WHY NOW IS THE TIME FOR SOLAR

Reduce costs, secure your supply, and meet your sustainability targets

CUSTOM SOLAR | A MITIE COMPANY

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ALREADY LOOKED INTO SOLAR PV? IT'S TIME TO LOOK AGAIN.

In the Summer of 2022, a perfect storm of market forces kickstarted an energy crisis that has tested the boundaries of business resilience in all industries across the UK.

As this crisis continues, and energy prices remain unstable, each organisation is left with a choice: see this as a catastrophe, or a catalyst for change.

Forward-thinking organisations have used this market turbulence to prompt a shift towards renewable energy, helping to protect short-term profitability, removing the shackles of market volatility, and pulling ahead in the race to net zero.

Among the standout renewable options is solar PV (Photovoltaics). Solar isn't new in the sustainable energy space – in fact, you may have looked into it before – but the last few years have seen a quiet revolution in photovoltaic technology. It has made all the difference.

Concerns about performance, costs, and storage capacity are now no longer valid, making solar PV a go-to option if you're looking to save money, ensure power security, and meet environmental targets.

> Energy prices remain unstable, each organisation is left with a choice: see this as a catastrophe, or a catalyst for change.

And it couldn't have come at a better time. With the additional challenges of growing environmental concerns and shifting sustainability targets, the pressure is well and truly on to find new ways to power our planet.

Commercial buildings are at the heart of this conversation. It's estimated that the built environment generates nearly 50% of global CO_2 emissions. And building operations alone are responsible for 27%[1]. For you to meet your ESG targets, and weather the storm of surging energy costs, this has to change.

The good news is, there are huge advantages for building owners and occupiers alike in pursuing sustainable energy sources.

In this eBook, we'll examine the evolution of solar, look at how you can put it to work, and explore the benefits organisations like yours are already experiencing. If you're interested in exploring this subject further, our experts are only a phone call away.

> The costs of solar PV have fallen by 82% over the last decade.

[1] Architecture2030.org

THE PERFECT STORM

Today, concerns about volatile and extreme energy prices dominate the headlines. But the chances are, this isn't the only challenge you're facing. Additional pressures from environmental, social and governance (ESG) commitments, new sustainability targets, and a push to decarbonise are all contributing to a unique and challenging environment.

As a consequence, we find ourselves at a genuine turning point in the way we consume energy. The conversation has changed – and it's getting louder.

For the first time, renewable energy has overtaken fossil fuels as the UK's primary source of electricity. As a nation, we're now committed to reducing our greenhouse gas emissions by 78% by 2035, and to ending our contribution to global warming entirely by 2050.

All of which is to say, renewable energy is no longer a fringe activity or an emerging technology – it's our present. And it will be our future, too.

Organisations like yours will play a huge role in our nation's ability to meet these targets. And, if approached correctly, your pursuit of net zero can offer an escape from exorbitant utilities costs. However, currently only 41% of UK CEOs say they're on track to meet their sustainability goals.

The impacts of falling short will be costly in financial, environmental, and reputational terms. Which means there's no time to waste.

It's still a battle you can win – but a lot will come down to how you power your buildings. And in this arena, solar PV provides a clean, predictable, low-cost alternative to fossil fuels.

Only 41% of UK CEOs say they're on track to meet sustainability goals

Microsoft, 2021

Did you know?...

173,000 terawatts (TW) of solar energy hit the Earth at any given moment; more than 10,000 times the world's total energy use during the same period of time.

Theecoexperts.co.uk

Southampton Docks Canopy

The technology behind solar has come on leaps and bounds in the last few years. And as a result, adoption is skyrocketing.

2,000 solar panels installed reducing carbon emissions by 235 tonnes every year

Associated British Ports, Southampton Docks

IT'S SOLAR, BUT NOT AS YOU KNOW IT

Solar technology is nothing new. In fact, the first solar panels were created way back in 1883 by the American inventor Charles Fritts.

But, as you might imagine, the technology behind solar has progressed significantly since the nineteenth century. In particular, solar cell efficiency has come on leaps and bounds in the last few years. Solar arrays are now cheaper, more reliable, and better performing than ever before.

