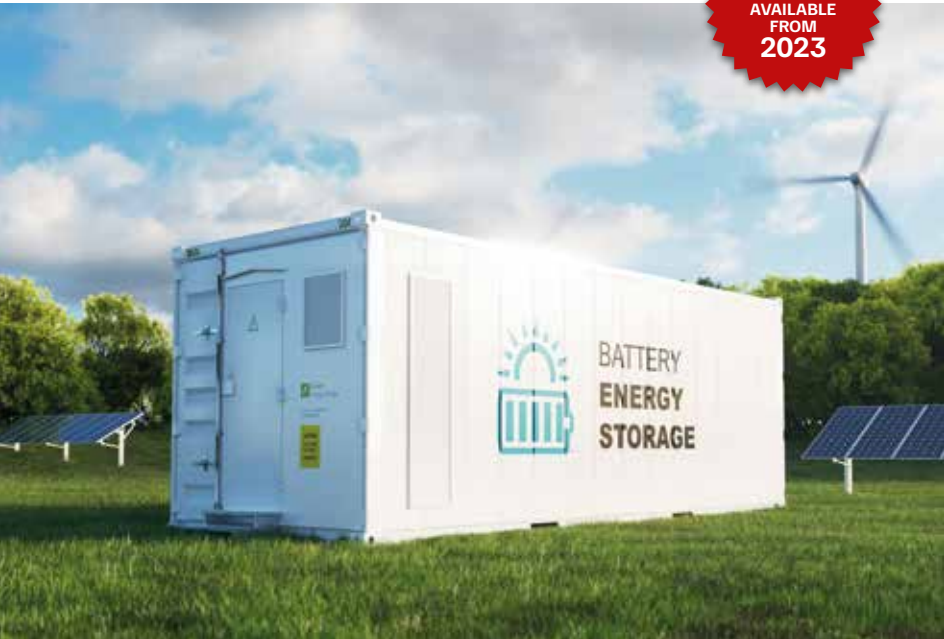




BESS

(Battery Energy Storage System) for Railway Application

Starting from the experience gained in the Railway Sector and in energy systems from renewable sources connected to the grid, IRMIE has developed **a family of BESS to store energy from any kind of production sources into several different types of batteries**, such as Lithium Batteries, Redox Flow Batteries, Salt Batteries, or into Hydrogen storage.



A SOLUTION FOR TWO DIFFERENT SCENARIOS

STORAGE IN AC

connected in parallel to a renewable source production plant (photovoltaic, wind, etc) on the AC side of the PCS. The PCS manages the charging and discharging of the battery and can be connected to the grid or to a micro-grid.

STORAGE IN DC

connected in parallel to a renewable source production plant (photovoltaic, wind) on the d.c. side of the PCS. The PCS manages the charge and discharge of a battery and the renewable source plant and usually, it is connected to a micro-grid or it supplies off-grid loads.

IRMIE BESS can operate both in “grid following” and “grid forming” mode, switching from one to the other without voltage drop.

FEATURES

- Voltage control and droop
- Reactive Power (VAR)
- Peak shaving
- Accurate and fast ramp rate control
- Power factor control
- Frequency regulation and response
- Load shifting
- Black start and EPS

