



Battery Storage Case Study

Energy companies are gaining
game-changing capabilities to
meet modern challenges.

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Enabling the transition to net zero

Efficiently generating, storing and utilising power is more important than ever as companies strive to achieve **net zero**. **Sustainability and stability** are essential. Energy companies are turning to the latest digital platforms to unlock game-changing capabilities to meet modern challenges.

By operating estates of battery storage assets, energy companies can store and provide power based on demand. As **renewable power generation** becomes more prevalent in the coming decade, battery storage assets enable power security during periods of greater need.

What was the challenge?

Accessibility and scalability are vital considerations in creating an efficient, extensible and **profitable battery storage solution**.

The customer envisioned a project to create a scalable, fit-for-purpose monitoring and control system to replace a third-party solution. Our team's experience and expertise allowed for the creation of a unique solution package to meet and exceed the customer's ambitions.

So, how could this be achieved and what capabilities did solutions from Novotek provide?

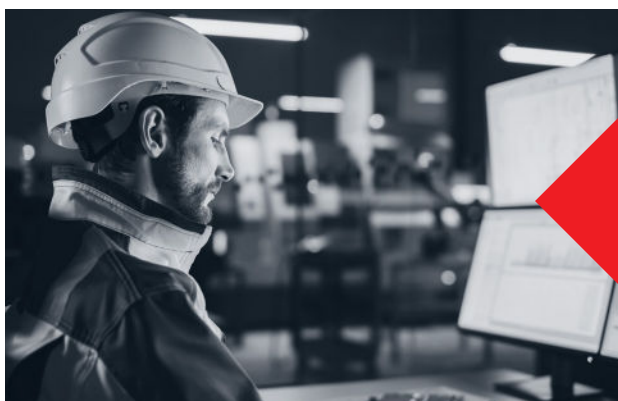


Our solutions provided...

Leading technology to provide game-changing capabilities in managing battery storage assets.

Centralised control

By utilising **edge devices** with cellular connectivity in a purpose-built panel, a scalable and extensible solution is provided for connecting disparate sites to the central cloud platform. These remote panels send crucial performance data to the cloud and receive operating instructions based on national grid demands.



Monitoring

Operators were able to access their monitoring and control platform through a secure web-based portal, allowing rapid access from any device. By offering a cloud-based solution, Novotek can ensure that any engineer, owner or business manager can have **uninterrupted connectivity to ensure optimal uptime** and return on investment.

Regulatory compliance

Effective service monitoring for supporting national energy grids means **managing requirements in real-time** and observing tolerances to provide or store power depending on the conditions of the broader system. To meet regulatory requirements, packages of system monitoring data are automatically prepared and sent to the appropriate regulatory body. The resolution, the frequency at which the solution captures data, and the delivery schedule are entirely customisable to the individual needs of an organisation.



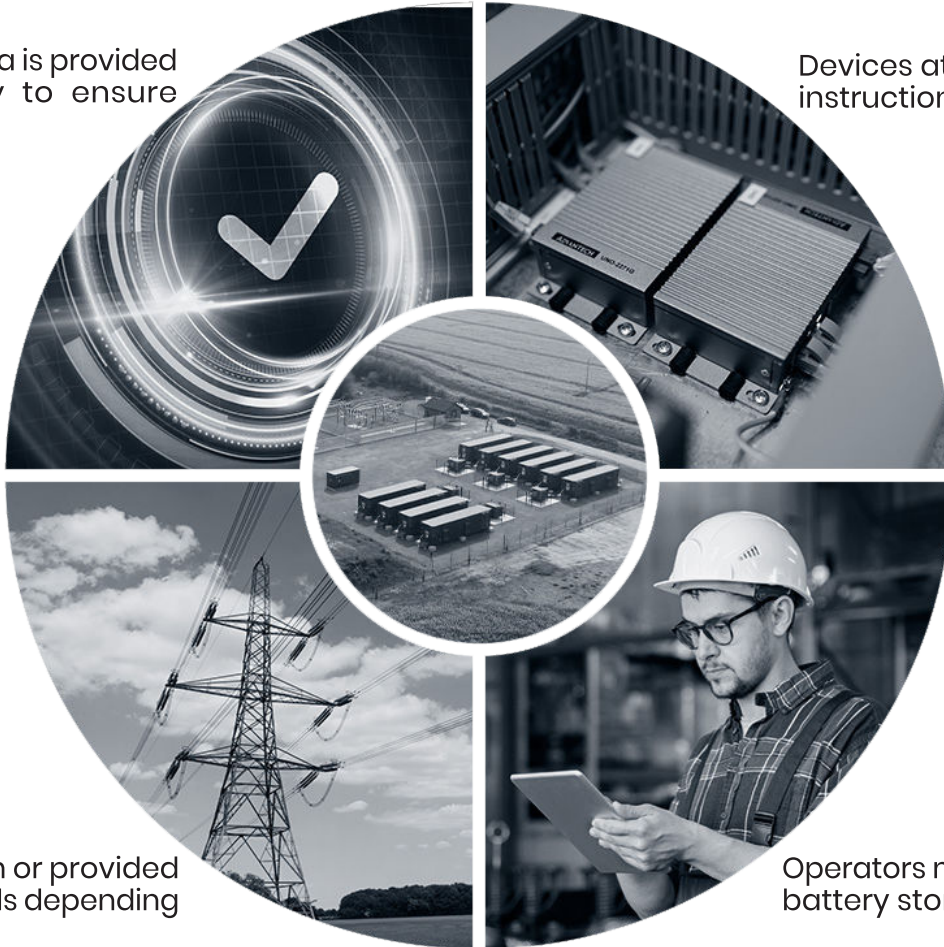
Powerful, scalable, real-time

PTC's Thingworx and Microsoft's Azure IoT Hub offer powerful tools to meet the requirements of managing battery storage assets.



Regulatory data is provided automatically to ensure compliance

Devices at the edge receive instructions and send data



Power is drawn or provided to national grids depending on demand

Operators monitor and control battery storage assets



A profitable outcome

Connectivity and visibility offers **security and confidence**. Battery assets must remain operational, efficient and connected as the world moves towards more sustainable methods of energy generation. Providing an accurate and timely service **maximises profitability**, utilising assets to their fullest potential.

With the **powerful features** of these IoT solutions, the many disparate sites that make up an estate of battery storage assets are monitored and controlled through a single, highly accessible platform.



“ Novotek takes ownership of the projects we deliver. We stand behind the technology all the way -- over the entire lifetime of a system, which means we are always in for the long run.

Over our 35 years of operation, creating and maintaining our partnerships has been crucial. Our long-term view is an essential part of Novotek's approach. ”

Tobias Antius, Novotek CEO



