



INDUSTRY BRIEF

Power Generation & Distribution

Control that keeps generation connected and networks secure.

 MATRIX

What matters most

Grid code compliance

New and modified generation must meet G99 or Grid Code requirements for frequency response, voltage control and fault ride-through, and prove it through compliance testing before full operation.

Availability and reliability

Every hour offline costs revenue or puts supply at risk. Redundant controllers, clear alarms and fast diagnostics help your team keep plant running and restore it quickly after a trip.

Visibility of remote assets

Substations, wind and solar parks and storage sites are often unmanned. Control rooms depend on reliable telecontrol, standard protocols and accurate time-stamped data to operate them safely.

Cyber security

Energy is essential infrastructure and a target. Operators of essential services must show NIS compliance, and control systems, telecontrol links and remote access are central to that evidence.

The standards that shape your project

Standard	What it covers
IEC 61850	Communication networks and systems for power utility automation, including substations.
IEC 60870-5-101/104 and DNP3	Telecontrol protocols between substations, generation sites and control centres. DNP3 is IEEE 1815.
ENA Engineering Recommendation G99	Requirements for connecting generation, including storage, to distribution networks in Great Britain.
GB Grid Code and Distribution Code	Technical rules for connecting to and using Great Britain's transmission and distribution networks.
IEC 62351	Security for power system communications, including IEC 61850, IEC 60870-5 and DNP3.
NIS Regulations 2018 and NCSC CAF	Cyber security duties for operators of essential services in energy, assessed against the CAF.

The standards listed are those most often relevant to control-system work in this sector. Which apply to your project, and how, is agreed with you at specification stage.

From specification to long-term support



Outage windows on generation and network assets are short and planned well ahead. We fit our work to them, prove new logic and telecontrol against a simulation before site, and test every interface with you and your network operator. You get the design, code and documentation to run and maintain the system yourselves.

Systems we engineer

- Substation automation and control
- Generation and balance-of-plant control
- Solar, wind and battery storage sites
- Telecontrol, RTUs and control room SCADA
- Power plant controllers for grid compliance
- Energy metering and performance reporting

PLATFORMS WE WORK WITH

Siemens TIA Portal, S7 and PCS 7 • Rockwell • ABB • Schneider • Mitsubishi • Beckhoff • Emerson DeltaV • Honeywell • GE • WinCC, Ignition, AVEVA (Wonderware), FactoryTalk, iFIX and Citect SCADA

The evidence you receive at handover

✓ Functional design specification

✓ I/O list and cause-and-effect

✓ Alarm list and HMI interface

✓ FAT and SAT records

✓ As-built drawings and source code

✓ Method statements for common faults

Why customers choose us

Standards first

An ISO 9001 certified quality system, designing to the standards your sector demands, plus any you specify.

You own the system

Clear structure, open interfaces and complete documentation, so you can support it yourself or with any vendor.

Tested before site

Control code is version-controlled and tested against a simulated plant before factory and site acceptance.

Multi-vendor

Siemens, Rockwell, ABB, Schneider, Mitsubishi, Beckhoff, Emerson, Honeywell and GE platforms.

In it for the long term

For us a project is not finished until the control system is decommissioned. 24/7 support is available under a support agreement.

OUR PROMISE

Standards-led, fully documented control systems that you own and can support.

GET IN TOUCH

Talk to us about your project

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