

Infinite Cycle

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# STORAGE

Power ESS // 46kWh-1MWh

### **EV Second Life Battery**







# A sustainable energy model

The Infinite Cycle BESS is an energy storage system that uses batteries taken from electric vehicles. Designed for the commercial and industrial, primary, and construction sectors, it is suitable for photovoltaic and wind plants.

#### Capacities range from 46 kWh to 1 MWh.

When their original use is finished, electric vehicle (EV) batteries still have considerable storage capacity and offer high performance for other applications. Our equipment reflects two key concepts:



SUSTAINABILITY AND DECARBONIZATION Compared to a new battery, one Infinite Cycle battery reduces CO2 emissions into the atmosphere by up to 70%. Also, it does not consume new raw materials, including such complex and limited materials as lithium, nickel, cobalt, copper and aluminum.



#### **HIGH PERFORMANCE**

We utilize the **highest-quality resources: lithium-ion batteries** from the automotive industry. We group them into replaceable units so there is no end date on this second useful life.

### For Everything

Our engineering team has designed Power ESS to make it suitable for a wide variety of applications.

COMMERCIAL AND INDUSTRIAL SELF-CONSUMPTION Resolve intermittent photovoltaic generation by decoupling production from consumption, maximizing energy savings, and reducing contracted power. STORAGE FOR RECHARGING INFRASTRUCTURE Ensure capacity where needed by installing fast or ultrafast chargers with limited access to the grid or outdoor areas near the station. STORAGE FOR MICROGRID SERVICES AND RENEWABLE PLANTS Turnkey containerized solutions to regulate voltage and frequency, demand response or peak shaving

# **Answers for every Industry**



#### Industry

Obtain a fixed price for power, boosting self-consumption to over 90%. Energy back-up also ensures production can continue in the event of problems with the grid





#### **Charging Station**

Improve access to the grid, streamline start-up and choose the location you want



#### Construction

Set up shared sustainable self-consumption, create local energy communities, and decrease impact and emissions



### **Renewable Plants**

Hybridization of renewable generation, along with storage, maximizes the payback from installations and provides ancillary grid services starting at 1 MWh

# **Unlimited Power**

### Flexible & Modular

Our equipment is modular and scalable, starting with a 46kWh rack. Each rack can be expanded using modules connected in parallel, up to 1 MWh.

This means that once we have determined the size of the project, we install the required racks, knowing that if it becomes necessary to increase capacity in the future, this will be a very simple task.

We offer turnkey **containerized Power ESS solutions** for outdoor and/or large-capacity installations.



### Ready To Install Wherever You Need



# **Optimized to the Core**



#### We have optimized our equipment to maximize useful life.

Our replaceable stack unit makes it possible to increase the life cycle of the installation. When we detect that a stack has reached its capacity limit via remote maintenance, we take charge of replacing and recycling it.

Reinforced insulation on all accessible connectors and failure detection function on contactors. (IP54, high degree of ingress protection for environments with particles and dust).

### Minimum Replaceable Unit & Maximum Security



# Intelligence Everywhere



### **iBMS**

developed specific We have technology to get the highest performance from second-life batteries.

- **Flexible:** with CAN communication and Modbus-TCP to work with a wide variety of inverters and EMS.
- **Secure:** one of the most secure BMSs on the market:
  - Dual redundant MCU for safety functions.
  - Reinforced insulation and OV CAT II.
- **Connected:** flexibility to monitor data via Ethernet, adapting to any industrial environment.
- **Plug & Play:** automatic and autonomic shutdown and startup.



• Equipment connects to the cloud, providing realtime battery data and consumption insights.

• Al and machine learning optimize performance and enable predictive maintenance.

• Customers can monitor usage, battery status, and savings anytime.

# A Circular Process

At **Infinite Cycle**, we are leaders in the integrated management of second-life batteries from electric vehicles. We cover the entire value chain, following the principles of the circular economy.

**RECYCLING**: At the end of their second life, we replace the unit (stack) and recycle it so the raw materials can be reused in the marketplace.

**INSTALLATION**: Our engineering department implements **turnkey projects**, working in tandem with the end customer. **Our products are also marketed through installation companies**. **COLLECTION:** We work with the **biggest Indian and Asian OEMs** to collect and reuse batteries from their vehicles.



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**DIAGNOSTICS**: We have developed **our own methodology** to determine a battery's state of health (SoH). We select those with the highest capacity for use in the storage equipment. Our analysis system enables us to predict their performance and ageing based on the application.

**MANUFACTURING:** We adhere to the most exacting quality standards and eco-design procedures. Internal connections are made during installation, providing safe handling (<30 VDC) from factory shipping, during transport and through to on-site installation.



### Infinite Cycle

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