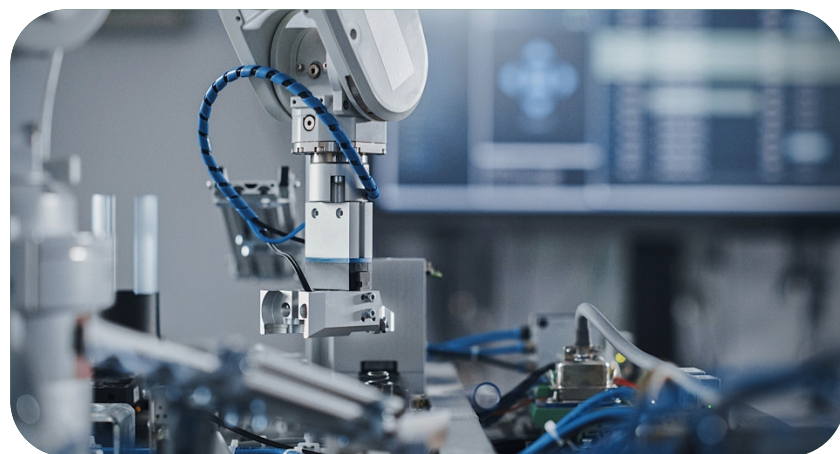




To meet the needs of ESS in special scenarios:

MOBLIE ENERGY STORAGE

Much more than just an energy storage device:

It supports charging from solar PV, the grid, or both, delivering reliable power wherever it's needed—without noise or emissions.

Whether used for emergency backup, field operations, or mobile EV charging, this system enables users to enjoy a clean, silent, and intelligent energy supply anytime, anywhere.

Applicable to various scenarios:

- ✓ Optimizing self-consumption of electricity
- ✓ Smoothing generation and load peaks
- ✓ Islanding operation
- ✓ Parallel operation with generators



M-Power Serie S30/69

Standardized Design Complete Moblie ESS

Model	M-Power S30/69
Battery Parameters	
Cell Chemistry	Lithium Iron Phosphate (LiFePO4)
Cell Capacity	3.2V/150Ah
Configuration	1P24S*6S (1P144S)
Rated Power	69.12kWh
Rated Charge/Discharge Power	0.5P (25±2°C)
Max. Charge/Discharge Current	150A (25±2°C)
Rated Voltage	460.8V
Operating Voltage Range	403.2V~518.4V
PVParameters (Optional)	
Max. Power	19.2kW+19.2kW
Max. PV Voltage	850V
PV Start-Up Voltage	250V
MPPT Voltage Range	200V ~ 830V
Max. PV Current	32A + 32A
MPPT Route	2
PCS Parameters	
Rated AC Power	30kW
Max. DC Current	100A
DC Voltage Range	320V ~ 850V
Rated AC Voltage	AC400V / 230V
Rated AC Current	43.5A
Rated AC Frequency	50 / 60Hz (±2Hz)
Power Factor Adjustable Range	-0.8 Ahead~+0.8 Behind
Overload Capacity	110%, Normal Operation; 120%, 1 Min.
External Interface	
125A Three-Phase Quick Connector	3
16A Single-Phase Outlet	2
125A DC Charging Port	1
DCoutput(optional)	
20kW DC Charger	1
General Parameters	
Operating Humidity	10% ~ 90% RH (No Condensation)
Operating Temperature	-20°C to 55°C (Derating at >45°C)
Storage Temperature	0°C~35°C
Altitude	3000m (>2000m Derating)
Cooling Method	Intelligent Air Cooling
Communication Protocol	RS485 / CAN / RJ45 / DRY / WiFi / 4G
Isolation Method	Non-isolated
Protection Level	IP55
Dimension (W*D*H)	1060*1400*1030 (±5mm)
Weight	1012Kg±3%

Works Solo.
Works Hybrid.
Works Anywhere.



Hybrid Energy Input

Supports solar, grid, and diesel with smart EMS for optimized multi-source charging and clean energy priority.



Stable Power Output

Delivers reliable AC power with multiple interfaces and compatibility with EU/GB charging standards.



