SolarSense

POWER TO YOUR BUSINESS WEBINAR

Reducing Energy Costs and Accelerating Net Zero



How leading organisations are reducing exposure to rising energy costs and strengthening operational resilience with solar PV and battery storage.

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How Leading Organisations Are Reducing Exposure to Rising Energy Costs, Strengthening Operational Resilience and Accelerating Net Zero.

UK organisations continue to face significant energy cost pressures, increasing demands for resilience, and ambitious Net Zero commitments. As a result, a growing number are taking greater control of their energy future by investing in renewable energy solutions that deliver measurable financial, operational and environmental benefits.

As an energy-intensive organisation, energy management has always been a strategic focus for Freedom Leisure. However, when annual energy costs across its estate increased from £8 million to £22 million, the organisation accelerated and intensified its approach to energy resilience.

As part of its wider decarbonisation programme, the organisation rolled out solar PV and battery storage across a further 10 leisure centres in England and Wales. Together, these sites are projected to save more than £12.7 million over the next 25 years while helping local authority partners accelerate progress towards Net Zero. The success of the programme has been recognised nationally, with SolarSense and Freedom Leisure named finalists in the Renewable Energy Project of the Year category at the Edie Energy & Tech Awards 2026.

WPA has taken a similar strategic approach, investing in a solar PV and battery storage system at its headquarters to reduce carbon emissions, improve energy resilience and strengthen business continuity. The system is expected to reduce annual carbon emissions by more than 31 tonnes while enabling the organisation to maximise the use of self-generated renewable electricity and maintain operations during power outages.

This white paper captures the key insights and practical lessons shared during SolarSense's latest business webinar. Drawing on real-world project experience, it explores how organisations are reducing energy costs, improving operational resilience and accelerating progress towards Net Zero through solar PV and battery storage.



Meet the Speakers

The webinar brought together senior leaders from both client organisations and SolarSense to share first-hand experience of planning, delivering and operating commercial renewable energy projects. Together, they offer practical perspectives on the strategic, technical and operational considerations behind successful solar PV and battery storage programmes.



Angela Brown

Head of Sustainability & Environmental – Freedom Leisure

Angela Brown leads Freedom Leisure's sustainability and decarbonisation strategy across more than 130 sports and leisure facilities in England and Wales. Working with local authority partners, she oversees renewable energy projects, including the rollout of a ten-site solar PV and battery storage programme projected to save more than £12.7 million over 25 years.



Clare Sampson

Head of Operations – Western Provident Association (WPA)

Clare Sampson is Head of Operations at WPA, one of the UK's leading not-for-profit health insurers. She led the delivery of WPA's headquarters solar PV and battery storage project, which is expected to reduce annual carbon emissions by more than 31 tonnes while strengthening energy resilience and business continuity.



Ollie Fowler

Director of Project Delivery – SolarSense

Ollie Fowler oversees the delivery of commercial solar PV, battery storage and solar carport projects for public and private sector organisations across the UK. With extensive experience delivering clean energy projects in complex live operational environments, he works closely with clients to turn ambitious energy strategies into high performing, future-ready renewable energy systems.



Stephen Barrett

Chairman and Founder – SolarSense

Stephen Barrett founded SolarSense in 1995 and has spent more than 30 years helping organisations harness renewable energy. Widely recognised as one of the UK's renewable energy pioneers, he has played a key role in shaping the commercial solar sector while establishing SolarSense as one of the country's leading commercial renewable energy specialists.





Energy Has Become a Strategic Business Asset.

For decades, commercial energy was treated as a predictable operational cost - a necessary expense that fluctuated with market prices but remained largely outside an organisation's sphere of influence. That assumption no longer holds true.

