

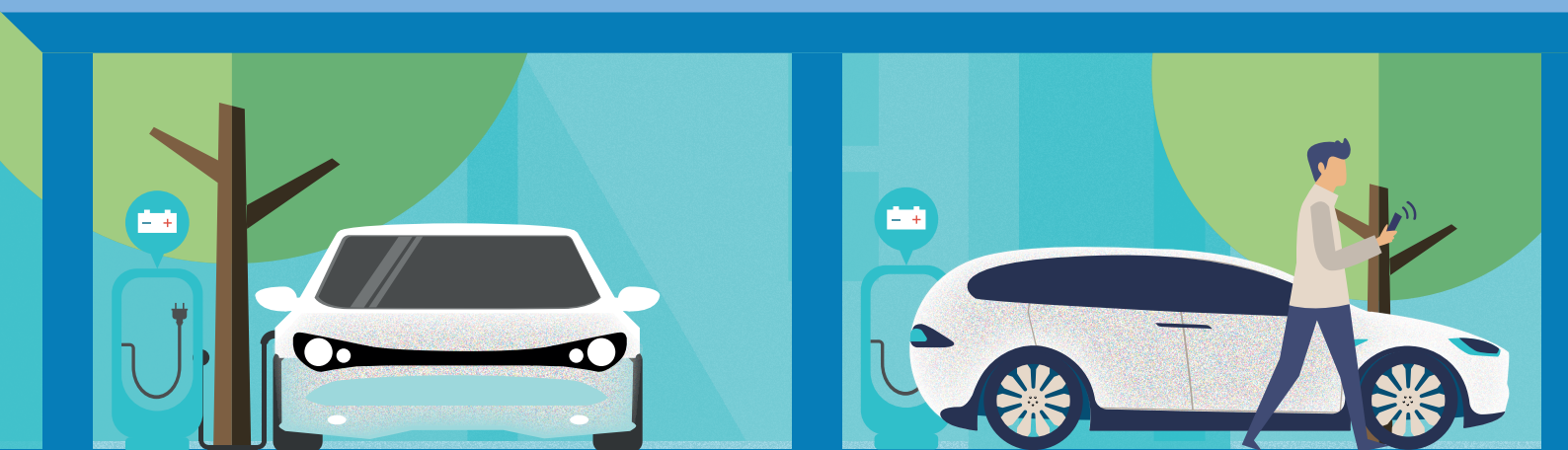
A new SPV

Solar power value

2024

The potential solar photovoltaics (PV) energy generation opportunities for the UK from car parks and rooftops

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Grey is the new green

To have any hope of reaching net zero, harnessing solar power will be critical and car parks and rooftops could be part of that solution. Beyond reducing emissions during operation, this renewable energy source offers property owners income opportunities, as well as energy cost stability and savings. Delving into the solar potential on these surfaces, we uncover how the UK might achieve its ambitious 70 GW capacity target.

In 1883, Charles Fritts made history by coating a thin layer of selenium with an ultra-thin layer of gold, laying the groundwork for the first solar cell. Now, 140 years later, global solar photovoltaics (PV) boast a staggering capacity generation exceeding 1 terawatt (TW). The UK contributes around 1.5% of the global total, equivalent to 15 gigawatts (GW) of capacity.

However, the ambition reaches far beyond, with plans to quintuple this capacity to 70 GW within the next 12 years. The ultimate goal is to completely decarbonise the electricity grid, requiring all power generation to be sourced from renewable resources such as – wind, solar, nuclear, battery, and pumped storage. As of October 2023, significant progress has

been made, with 54% of the UK’s electricity stemming from zero-carbon alternatives, an increase from 49% in September 2023 and a remarkable jump from around 30% in early 2020. Notably, solar power accounted for just 3.4%.

This drive aligns with recommendations from the ‘rooftop revolution,’ part of the Net Zero Review presented by Rt Hon. Chris Skidmore in early 2023. Skidmore emphasised the imperative for the government to establish a regulatory framework that actively encourages and supports renewable energy. One proposal involves making rooftop solar installations a standard feature for all new buildings, starting with public and suitable structures.