As well as technological advances, the cost to manufacture and purchase solar equipment has reduced, meaning that the return on investment in solar has become increasingly attractive.

Despite feed-in tariffs ending in 2019, the UK solar industry continues to boom.

> In 2021, the UK expanded its total solar PV capacity to 14GW, which is capable of supplying 3 million homes.[2] And installations have grown by 135% in the first half of this year compared to last.[3]

[2] Powerengineerint.com
[3] Solarpowerportal.co.uk

Solar Basics

Solar PV technology starts with the solar cell. A panel is composed of a number of cell modules. Panels are assembled into a solar array, which can be either ground or roof mounted. The array is connected to the electrical system which can be remote from, or connected to, the electricity grid.

Solar Installation

A solar array can either be ground-mounted or roof-mounted. Most sloping and flat roofs are suitable for solar installations. This makes roof-top solar the prime option for commercial businesses and industry, especially in certain sectors such as retail, manufacturing and transport hubs.

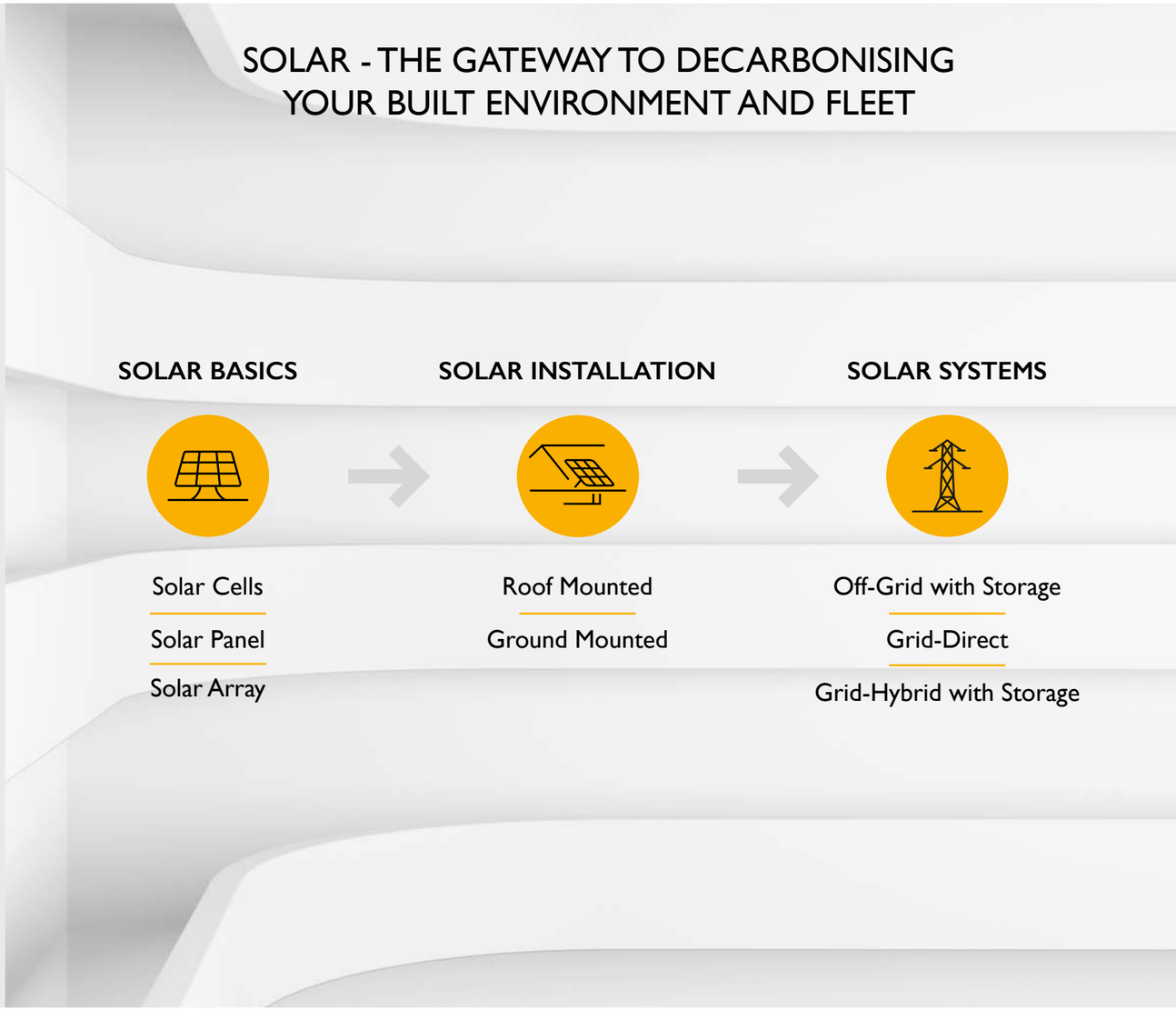
Solar Systems