Scalable Power System

Up to 3 units in parallel with flexible integration of generators and PV arrays for larger demands.



Enhanced Safety Design

Pack-level fire protection, IP55 enclosure, and smart cooling ensure safe, durable outdoor operation.



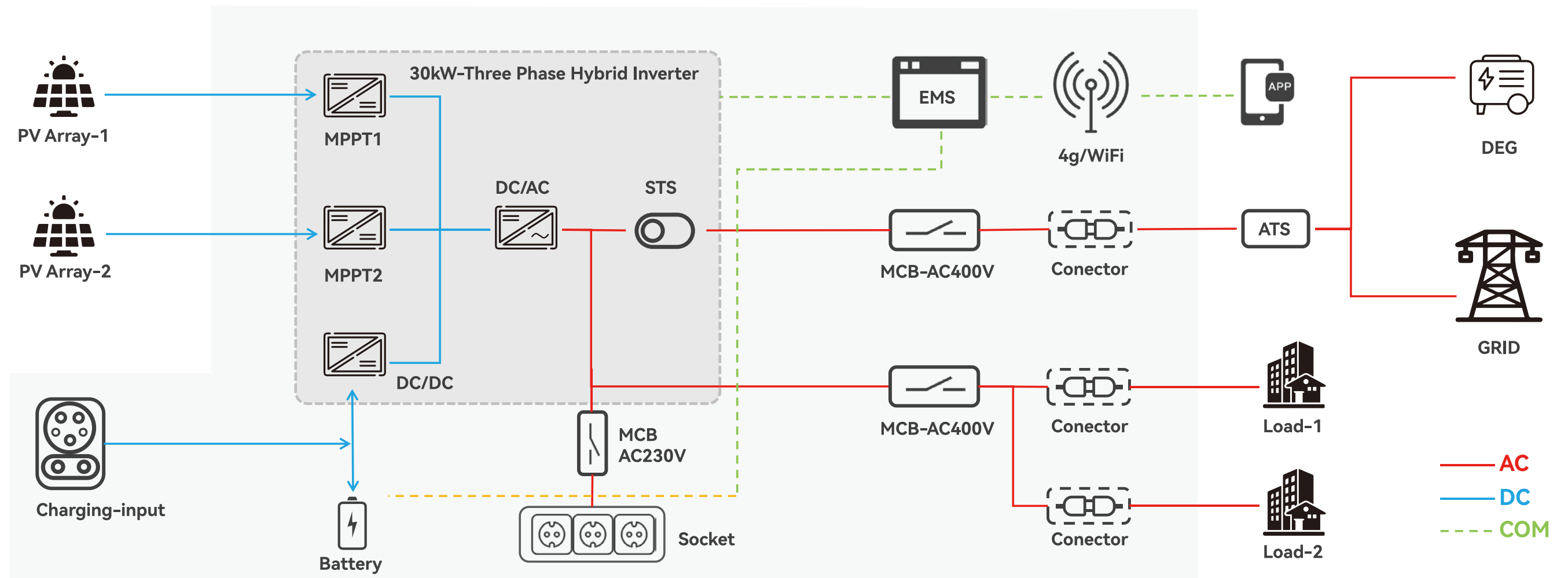
Easy Deployment

Compact mobile design enables fast setup, low operating cost, and high project ROI.



Smart Grid Control

Peak shaving, millisecond switching, and uninterrupted power for mission-critical loads.

