



Energy Central Learning Hub: A Future-Ready AV Environment for Clean Energy Education

THE CLIENT

The Energy Central Learning Hub (ECLH) is a £15 million STEM education and vocational training facility at the Port of Blyth, Northumberland. Developed in partnership with Northumberland County Council and ITPS, the Hub is designed to inspire and train the next generation of the clean energy workforce.

The facility includes:

- Specialist electrical and mechanical workshops
- Classrooms and digital training spaces
- An immersive Clean Energy Visitor Centre
- A flexible conference and events space for up to 250 attendees
- Home to the region's flagship STEM outreach programme, EnergyCentralSTEM

THE BRIEF

Initially, the Hub required AV screens for teaching spaces—simple, reliable displays to support everyday classroom use and digital signage. This later expanded to a more complex requirement: a fully integrated AV solution for a divisible conference and events space that could support everything from small meetings to large-scale presentations and hybrid events.

SERVICES PROVIDED





THE SOLUTION

Phase 1 - Teaching Spaces

Working through ITPS, we supplied and installed commercial-grade displays to support plug-and-play teaching:

- Sony displays: 3 × 75", 3 × 65", and 2 × 55"
- Hisense 55" screen in reception, integrated with digital signage
- Simple laptop connectivity for staff and students

Phase 2 - Multi-Use Conference and Events Space

The top floor was designed as a flexible space that could be divided into three rooms or opened up as one. The Hub initially requested "a screen per room," but through consultation, we identified the need for a scalable, automated AV system that could adapt to different formats and users.

We delivered a fully integrated solution built around simplicity, flexibility, and futureproofing:

- Centralised AV Control
 - Q-SYS AV-over-IP system for audio/video distribution
 - PTZ cameras in each room, controllable individually or as a unified system
 - Crestron partition sensors automate AV reconfiguration based on room layout
- Audio & Accessibility
 - Sennheiser microphones with voice lift for clarity across configurations
 - Induction loops in each room for hearing accessibility
 - Audio I/O integration for external desks or speaker systems
- Display & Flexibility
 - Mobile 90° display trolley aligns with fixed screens when rooms are combined
 - BYOD functionality for easy device connectivity
 - Automated room configuration via partition sensors
 - Infrastructure designed to support future expansion without major cost

Initially we provided recommendations for the touchscreen user interface, our programmer then worked closely with Dan, a new Hub team member who had some knowledge of Q-SYS, to shape the control panel layout and programming, ensuring the system met practical needs without being unnecessary complex.



INSTALLATION AND HANDOVER

The installation was carefully coordinated to ensure readiness and minimise disruption:

- First and second fix work aligned with electrical contractors
- Infrastructure completed ahead of hardware delivery, enabling immediate programming
- Minor on-site adjustments resolved quickly
- Staff training and handover provided to ensure confident use of the system

THE OUTCOME

The Energy Central Learning Hub now features a flagship AV-enabled space that reflects its mission: preparing the clean energy workforce of tomorrow. From intuitive classroom tech to a dynamic, automated conference environment, the Hub is equipped to support learning, collaboration, and innovation at every level.

“By asking the right questions and building flexibility into the design, we helped transform an initial request for ‘three screens’ into a future-ready space that works for every user - from trainees to industry leaders.”

Duncan Cave, Account Manager
Universal AV Services

