

GBSG

For Complete Security

Protection Tailored to Every Site

Security System: ▶ Design ▶ Installation ▶ Remote Monitoring ▶ Maintenance

650+

UK Solar
Sites Secured



The Solar Security Challenge

Ground-mounted solar farms - including battery storage compounds, substations and control buildings - are high value targets for organised crime and increasingly vulnerable to vandalism and interference. Across planning, construction and operation, one requirement remains constant: accredited, proportionate security systems that reduce theft, protect uptime and safeguard long-term asset value.

We support solar operators throughout a site's lifecycle, offering a full-service solution to help manage security and fire risks. Each site's unique risk profile requires a tailored approach, considering location, accessibility, asset value, site supervision levels and response capability.

► Protect Site Construction Timescales

Security risks emerge long before a solar farm becomes operational. During construction, large volumes of cabling, tools, machinery and specialist components are stored in exposed areas, making this phase particularly susceptible to theft and unauthorised access.

Keep project schedules on track with temporary, compliant security measures built specifically for the construction phase. Rapid Deployment Security Towers provide immediate monitored coverage across compounds, laydown areas and perimeter boundaries.

► Protect Operation Uptime

Operational downtime directly affects generation and revenue. Theft or damage, particularly to cabling and PV equipment, causes immediate loss of output and significant remedial costs. Maintaining continuous visibility and rapid response capability is essential.

Our turnkey security packages combine deterrence, detection, verification and response, aligned with police endorsed best practice. A custom-built NSI Gold Alarm Receiving Centre (ARC) and Remote Video Response Centre (RVRC) deliver 24/7 monitoring, ensuring detector-activated events are verified immediately to reduce vandalism, cable theft and intelligent interference.

► Protect Site Safety

A robust security strategy must support safe site operation, including lone working and verification of authorised personnel.

Certified access control systems ensure only trained and authorised personnel enter secure areas. Remote CCTV monitoring enhances lone worker safety by enabling real-time oversight, incident verification and rapid response.

► Protect Reputation

Security incidents - theft, trespass, vandalism, or unsafe working practices - cause commissioning delays, margin erosion and operational disruption.

Through proportionate perimeter protection, certified access control, monitored surveillance systems, compliant signage and documented crime risk analysis, we help sites reduce the likelihood of incidents that undermine stakeholder trust.