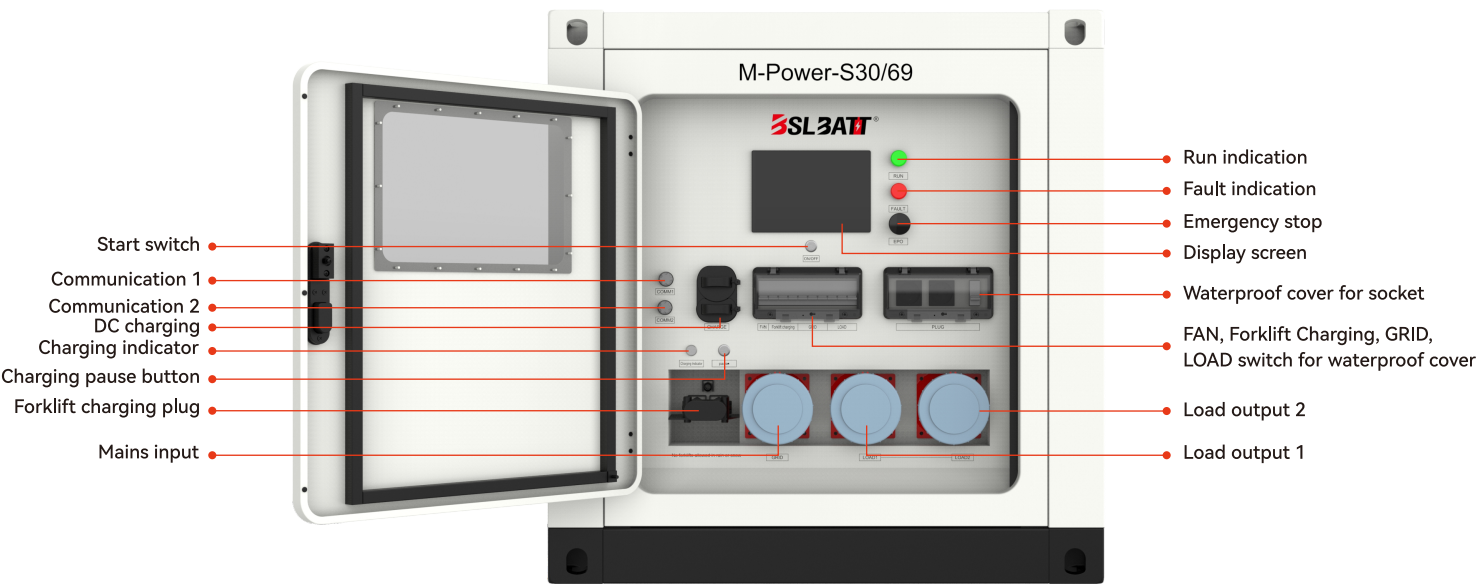


Lower Fuel. Higher Efficiency.

This mobile energy system is designed to cut diesel consumption while delivering stable, high-quality power in any environment.

M-Power Serie S30-69

System Composition





Unbalanced Load Capability

When the three-phase load is unbalanced, M-Power dynamically adjusts power between phases through intelligent control to maintain system balance and prevent equipment overload or voltage fluctuations.



Black Start Capability

In the event of a complete grid power outage, M-Power can independently start and provide initial power to other equipment (such as generators or microgrid systems), achieving "black start-up without power."



Energy Trading

M-Power can connect to the power grid and discharge during peak electricity prices and charge during off-peak periods, enabling peak load shifting and off-peak trading, or participating in electricity market transactions to generate revenue.



Multi-Mobile / Off-Grid

Multiple M-Power units can be connected in parallel to create a larger capacity system, providing a flexible off-grid power supply solution suitable for emergency situations, construction, mining operations, military operations, and more.



Reactive Power Compensation

When M-Power is used together with the power grid, the system can output or absorb reactive power to improve the power factor of the grid, stabilize the voltage and improve the power supply quality.



Genset Optimization

M-Power can operate in conjunction with diesel generators, adjusting the load output of the generators to achieve reduced fuel consumption (70-80%), lower noise levels and extend generator life.



Microgrid

Improve power supply reliability during grid failures. The M-Power energy storage system can be combined with photovoltaic, wind power, diesel engines, and other systems to form an independent microgrid, achieving self-sufficient local energy management.



Power Factor Correction

When M-Power is used with inductive loads (motors, pumps, air conditioners, welding machines, etc.), it can improve the power factor to close to 1 by adjusting the reactive power output, reducing grid losses and lowering the power factor penalty in electricity bills.



Generator Control

M-Power can work in conjunction with a diesel generator. When the battery is insufficiently charged, the system automatically starts the diesel generator for charging, and automatically shuts down the diesel generator when it is fully charged.

