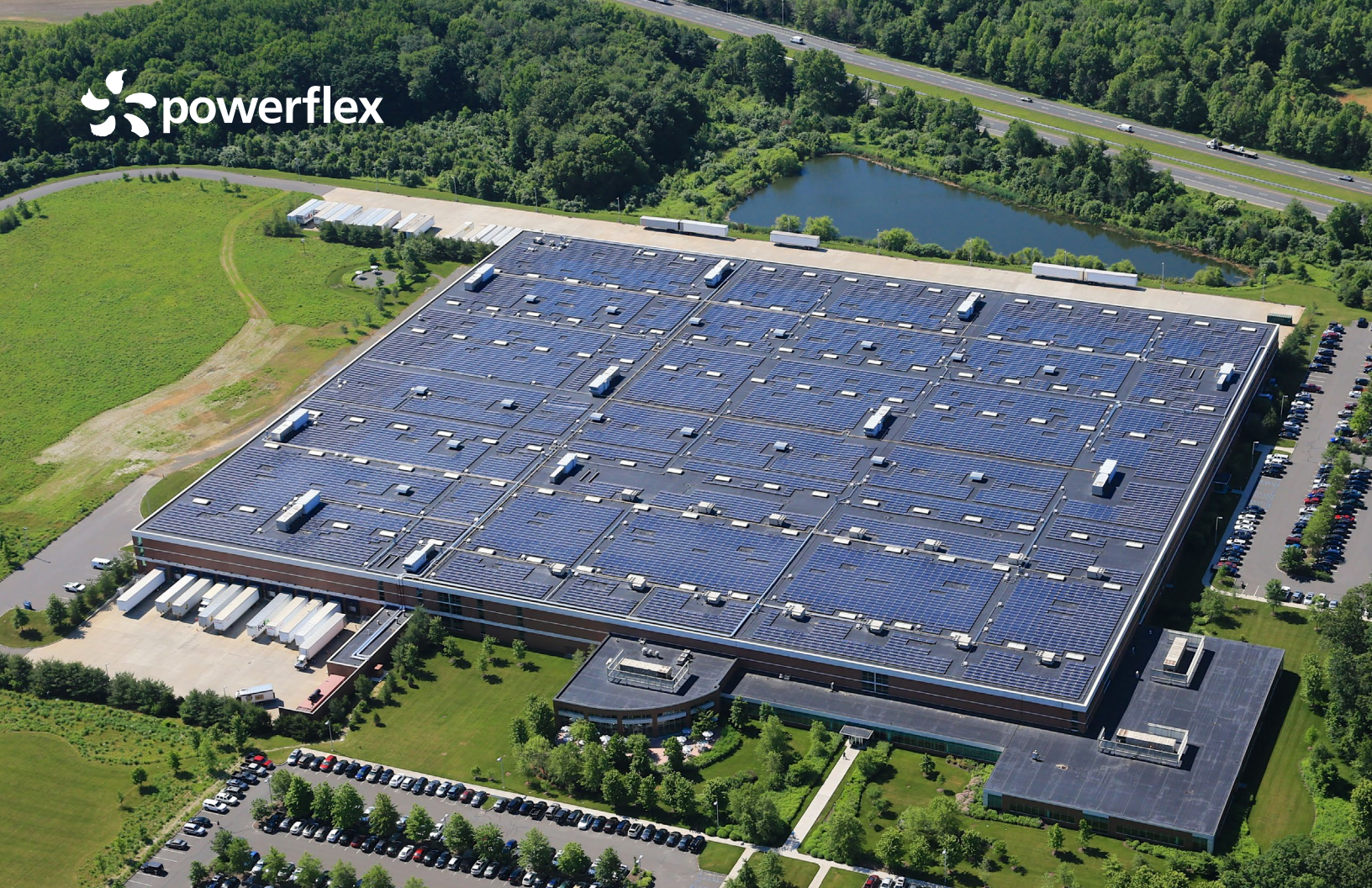




+ GUIDE

Solar-Plus-Storage for REITs

9-MINUTE READ

Key Takeaways

- REITs face mounting pressure from **investors, regulators, and tenants** to demonstrate measurable ESG progress while maintaining competitive property values.
- Solar-plus-storage systems provide dual pathways to value:
 - **FTM/CDG “rent the roof/land” leases:** predictable, low-risk lease income; no tenant occupancy risk; minimal landlord involvement
 - **BTM/tenant-serving PPAs:** Strengthen tenant retention, reduce tenant operating expenses, and help occupiers meet sustainability goals
- **System types** (rooftops, ground-mounts, solar carports) are broadly applicable, with logistics/distribution facilities particularly well-suited for large-scale deployment.
- **Battery energy storage** transforms solar from a passive generator into a **dispatchable resource**, improving economics and creating new opportunities in tenant-facing applications.
- The largest REIT opportunity lies not in one-off projects but in **portfolio-level assessment** to determine which sites align best with FTM leases versus BTM tenant-serving programs.

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Real estate investment trusts (REITs) find themselves at the intersection of several powerful market forces.

Investors are demanding measurable progress on environmental, social, and governance (ESG) goals; corporate tenants insist on renewable-powered properties to meet their own sustainability commitments; and property values are increasingly differentiated by energy efficiency and carbon intensity. At the same time, utilities and energy markets are in flux, with costs and policies creating uncertainty for tenants who pay the bills and for landlords who must maintain their competitiveness.

Against this backdrop, solar energy paired with battery energy storage is an attractive strategy for REIT portfolios. Solar-plus-storage can improve tenant satisfaction, strengthen ESG performance, and provide new and predictable income streams. Depending on the model, these systems can either create direct lease revenue for owners or act as a tool to help tenants manage their energy costs while reducing their carbon footprints. For REITs, the versatility of solar-plus-storage is the key: Each property type and tenant profile can call for a different approach, which makes portfolio-level evaluation essential.

Pressures on REIT Portfolios

