ACTEMIUM

mitie

CASE STUDY

BESPOKE LV SWITCHGEAR POWERS A NET ZERO CARBON PRIMARY SCHOOL IN WALES

Drawing on its extensive experience in engineering LV distribution and switchgear for the public sector, Actemium delivered a future-ready power solution for a new net zero carbon primary school. The system improves energy performance, reduces running costs, and includes smart metering to support BREEAM 'Excellent' standards - while providing flexible infrastructure for future growth and supporting wider community decarbonisation.

Sector: Education
Client: Mitie
Location: Merthyr Tydfil, Wales

Expertise: LV Distribution & Switchgear
Scope: Manufacture, Supply, Technical Support

VINCI ENERGIES

01

CLIENT & REQUIREMENTS

M&E Contractor MITIE Technical Facilities Management works with public sector organisations to deliver essential building infrastructure. For this project, MITIE partnered with Merthyr Tydfil County Borough Council to provide electrical services for the redevelopment of Gœtre Primary School - a flagship low-carbon education project.

The school is part of the Welsh Government's £4 million Sustainable Communities for Learning Programme, which aims to create modern, energy-efficient schools across Wales. It is being built to net zero carbon standards and is targeting a BREEAM 'Excellent' rating.

Once complete, the development will include a 420-place primary school, 80 nursery places, two Learning Resource Bases, Flying Start childcare provision, and enhanced community facilities - creating a modern and inclusive space for pupils, families and the wider community.

02

THE CHALLENGE

The project required a future-ready LV distribution system capable of supporting a low-carbon design and advanced electrical infrastructure, within a fast-moving construction programme.

Key challenges included:

- **Evolving regulations and metering requirements**, requiring close coordination with project partners
- Delivering **advanced energy monitoring** to meet operational sustainability targets
- **Short manufacturing and delivery lead times**
- Designing infrastructure flexible enough to **support future technologies and expansion**

Actemium was selected for its proven ability to deliver high-quality LV solutions at pace, supported by strong technical expertise and a collaborative approach.

03

THE SOLUTION

Working in close collaboration with Holloway Partnership (Consulting Engineers), MITIE, and Morgan Sindall Construction, Actemium delivered a complete LV distribution package aligned with modern educational, safety and sustainability requirements.

The LV distribution system included the design, manufacture and supply of the main switchgear assembly, integrating Schneider Electric components to support the school's net zero carbon strategy. The result is a safe, resilient and maintainable low-voltage infrastructure suited to a modern learning environment.

The project also incorporated **advanced energy metering**, combining Schneider EcoStruxure systems with Rayleigh Instruments metering across circuits and zones. This provides full visibility of energy consumption, supporting operational efficiency and long-term sustainability reporting.

04

BENEFITS

The system engineered, manufactured and supplied by Actemium delivers the following benefits:

- **Improved energy performance:** Clear energy data will help the school meet its net zero carbon and BREEAM 'Excellent' targets
- **Reduced operating costs:** Real-time monitoring will support lower energy use and long-term cost savings
- **Future-ready infrastructure:** The flexible switchgear solution can adapt as the school grows and new technologies are introduced
- **Enhanced learning environment:** A reliable, low-carbon electrical system will support a safe and comfortable space for pupils and staff
- **Positive sustainability impact:** It will also contribute to Welsh public sector decarbonisation goals.

TECHNOLOGY PARTNERS

Schneider Electric | EcoStruxure Innovation At Every Level | Rayleigh Instruments

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