



LEAD BATTERIES: ENERGY STORAGE CASE STUDY



Exide Group

Battery Production Powered By Solar Energy

Portugal

In two state-of-the-art solar installations, Exide Group is powering its battery production and recycling facilities using advanced lead battery energy storage.

With a combined capacity of 4.5 MWp between the two installations, located in Castanheira do Ribatejo and Azambuja in Portugal, Exide has reduced carbon emissions by an average of 20% across both sites.

Exide partnered with energy provider EDP for design, delivery and the incorporation of the energy storage component for the projects.

“More companies will rely on storage-backed self-generated power in the years ahead, and we are excited to be at the forefront of this trend. Our Sonnenschein A600 gel battery technology is extremely capable in this application.”

Stefan Stübing, CEO and President of Exide Technologies

Technical Specification

By pairing the solar installations with advanced lead battery storage, this project is providing an exciting option for energy-intensive manufacturing facilities to reduce both carbon emissions and energy costs.

Using their own batteries for storage, Exide is utilizing solar energy to provide cost-effective and renewable energy by storing the energy generated during the day.

The system is one of the largest self-generation installations backed by energy storage in Europe, featuring:

- 290 cells Sonnenschein A600 Gel
- 500 kWh of stored energy

Producing enough energy to supply over 1,500 homes, the system showcases the benefits of using advanced lead batteries for large-scale energy storage projects.



Manufactured in Exide's European production facilities, the Sonnenschein A600 gel lead battery range has been utilized for decades to support complex, large-scale network power applications.

With proven reliability, maintenance-free and first-class safety features, the battery offers long service life and protection against deep discharge. Fully recyclable at end-of-life, the batteries provide added sustainability for renewable energy storage applications.

As part of a 'Green Social Building', the battery system is operating as an island for the factory workers, where the solar panels provide energy during the day and the batteries provide power at night.

About the Company

Exide Technologies, headquartered near Paris, France, is a leading provider of advanced energy storage solutions for the automotive and industrial markets.

It designs, manufactures and markets today's and next-generation battery technologies used across a wide range of applications, from automotive and off-road to material handling, stationary, rail and defense.

Technical Summary: PV Park

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| Overall capacity | 4.5 MWp |
| Total panels installed | 11,250 |
| Total inverters | 70 |
| Battery specification | 290 cells Sonnenschein A600 Gel |
| Available stored energy | 500 kWh |
| Carbon emissions reduced | Castanheira facility: 23% Azambuja facility: 19% |