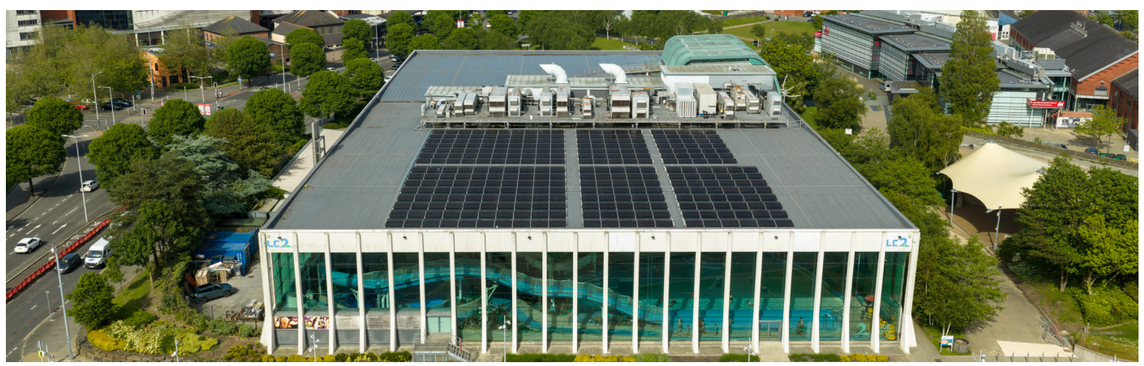
The combined effects of geopolitical instability, volatile wholesale electricity markets, increasing electrification and accelerating decarbonisation have fundamentally changed the role energy plays within modern organisations.

Today, decisions around how organisations procure, generate and manage energy increasingly influence operational resilience, capital investment, business continuity and competitiveness.

This shift represents far more than a response to rising electricity prices. It reflects a broader recognition that organisations with greater control over how they generate, store and consume energy are better positioned to manage uncertainty while supporting wider strategic objectives.

Although Freedom Leisure and WPA operate in very different sectors, both organisations described similar investment drivers. For both, renewable energy was no longer viewed simply as a way to reduce electricity costs. Instead, it had become a strategic investment one that strengthens operational resilience, reduces exposure to external risk and prepares the organisation for an increasingly electrified future.

> "With utilities representing one of our largest operating costs, fluctuations in energy prices can have a significant impact on our organisation. As a not-for-profit trust, ensuring the long-term financial sustainability of our leisure centres means building resilience and responding proactively to market volatility through best practice and smarter energy management. By generating more of our own electricity on-site, we're reducing our reliance on the national grid, improving energy security and giving ourselves greater protection against future price volatility."
>
> Angela Brown - Head of Sustainability & Environmental – Freedom Leisure



The Strongest Business Cases Extend Beyond Financial Return.

One of the clearest themes to emerge from the discussion was that organisations are redefining how they assess investment in renewable energy. While financial return remains an important consideration, it is increasingly being evaluated alongside operational resilience, energy security, business continuity and long-term strategic value.

The economics of commercial solar PV have changed significantly over the past decade, with many projects now achieving payback periods of around 2 - 4 years. However, as the experiences of WPA and Freedom Leisure demonstrated, the strongest business cases extend well beyond return on investment.

For WPA, reducing costs was only one part of the opportunity. The project also addressed wider organisational priorities, including strengthening business continuity, supporting long-term ESG commitments and replacing an ageing uninterruptible power supply (UPS). Rather than treating solar PV and battery storage as separate investments, they became part of a single integrated energy strategy that delivered value across multiple areas of the business.

> "We started with a solar project and ended up with an operational resilience project. It became a three-pronged approach: reducing our emissions, maximising the use of our own generated energy and replacing an ageing UPS system with battery storage."
>
> Clare Sampson
> Head of Operations - WPA

Freedom Leisure adopted a similar strategic approach. With energy costs across its estate increasing from £8 million to £22 million, investment decisions were guided by detailed analysis of energy consumption across more than 130 leisure centres. By prioritising sites with the greatest energy demand - such as facilities with swimming pools and floodlit sports pitches - the organisation was able to focus investment where renewable energy would deliver the greatest operational and financial impact.

Both organisations demonstrated that the strongest business cases are built by aligning renewable energy investment with wider organisational priorities. Financial savings may provide the foundation, but it is the combination of resilience, operational performance, sustainability and long-term strategic value that increasingly secures investment.



Building a Robust Investment Case.

While strategic value increasingly influences investment decisions, renewable energy projects must demonstrate robust financial performance. For most organisations, approval ultimately depends on whether an investment can deliver measurable returns while supporting wider business objectives.

Decision-makers are evaluating renewable energy in much the same way as any other capital investment. Rather than focusing solely on payback, organisations are considering lifetime operating savings, resilience benefits, asset value and the long-term impact on cash flow. As energy prices continue to fluctuate, generating electricity on-site also provides greater certainty by reducing exposure to wholesale electricity markets.