ECHO Accreditation

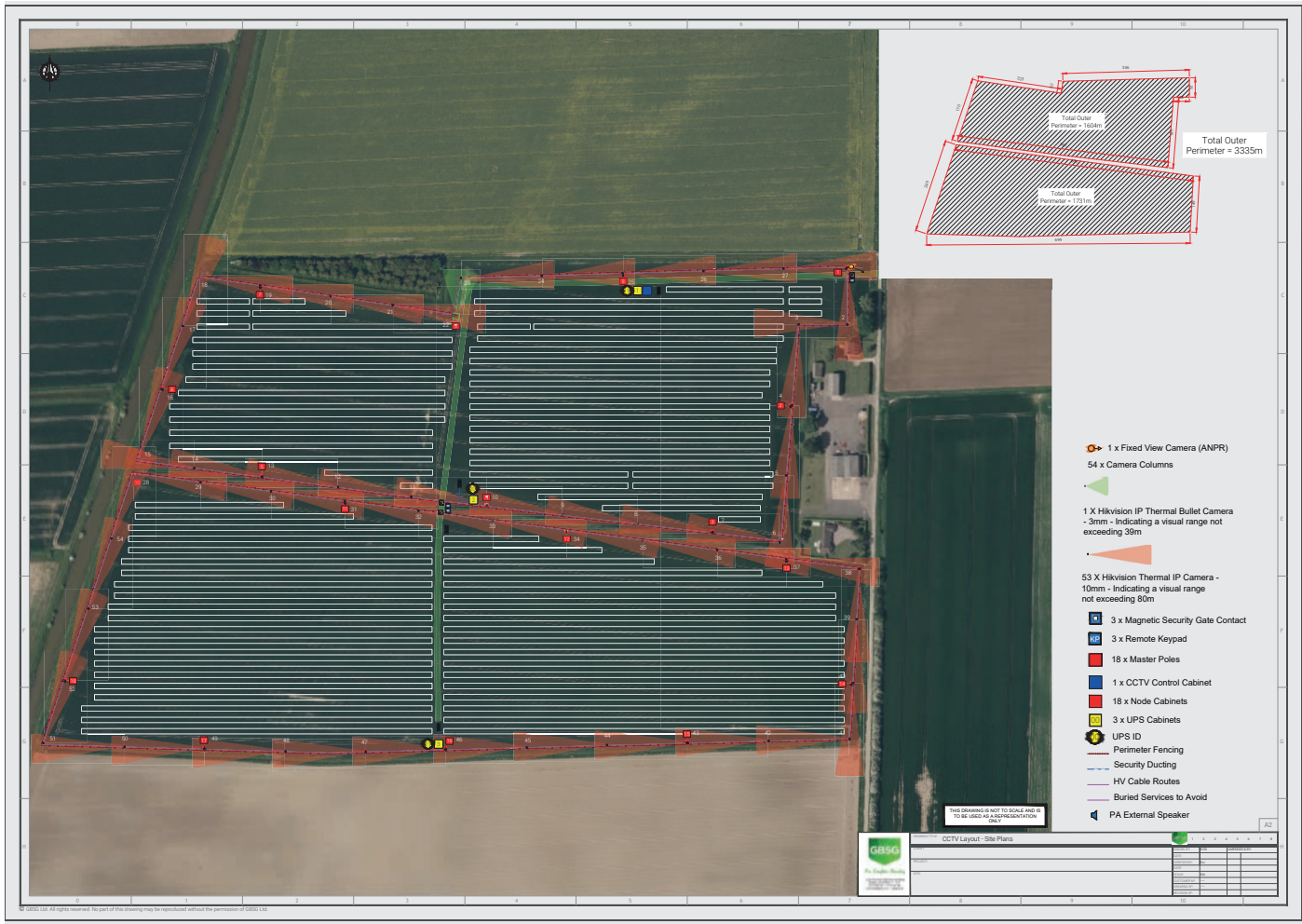
Our ARC is ECHO accredited, meaning verified intruder and hold-up alarms are transmitted digitally and instantly to police control rooms - reducing delays and supporting faster deployment.

Our Approach to Solar Security

More than 650 UK sites in the renewable energy sector have trusted us since 2012 to design out crime, reduce risk and ensure authorised access and safe operation throughout the site's lifecycle.

At the planning stage, forward-looking security and fire detection systems are integrated to accommodate future expansion, eliminating the need for costly redesigns as your investment grows. Detailed technical drawings are produced by our in-house CAD team, showing perimeter ducting, routers, UPS locations and cabling routes, ensuring civil works accommodate security requirements and reducing remedial work at installation.

An optional full security groundworks package removes the risk of misinterpretation by other contractors, helping to ensure long-term system integrity.



Our Approach to Complete Security

Turnkey solutions from design and install through to monitoring, maintenance, mobile patrols and much more.



► Construction Phase Security

Solar assets face their highest threat level during construction, when permanent fencing, lighting and grid connections are not yet active. Following consultation and site assessment, Rapid Deployment Security Towers can be deployed to provide immediate, temporary protection.

These self-powered units incorporate vandal-resistant PTZ cameras, movement detection, digital recording and integrated IR illumination to deliver 24-hour coverage without external lighting. AI analytics, audio deterrents and real-time monitoring via 4G/5G ensure verified detection and rapid intervention.



Redundant Power Supply

For large solar installations, we integrate a redundant 5KVA auto-start generator housed in a secure cage. If grid power is lost, an automatic changeover switch maintains perimeter security for a minimum of 12 hours. Monthly test runs, telemetry screening and diagnostics of the redundant power supply are handled remotely.



