



Powering Infrastructure for Tomorrow's Developments

Scalable, resilient energy solutions for commercial and industrial growth

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Energising Business

Scalable Solutions for Sustainable Growth

Delivered by TSG Power, our integrated solutions span Independent Connection Provider services, battery energy storage systems (BESS), solar photovoltaic (PV) and high-voltage infrastructure for commercial and industrial clients.

As a specialist division of TSG UK, we design, build and maintain large-scale energy systems across the UK, supporting logistics, manufacturing, warehousing, data centres and public infrastructure. Our solutions help organisations reduce energy costs, strengthen resilience and meet long-term sustainability goals.

Driving the Energy Transition

Energy has become a strategic asset. Rising prices, grid constraints and sustainability mandates are reshaping decisions across industries, and businesses that generate and store energy on site increase resilience, lower costs and improve control.

Decentralisation is accelerating as solar photovoltaic (PV) systems and battery energy storage solutions enable organisations to capture low-carbon power and use it when it matters

most. When paired with robust high-voltage infrastructure and delivered by an accredited ICP, this creates an energy ecosystem that is efficient, reliable and future-proof.

The shift to electrification is gathering pace, and action beats intention. Those who plan early secure capacity, minimise uncertainty and build long-term value. With TSG Power, enterprises move from concept to energisation with clarity and confidence.





About TSG Power

Integrated Energy Solutions for a Resilient Future

TSG Power is a specialist division of TSG UK. We design, build and maintain large-scale solar PV, BESS, high-voltage electrical infrastructure and ICP services across the UK. Our solutions support logistics, manufacturing, warehousing, data centres and public infrastructure, helping clients reduce costs, enhance resilience and meet sustainability goals.

Why choose TSG Power

- Complete EPC and ICP capability from feasibility to energisation
- National Electricity Registration Scheme (NERS) accreditation via LRQA certification
- National delivery capabilities
- Data-led designs aligned to commercial objectives
- Service and maintenance of solar installations to protect asset performance

Our Turnkey Approach

We integrate every element of a project under one roof, simplifying complexity and accelerating delivery.

- High (HV), medium (MV) and low voltage (LV) design and build services
- Solar PV systems – rooftop, ground or canopy
- BESS for peak shaving, load shifting and backup
- Electric vehicle (EV) infrastructure for fleets, depots and public charging
- Electrical design and installation by Skerritts
- Planned maintenance, testing and 24/7 support of solar installations

Skerritts, a TSG company

Skerritt Electrical Ltd delivers expert electrical design and contracting for energy-efficient buildings and greener infrastructure. Established in 1986 and based in Birmingham, Skerritts is trusted across the commercial, industrial and residential sectors, with ISO 9001, NICEIC and ECA accreditation, Constructionline Gold and CHAS Elite. As part of TSG UK, Skerritts enhances our turnkey delivery with quality, safety and responsive aftercare.



Independent Connection Provider (ICP)

What is an ICP?

An ICP delivers contestable works for new electricity connections, working alongside the local Distribution Network Operator (DNO). TSG's ICP services operate under NERS accreditation, ensuring the safe and compliant design and delivery of HV, MV and LV connections.

NERS and assurance

NERS, administered by Lloyd's Register Quality Assurance (LRQA) on behalf of UK DNOs, assesses the competence of ICPs to design, manage and implement electrical connections.

Accreditation defines scope, giving clients confidence that works are delivered to recognised standards by qualified teams.

Contestable vs non-contestable

- Contestable works: design, civils, cable laying, substations, switches and transformers within the accredited scope.
- Non-contestable works: DNO activities such as final connection, network reinforcement and certain HV operations
- Benefits of choosing an ICP
- Greater flexibility and choice of provider
- Faster delivery with clearer cost control
- Single point of accountability from application to energisation

Grid Connections, Simplified

When to use an ICP

Any business needing a new or upgraded grid

connection can appoint an ICP for the contestable elements. This is common for depots adding EV charging, expanding sites or new developments requiring a distribution network connection

Timelines and practicalities

Lead times vary by size, voltage and location. Where contestable works form a major part of the scope, using an ICP can accelerate delivery. Early applications are vital to secure capacity in areas with rising demand.

Independent Distribution Network Operators

IDNOs are licensed to own and operate networks and can adopt new assets. They may offer an asset value upon energisation, which can improve the economics of LV, MV or HV connections.

Connection considerations

- Engage the local network operator early
- A new standalone supply may be more cost effective than upgrading an existing one
- Time-profiled or flexible connections can align capacity with operational needs.

How TSG delivers

TSG Power's designers engage from the outset to mitigate risks and ensure compliance. Dedicated project managers coordinate DNOs, IDNOs, authorities and stakeholders and maintain programme control. TSG completes civils, lays cables, installs substations and conducts rigorous testing and commissioning before handover.



High Voltage Infrastructure (Private Networks)

Mission-critical sites depend on resilient high-voltage and medium-voltage systems to keep operations running safely and efficiently. TSG delivers end-to-end electrical infrastructure for both adopted and privately owned networks, covering everything from trenching and jointing to switchgear installation, protection systems and final commissioning.