The forces driving adoption of renewable energy and storage solutions for REITs are financial, operational, and reputational. Investor pressure is perhaps the most visible, as major institutional investors and ESG benchmarks such as GRESB now require REITs to demonstrate measurable decarbonization and sustainable practices. A failure to show progress may not immediately eliminate access to capital, but over time, carbon-heavy portfolios are disadvantaged in fundraising, valuation, and market positioning.

Tenant demand is equally influential. Many corporate tenants now consider sustainability a requirement when selecting space, with renewable energy

infrastructure and efficiency certifications playing a central role in leasing decisions. For these tenants, a property that visibly demonstrates its alignment with ESG commitments may become the deciding factor in which lease they sign. On the flip side, properties that cannot demonstrate green credentials increasingly risk higher vacancies and weaker rent growth.

Utility costs add another layer of indirect but powerful pressure. While tenants often bear the primary responsibility for paying energy bills, those bills drive leasing behavior. When tenants experience price volatility or growing operational costs tied to energy expenses, they gravitate toward properties that help mitigate those risks. REITs do not always feel the utility bill directly, but they are affected when those pressures shape leasing competitiveness and portfolio value.

Why Solar-Plus-Storage Is a Strategic Fit for REITs

Solar-plus-storage systems directly address these converging pressures while offering flexible, scalable solutions. For REITs, the technology creates two major advantages: the ability to monetize underutilized real estate assets through straightforward leasing agreements, and the ability to strengthen tenant satisfaction by delivering renewable energy directly to occupiers.

The monetization opportunity comes through front-of-the-meter and community distributed generation (FTM/CDG) models. In this approach, the REIT leases its rooftop or land to a solar developer, who installs, owns, and operates the system. The REIT receives predictable, long-term lease payments with no capital expenditures or operational responsibilities, essentially turning an otherwise idle roof or land space into a valuable financial asset. Because the lease payments are independent of tenant occupancy, this arrangement decouples clean energy value from vacancy cycles, offering a stable contribution to portfolio revenue.