► Security System Design

Our accredited system designs focus on perimeter CCTV with advanced video analytics, compliant with BS 8418:2021, supported by robust access control. All equipment is selected for low-energy performance to optimise long-term cost profiles.

The in-house technical team produces detailed drawings showing CCTV pole positioning, cabling routes, communications nodes, cabinets and access control points. Where required, we incorporate audio challenge facilities and mobile patrols. Our UPS backup systems ensure continued security resilience during power interruptions and maintain system availability during short-duration outages.



► System Build and Install

Pre-installation system build and testing from our engineering team ensures quality and capability before deployment.

We also deliver optional civils groundworks packages. With a deep understanding of security infrastructure requirements, we ensure no on-site decisions compromise system integrity - last minute changes are rarely cost-effective and can impact long-term performance.

Our civils package typically includes:

- Trenching and duct installation
- Installation of inspection chambers at CCTV positions and duct direction changes
- Installation of CCTV poles
- Concrete bases for UPS systems and main data cabinets
- Design and installation of power cabling from inverters/substations
- Daily reporting on works completed



► Remote Monitoring

24/7 monitoring is delivered from our control room, staffed by an in-house SIA-approved team. The facility includes a dedicated ARC and RVRC. Our ARC is ECHO accredited, enabling verified intruder and hold-up alarms to be transmitted digitally and instantly to police control rooms.

We recommend connecting solar sites to GBSG Pulse®, our smart monitoring platform. GBSG Pulse® continuously checks system health and reports faults to our helpdesk for rapid diagnostics. It provides tailored reporting, including access logs and KPI tracking, providing stakeholders with a real-time security dashboard.

► Security Maintenance and Technical Support

Proactive security and fire system maintenance reduces downtime and vulnerability. Our standard maintenance package includes two scheduled visits per year to service equipment.

We have a dedicated Solar Technical Helpdesk to support stakeholder reporting, alert configuration and site access programming. If faults occur, the helpdesk can remotely connect for rapid diagnostics. When remote resolution is not possible, we provide an emergency engineer call-out service in line with the site's service level agreement.

Adaptive Threshold Technology

In security system design we incorporate adaptive threshold technology to filter out false alarms caused by vegetation or wildlife. Only verified threats trigger real-time camera tracking, audio challenges and rapid intervention.



► Fire Detection

Solar sites face unique fire risks, including inverter faults, cable overheating, vegetation ignition and thermal anomalies. Early detection is essential to protect assets and maintain operational continuity.

Our approach integrates fire detection into the wider security architecture using thermal imaging analytics, heat mapping and perimeter-based monitoring to identify abnormal temperature changes. Alerts are transmitted instantly to our NSI Gold control room for verification and escalation.

Where appropriate, we incorporate environmental sensors, smoke detection within critical infrastructure housings and automated alert pathways to ensure rapid intervention.

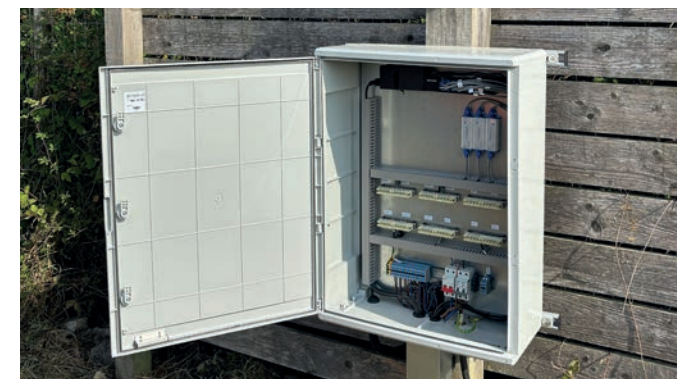
► Mobile Patrols and Keyholding

Mobile patrols provide a visible deterrent and rapid response capability, particularly for remote or elevated risk sites. Our SIA-licensed officers conduct scheduled and ad hoc visits, checking perimeter integrity, verifying access points and reporting anomalies. Patrol routes are tailored to site layout and risk assessment, with digital reporting delivered to stakeholders.