Drawing inspiration from France and parts of Germany, where solar panels are mandatory for existing or new car parks, could the UK follow suit? As of July 2023, France mandated that car parks with over 80 spaces install solar canopies covering at least 50% of the area within the next six years, while those with 400 spaces or more have a three-year deadline. Since 2022, some German states have also implemented rules with varying requirements.

Despite well-documented constraints related to grid connection and recent cost increases, this report explores the possibilities of rolling out solar PVs on a larger scale – potentially up to 67 GW of capacity, within touching distance of the target. Crucially, we delve into how we can effectively utilise our properties and spaces rather than resorting solely to large scale changes in agricultural use. Additionally, we explore the income streams and options available to property owners. In this regard, the additional benefits from on-site energy generation has been highlighted in recent years due to the volatility in energy markets.

“As of July 2023, France mandated that car parks with over 80 spaces install solar canopies covering at least 50% of the area within the next six years, while those with 400 spaces or more have a three-year deadline.”

Table 1: Solar capacity building

The potential solar capacity generation illustrated through various interventions

	GW capacity
Current capacity	15.5
All car parks over 2,000 sqm	12.0
All local authority/council car parks over 2,000 sqm	3.1
All food store car parks over 2,000 sqm	1.5
All logistics buildings built since 2010 (50% coverage)	1.7
35% of all households	26.2
PV projects currently awaiting construction	9.9
PV projects currently under construction	1.7
Potential (all car parks)	67.0
Potential (local authority/council car parks only)	58.1

Sources: Knight Frank Research, BEIS, Land Registry, DESNZ



5 key findings

67 GW

Combining capacities from car parks, domestic roofs, newer larger industrial units, along with the 9.9 GW of solar PV awaiting construction and almost 1.7 GW under construction, the UK's total solar capacity could reach 67 GW. While just shy of the 70 GW goal, this estimation does not include projects with planning permission granted or submitted, presenting additional potential for capacity expansion.

48,000

Integrating EV chargers with power across food retailer car parks could add around 48,000 fast charge points nationwide. Supporting the demand for EV infrastructure at these locations, food retailers currently account for approximately 18% of Land Registry titles with EV charging points.

up to £205m

Identifying 1,800 industrial units constructed across the UK in the past decade, covering 50% of their roof space could potentially add 1.7 GW of capacity. Excluding those with existing PV, this translates to an average annual net income ranging from £112 million to £205 million. The income potential varies based on unit size, with the largest (c.1.2 million sq ft) showing a potential average annual return of £180,000 to £1.25 million and the smallest between £1,500 and £30,000.

26.2 GW

A significant boost in solar capacity – up to 26.2 GW – could be achieved if 35% of UK households, as indicated in the latest Knight Frank Residential Sentiment Survey, proceed with their consideration to install solar panels.

8.7m households

Implementing car park measures similar to France could potentially increase solar power generation capacity by 12 GW in the UK – enough to power 8.7 million households. Even if selectively mandated, such as exclusively for publicly or locally-owned car parks, the capacity-building potential remains substantial at 3.1 GW.

The road to 70

AMBITION AND CAPACITY

The UK government aims to catapult its current solar capacity, standing at approximately 15 GW, nearly fivefold to 70 GW by 2035. By strategically incorporating solar installations on car parks and selectively on domestic and industrial properties, the UK could potentially achieve a conservative estimate of 67 GW. Remarkably, this projection excludes the introduction of new solar farms on agricultural land, making it a sustainable and resource-efficient approach.

SOLAR DEPLOYMENT

The latest data from the Department for Energy Security and Net Zero (DESNZ) in the UK Solar Deployment database reveals a total installed capacity of 15.5 GW as of September 2023 – a remarkable 500% increase over the past decade. Following a period of relative stagnation following changes to, and the discontinuation of, the feed-in-tariff, where growth ranged from 2% to 4% annually between 2018 and 2022, the current year witnessed a resurgence,

boasting a year-on-year return to 7%. Notably, each month in 2023 has seen the addition of approximately 14,000 domestic solar installations, surpassing the 2022 monthly average of just over 9,000.