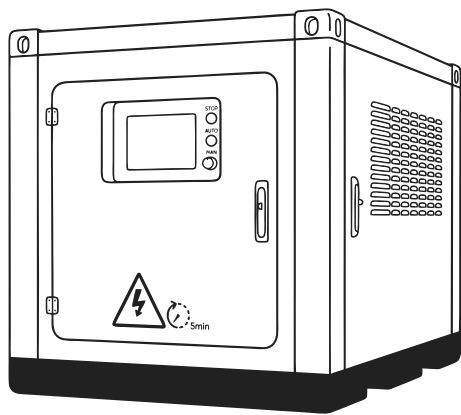


Net Congestion Relief

In areas where the distribution network is overloaded, M-Power can temporarily provide support power, alleviate local grid congestion, and improve power supply reliability.

M-Power

Flexible Clean Versatile



Mobile Energy Storage



C&I Cabinet



Lead-Acid
UPS System



Diesel
Generator

Flexibility / Mobility



Extremely High



Extremely Low



Low



Medium

Installation Engineering



Plug-and-Play



Complex



Medium



Simple

Space Occupancy



Small and Compact



Large



Bulky



Medium

Operational Costs



Extremely Low



Low



High



Extremely High

Environmental Attributes



Zero Emissions, Silent Operation



Zero Emissions,
Slight Fan Noise



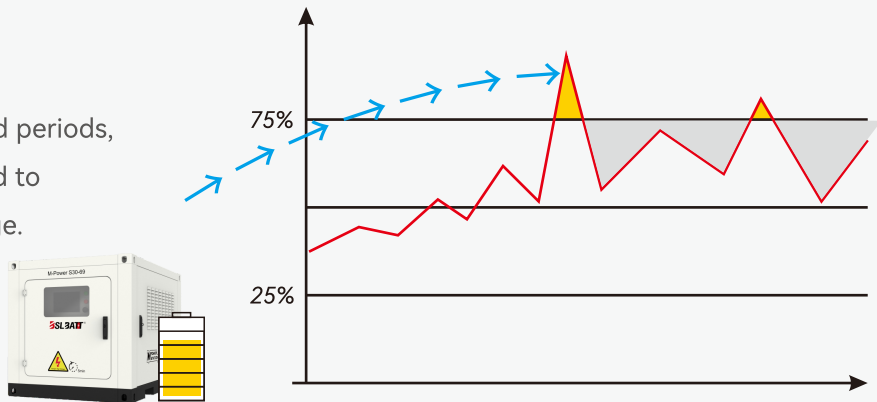
Toxic Risk



Highly Polluting

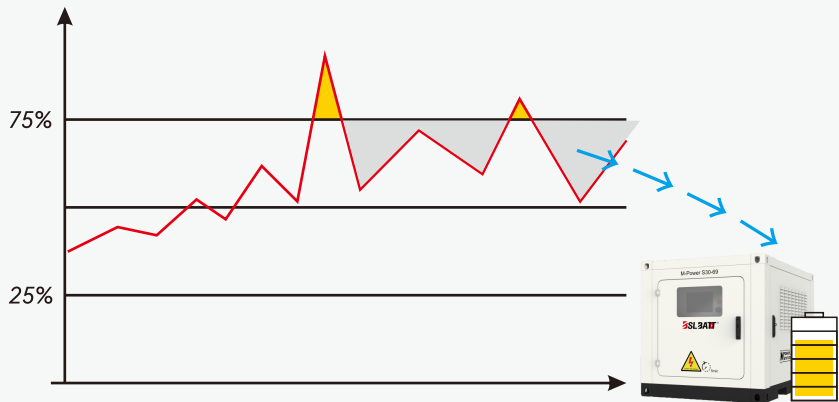
Peak Shaving: Discharge

During peak electricity demand periods, the system's own power is used to supplement the power shortage.



Peak Shaving: Charging

During off-peak periods, the system is charged using electricity from diesel generators/the power grid.



Independent Alternative

In standalone power supply mode, it completely replaces traditional diesel generators, achieving zero emissions and low maintenance.



