treating parking infrastructure as energy real estate, it turned underused assets into a long-term revenue stream.

Banking on battery storage

Battery storage in the commercial sector is growing rapidly as technology improves and costs

drop. Since 2015, battery costs have fallen by 75% to \$108/kWh in 2025, according to BloombergNEF. Battery systems offer peak saving opportunities by allowing owners to store energy when grid demand is low and discharge it when it's high, helping to improve supply consistency and override cost volatility. In some cases, large energy users can monetize battery energy storage systems by participating in utility demand response programs and other grid support services. In markets like the Pennsylvania-New Jersey-Maryland tri-state area, large-scale battery systems can earn higher compensation for providing critical flexibility to the grid, helping offset energy costs and reducing exposure to peak demand charges.

Selling energy to tenants

Commercial landlords can provide Energy-as-a-Service (EaaS) to their tenants by financing, installing and operating on-site infrastructure — like solar panels, microgrids and smart HVAC systems — and then selling that energy to tenants, often via PPAs or community solar programs.

Executed wisely, this forward-looking approach can drive new revenue, increase long-term property value and improve tenant satisfaction with lower, predictable costs and reliable power.

Smart strategies for a volatile future

Energy economics are poised to grow more challenging for property owners and occupiers to manage in the foreseeable future, with questions over supply reliability and volatile pricing.

To offset these challenges, organizations must develop a comprehensive energy strategy to manage costs and mitigate energy security risks. The first step for any CRE portfolio is improving energy efficiency. Beyond that, companies will need to explore their options depending on their portfolio size, location and energy demand.

Thinking proactively and acting decisively today is the best way to gain a competitive advantage: owners will protect asset values and generate revenue, while occupiers will cut costs and avoid business disruption.



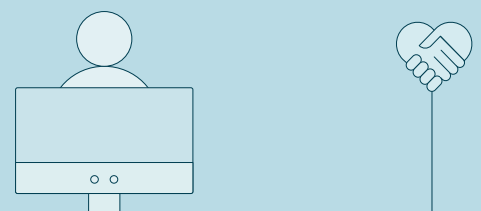
How can we help?

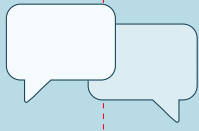
Our Energy Advisory team works with you to develop and implement the right smart energy strategy for your real estate portfolio, improving your energy security and driving profitability. Our end-to-end approach draws on expertise across engineering, finance and procurement, energy modeling, and project management.

Our solutions begin with energy auditing and retro-commissioning, delivering low- or no-cost efficiency measures for immediate savings opportunities. Where capex is required, we offer project preliminary design and engineering services, helping define scope, design specifications and bid evaluation. This ensures you pay only for improvements you need — at competitive costs.

We advise owners on structuring, implementing, and optimizing onsite energy solutions to maximize value while minimizing risk. We also guide project financing for onsite assets or offtake agreements, and help design, negotiate, and execute PPAs or VPPAs when offtake procurement is preferred.

Whether you're looking for a quick win or building your long-term strategies, we're here to help you make your energy economics stack up.





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Let's talk! **Contact us** here to start a conversation

About JLL

For over 200 years, JLL (NYSE: JLL), a leading global commercial real estate and investment management company, has helped clients buy, build, occupy, manage and invest in a variety of commercial, industrial, hotel, residential and retail properties. A Fortune 500® company with annual revenue of \$23.4 billion and operations in over 80 countries around the world, our more than 113,000 employees bring the power of a global platform combined with local expertise. Driven by our purpose to shape the future of real estate for a better world, we help our clients, people and communities SEE A BRIGHTER WAYSM. JLL is the brand name, and a registered trademark, of Jones Lang LaSalle Incorporated. For further information, visit jll.com.



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