As part of this service, GBSG securely stores site keys and access credentials, enabling immediate response to alarm activations. This allows safe system resets and full incident verification without requiring client personnel to attend out-of-hours.

► The Security System Takeover

We can take over management of pre-installed systems - including monitoring, maintenance and helpdesk support - following consultation and infrastructure assessment.



Why Partner With Us?

Since our first solar farm security solution design and installation in 2012, investors, asset managers, EPCs and O&Ms continue to trust GBSG to safeguard their utility-scale investments.

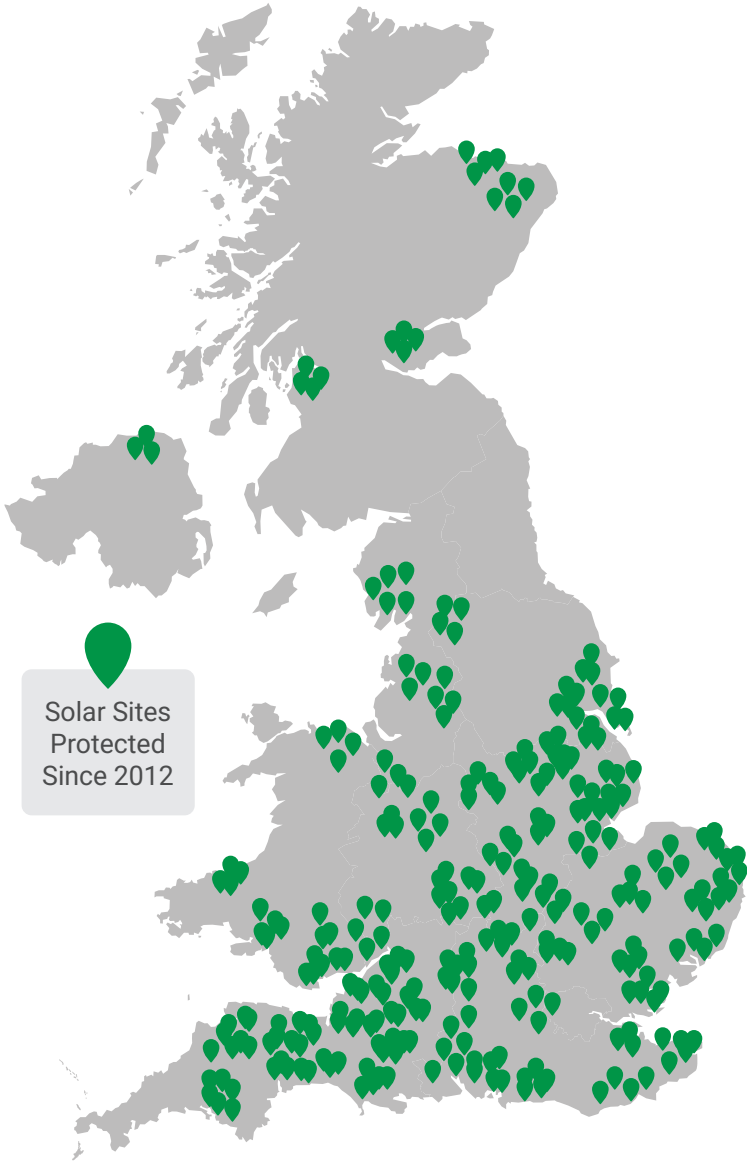
To date, we have delivered bespoke security solutions to over 650 solar and BESS sites. Years of industry experience show that each location has unique security needs that change over time, from planning and construction through to operation.

That is why we conduct a detailed crime risk analysis for every site and offer adaptable solutions to suit evolving operational risks. We also provide system takeovers and upgrades for projects requiring enhanced resilience.