Hybrid Configuration

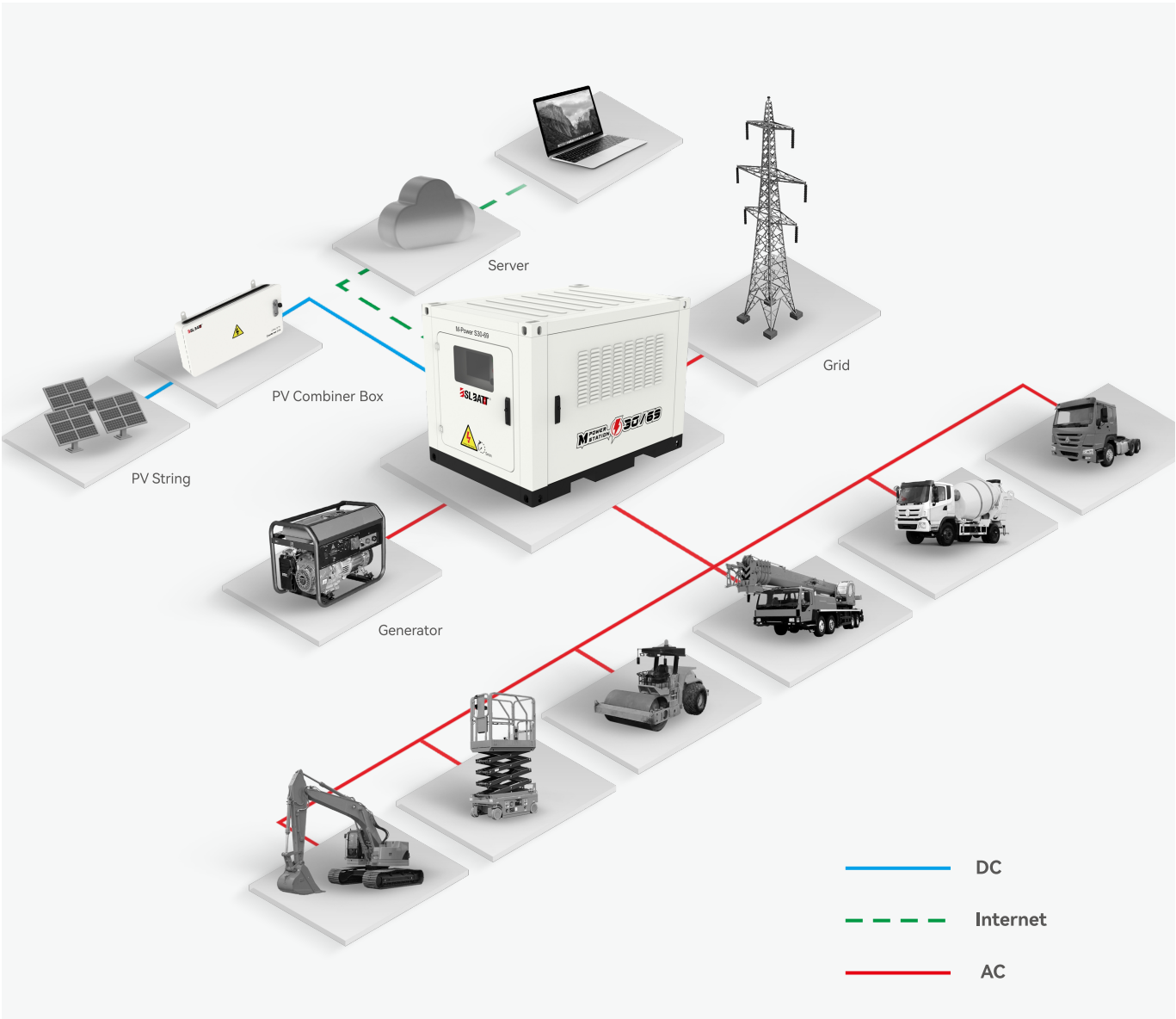
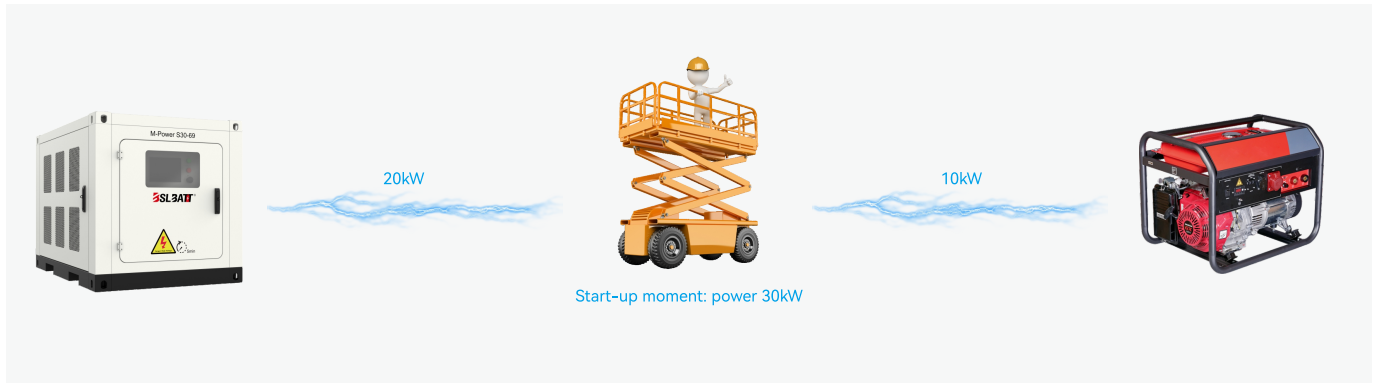
1. Two-way energy flow and optimization