The tenant-serving opportunity emerges through behind-the-meter (BTM) power purchase agreement (PPA) models. Here, the REIT works with a developer to install a solar-plus-storage system that provides electricity directly to

tenants. Tenants benefit from meaningful operating expense reductions and progress toward their ESG goals while landlords benefit from higher retention rates, greater tenant satisfaction, and stronger competitive positioning for new leases. In markets where sustainability has become a baseline requirement, these projects can directly influence both occupancy and rental rates.

Beyond these two models, solar-plus-storage provides REITs with a powerful way to demonstrate ESG leadership. Clean energy generation and emissions reduction metrics are both quantifiable and verifiable, enabling REITs to communicate progress to investors with credibility. Just as importantly, embracing solar and energy storage future-proofs REIT portfolios, ensuring that properties remain competitive as energy expectations become increasingly central to property valuations.

Deployment Options Across Property Types

One reason solar-plus-storage is particularly well-suited to REIT portfolios is its versatility. These systems can be deployed in several forms, each of which aligns with different property strategies.

Rooftop systems represent the most familiar option. Large-format rooftops such as those on logistics and distribution centers, industrial warehouses, and office buildings are ideal for either FTM leases or BTM tenant-serving projects. The vast surface area can be transformed into energy-producing real estate that either generates lease payments or lowers costs for tenants.

Ground-mounted arrays offer an opportunity to make productive use of unoccupied or peripheral land surrounding logistics parks, malls, or mixed-use campuses. These arrays are typically well-suited to FTM/CDG models, converting land that might otherwise sit idle into long-term income-generating assets.

Solar carports bring yet another layer of value. At retail centers and office properties, parking lots offer expansive surfaces for solar generation while also creating an amenity for tenants and visitors — shaded, weather-protect-

ed parking. In these cases, renewable energy production is paired with visible, tenant-facing infrastructure that reinforces the property's green identity.

Because each of these deployment types can be paired with battery energy storage, REITs gain opportunities not only to put space to work but also to optimize energy economics. Storage ensures that every kilowatt-hour of solar can be timed for maximum financial or tenant-facing benefit.

How Solar and Energy Storage Work Together

Solar production follows a predictable daily arc, with peak generation in the middle of the day and little to no output during the early morning or evening — exactly the times when electricity demand is often highest. Left on its own, solar energy is a “price taker,” accepting the value dictated by grid operators at the time it is produced.

The addition of a battery energy storage system (BESS) changes that equation. A BESS allows solar output to be stored and dispatched later, giving properties more control over how and when they use solar energy. For REITs, this means that energy captured at midday can be deployed in the late afternoon or evening when utility rates are at their highest, improving both project economics and tenant benefits. Energy storage can also enable participation in demand response programs and other market mechanisms that reward flexibility.

Although advanced applications such as microgrids are not typically the focus for REIT portfolios, energy storage fundamentally expands the usefulness of solar assets. Even without islanding capabilities, energy storage provides REITs with more control over energy dynamics and creates new revenue opportunities through enhanced economic performance.

Value Streams for REITs

The value of solar-plus-storage for REITs crystallizes in two main pathways: lease revenue from front-of-the-meter programs and tenant retention benefits from behind-the-meter solutions.

In front-of-the-meter and community distributed generation lease models, REITs effectively rent their rooftops or land to a developer. The developer takes on the capital and operational responsibility for the solar-plus-storage project, while the REIT enjoys predictable lease income for the duration of the agreement. This arrangement has become especially appealing for REITs because it involves little to no operational oversight and generates revenue streams insulated from tenant turnover. Ever-growing demand for community solar and distributed renewable capacity only strengthens the attractiveness of this model. Distribution and logistics centers, with their expansive roof space and peripheral land, often represent the greatest opportunities for FTM deployment.

Behind-the-meter systems, by contrast, focus on directly serving tenant load. Through a power purchase agreement or similar structure, tenants buy electricity produced onsite, typically at a discount to prevailing utility rates. Tenants benefit from lower operating expenses and progress toward their sustainability objectives, both of which are increasingly non-negotiable in corporate real estate strategies. For landlords, providing clean, cost-effective power to tenants helps increase renewal rates, reduce vacancy, and position properties competitively in a market that rewards green infrastructure. At retail centers and offices, where amenities contribute to leasing dynamics, visible solar carports or other tenant-facing systems can reinforce the property's sustainability credentials in tangible ways.