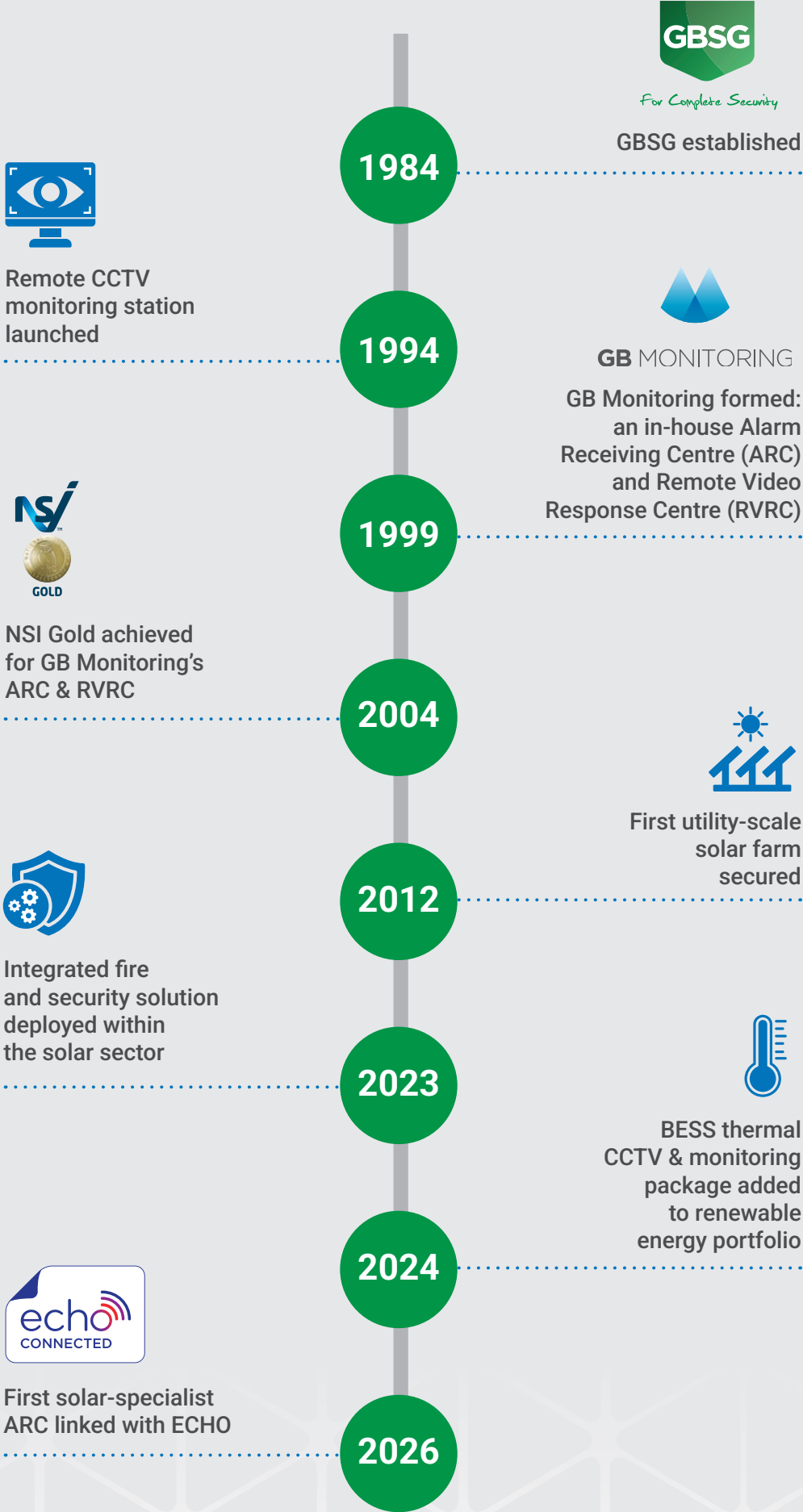
Our core product and service provision includes:

- Perimeter Protection: access controls, intrusion detection, audio-challenge facilities
- Surveillance Systems: CCTV design, installation and maintenance in accordance with BS 8418:2021
- 24/7 Alarm & CCTV Monitoring: through NSI Gold accredited GB Monitoring
- Mobile Patrols and Rapid Response Units
- Keyholding
- Fire Detection





A Heritage Spanning 40+ Years





For Complete Security



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