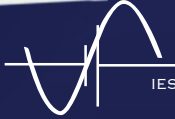


NOR-CAL CONTROLS
ENERGY SOLUTIONS

Your Project. Our Passion.



EMS BESS

Nor-Cal Controls, in partnership with International Energy Storage (IES), offers a fully integrated Battery Energy Storage System (BESS) solution. Our Energy Management System (EMS) BESS solution is suitable for various renewable energy project applications, including generation, transmission, and distribution.

A FULLY INTEGRATED STORAGE SYSTEM

Our solution offers enhanced power, reliability, and cost-effectiveness throughout its lifespan. Each battery module is paired with a dedicated inverter for optimized efficiency and heightened safety. Our integrated solution includes Nor-Cal's EMS SCADA: a fully integrated monitoring and controls platform designed with an open architecture. This empowers users to achieve complete monitoring and control for individual assets or entire fleets.

KEY FEATURES

- Pre-assembled container design
- Scalable capacity with parallel connection
- Smart liquid cooling system
- Optimized battery life cycle
- Easy system expansion
- Efficient transportation and maintenance
- Quick installation and commissioning
- Battery performance monitoring and logging
- Integrated DC/AC power safety circuit
- Turn-key solution
- Grid-forming, grid-following, and off-grid operation

ENHANCED SYSTEM SAFETY

Tailored for utilities and large-scale commercial enterprises, our EMS BESS solution can be customized to meet the following EMS applications:

- Renewable energy smoothing
- Demand support
- Infrastructure investment deferral
- Voltage and frequency regulation
- Market participation
- Microgrid integration

EMS BESS SPECIFICATIONS

Nor-Cal's EMS BESS solution is a customized energy system capable of being sized according to customer needs.

STANDARD SYSTEM SPECS

Unit Size:	3.727 MWh
Power Rating:	2000 kW
Voltage:	690 Vac
Battery Chemistry:	Lithium Iron Phosphate (LFP)
Cooling System:	Liquid cooling for optimal temperature control
Cybersecurity:	Adheres to industry best practices and NERC CIP standards Implements robust security measures, including: <ul style="list-style-type: none">• Secure communication protocols• Access control• Network security• Regular security audits and updates



MECHANICAL AND MOUNTING

Containerized Design	Compact and modular design for easy installation and transportation
Seismic Design	Designed to meet seismic standards for safe operation in earthquake-prone regions

REGULATORY COMPLIANCE

Safety Standards	UL 9540, UL 9540A, IEC 62619
Grid Code Compliance	Meets grid code requirements for interconnection and grid services participation.

ELECTRICAL

Power Output	2000 kW
Voltage Levels	AC Output Voltage: 690 Vac
Protection Devices	Circuit breakers, fuses, and surge protection devices.

COMMUNICATIONS

Network Connectivity	Ethernet and cellular communication for remote monitoring and control
Protocol Compatibility	Modbus, DNP3, IEC 61850, and other industry-standard protocols

MAINTENANCE PROCEDURES

Frequency	Item Description
Once every five years	Liquid cooling system
Once a year	Exterior and interior inspection, cleaning, and maintenance
Once every 6 months	Fire suppression system inspection and testing
	Liquid cooling system inspection and maintenance
As needed	Software updates and upgrades

Ready to optimize your energy operations?

Contact us today to explore how our EMS BESS solution can benefit your business

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