Funding options have also evolved. Organisations can choose to purchase systems outright through a traditional CAPEX, spread costs through asset finance or hire purchase, or remove the upfront capital requirement entirely through a Power Purchase Agreement (PPA). This flexibility allows investment decisions to be aligned with cash flow, procurement strategy and long-term business objectives rather than a single funding model.



Government incentives can further strengthen the financial case. The UK's Annual Investment Allowance (AIA) for example, enables qualifying businesses to deduct the full cost of eligible plant and machinery from taxable profits, reducing the effective cost of investment. Combined with lower electricity expenditure and predictable long-term energy savings, this can significantly accelerate overall project returns.

Perhaps the most significant shift is that clean energy technology is increasingly viewed as a productive business asset rather than an operational expense. Every unit of electricity generated on-site offsets purchased energy, creating predictable financial returns over the lifetime of the system while improving resilience against future energy price volatility. Unlike many capital investments, solar PV and battery storage continue delivering measurable value long after the initial investment has been recovered.

Five Characteristics of Successful Renewable Energy Projects

- **Data-led decisions:** prioritise sites based on energy demand and operational requirements - not the size of your roof.
- **Design for future demand:** size systems to support growing electrification needs, not just current energy consumption.
- **Consider battery storage strategically:** View battery storage as a resilience and business continuity asset, not simply an energy management tool.
- **Engage stakeholders early:** Build support across operational, financial and technical teams to strengthen project delivery.
- **Choose the right delivery partner:** Select a partner capable of supporting system optimisation, monitoring and maintenance throughout the asset lifecycle – not just the installation.

Designing Clean Energy Systems for Future Energy Demand.

One of the strongest messages to emerge from the discussion was that successful renewable energy projects should be designed not only for today's energy consumption, but for future operational demands. As organisations electrify heating, transport and wider business operations, electricity demand is expected to increase significantly over the coming decade.

For many organisations, solar PV is no longer a standalone project. It forms part of a wider energy strategy that may include battery storage, electric vehicle charging, heat pumps and intelligent energy management systems. Rather than simply maximising roof coverage or designing for the shortest payback period, organisations are increasingly analysing building demand profiles, future expansion plans and operational priorities to determine the optimum system size.

Battery storage is central to this approach. While it increases self-consumption of renewable energy, its value extends far beyond energy savings. Batteries help manage peak demand, strengthen business continuity, improve resilience during grid interruptions and provide the flexibility needed to support an increasingly electrified estate.

By designing systems around future operational requirements rather than current electricity demand alone, organisations can maximise the long-term value of their investment while avoiding costly future upgrades.

Renewable energy is becoming less about installing solar panels and more about creating an adaptable energy platform capable of supporting the organisation for decades to come.

> "The most successful organisations aren't just considering the energy they're using today. They're considering the energy they'll be using tomorrow, next week, next year and five years from now."
>
> Ollie Fowler - Director of Project Delivery - SolarSense





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Delivering Complex Energy Projects Without Disruption.

One concern consistently raised by organisations considering renewable energy is the perceived disruption associated with installation. For businesses operating live environments, concerns around business continuity, health and safety, stakeholder management and operational downtime can often become a greater barrier than the technology itself.

The discussion demonstrated that successful delivery depends as much on planning and collaboration as it does on engineering. Whether working within occupied offices, public leisure facilities or nationally recognised venues, projects must be designed around the organisation's day-to-day operations.

Freedom Leisure provides a clear example of this approach. Delivering solar PV and battery storage across busy leisure centres required close coordination between operational teams, local authority partners, estates managers, health and safety specialists and contractors. Every site presented different operational requirements, with thousands of visitors continuing to use facilities throughout construction. Early stakeholder engagement, clear communication and bespoke delivery plans enabled installations to proceed with minimal disruption while maintaining normal public access.

> "Clear communication was absolutely critical from the very beginning. Every leisure centre is different, so every project required a bespoke approach to ensure smooth delivery."
>
> **Angela Brown**
> **Head of Sustainability & Environmental**
> **Freedom Leisure**

WPA experienced similar challenges during the installation of its headquarters solar PV and battery storage system. As the project evolved to incorporate battery storage, backup power, an integrated UPS replacement and an in-roof solar installation, careful planning became critical to maintaining business operations. Rather than treating these additional requirements as obstacles, they were incorporated into a single coordinated delivery programme.

