What installers are asking for in the UK solar boom

Words: Daniel Fuchs and Saif Islam, EUPD Group

As solar and battery storage expand across UK homes and businesses, installers are seeing strong demand for integrated energy systems that boost self-consumption and cut electricity costs. Insights from EUPD Research reveal the key market drivers, barriers and technology trends shaping the next phase of the UK's distributed energy transition.

The United Kingdom is entering a new phase in its energy transition, where distributed solar generation and battery storage are becoming increasingly central to achieving national decarbonisation goals. With binding net zero targets by 2050 and ambitions to deliver a fully decarbonised power system by 2030, policymakers are placing greater emphasis on expanding clean energy across households, small businesses and commercial rooftops.

Under the government's Clean Power 2030 Action Plan, solar PV and battery storage are emerging as key pillars of the country's strategy to strengthen energy security, improve grid flexibility and help consumers manage rising electricity costs.

Residential and small commercial solar paired with storage is expected to play an increasingly important role in the UK's distributed energy transition.

PV and storage market development

Following several years of policy uncertainty, the UK solar market has regained momentum. According to EUPD Research Global Energy Transition (GET) Matrix© estimates, the country added approximately 3.6 GW of new solar PV capacity in 2025, the strongest annual deployment since 2015, bringing cumulative installed capacity to over 24 GW.

Of this, around 2.2 GW came from ground-mounted utility-scale projects, while roughly 1.4 GW was installed through building-applied photovoltaic systems across residential and commercial rooftops.

While large-scale projects continue to benefit from auction mechanisms, rooftop deployment among households and small businesses is also expanding, with increasing interest in self-consumption and corporate decarbonisation initiatives.

Battery storage is expanding alongside solar deployment. The UK's cumulative storage capacity has grown from approximately 2.3 GWh in 2021 to around 15.3 GWh in 2025, with nearly 5 GWh added in 2025 alone.

Although most new capacity currently comes from utility-scale projects, distributed storage is gaining traction, with roughly 900 MWh of residential battery capacity installed in 2025 as households increasingly store excess solar generation to reduce grid reliance and manage electricity price volatility.

Market potential and policy drivers

Policy developments are expected to further accelerate distributed solar and storage adoption. Under the UK Solar Roadmap, installed PV capacity is targeted to reach 47 GW by 2030, implying roughly 23 GW of additional deployment between 2026 and 2030 from the current base of around 24 GW in 2025.

The roadmap also notes that accelerated rooftop deployment could contribute an additional 9 to 10 GW, potentially lifting total solar capacity to around 57 GW by the end of the decade.

Battery storage is expanding alongside solar and is already on track to exceed the current national target of 23 to 27 GW by 2030.

Several policy mechanisms support this expansion. The Smart Export Guarantee allows households and small generators to receive payments for surplus electricity exported to the grid, while solar panels and residential battery systems currently benefit from a 0% VAT rate until March 2027.

The recently announced £15 billion Warm Homes Plan will further support distributed deployment by upgrading up to five million homes with solar, batteries, heat pumps and insulation, strengthening the role of residential energy systems within the UK's clean power transition.

Installer outlook, market drivers and barriers

Installer sentiment in the UK indicates strong confidence in continued growth across residential and small commercial solar installations. According to EUPD Research's PV & EES InstallerMonitor UK 2025, based on interviews with 105 residential and commercial installers, 80% of respondents expect installed capacity to grow by more than 25% year-on-year, while 13% anticipate stable installation levels and only 7% expect a decline.

Beyond this short-term outlook, installers highlight several structural drivers shaping rooftop solar demand. The growing demand for storage and higher self-consumption, cited by 78% of installers, stands out as the most significant factor as households and businesses increasingly seek integrated solar and storage systems to manage electricity costs and reduce grid reliance.

Sustainability considerations (71%) and the rising adoption of electric vehicles (59%) are also seen as major catalysts for solar uptake, as consumers look for integrated solutions combining generation, storage and EV charging. Policy measures such as the Future Homes Standard (56%), temporary zero VAT rates on solar panels and related technologies (41%), and programmes like the Energy Company Obligation scheme (29%) further reinforce these market dynamics.

Despite these favourable conditions, installers continue to report several barriers affecting deployment. Permitting and licensing bureaucracy remains the most frequently cited obstacle, mentioned by 54% of installers.

Other constraints include lower electricity prices during certain periods (46%), supply chain disruptions (45%) and labour shortages within the solar workforce (40%).

Installers also point to policy changes following the replacement of the Feed-in Tariff with the Smart Export Guarantee (36%) and grid connectivity challenges (34%) as factors that can complicate project development.