Private HV networks are increasingly important for sites that need greater control over capacity, resilience and future expansion. TSG designs and installs networks that support today's operational load while preparing for long-term growth, whether that includes additional buildings, electrified fleets or on-site generation such as solar and battery storage. Our teams also work with DNOs and IDNOs to ensure designs remain compliant and aligned with local constraints.

Core capabilities

- HV, MV and LV distribution systems
- Switchgear installation and commissioning
- Transformer cabinets and protection systems
- Smart metering and energy monitoring
- Building Energy Management Systems
- AC and DC studies with load analysis

Real-world impact

TSG supports logistics hubs, data centres, airports and industrial estates with scalable private networks that can integrate solar PV, battery storage and EV charging. Designs include consideration of future load, fault levels and protection coordination to ensure safe, efficient and reliable operation throughout the asset's lifecycle. Our engineers also undertake upgrades to ageing HV systems where increased capacity or improved resilience is required.

EV infrastructure and fleets

TSG delivers smart, scalable depot charging for vans, trucks and buses, often combined with solar and storage to reduce grid dependency and manage peak demand. Platforms provide real-time oversight to optimise charging schedules and maintain operational availability.

Case Study for Global Online Retailer and Distributor

High-Voltage Network Upgrade and Capacity Increase

Forecourt

Client Full Name:

Global Online Retailer and Distributor

Location: Carlisle area

Services: Full Independent Connection Provider (ICP) delivery, including contestable works, 11 kilovolt (kV) dual-circuit installation, new substation, testing and commissioning.

Supplier: TSG UK Solutions Ltd – Power Infrastructure

The Project

A leading global online retailer appointed TSG Power to increase electrical capacity at one of its largest distribution facilities in the Northwest. With fleet electrification planned across the operator's UK network, the existing supply required a significant upgrade to support rapid charging and future expansion.

TSG Power was engaged as the Principal Contractor and Principal Designer under the Construction (Design and Management) Regulations 2015 (CDM 2015), responsible for the safe planning, coordination and delivery of all works. The £2.5 million contract covered the entire contestable scope, including a 7-kilometre (km) off-site 11kV dual-circuit main, a new Distribution Network Operator (DNO) intake substation, customer-owned 11kV switch room and all related excavation, reinstatement and traffic management.

The project required meticulous planning to maintain the customer's operations throughout. TSG Power coordinated all stages in line with the client's strict safety and operational requirements, ensuring that the facility remained fully functional during construction.

The Solution

TSG Power developed a detailed programme covering every stage of the electrical upgrade. All works were undertaken by TSG's in-house teams, who delivered:

- Construction of a 7km off-site 11kV dual circuit route
- Full excavation and reinstatement along the route
- All cable installation and jointing terminations
- Comprehensive traffic management planning and coordination
- Delivery and installation of all materials and equipment
- Substation plinth installations
- DNO owned HV Intake Substation
- Installation of a new privately owned 11kV 630A Ringmaster extensible board
- Full testing, commissioning and energisation
- Production of cable and asset records in line with Electrical Safety, Quality and Continuity Regulations 2002 (ESQCR) requirements

Challenges included navigating a long off-site route with multiple obstructions, existing operator networks, culverts and New Roads and Street Works Act (S58) constraints. The team also worked closely with the customer and the local Network Operators to review existing records, validate data and ensure safe excavation without disruption.

With careful sequencing, regular stakeholder communication and strong on-site coordination, every challenge was resolved smoothly. Operations at the facility were maintained throughout, with safety upheld at all times.





The Result

TSG Power delivered the complete electrical upgrade as specified, providing the customer with a significantly enhanced power supply capable of supporting current operations and the upcoming electrification of its fleet.

The new dual circuit, substation and extensible board have increased network resilience and created essential capacity for future charging infrastructure. All works were completed in line with CDM 2015, with comprehensive documentation and ESQCR asset records issued following commissioning.

The customer expressed strong confidence in TSG Power's delivery approach, praising the quality of the work, the handling of site constraints and the clarity of communication. The project has strengthened TSG's partnership with one of the world's most influential logistics operators, positioning the company as a trusted provider for future high-voltage and grid-readiness projects across the customer's estate.



Case Study for Global Energy Company High-Voltage Connection for New EV Charging Hub

**Client Full Name:**

Global Energy Company

Location: Silverburn, Glasgow

Services: Full ICP delivery for 1.5MVA high-voltage supply and substation installation

Supplier: TSG UK Solutions Ltd – Power Infrastructure

Contract Value: £0.5M (ICP Scope)

The Project

A major global energy company appointed TSG Power to provide the high-voltage supply for a new eight-bay electric vehicle charging hub at Silverburn in Glasgow. The project required a new 1.5-Mega Volt-Ampere (MVA) connection

to support fast charging capability and accommodate anticipated public demand during the peak Christmas trading period.

TSG Power was selected to act as Principal Contractor and Principal Designer under the Construction (Design and Management) Regulations 2015 (CDM 2015), responsible for all aspects of planning, coordination and site management. The scope included all contestable works, a 1-kilometre (km) off-site 11 kilovolt (kV) dual-circuit installation of a new Distribution Network Operator (DNO) substation and full testing and commissioning. The hub was located within a live public car park and adjacent to the M77, requiring stringent controls across all phases.

