



CASE STUDY

Power increase and energy arbitrage



Location

Bibbiena (AR)



Product

Pramac Battery Storage Container
20ft – BSC 1056 kW / 2258 kWh



End customer

BORRI – a Brand Of
Legrand

OVERVIEW

Borri, a leading Italian company in the design and manufacture of UPS systems and solutions for critical applications, with its production facility in Bibbiena (AR), faced a strategic challenge linked to its industrial growth.

Internationally recognised for the reliability and innovation of its technologies, the company needed to rapidly increase the electrical power available in its production plant to support the development, testing and introduction of new high-efficiency solutions for the data centre sector.

However, the context presented some critical issues. Increasing the contracted power and adapting the electricity supply from the grid were not compatible with the technical constraints and timing of the local grid. The waiting times for infrastructure upgrades would have been incompatible with the company's production planning and development objectives, potentially slowing down testing and industrialisation activities.

Faced with this scenario, the company began searching for a flexible and immediately implementable solution that would increase the available power without relying on network interventions and without compromising the plant's operational continuity.

PROJECT OBJECTIVE

The project was designed with the aim of increasing the power that can be effectively used within the production site, overcoming the limitations imposed by the local electricity grid. The solution identified is based on the integration of an energy storage system (BESS) capable of dynamically supporting loads and intelligently managing energy flows.

The installation of the system was carried out in collaboration with Baracalit, a partner in the project, which contributed to the correct integration of the storage system within the existing industrial context, ensuring compliance with the technical, structural and operational requirements of the site.

The Pramac BESS, managed through a proprietary Energy Management System (EMS), allows for the effective implementation of peak shaving strategies, i.e. the reduction of power peaks absorbed by the grid. Thanks to this functionality, the system is able to stabilise consumption at the connection point, avoiding exceeding the available power and making it possible to introduce new loads even in the presence of contractual or infrastructural limitations. Another key element of the project is the precise control of the plant's consumption profile.

The EMS monitors consumption, the power required by the machinery and the state of charge of the batteries in real time, orchestrating the operation of the storage system to ensure stability, reliability and operational continuity.



PROPOSED SOLUTION

The solution implemented involves the installation of a **Pramac Battery Storage Container 20ft – BSC 1056 kW / 2258 kWh**, a high-performance storage system designed for industrial applications.

The BESS integrates seamlessly with the existing electrical infrastructure and is managed by Pramac's proprietary EMS, which defines and implements operating strategies based on the company's operational needs and energy objectives.

RESULT

The implementation of the system has increased the power available to power new machinery and test benches, thanks to effective peak management and dynamic load support. This significantly reduces the impact of power peaks on the electrical grid, ensuring a more stable, regular and predictable consumption profile.

As a result, operational continuity and reliability are improved: production and testing activities are not interrupted or limited, ensuring smoother and safer energy management. In addition, thanks to the arbitrage strategies and intelligent energy management defined by the EMS, energy costs can be optimised, maximising the economic efficiency of the system.

The case study highlights how the integration of an advanced energy storage system can be an effective and immediate response to the limitations of the electricity grid, especially in energy-intensive industrial contexts. Thanks to the Pramac BESS and proprietary EMS, the company has been able to increase its production and testing capacity without having to wait for external infrastructure interventions, transforming a critical issue into a concrete opportunity for innovation and energy efficiency.