There are three typical options for connecting commercial and industrial solar PV systems. Off-grid self generation also known as 'behind the meter', grid-hybrid connection with storage, or connection to the grid-direct with no storage. Applications for connection are considered on a case by case basis and can impact the success of launching a solar project.

Funding Options

Capital investment is the biggest hurdle to getting started with a solar project. Finance solutions offer ways to fund your project through Power Purchase Agreements (PPA) or Asset Finance. The Public Sector Decarbonisation Scheme (PSDS) provides grants for public sector bodies to fund heat decarbonisation and energy efficiency measures, of which solar can be an aspect.

SOLAR - THE GATEWAY TO DECARBONISING YOUR BUILT ENVIRONMENT AND FLEET



THE OBVIOUS QUESTION IS: WHY?

One reason is that the cost of solar PV has stabilised due to a combination of technological improvements and economies of scale. As we all struggle with the breakneck fluctuations in energy costs, solar is an attractive proposition for anyone looking to reduce expenditure and improve long-term efficiencies.

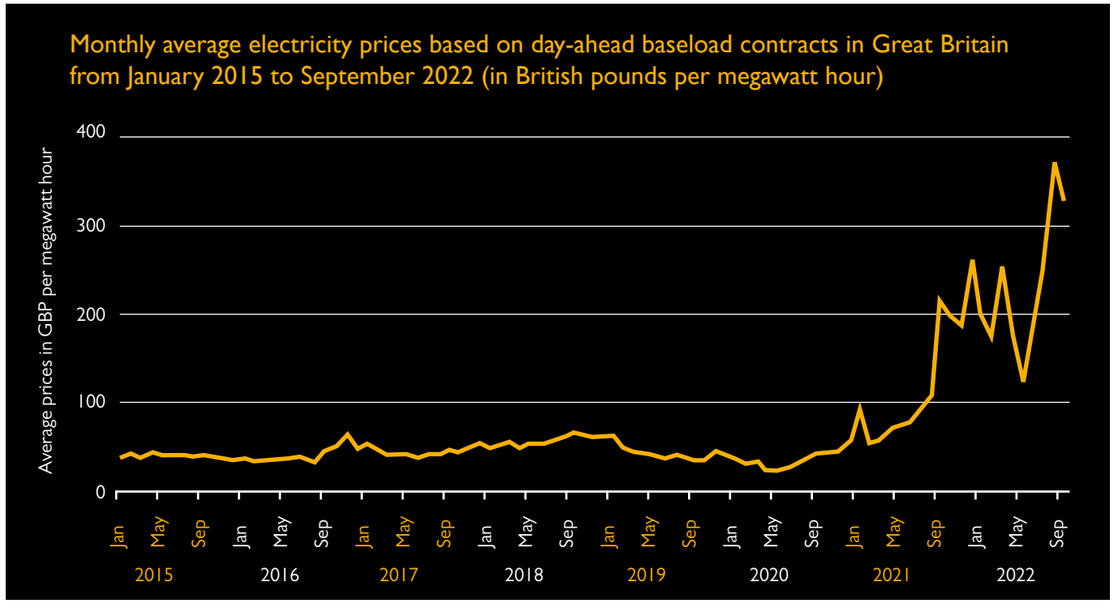
For example, at the time of writing, electricity generated by solar PV costs on average around 5p/kWh to produce. By comparison, electricity from the grid has risen from 13p/kWh to 30p/kWh in the last six months[4] alone.