Data from the Renewable Energy Planning Database (REPD) by BEIS, tracking large renewable electricity projects over 150 kilowatts (kW), reveals a promising landscape. There is capacity of 9.9 GW awaiting construction, almost 1.7 GW currently under construction and a further 9.4 GW submitted for planning. Focusing exclusively on the projects under construction or awaiting development yields an impressive 11.6 GW, potentially propelling the UK's total capacity to 26 GW. While progress is evident, challenges persist, particularly with almost 1 GW with expired permissions. Reforms to the grid connection process may improve connection times and increase the likelihood of project completion.

LAND USE TENSIONS

To generate 1 megawatt (MW) capacity, an estimated three acres of

Noted

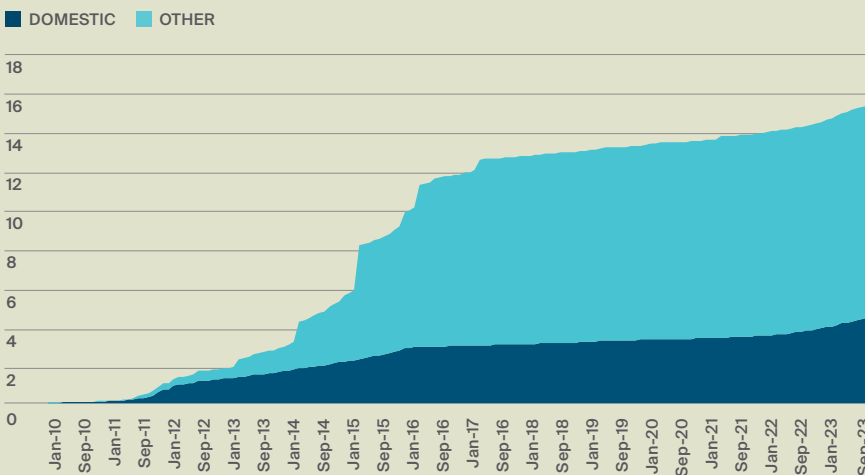
For any property owners with significant car parking facilities, there is an opportunity to boost solar energy generation through not only rooftops, but the installation of solar canopies on car parks.

solar panels (approximately 12,000 sqm) are needed. Extrapolating from this, it is projected that roughly 667 million sqm (around 165,000 acres) of solar panels would need installation on land between now and 2035 – equivalent to approximately 0.3% of the UK's land area. Presently, solar arrays cover 0.1% of the UK's farmland, and if all projects in the pipeline move forward, this share could rise to 0.4%, as reported by Solar UK. Notably, almost 98% of the larger operational sites covered in the REPD are ground-mounted, boasting a total capacity of 8.8 GW. This would require approximately 26,400 acres. When including those under construction or awaiting development, this figure rises significantly to almost 60,000 acres.

While a comprehensive land use framework is yet to be released by the government, there is an acknowledgement of the need for land use changes to achieve various goals. These include building new housing and infrastructure, attaining net zero emissions by 2050, and safeguarding 30% of the UK's land by 2030. Utilising already developed land, such as rooftops and car parks, presents a viable solution to simultaneously build renewable energy capacity and address competing land uses. This approach aligns with the broader national objectives without intensifying the demand for additional land.

Fig 1. Solar powering up

The cumulative capacity of installed photovoltaics in the UK, gigawatts (GW)



Source: Knight Frank Research, DESNZ

Power to the parking

INTERNATIONAL INITIATIVES

In July 2023, France enacted legislation mandating solar canopies for all car parks with more than 80 spaces. Within six years, these installations must cover at least 50% of their area, while car parks with 400 spaces or more have a three-year timeline. This initiative is anticipated to generate approximately 11 GW of energy, powering nearly 8 million homes. In a parallel move, several German states have embraced similar measures. Beginning in early 2022, Baden-Württemberg and North Rhine-Westphalia made photovoltaics mandatory for new parking lots with more than 35 spaces. Subsequently, Rhineland-Palatinate, Lower Saxony, and Schleswig-Holstein followed suit in 2023.