Technology trends and installer expectations

Installer responses indicate an ongoing rapid shift toward more integrated energy technologies. Residential battery storage is expected to see the strongest deployment growth, with 77% of installers identifying it as the technology with the highest expansion potential, followed by smart inverters (52%) and hybrid inverters (51%).

Additional growth is expected for bifacial modules (46%), small commercial storage systems (42%), and building-integrated photovoltaics (42%), reflecting the increasing diversification of distributed solar technologies across residential and small commercial projects.

When asked what manufacturers should prioritise, installers most frequently cited product innovation and technological advancement (21%), followed by pricing and affordability (13%), durability and reliability improvements (9%) and better product design, standardisation and system compatibility (7%). Technical support (5%), installer training (4%), transparent warranty policies (4%), and improved software and application interfaces (4%) were also highlighted.

Installer recommendations focus on practical system improvements. These include cost-effective storage solutions with longer lifespans and faster charging, compact systems suited to urban installations, and more robust module designs for harsh weather conditions.

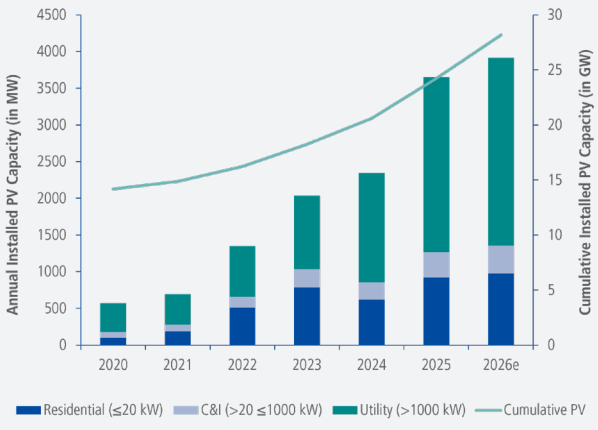
Installers also call for greater interoperability between PV modules, inverters, and storage systems, alongside better digital system management tools, improved hybrid inverter applications and stronger connectivity between existing and newly installed products, with some suggesting open-source firmware approaches to enhance long-term compatibility and flexibility.

Leading brands and innovation response

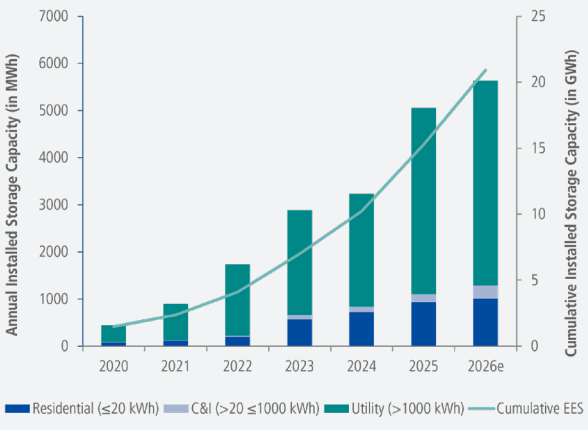
Installer portfolio reporting identifies a clear group of manufacturers with the strongest presence across the UK's distributed solar ecosystem. In the module segment, JA Solar shows the highest distribution width and depth among surveyed installers, with Jinko Solar and LONGi Solar also maintaining strong positions across residential and small commercial projects.

In the inverter segment, Solis (Ginlong), GoodWe and SolaX Power demonstrate strong representation across installer portfolios. While in residential storage, installers most frequently report working with