What's more, there's the opportunity to sell electricity back to the grid if your generation exceeds your demand.

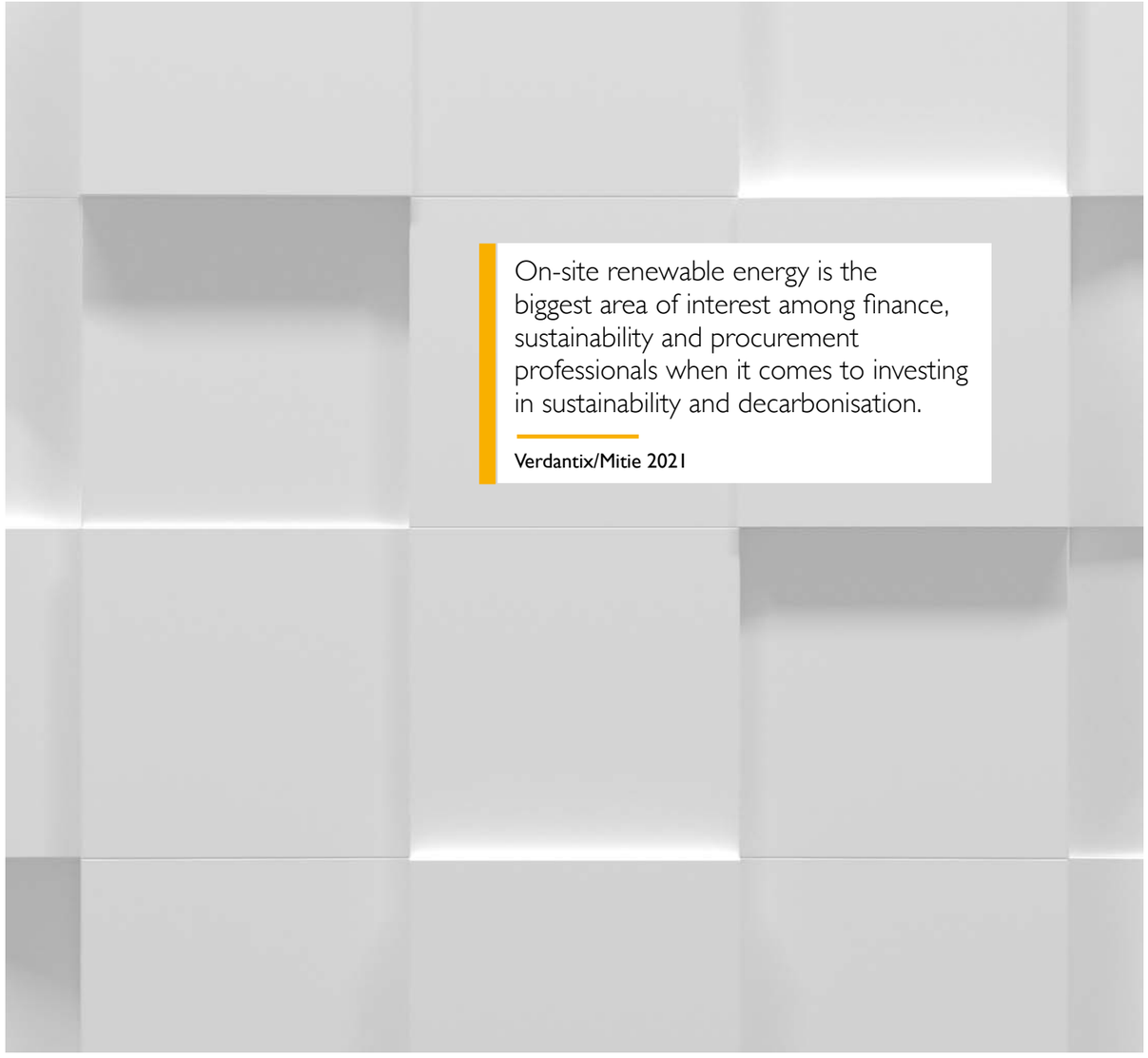
The second consideration is price-performance ratio. The International Renewable Energy Agency (IRENA) reports that the costs of solar PV have fallen by 82% over the last decade.[5] While, at the same time, cell efficiency has dramatically improved.