A testament to the initiative's success in Germany, the first seven months of 2023 witnessed the connection of around 593,000 new solar installations with a capacity of 7.9 GW. In contrast, the same period in 2022 saw 198,200 installations with 4.2 GW, according to analysis from the Market Master Data Register (MaStR) by Internationales Wirtschaftsforum Regenerative Energien (IWR).

Bavaria leads the German state ranking for "solar energy additions 2023," with around 1,980 MW of new PV capacity. It is followed by North Rhine-Westphalia (1,340 MW), Baden-Württemberg (1,060 MW), Lower Saxony (740 MW), and Brandenburg (610 MW).

UK CAR PARK POTENTIAL

Our analysis identifies approximately 29,000 car parks, each over 2,000 sqm, equivalent to around 80 spaces, accounting for roads, bays, and other infrastructure. If the government mandates 50% coverage for all car parks, this could add 12 GW of capacity – almost a third of the UK's targeted increase. However, the total estimated cost for this could be £46.8 billion.



Around two-thirds of these car parks are owned by either a Limited/Public Limited Company or a corporate body, with another quarter owned by a local authority or county council. Dissecting ownership of car parks, we conclude two key ownership groups and expand on their potential.

- If all local authority/county council car parks were covered by 50%, the potential generation would be around 3.1 GW, enough to power 2.3 million homes at a total cost of £12.2 billion. While some costs could be offset by the £230 million government funding provided for the implementation of low-carbon technologies, there remains a significant financial gap.
- Around 5% of car parks are attached to food retailers, yet they account for 13% of the total area. Introducing solar canopies to half of their car

parks could generate around 1.5 GW, costing approximately £6 billion to implement.

CONSIDERATION OF COSTS AND BENEFITS

Although installing canopies on car parks can be more expensive at around £6,500 per bay (12 sqm) compared to £1,000 per kWp for 9 sqm of rooftop (for systems of 500 kWp or lower), numerous benefits warrant consideration. For those without suitable rooftops, it presents an opportunity for an additional revenue stream. Furthermore, expanding EV charging networks, facilitated by these solar installations, can generate direct and indirect revenue through dwell time for retailers and the attraction of office workers. In addition, there is an added bonus for car park users of cover from weather – be that rain, shade in summer or cover from snow.

Rooftop revolution

DOMESTICALLY SPEAKING

In 1995, Professor Sue Roaf turned her vision of powering her home with solar energy into reality, marking the inception of domestic solar installations. Presently, approximately 1.2 million homes in the UK boast solar installations, collectively contributing to a capacity of 4.4 GW, an average of 3.5 kW per installation, as of September 2023 according to BEIS. While only some homes may be eligible, such as thatched or non-south facing rooftops, this showcases the potential for large-scale generation through micro-deployment.

They are some 22.3 million homes across the UK, encompassing detached, semi-detached, and terrace houses. Assuming a modest 10% adoption rate among the remaining 21 million homes without solar panels, an additional 7.5 GW of capacity could be generated. If all eligible homes installed solar panels, this would surpass the entire solar target by a further 75 GW. However, practical constraints, such as thatched roofs and house orientation, means this isn't universally feasible. According to our Residential Property Sentiment Survey in July 2023, 35% of respondents are considering installing solar panels,

showcasing a growing interest up from 28% in December. If those 35% were to follow through, this would provide 26.2 GW of capacity.

While the potential is significant, it comes with a cost. The average domestic installation starts at around £5,000, according to the Federation of Master Builders. The Energy Saving Trust estimates a £7,000 bill for a 3.5 kW system, a stark contrast to costs more than four times higher thirty years ago. However, in the first half of 2023, the UK saw more solar power systems installed than any previous six month period, according to data from the Microgeneration Certification Scheme (MCS).

For households, there are not only environmental benefits but cost savings from reduced energy bills, and no VAT on solar until March 31, 2027. In addition, *our previous research* has found a potential uplift in home value from EPC improvements of up to 20%.

