TBox LT2
SUPPORTING HYDROGEN ENERGY INNOVATION

TBOXLT2

THE CHALLENGE

As demand for reliable, low-emission energy grows, critical infrastructure operators are seeking alternatives to diesel generators. Telecom towers and off-grid facilities require continuous power, even when renewable energy sources are unavailable.

Catalan startup ATOM H2 has developed a containerised energy storage system that converts surplus solar electricity into hydrogen, stores it safely and converts it back into power when needed.

As the technology moves towards commercial deployment, ATOM H2 needed a robust control solution capable of integrating equipment, monitoring performance and enabling secure remote communications to support reliable operations.

THE SOLUTION

ATOM H2, working with Barcelona-based engineering partner IDNEO, integrated Ovarro's TBox remote telemetry unit (RTU) into its hydrogen energy storage system.



Ovarro's TBox LT2

TBox provides real-time monitoring, control and remote management capabilities, collecting operational data from connected field devices and transmitting it to a central control centre.

The technology enables both local and remote supervision of energy production and storage equipment, while secure communications through OpenVPN support the demanding availability requirements of critical infrastructure.

Ovarro's Spanish distributor, Becolve Digital, provided technical support and training to IDNEO and ATOM H2, helping accelerate the adoption and integration of TBox technology.

POWER

MONITORING & CONTROL

RTU'S

OVARRO
CONNECTING TECHNOLOGIES

SUCCESS

The successful integration of Ovarro's TBox technology has equipped ATOM H2 with reliable monitoring, control and secure communications for its hydrogen energy storage system. Following successful technical validations and onsite pilots, ATOM H2 is preparing for its first commercial deployments, offering a clean alternative to diesel generators for critical infrastructure and off-grid applications.

"The robustness, high availability and ability to integrate with different protocols make TBox an ideal solution for equipment with demanding availability and supervision requirements."

— Carlos Canet, Operational Marketing Director, Becolve Digital



OPERATIONAL BENEFITS

The integration of Ovarro's TBox technology provides ATOM H2 with a robust and reliable monitoring and control solution for its hydrogen energy storage system. Real-time data collection, secure communications and remote supervision enable operators to monitor equipment performance and manage critical infrastructure effectively.

With support from Becolve Digital, ATOM H2 has successfully integrated TBox into its control architecture. The solution supports reliable off-grid operations and provides the essential monitoring and communications capabilities needed as the technology moves towards commercial deployment.

KEY DELIVERABLES

- Real-time monitoring and control of hydrogen energy production and storage systems
- Secure remote communications through OpenVPN for reliable system supervision
- Centralised data collection and remote management of critical infrastructure