This means that those lingering concerns around solar investments not producing the required supply are no longer founded. In fact, solar PV is one of the most advanced renewable energy technologies for built environments.

And there are some compelling benefits to adoption…



[4] Mitie Energy, 2022
[5] Solarpowerportal.co.uk



> On-site renewable energy is the biggest area of interest among finance, sustainability and procurement professionals when it comes to investing in sustainability and decarbonisation.
>
> **Verdantix/Mitie 2021**

98MW portfolio across 260 sites for a leading UK supermarket

ARRAY OF SUNSHINE: SOLAR'S BIG BENEFITS

If you're a developer or building owner then solar PV can help you ensure a more sustainable and affordable future, delivering value to you – and your tenants – in numerous ways.

By adopting solar PV as part of your estate, you can…

Stabilise performance and reduce costs

Recent market volatility and a surge in energy prices has taken many organisations by surprise. And when you don't know what to expect it becomes impossible to plan ahead.

By generating your own energy onsite with a solar array, you can find much-needed protection from the whims of the market, reducing operational costs, securing supply, and ensuring you're no longer affected by factors outside of your control. You can also eradicate some of the variable non-commodity charges suppliers add to your bill, resulting in further cost-efficiencies.

What does all this mean? Ultimately, big savings. You may be surprised to know that solar PV is now one of the cheapest renewable technologies in the UK, which is why we saw 730MW of solar PV installed in 2021 – a 34% increase compared to the year before[6].

Mitigate risk and secure supply

The increase in building standards, regulations, and mandatory disclosures mean risks through non-compliance are on the rise.

With solar PV, you can easily get on track with ESG goals while creating a long-term income stream that adds to the value of your property. And, you can protect yourself from the potential of stranded assets by futureproofing your portfolio.

Perhaps most importantly, you can mitigate against the possible impacts of outages and rolling blackouts that experts predict could be a feature of our near future[7].

Meet decarbonisation targets

Solar presents an easy way for you to get started with decarbonisation initiatives, meeting increased demands for power with clean, naturally sourced electricity.

This can help you meet the latest standards and regulations, improve ESG rankings and emissions reporting, and simplify the route to net zero – all while ensuring energy security for today and tomorrow.

Add value to your portfolio and brand

We're all aware of the environmental impact of burning fossil fuels, and that awareness is reflected in today's market, impacting consumer decisions and property values alike.

Evidence shows that buildings with better environmental credentials attract tenants more easily, and command higher rents and sale prices than others.

In fact, studies show that buildings in London with green certification can result in a 3.7%-12.3% rent premium.[8]

Similarly, tenants of green buildings will be seen as forward thinking and committed to sustainability, both to employees and wider stakeholders. This can have profound impact on reputations, and is a great way to signal an appetite for embracing the future.

Embrace financial incentives

It's estimated that by 2035 the UK will need to deliver up to 54GW of solar energy[9]. In an effort to meet this need, the commercial rooftop market is currently experiencing explosive growth, with an increase in installations of 135% during the first half of 2022 compared to last year[10].

One big reason for this is the numerous attractive investment and funding opportunities available. This includes corporate Power Purchase Agreements, where a solar investor funds the installation of an array and sells electricity back to you at a fixed price.

Electrify everything

With solar, you can also take advantage of the rise of electrification in heating and transport.

Solar PV can help you power and heat your buildings, and even charge an EV fleet, resulting in further long-term savings and decarbonisation.

> With up to 30% in energy cost savings and the ability to hedge a proportion of volume at a fixed rate, solar is the smartest strategy in a volatile market.

[6] Solarpowerportal.co.uk
[7] Bloomberg
[8] Knight Frank
[9] Theccc.org
[10] Solarpowerportal.co.uk

YOUR 5 STEPS TO SOLAR SUCCESS

1

ANALYSE
your energy consumption and building data to identify the opportunity for solar across your estate.