Together, these models illustrate the flexibility of solar-plus-storage in addressing the varied needs of REIT portfolios. Some properties will be best suited for FTM arrangements that maximize simplicity and lease revenue, while others will call for tenant-serving BTM systems that directly strengthen occupancy and retention. When considered across a portfolio, the two models can complement one another, creating both near-term financial gains and long-term competitive advantages.

Ownership and Financing Structures

When it comes to ownership and financing, REIT-aligned solar-plus-storage projects generally fall into two categories. In the first, an FTM or CDG lease, the REIT takes a passive role — providing rooftop or land space to the developer, collecting lease payments, and leaving all financing, incentives, and operational responsibilities in the developer's hands. In the second, a behind-the-meter arrangement, solar energy systems are deployed in ways that actively engage tenants. These may take the form of tenant-facing PPAs, where tenants pay for power at predetermined rates, or in limited cases, direct ownership structures in which the REIT invests in the system to drive long-term savings and leasing competitiveness.

Incentives play a meaningful role in shaping these models. At the federal level, the Investment Tax Credit (ITC) is expected to anchor solar economics through 2026 and is often paired with bonus depreciation through MACRS. State and local programs, ranging from community solar incentives to credits and rebates, vary by geography and often influence whether a property is best aligned with an FTM lease or a tenant-serving PPA. For REITs, the complexity of incentive optimization is typically managed by development partners. The more important strategic decision is which ownership and financing structure aligns with their portfolio mix and long-term goals.

Implementation Considerations

Determining which properties are best suited for which solar-plus-storage model requires careful upfront analysis. Key considerations include property suitability factors like roof condition, structural load capacity, and the proximity of land for ground-mounted arrays. Tenant profile is another critical driver, as properties leased to tenants with ambitious ESG mandates or high energy

intensity may be strong candidates for tenant-facing BTM PPAs. On the other hand, sites with stable tenancy but large amounts of underutilized space may align better with the FTM lease model.

Incentive fit is equally important, as some states or utilities prioritize community solar or distributed generation while others encourage onsite tenant-serving arrangements. Conducting a portfolio-wide analysis of REIT holdings allows owners to match properties with both the most advantageous model and the most supportive incentive structure.

Partnering for Success

The successful execution of solar-plus-storage strategies requires collaboration with experienced partners capable of handling both FTM and BTM models. Strong partners bring deep expertise in financial modeling, portfolio analysis, and regulatory navigation, ensuring that REITs can align the right financing structure with each asset. They can also handle tenant engagement and communication during behind-the-meter projects, addressing potential concerns while reinforcing the value proposition. Equally important is the ability to scale deployment across geographies, manage long-term operations and maintenance, and deliver consistent performance metrics that can be reported back to investors and ESG frameworks.

Next Steps

The pressures facing REIT portfolios are only increasing. Stakeholders demand measurable ESG progress, tenants expect renewable-powered space, and capital markets reward sustainable assets while penalizing carbon-intensive ones. Solar-plus-storage offers REITs a proven, flexible strategy to address these challenges.

For most portfolios, the largest near-term opportunity lies in front-of-the-meter or community distributed generation leases that deliver stable lease revenue with minimal risk and involvement. At the same time, behind-the-meter solutions provide a critical tool for strengthening tenant satisfaction, retention, and competitiveness. Together, these models open dual value streams that can be tailored to the attributes of each property within a REIT's holdings.

The time to act is now. REITs that conduct a portfolio-wide assessment will be well positioned to identify which properties align with FTM leases, which are best suited for tenant-serving PPAs, and how to execute these strategies at scale. By embracing solar-plus-storage across their portfolios, REITs can unlock new revenue, safeguard property competitiveness, and satisfy both tenants and investors in an economy where sustainability increasingly defines success.

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 info@powerflex.com

 powerflex.com

 833-479-7359

 15445 Innovation Dr.
San Diego, CA 92128