

IN FOCUS: SOLAR SOLUTIONS

Making Solar Pay: The Financial Case for Energy-Intensive Occupiers



Sustainability has long been perceived as a cost, a necessary investment to comply with regulations or bolster brand reputation. However, what if the most impactful sustainability initiative also represented a strategic financial advantage? For businesses in the logistics and industrial sectors, particularly those with significant energy demands, solar photovoltaic (PV) technology is emerging as a transformative solution. Investing in solar is no longer solely an act of environmental stewardship; it is a forward-looking financial strategy that aligns profitability with sustainability.

This article draws upon the findings of our Solar Solutions research and explores the compelling financial case for solar PV, especially for large buildings with energy-intensive tenants. We will break down how factors including building size and energy consumption directly influence returns, leading to impressive payback periods. We'll also examine the different models for monetising solar energy, such as Power Purchase Agreements (PPAs), and draw inspiration from major companies such as Amazon and Tesco who are already reaping the rewards.

The ROI of Solar: Why Size and Consumption Matter

The financial viability of a solar PV installation is not a one-size-fits-all equation. It is a dynamic calculation influenced by several key variables, but two stand out as the most critical: the size of the building and the energy intensity of its occupier. Our Solar Solutions analysis reveals a clear and powerful trend: the larger the building and the more energy it consumes, the shorter the payback period and the higher the initial rate of return (IRR).

Consider the difference. A smaller, 20,000 sq ft building housing a low-energy user might only yield an IRR of 4% with a payback period stretching to 15 years. While still a positive return, it can be a tough sell for many investors.

Now, contrast that with a large, 200,000 sq ft facility occupied by an energy-intensive business, such as a cold storage operator or a manufacturing company. Here, the financial picture transforms dramatically. These installations can achieve a remarkable IRR of up to 18% and a payback period as short as 5.5 years.

This strong correlation exists because energy-intensive occupiers can consume a much larger portion of the electricity generated on-site. This maximises the value of every kilowatt-hour produced, as the energy is used to offset electricity that would otherwise be purchased from the grid at a high retail price. This direct substitution creates immediate and substantial operational savings, accelerating the return on the initial capital investment.

Strategic Opportunities in Energy-Intensive Sectors

Our data points to a clear strategic direction for developers, landlords, and investors. The greatest and most immediate financial opportunities for solar PV lie within regions and sectors characterised by high energy consumption. Manufacturing-heavy regions like the North West and the West Midlands are prime candidates for mass solar adoption.

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Businesses with a relatively flat and consistent energy consumption profile, such as 24/7 manufacturing operations, stand to benefit the most. They can use a significant amount of the solar energy produced throughout the day, minimising the need to export surplus power to the grid, a process that is often complex and less financially rewarding.

For developers constructing large new buildings, targeting energy-intensive manufacturing businesses can create a powerful synergy. By specifying a property to include a robust solar PV system, they can offer a turnkey solution that delivers immediate cost savings to the tenant while securing a faster, more impressive return on their own investment. This transforms solar from a simple building feature into a core component of the property's value proposition.

Monetisation Models: Turning Sunshine into Revenue

Once a solar array is installed, the question becomes how to structure the financial arrangement between the landlord and the tenant. A variety of models have emerged, each with its own set of benefits and complexities. Survey data shows that over half of current arrangements use a Power Purchase Agreement (PPA), but other effective options exist.

While PPAs are emerging as the dominant model, reaching an agreement can be complex.

Shown (right and below) are the four primary models for monetising solar energy:

Power Purchase Agreement (PPA)

This is the most common approach. A PPA is a long-term contract where the tenant agrees to purchase the electricity generated by the solar array from the landlord, typically at a price lower than the grid rate. This provides the tenant with predictable, discounted energy costs and gives the landlord a steady, long-term income stream to pay off the investment and generate profit.

Fixed Additional Rent (B Rent)

To simplify the arrangement, some landlords charge a fixed additional rent amount for the use of the solar array. This B rent is a clear, predictable cost for the tenant and provides a straightforward income for the landlord, avoiding the complexity of metering and billing for energy consumption.

Third-Party Funded PPA

In this model, a third-party company develops, owns, and operates the solar system on the property. The tenant then purchases the electricity directly from this third party. This is an attractive option for landlords who want to offer solar as an amenity without the upfront capital expenditure (CAPEX) or the responsibility of managing the system.

Tenant Incentive

In some rare cases, landlords may provide the energy to the tenant free of charge. This can be used as a powerful incentive to attract or retain a high-value tenant, effectively incorporating the value of the solar energy into the overall lease package.

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Leading by Example: How Major Occupiers Are Harnessing Solar Power

The theoretical benefits of solar are compelling, but the real-world success stories of major corporations demonstrate its practical power. Across the UK, leading occupiers are making massive commitments to solar PV as a core part of their operational and sustainability strategies.



Amazon

As the largest corporate purchaser of renewable energy in the world, Amazon has made solar a centrepiece of its logistics network. The company has surpassed 100 renewable energy projects in Europe, with a significant and growing number of solar installations on its UK fulfilment centres.



Tesco

Has committed to installing solar panels on 187 of its sites, covering 335,000 square meters. This initiative is a key part of its decarbonisation strategy and its plan to purchase green electricity, highlighted by a major deal to offtake power from one of the UK's largest solar farms.



Aldi

Has already installed over 96,000 solar panels across its UK operations, significantly reducing its reliance on the grid and lowering its carbon footprint.



DHL

As part of its ambitious "GoGreen" strategy to achieve net-zero emissions, DHL has been systematically integrating solar panels into its logistics hubs and warehouses across the country.

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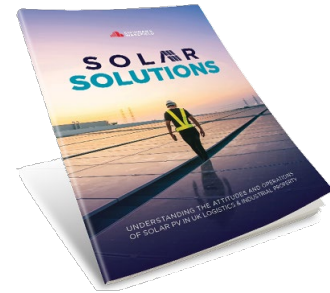
Your Path to a Profitable, Sustainable Future

For large properties with energy-intensive occupiers, solar PV is likely more than just a green initiative, it is a robust financial strategy. It offers a clear path to reducing operational costs, generating new revenue streams, and enhancing asset value, all while making a significant contribution to decarbonisation goals.

The journey begins with a comprehensive strategic assessment. Landlords and developers should evaluate their portfolios to pinpoint properties that align with the ideal physical characteristics and tenant profiles. Following this, accurately modelling potential returns and effectively addressing the complexities of installation and monetisation become essential steps in ensuring a successful outcome.

The future of industrial and logistics property is one where buildings are not just passive structures but active energy producers. By embracing solar PV, you can position your assets at the forefront of this transformation, securing a competitive advantage that is both financially rewarding and environmentally responsible.

[Click to download the full report](#) and explore the future of solar energy in UK logistics and industrial real estate.



EDWARD BAVISTER

Head of UK Retail, Logistics & Industrial Research

+44 (0) 7721 671 121

Edward.bavister@cushwake.com



PATRICK GIFFORD

Solar Lead, UK & EMEA
Project & Development Services

+44 (0) 77871 812 36

patrick.gifford@cushwake.com



GORDON REYNOLDS

International Partner
UK Logistics & Industrial
Tenant Representation

+44 (0) 7769 714 698

gordon.reynolds@cushwake.com