



LEAD BATTERIES: ENERGY STORAGE CASE STUDY



Narada

20 MW / 160 MWh Industrial Energy Storage Installation

Wuxi, Jiangsu, China

One of the largest customer-serving energy storage projects in world, located in Wuxi, China, has been powered by leadcarbon batteries since August 2017.

The 20 MW project provides time shift/storage services for a modern industrial zone serving more than 50,000 people working in industries including precision electronics, communications and manufacturing.

"This project demonstrates the diversity of advanced lead batteries for energy storage. Lead batteries are used across the global energy storage sector, and the Wuxi Industrial Zone project is an example of the fantastic option lead-carbon batteries offer for large-scale energy storage projects."

Technical Specification

Delivering 160 MWh, the battery system used for this project consists of 107,520 lead-carbon batteries provided by Narada Power Source.

Developed in partnership with CBI, the REXC-1000 batteries offer extended cycle life in shallow service, ideal for energy storage systems.

The energy storage system includes:

- Power Conditioning System (PCS)
- Transformer (16000 KVA/ 1200KVA)
- Battery management system (BMS)
- Monitoring and control system

Through providing time shift/storage service, the 20 MW project improves the utilization of energy in the power system by balancing peak load.

Dr Alistair Davidson, Director, Consortium for Battery Innovation



Narada's lead-carbon technology offers a reliable, cost-effective and sustainable energy storage solution for this large-scale project. This is combined with facilitating electricity bill savings for the industrial zone due to optimization of energy use in different time periods.

Technical Summary

POI	10 kV
Plant Power	20 MW
Storage Tech	Lead-carbon
Storage Cap.	160 MWh
Plant Design Life	10 years
Architecture	80 sets of 250 kW / 2 MWh battery banks

About the Company

Narada was established in Hangzhou, China in 1994 and has evolved into one of the world's leading battery suppliers. The company majors in valve-regulated lead batteries and lithium batteries for various applications.

The renewable energy storage section is a major market for the company and Narada has an increasing presence in international markets.

Narada's lead-carbon batteries have been extensively deployed in China and globally for peak shaving, off-grid wind power installations, and in telecommunications hybrid solutions and energy storage model datacenters.