One consideration is that in theory, faster decarbonisation of the national grid could render the average electricity-reliant home zero carbon. As more homes generate their power, the grid could smooth consumption and address peak demand. Furthermore, advancing

Noted

For homeowners there are possibilities for lower energy bills, a reduced carbon footprint and higher energy efficiency rating which can lead to an uplift in value.

battery technology opens opportunities for homeowners to store and regulate their energy consumption through battery units.

INDUSTRIAL-SIZED POTENTIAL

The rooftop revolution extends beyond domestic settings, with substantial generation capacity lying within commercial properties. Property owners are increasingly realising the sustainability credentials and income generation potential afforded by rooftops. Our assessment focuses on a subset of commercial properties, specifically larger industrial units constructed in the last decade, each spanning at least 50,000 sq ft. Our findings highlight approximately 1,800 such units scattered across the UK.

Upon analysing the REPD, we've identified c. 75 units with either operational PV or PV under construction, or where a planning application has been submitted. Although we recognise the actual number could be larger as PV systems under 1 MW have not required planning. Still, the majority of these units present ripe opportunities for further capacity building. By covering half of the eligible roof space, assuming directionally viable, with solar panels, we estimate an additional 1.7 GW of capacity could be added. This underscores the significant untapped potential for industrial-sized rooftop solar installations in contributing to the overall solar capacity of the UK.



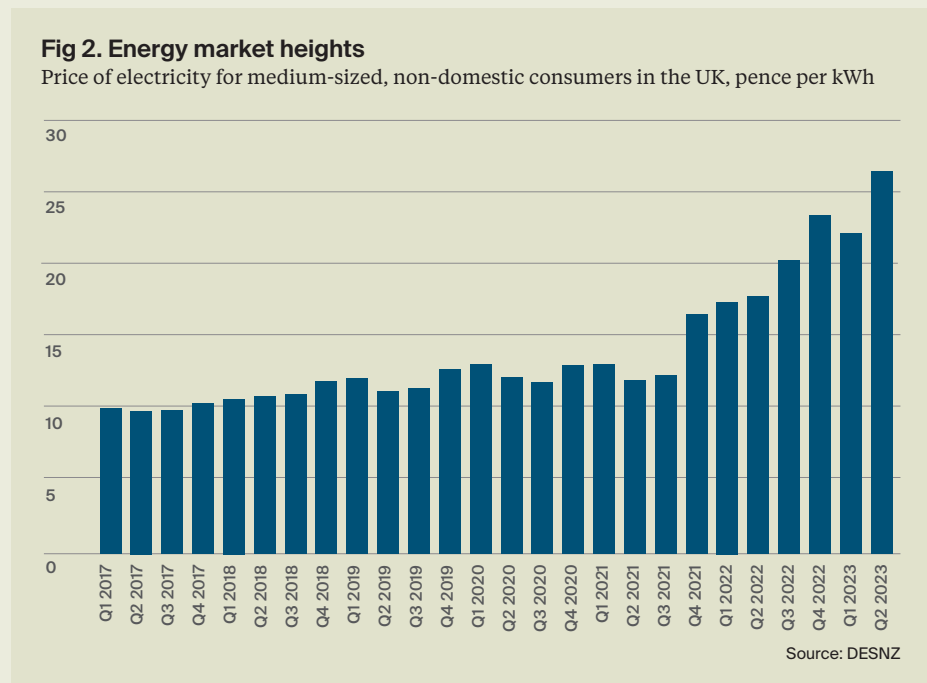
Streams and stability

UNLOCKING REVENUE OPPORTUNITIES

Crucially for property owners, the installation of PV systems presents opportunities to generate additional revenue. In owner-occupier arrangements, the introduction of solar PV not only diminishes dependence on grid electricity but also delivers direct cost savings for imported electricity. Furthermore, property owners can capitalise on an additional income stream by exporting excess electricity to the grid, leveraging programs like the Smart Export Guarantee (SEG). A recent example is the *ongoing development of a 1.1 MWp solar car park aimed at powering Eastbourne District General Hospital*.