The Solution

TSG delivered the full programme using its in-house Independent Connection Provider (ICP) teams, who managed and executed:

- A 1km off-site 11kV dual circuit route
- Installation of the new DNO substation
- All jointing works and terminations
- Traffic management throughout the works
- On-site excavation and reinstatement across the live car park
- Supply and installation of all equipment and materials
- Installation of substation plinths
- Full testing, commissioning and energisation
- Production of Electrical Safety, Quality and Continuity Regulations 2002 (ESQCR) –compliant cable and asset records

The location presented several operational challenges. At times, working hours were restricted to 10 am to 3 pm due to the proximity of the M77. The site remained open to the public at all times, demanding clear segregation, safe pedestrian access and consistent communication with stakeholders.



TSG also liaised closely with the local council and the DNO to ensure all Notices were approved in advance of the annual Christmas Embargo. Through proactive planning and early engagement, all requirements were met without delay.

Despite short working windows and a busy environment, TSG Power maintained progress and delivered key milestones: connection on 13 December, charger commissioning on 16 December and full public availability from 20 December.

The Result

TSG completed the project on schedule, delivering a resilient 1.5MVA supply and fully commissioned charging hub ahead of the Christmas peak. The solution provides the customer with a robust high-voltage connection designed to support sustained usage and future growth of its charging network.

The customer expressed complete satisfaction with the quality, professionalism and coordination demonstrated throughout the project. The successful delivery reinforced TSG's position as a trusted infrastructure partner for large-scale public charging schemes and complex high-voltage installations in constrained environments.





Battery Energy Storage Systems (BESS)

TSG Power engineers and delivers advanced BESS solutions to optimise energy use, improve resilience and support renewable integration. Every project begins with a feasibility study, site analysis, and project costing, helping you to determine the likely ROI for your project.

What does BESS enable?

- Peak shaving to reduce demand charges
- Load shifting to use cheaper energy at the right time
- Backup power for continuity during outages
- Participation in grid services for additional revenue

Benefits of BESS

- Facilitates renewable integration across sites
- Reduces investment in conventional generation
- Enhances energy security by balancing supply and demand
- Provides system stability during power interruptions
- Lowers transmission and distribution costs
- Cuts energy bills by storing low-cost power for later use
- Reduces network losses
- Delivers ancillary services at lower cost and carbon
- Supports a greener energy mix

BESS Challenges, Solved

What can hold projects back?

Grid connection delays, regulatory complexity, material price volatility and battery degradation can affect timelines and economics. Large systems need careful planning, technical assurance and robust delivery.

How TSG mitigates risk

- Early engagement with network operators and clear programme governance
- Bankable technologies selected for performance and longevity
- Compliance with QHSE standards across installation and operation

Service and maintenance

Reliability underpins success. TSG provides preventive and corrective maintenance aligned to regulations with remote monitoring, diagnostics, scheduled inspections and rapid response. Packages protect availability, safety and warranty requirements throughout the asset life.



Large-Scale Solar Solutions

Solar is now a strategic investment for energy-intensive operations. With UK prices among the highest in Europe, on-site generation reduces exposure to volatile tariffs and supports Environmental, Social and Governance (ESG) goals.

How we deliver

As an Engineering, Procurement and Construction (EPC) contractor and accredited ICP, TSG provides an integrated service from feasibility and structural assessment to design, installation, grid connection and maintenance. Systems are engineered for output, scalability and durability, whether mounted on rooftops, canopies or at ground level.

Solar plus storage

Pairing PV with BESS unlocks load shifting, tariff optimisation and resilience. It supports EV charging and reduces peak import, enhancing site performance.

Business outcomes

- Lower operational costs and improved ROI
- Reduced Scope 2 emissions with clear ESG reporting
- Greater energy independence and control

Market Insights

Unlocking renewable potential

Demand for resilience is rising across manufacturing, data centres, defence and remote operations. Battery technology continues to advance, enabling longer lifespans and higher energy density. Co-location of storage with renewables supports grid stability and strengthens commercial cases.

Catalysts for growth

- Peak shaving strategies reduce costs at scale
- Participation in grid services creates new revenue
- Policy support and incentives improve investment viability
- Extreme weather underscores the value of resilience
- Expansion in IT and telecoms increases the need for reliable power

Together, these trends position solar and storage as cornerstone technologies in a decentralised energy system.

TSG UK Solutions

TSG delivers integrated solutions that support the design, delivery and operation of modern energy and transport infrastructure. From electric vehicle charging and sustainable fleet depots to multi-energy refuelling, solar PV, battery storage and high-voltage connections, TSG provides scalable systems built to meet today's demands and evolve for the future. Our expertise spans forecourts, convenience retail and commercial sites, combining smart payment and control technologies with engineering, installation and ongoing service and maintenance support. Covering everything from energy generation and distribution to fuel, car wash and site optimisation, TSG enables businesses to operate efficiently, securely and with confidence across an increasingly complex energy landscape.

Get in touch



Move with TSG
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