2

CREATE
a commercial model to realise that opportunity, considering the needs of both building owners and occupiers.

3

OPTIMISE
the design and ensure the best system sizing to get the most value from your solar installation.

4

INSTALL
your solar solution and pay particular attention to on-site safety.

5

MONITOR
your system and optimise to make sure your solar system always performs at peak efficiency.

£400k and 2.8GWh
saved across 29 buildings

University of Sussex

IS SOLAR RIGHT FOR YOU?

Energy price volatility has become the new normal.
If you answer yes to any of the below, it is time to rethink your solar future:

- ✓ Your energy consumption is high.
- ✓ Energy security is critical to your business.
- ✓ You are looking to reduce reliance on the grid.
- ✓ You need to increase your electrical capacity.
- ✓ You want to reduce the cost of your electricity across your estate portfolio.
- ✓ You are committed to reducing carbon emissions.
- ✓ You want to make a visual statement to demonstrate your commitment to ESG.
- ✓ You have available roof space on your building, or portfolio land not in use.
- ✓ You are transitioning to an electric fleet and need additional power.
- ✓ You need to get on track with decarbonisation and net zero and don't know where to start.

PRIME SECTORS FOR SOLAR

- Ports and Airports
- ICT / Data Centres
- Manufacturing Sites
- Government/Public Sector Buildings
- Schools and Universities
- Hospitals, Blue Light Services
- Retail and Business Parks
- Commercial Office Buildings
- Energy Intensive Industry

WHY MITIE?

FROM ASSESSMENT AND DESIGN TO PERFORMANCE-ASSURED DELIVERY

Mitie is leading the way to net zero, helping our customers decarbonise their buildings and fleets. And so we have expanded our offering through the recent acquisition of solar specialist, **Custom Solar.** Together we are now one of the UK's largest commercial solar PV developers.

Every day we deliver high quality designs and installations, at scale, to organisations like yours. In fact, we've installed over 250MW of solar PV in the last decade alone.

Our teams work across the country for private and public sector organisations. Providing end-to-end design and delivery services and flexible funding options. If you want to mitigate risk, stabilise performance, kick-start decarbonisation, or even power an EV fleet, we have the experience and expertise to help you meet your goals.

Above all else, we know solar and we know buildings. We make decarbonisation of your built environment simple, breaking down barriers so you can quickly cut costs and reduce carbon. Powered by technology, driven by data and made exceptional by people.

> 5500 solar panels installed across 65 council buildings. Generating 2.2GWh electricity annually and reducing carbon emissions by 465 tonnes CO_2 every year.
>
> Local Authority Estates

WITH MITIE YOU GET

A NET ZERO STRATEGY

With an unrivalled decarbonisation offering

FLEXIBLE FUNDING OPTIONS

That provide benefits to occupiers and owners alike

PROVEN EXPERIENCE

With over 250MW of solar PV installed over the last 10 years and deep knowledge of customer estates

AN END-TO-END SOLUTION

Delivered by a team of experts who will assess your needs and manage all connections to your Distribution Network Operator (DNO)

FUTURE-PROOFED DESIGN

Our consultants advise on heat and EV electrification to ensure your supply will meet your needs tomorrow as well as today

ONGOING MAINTENANCE AND SUPPORT

With engineers based across every region of the UK

READY TO JOIN THE SOLAR REVOLUTION?

Powering your organisation has never been more challenging. And if there's anything the recent past has taught us, it's that the unexpected can have severe consequences when it comes to electricity generation. So, take surprise out of the equation.

Our solar PV offering is already helping organisations across the UK find cheaper and cleaner ways to power their success – providing clean electricity at a low cost and simplifying the journey to net zero.

If you'd like to discuss your options, or if you have any questions about the potential of solar PV, feel free to get in touch.

1,956 solar panels

79-tonne reduction in annual CO_2 emissions

25% reduction in energy demand

Cambridge University Press

It's estimated that by 2035 the UK will need to deliver up to 54GW of solar energy.

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