The market exhibits a blend of landlord-funded initiatives and third-party-funded opportunities. The latter introduces a long-term Power Purchase Agreement (PPA – see page 8) between landlords and solar PV developers, alleviating the need for upfront expenditures by property owners. The energy market's recent volatility underscores the value of long-term stability in renewable electricity costs (see explainer box), making PPAs an increasingly attractive option.

For leased properties, especially industrial units, landlords are



increasingly opting to cover upfront system costs and ongoing operational expenses. In return, they secure a direct PPA with tenants, providing renewable electricity at a reduced rate compared to their current grid electricity costs. Tailoring system sizes based on current and future electricity consumption profiles allows for optimised financials, balancing on-site consumption with grid export. This not only benefits tenants with lower energy costs, but

will reduce their overall emissions contributing to ESG commitments.

There is an additional synergy to consider between solar PV installations and electric vehicle (EV) chargers. This tandem approach not only serves as essential infrastructure for tenants and the expanding EV market but also enhances on-site electricity consumption. This, in turn, boosts the utilisation of green electricity, translating to higher returns for forward-thinking landlords.

Noted

For industrial property owner-occupiers, installing PV can provide a reduction in energy costs and variability. Those who lease out the property can generate additional income through PPAs, as well as potentially benefit from an uplift in capital value.

For occupiers, there is a reduction in variability of energy costs as well as lower emissions.

Explainer – Energy market volatility

The global and UK energy market has seen significant upheaval in recent years due to the pandemic-induced supply chain constraints and geopolitical events. For non-domestic consumers the rise and variability in energy costs (shown in the above chart) has been a cause for concern, rising from 10p/kWh in 2017 to more than 26p/kWh recently for medium-sized consumers. With on-site generation there is an opportunity to limit variability and provide long-term stability to both landlords and tenants. With a set recharge rate with fixed indexation, these long-term PPA arrangements provide certainty in future electricity costs for tenants and landlords aiding decisions in investment opportunities.

Noted

For any property owners with significant car parking facilities there is an opportunity to create additional income streams, provide on-site power for tenants or offer EV charging facilities for staff and/or customers, which is increasingly becoming a requirement.

SIZING THE OPPORTUNITY

Newer and larger industrial units present significant income generation potential. With some simplified assumptions, if all approximately 1,725 buildings currently without PV cover 50% of their roof space, the estimated average annual net income ranges from £112 million to £205 million, assuming at least 50% consumed on site. The income potential varies based on unit size, with the largest (c.1.2 million sq ft) projecting a potential average annual return of £180,000 to £1.25 million, while the smallest falls within the range of £1,500 to £30,000. These projections account for assorted options such as on-site consumption, grid export, and generation efficiency.

While some aspects of this exploration may be challenging to realise, it sheds light on a potentially untapped opportunity. Moreover, for those considering property sale, the integration of PV systems can contribute to increased value through explicit income or by enhancing the property's appeal, reflected in higher rents.

Table 2 illustrates the average roof size of the analysed industrial units, showcasing a potential payback period ranging between 7 and 20 years, with an internal rate of return (IRR) of up to 16%. The payback period is variable and highly contingent on objectives. Depending on whether the goal is to maximize the system for net zero with low-consuming tenants or optimise it for high-consuming tenants, payback periods typically can range from

as little as three years to as long as 20. Additionally, if the hold period is shorter, potential value uplifts in asset value upon sale could accelerate the payback period.

Furthermore, aligning with building net zero guidelines established by the World Green Building Council, prioritising on-site renewables is crucial. To be classified as net zero, a building must be powered by renewables, emphasising the significance.

CAR PARK INCOME

For car park owners, substantial opportunities unfold with the integration of solar installations:

- The average car park is around 5,800 sq m.
- Achieving 50% coverage translates to a generation potential of 412 kW.

“To be classified as net zero, a building must be powered by renewables, emphasizing the significance of on-site renewable energy generation.”

- If 100% of power generated is sold via a PPA, this could produce an average annual return of £29,000.
- In this scenario, the payback period is approximately 15 years with an IRR of 5%.

