

BESS, Wind & Solar



Battery Energy Storage System



Our Expertise & Services

smartDCS supports BESS projects with specialist fibre optic and copper infrastructure that enables reliable communications and efficient site operation. As a trusted design, supply and installation partner to ICP companies, we help BESS facilities maintain stable, interference-resistant connectivity across demanding, mission-critical environments.



Fibre & Copper Infrastructure



Real Time Monitoring



Reliable Communications



DNO Fibre Connections

Lifecycle Support Beyond Installation

Beyond installation, we provide comprehensive lifecycle support to keep your BESS sites performing at peak efficiency over the long term.



Quarterly Visual Inspections



Bi-Annual Testing & OTDR Diagnostics



Connector Cleaning & Certificate Reporting



Historical Performance Analysis

Get in touch to discuss a lifecycle support plan for your site.

www.smartdcs.co.uk

Project Delivery



01

Design & Planning

Site surveys, route planning and infrastructure design aligned to operational safety requirements.

02

Installation & Integration

Fibre optic and copper cabling installed, terminated and integrated across BESS, solar and wind environments.

03

Testing & Handover

End-to-end testing, OTDR results, certification records and clear handover documentation for project assurance.

Solar & Wind Infrastructure

smartDCS delivers the communications backbone that helps wind and solar farms operate efficiently, safely and reliably. With expertise in fibre optic and copper cabling solutions, we support the connectivity needed for real-time monitoring, performance optimisation and secure site-wide communications across wind and solar energy projects.

Talk to us about connectivity for your next wind or solar project.

Our solutions support stable network performance, minimising disruption and enabling informed decision making.



Resilient Infrastructure



Optimised Data Flow



Long Term Operational Support



Fibre Infrastructure

Reliable communications infrastructure is fundamental to safe, connected, renewable energy operations. smartDCS provides robust fibre and copper solutions from the DNO interface through to equipment, control and monitoring systems across the site.



Site wide Backbone

Structured routes linking substations, control rooms, inverters, batteries and monitoring equipment.



Testing & Certification

OTDR testing, loss measurement and records that provide clear evidence of network performance.



DNO Fibre Connections

Secure connectivity between site infrastructure and the network operator interface.



Splicing & Termination

High quality fibre splicing, termination and enclosure work for dependable performance.

Ask us for a fibre infrastructure assessment of your site.

www.smartdcs.co.uk

Secure Network Infrastructure

We deliver resilient cybersecurity and communications infrastructure for BESS and solar projects, helping protect critical systems, maintain operational continuity and support site wide connectivity.

Cybersecurity:

Solutions are designed in line with IEC 62443, IEC 62351 and applicable DER requirements. This includes risk assessment, access control, system hardening and protection against software based attacks.

On Site Communications:

Site communications are encrypted where applicable, with unused ports, interfaces and software disabled. Internet access is restricted to essential equipment, while wifi remains disabled during normal site operation.

SCADA integration:

We work alongside SCADA designers to define user roles, permissions and access levels, helping ensure operational systems remain secure and accessible only to authorised personnel.

Industrial Firewalls:

Redundant industrial firewalls protect operational networks from internet facing connections. Secure DMZ or IDMZ architecture, jump hosts, proxy servers and centralised logging can be included.

Site VPN:

Secure site to site VPN connections can be established with offtakers, operators and approved third parties, enabling remote access and encrypted communication.



Speak to our team about a cybersecurity review for your site.

www.smartdcs.co.uk

Layered Cybersecurity & Asset Protection

A layered network approach helps protect critical systems, control communication between network zones and reduce the impact of potential cyber incidents.



Data Diodes

Data Diodes enable secure one way data transfer between network zones, preventing unauthorised inbound traffic.



Asset Register

A detailed register will be provided for all network connected equipment including:

- Manufacturer and model
- Device function and location
- Firmware and software versions
- Network details
- Ownership and maintenance requirements.

This supports vulnerability monitoring, software updates and long term cybersecurity management.



Network Layers & Segregation

Operational, SCADA, corporate and third party networks can be separated using:

- VLANs
- Industrial Firewalls
- Physical Isolation
- Air Gaps
- Data Diodes

This limits unnecessary interaction and strengthens site wide security.

Get in touch to discuss your cybersecurity.



www.smartdcs.co.uk

info@smartdcs.co.uk

+44 (0) 1242 323 646



nationalgrid
Approved Engineers



Unit 7, Gabwell Business Centre, Quadrant
Way, Hardwicke, Gloucester
GL22JH