This approach extends beyond conventional commercial buildings. Projects such as the London Stadium demonstrate how renewable energy systems can be successfully delivered within some of the UK's most complex operational sites. Careful sequencing of works, rigorous health and safety management and close collaboration with multiple stakeholders enabled installation to take place while supporting theongoing operation of a major public venue.





Maximising Value Throughout the Asset Lifecycle.

Installing a renewable energy system is not the end of the journey; it marks the beginning of a long-term operational asset that must be actively managed and maintained to deliver maximum performance and value.

Real-time monitoring enables organisations to understand how energy is being generated, consumed and stored, providing the insight needed to optimise performance throughout the life of the system. Organisations can use operational data to identify opportunities, benchmark performance and make evidence-based decisions that improve both financial and environmental outcomes.

Monitoring also creates flexibility. As energy consumption changes over time, organisations can adapt how they operate their systems, refine energy usage patterns and make informed decisions about future investment. In some cases, detailed performance data may demonstrate that operational changes alone can increase self-consumption, while in others it may identify the optimal point to introduce battery storage or expand existing renewable energy generation.

> "Online monitoring gives organisations real insight into how much energy they're generating, when they're generating it and how they're using it. That information helps them optimise performance and make informed decisions."
>
> **Ollie Fowler**
> **Director of Project Delivery**
> **SolarSense**

As renewable energy systems become increasingly integrated into critical business infrastructure, proactive maintenance plays an essential role in protecting system reliability, extending asset life and ensuring organisations continue to realise the expected return on investment.

Key Takeaways for Decision Makers

Treat energy as a strategic asset

Renewable energy is increasingly delivering resilience, operational security and long-term competitive advantage - not simply lower electricity bills.

Build the business case around organisational priorities

The strongest investment cases combine financial return with resilience, ESG objectives, business continuity and future growth.

Design for tomorrow's energy demand

Plan for electrification, battery storage and future operational requirements rather than current electricity consumption alone.

Deliver with minimal disruption

Successful projects are built on planning, communication and stakeholder engagement, enabling installation in live operational environments.

Maximise value beyond installation

Monitoring, optimisation and proactive asset management ensure renewable energy systems continue to deliver measurable value throughout their operational life.

Projects featured in the webinar.

















Freedom Leisure

Multi-site roll out of solar PV and battery storage

Faced with rapidly rising energy costs and ambitious decarbonisation targets, Freedom Leisure partnered with SolarSense to deliver solar PV and battery storage across ten leisure centres in England and Wales.

The clean energy scheme has been shortlisted for Renewable Energy Project of the Year at the edie Energy & Tech Awards 2026, recognising a landmark clean energy initiative that is helping one of the UK's largest charitable leisure trusts strengthen operational resilience, reduce energy costs and accelerate progress towards Net Zero.

- TECHNOLOGY: **Solar PV and BESS**
- PV SYSTEM SIZE: **1.56 MWp**
- EST. ANNUAL CARBON SAVINGS: **327 tonnes CO_2**
- EST. ANNUAL GENERATION: **1,512,175 kWh**
- YEAR ONE SAVINGS: **£340,789**
- EST. 25 YEAR SAVINGS: **£12.7 million**

Western Provident Association

Roof-Integrated solar PV and battery storage system

Designed to support WPA's Net Zero strategy, the system comprises 400 solar panels and six SigEnergy battery units - providing 240 kWh of energy storage. The roof-integrated solar PV system is monitored and optimised in real time through the SigEnergy app, enabling intelligent management of on-site generation, storage and consumption.

Together, the solar PV and battery energy storage system (BESS) enables WPA to generate a significant proportion of its electricity on-site, strengthening operational resilience while reducing annual carbon emissions by approximately 31 tonnes of CO_2.

- TECHNOLOGY: **BIPV and BESS**
- SYSTEM SIZE: **150kWp | 240kWh**
- EST. ANNUAL CARBON SAVINGS: **31,276 kg**
- EST. ANNUAL GENERATION: **135,631 kWh**
- YEAR ONE SAVINGS: **£33,856**
- EST. 25 YEAR SAVINGS: **£1.3 million**

SolarSense

Find out how much your business could save with clean energy.

Are you interested in finding out how much your business could save with renewable energy?

Contact us to get a tailored break down of your potential energy cost reductions, carbon savings, and return on investment.

Get in touch.

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