Scaling this model to encompass all car parks could yield up to £842 million per annum. This is an upper-range projection and each asset would need to be separately evaluated for variables such as PV capacity, the

Table 2: Powering ahead

Illustrative example of 50% coverage of rooftop, 13,400 sqm rooftop and 6,700 sqm of PV - generation capacity 955 kWp

Metric	Scenario				
% electricity sold to the tenant via PPA	100%	75%	50%	25%	0%
% electricity exported to the grid	0%	25%	50%	75%	100%
Internal Rate of Return (IRR)	16%	13%	10%	6%	2%
Payback Year	7	8	10	14	20
Average annual net income (£)	114,000	88,000	62,000	36,000	10,000

Sources: Knight Frank Research, BEIS
Note on assumptions: Grid, planning application and legal fees included, £800/kWp for installation, O&M at £12/kwp, business rates, 2.5% indexation on recharges

Explainer – PPA

A Power Purchase Agreement (PPA) typically refers to a long-term electricity supply agreement between two parties, commonly a power producer and a customer. In the context of on-site renewable generation funded by landlords, two new PPAs typically come into play, supplementing the existing electricity agreement between the landlord and an energy provider:

- 1). A new PPA between the landlord (the renewable energy producer) and the tenant.
- 2). A new export PPA between the landlord and an energy supplier for any onsite electricity generated not consumed on site.

These agreements define the conditions, such as the quantity of electricity to be supplied and the pre-negotiated price, facilitating a structured and mutually beneficial arrangement between parties.



16%

For the average industrial unit analysed, there is the potential for an IRR of up to 16% and payback period between 7 and 20 years.

15 years

Some estimates indicate that renewable energy projects face a 15-year wait to connect to the grid, with 176 GW of energy in the queue and only 64 GW of capacity available.

412 kW

The average car park generation potential sits at 412 kW, which could produce annual return of up to £29,000.

effectiveness of electricity sold to tenants via the PPA, the proportion exported to the grid, and installation costs, with potential benefits from economies of scale.

WHY HAVE WE LAGGED ON DEPLOYMENT?

The delayed deployment of solar infrastructure can be attributed to various barriers hindering widespread implementation. Grid capacity and connection restraints, high installation costs, and complex

“Potential relief may be on the horizon as the government aims to reform the National Grid connection process, and reduce planning constraints for rooftop solar.”

planning processes are among the prominent challenges. Despite the decreasing global costs of solar PV by 82% between 2010 and 2019, recent years have witnessed an increase due to rising labour and general material expenses. According to the Building Cost Information Service (BCIS), general labour and material costs escalated by 14% and 39%, respectively, between January 2020 and September 2021, outpacing economies of scale and impeding rapid deployment. However, potential relief may be on the horizon as the government aims to reform the National Grid connection process, and reduce planning constraints for rooftop solar.

“The distribution network operators (DNOs) are stretched by the amount of demand coming through,” observes David Goatman, Global Head of Energy and Sustainability at Knight Frank. “This is for both sides of the equation; developers

are struggling to secure connections for new projects, and those seeking to build out renewable generation sites are unable to connect to supply.” Some estimates indicate that renewable energy projects face a 15-year wait to connect to the grid, with 176 GW of energy in the queue and only 64 GW of capacity available. Recent reforms have initiated a positive shift, bringing forward 20 GW of connections by approximately four years.

Noted

Barriers to solar PV deployment are beginning to reduce with grid connection reforms announced and the stabilisation in cost after a period of volatility.

Further reforms, including Ofgem’s approval of proactive queue management, and a commitment by the Chancellor in the 2023 Autumn Statement are underway. This may involve the need to provide proof of readiness to prioritise the most viable and ready projects. A comprehensive understanding of this evolving landscape is crucial to ensure projects are delivered in the most viable way, maximizing their potential impact on the solar energy landscape.

“Despite charge and range anxiety being limiting factors, the UK EV market has expanded significantly. EVs accounted for 40% of newly registered vehicles in the final quarter of 2022 and around 35% in Q1 2023.”

