

The journey to Battery Storage

A guide to storing your energy

Product series
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The Power of Battery Storage



Powering Resilience

Battery Storage will help ensure your business is 'always on' by removing the risk of disruption and ensuring continuity of your operations



Powering Performance

Battery Storage will help you generate on-site power and lower costs



Powering Growth

Battery Storage will help you maximise your profits through the sale of excess energy generated

An energy solution that backs up your business

Having a resilient energy source is crucial. You need to know that, whatever happens outside the gates, you've got the means to keep production going. There are numerous back-up options available, but new generation battery systems offer reliable and long-standing power, that can unlock value and help you to create additional revenue.



How Battery Storage works

Battery cells are factory configured into 50kW racks, and stored within an enclosure on-site. The batteries can be charged by any power source, including local grid, solar, wind, Combined Heat and Power (CHP), and more. This power is then fed back into the building for a set period per day, usually when the energy charges would be at their highest to maximise savings. At all times of the day, the battery capacity is made available for grid balancing purposes, which in turn unlock additional streams of revenue.

What can a Battery Storage system do for your business?

Batteries eliminate potential downtime, reduce energy costs, create a revenue stream and help you to meet your carbon emissions targets.



Energy you can rely on

- Each battery is warranted for ten years based on one full cycle per day
- Greater site resilience – battery storage gives you an added tier of emergency power if the main supply suffers a brownout
- Minimal upheaval – batteries work in conjunction with on-site generation
- Battery storage systems allow you to quickly build more flexible, stable and cost-effective grids



Recharge, reuse, repeat

- Batteries store any surplus energy produced by the generation source
- Charge during the night when the cost of electricity is at its lowest
- Recharge in two hours during low Distribution Use of System (DUoS) periods, and then provide power for when the costs are at their highest (red DUoS period)



Save money, make money

- Store and generate your own energy to avoid high-cost energy usage
- If on-site generation exceeds your needs, batteries allow you to store surplus energy or export electricity to the grid
- Excess energy can be traded or sold on the short-term power market, using an energy trading desk to achieve the highest possible price



Better for the environment

- Batteries offer an emissions-free solution and allow you to feed more renewable energy into the grid

The four steps to rechargeable battery power

1. Scoping out your requirements

The main reasons for choosing Battery Storage are to ensure that your site has a reliable energy back-up in place, and to cut your energy costs. To determine if your site is suitable, we carry out an initial assessment to:

- Gather data
- Identify potential opportunities
- Assess the best options for your needs
- Examine your site for any limitations

With this information, we can develop a proposal outlining the scope of the project and expected revenue.

2. Solution design and development

To get the project up and running we need to:

- Apply for planning – this determines the suitability of your site, taking into consideration the system's scale, noise emission and proximity to nearby residential areas
- Complete a G59 application – to connect to the grid the system requires approval from the Distribution Network Operator (DNO), but first we need to detail the specifications in an Energy Networks Association (ENA) application form
- Create a detailed mechanical and structural design proposal – we provide a site layout detailing a plan view of equipment (transformer substation, battery, inverter), connection points, cable routes and trenches if required

3. Implementation

Before we install your Battery Storage system, we have to do the groundwork. Should there be any restrictions from the initial survey, we'll carry out an additional site survey and draw up design modifications if needed. We then move into a four-stage process:

- Site preparation
- Electrical installation
- Site acceptance tests
- Electrical inspections and Electrical Equipment Safety System (EESS) commissioning tests

4. Optimisation and Management

Your system is up and running. Now it's time to fine tune things to ensure you get the best returns for your investment.

- Dispatch – we run the system and charge the batteries
- Iterate and revise run strategy – we repeat the process to make sure everything is running at its optimum
- Bid assets into the market – making your battery capacity available for grid balancing services
- Billing – you receive payment for the availability and any energy deployed

Want to know more?

Battery storage is generating new opportunities across all types of industry. Find out how we can help you power new levels of performance today.

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