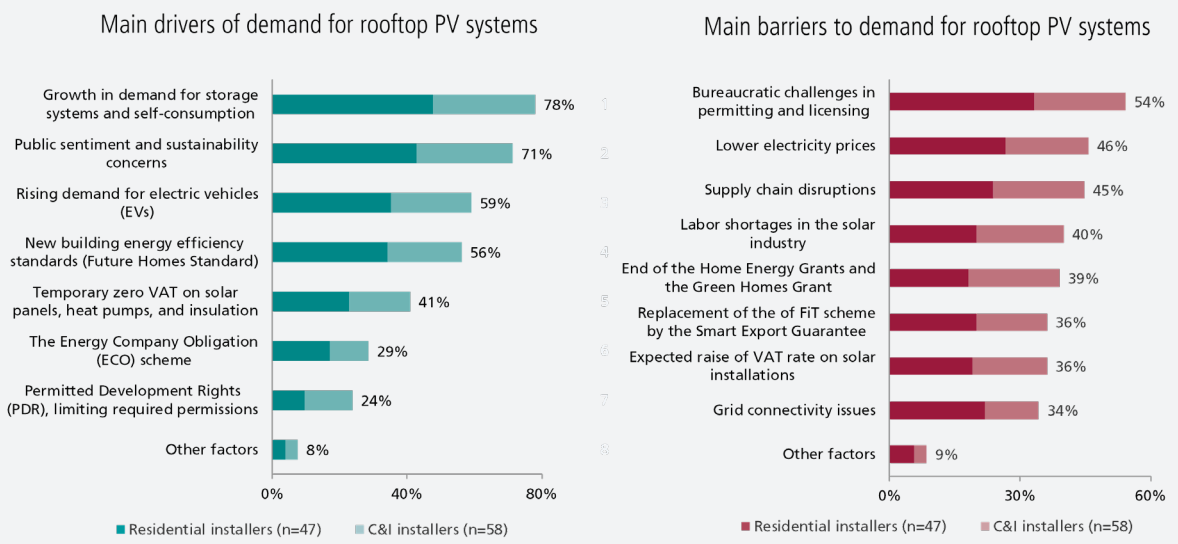
Annual and Cumulative Installed PV capacity | 2020-2026e | UK



Annual and Cumulative Installed Storage capacity in | 2020-2026e | UK



Source: EUPD Global Energy Transition (GET) Matrix©



n=105, multiple answers

Source: EUPD PV&EES InstallerMonitor© UK 2025

Huawei, alongside widely deployed systems from BYD, Pylontech and FoxESS.

Several of these manufacturers have also been recognised through EUPD Research's Top Innovation Awards, highlighting technologies that are endorsed by regional installers.

Solis' S6-EH3P Series hybrid inverter integrates photovoltaic generation, energy storage, intelligent energy management, and seamless grid switching in a single platform, enabling flexible strategies such as self-consumption optimisation and peak shaving while simplifying installation.

FoxESS' Residential All-in-One solution integrates PV inverter, battery storage and energy management within a single unit, reducing installation complexity while improving system reliability and self-consumption GivEnergy's Hybrid All-in-One system combines inverter, battery storage, and energy management into a compact platform designed for residential and small commercial applications, offering scalable capacity, whole-home backup, and intelligent tariff optimisation.

These examples illustrate how leading suppliers in the UK market are aligning product innovation with installer demand for integrated, high-performance solar and storage systems across residential and small commercial segments.

Conclusion

The trajectory of the UK's distributed solar market suggests that residential households and small commercial businesses will remain central to the country's energy transition.

As the UK advances toward its decarbonisation and energy security goals, rooftop solar combined with storage is increasingly helping households and businesses manage electricity costs, improve resilience and support corporate and household ESG commitments.

Insights from EUPD Research's PV & EES InstallerMonitor UK 2025 show that installers see demand driven primarily by rising electricity prices, increasing emphasis on self-consumption and storage and growing electrification trends such as electric vehicle adoption.

They continue to highlight barriers including permitting complexity, supply chain disruptions and workforce shortages, that could slow deployment if not addressed.

Looking ahead, installers expect the strongest growth from technologies enabling more integrated energy systems, particularly residential battery storage, hybrid and smart inverters and solutions supporting flexible system management.

Their feedback also signals clear priorities for manufacturers: continued product innovation, stronger system compatibility, improved digital management tools and cost-effective solutions that simplify installation and long-term operation.

Recent geopolitical tensions and volatility in global oil markets are reinforcing the value of electrification and domestic renewable generation, further supporting demand for EV charging, rooftop solar, and storage.

Leading suppliers in the UK market are already responding by aligning their portfolios with these evolving requirements. As a result, the country's distributed energy sector is entering a new phase of growth driven by integrated solar and storage solutions across residential and small commercial segments.

eupd-research.com

About the authors

Daniel Fuchs

Daniel is the Chief Customer Officer of EUPD Group.

He has extensive international experience in sales, marketing, customer engagement and strategic event management within the renewable energy and cleantech industries.

His work focuses on building customer-centric growth strategies, strengthening global partnerships and supporting market development across the solar, energy storage, and sustainability sectors.

He can be reached at:

d.fuchs@eupd-research.com

Saif Islam

Saif is a Senior Consultant at EUPD Research, contributing to the organisation's mission of delivering high-quality market intelligence, strategic insights and industry research across the global renewable energy and sustainability sectors.

With 12 years of experience in energy market analysis and sustainability-driven strategy, he helps stakeholders understand market dynamics, emerging technologies and evolving policy landscapes.

He can be reached at:

s.islam@eupd-research.com