EV CHARGING INTEGRATION FOR FUTURE-PROOFING

While this report primarily focuses on building solar capacity, a crucial additional benefit for future-proofing assets is the installation of EV chargers for occupiers and customers.

The growing shift away from conventional fuel, driven by financial and environmental motivations, has propelled interest in EVs. By 2035, UK legislation will prohibit the sale of petrol or diesel cars. The global picture was succinctly summarised by the International Energy Agency (IEA) which predicts a yearly growth rate of 36%, reaching 245 million EVs by 2035.

Despite charge and range anxiety being limiting factors, the UK EV market has expanded significantly. EVs accounted for 40% of newly registered vehicles in the final quarter of 2022 and around 35% in Q1 2023. Demand is projected to remain high, even with the government’s decision to delay the

“The growing shift away from conventional fuel, driven by financial and environmental motivations, has propelled interest in EVs.”

ban on petrol and diesel cars by five years.

Since 2022, all new buildings are required to come equipped with EV chargers. According to Zapmap, there were 48,450 electric vehicle charging points across the UK at 29,062 locations, a 42% increase since August 2022. However, power supply constraints persist as one of the largest barriers to widespread rollout.

The power potential from solar panels can enhance the installation of EV chargers, as exemplified in the case of Eastbourne District General Hospital, where a solar car park will power 10 EV charge points for staff.



WHY EV?

There are a *multitude of reasons* to install EV charging points, including:

- Improving ESG credentials and achieving net zero carbon targets.
- Financial benefits from employee usage, allowing businesses to recover 20% VAT when employees charge their cars using workplace charging services.
- Financial benefits through rental, as property owners can receive rent from infrastructure companies while retaining ownership of the charger.
- Future-proofing assets, meeting occupier demands, and potentially commanding higher resale and rental values.
- Compliance with regulatory requirements and incentives, especially in regions implementing charging station mandates.

In the case of food store retailer car parks, if all installed chargers used PV power, this could add around 48,000 fast charge points across the country. While additional grid support is likely to be required for out-of-sunlight hours charging and lower solar days, there is evidence supporting the demand for EV infrastructure at these locations. Food store retailers account for approximately 18% of Land Registry

titles containing an EV charging point. The government is targeting 300,000 EV chargers by 2030.

For large retailers, the presence of EV chargers can enhance dwell time and spending on-site. For other property owners, such as offices, EV chargers will become increasingly relevant for staff, serving as a crucial differentiator and a necessary element for fully future-proofing assets.

Explainer – Other EV charger types

Whilst there are limited options for rapid and ultra-rapid chargers to be powered by solar alone (given the power requirement), the installation of these is also a consideration for property owners. For public sites, particularly retail units and prominent locations on major road networks, Charge Point Operators (CPOs) are interested in leasing parking spaces or land from property owners. This arrangement typically involves base rents and/or profit/revenue shares over a 15-year+ lease period. This allows CPOs to generate income streams across all areas of the UK. With high upfront costs for rapid DC charging units and associated grid costs required for these charging hubs, property owners are increasingly looking towards these funding opportunities to commercialise their land and keep up with new soon-to-be electric transport norms.

In short, we need to leverage grey, not just green space

This report underscores the imperative of exploring innovative approaches to enhance the UK's solar energy capacity. While grid infrastructure is a pivotal component, optimising built-up spaces, including car parks and rooftops, emerges as a strategic alternative to relying solely on rural landscapes with competing land use demands.

The recent surge in solar adoption, especially in domestic installations over the past 12 months, is a promising trend. However, these installations, though numerous, are often limited in

scale, catering to individual homes and relying on grid energy due to sunlight constraints.

The outlined solutions present a myriad of opportunities for property owners and developers to contribute to the expansion of renewable capacity. This not only holds the potential to catalyse development but also opens up new revenue streams for property owners, aligning with the imperative to future-proof assets against evolving demand requirements. The benefits from on-site energy generation

“Embracing these possibilities can propel the UK towards a more sustainable and resilient energy landscape.”

have been catapulted to the fore in recent years due to the volatility in energy markets. Embracing these possibilities can propel the UK towards a more sustainable and resilient energy landscape.

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