The mobile energy storage system works in conjunction with the diesel generator to achieve bidirectional energy flow, optimize diesel engine operating efficiency, extend its lifespan, and reduce fuel consumption and emissions.



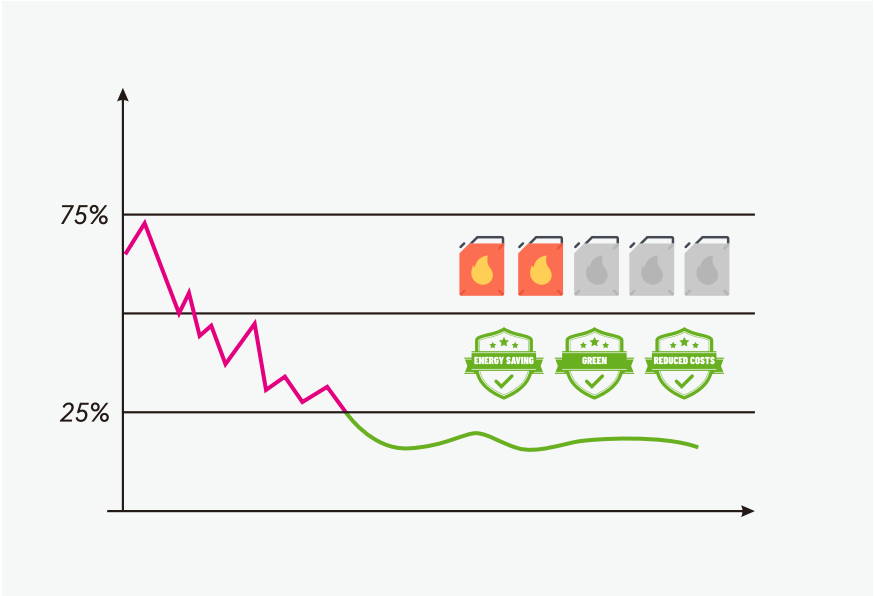
2. Power Regulation Support for Inductive Loads (Peak Compensation)

When faced with the instantaneous high power demand during the startup of inductive loads, mobile energy storage systems provide critical power compensation to ensure power stability and prevent equipment overload.



The Long-Term Value of Mobile Energy Storage

Savings on fuel and maintenance costs + Significantly Reduced Emissions.





M-Power Scenario Analysis

Providing Stable Power for Remote Construction Sites

In a remote or high-altitude infrastructure construction area, the project faces challenges related to stable operation and logistical support of power generation equipment:

FUEL DEPENDENCY AND VULNERABILITY

The construction site relies on diesel generators for electricity, requiring regular fuel supply missions. However, the difficult terrain makes transportation time-consuming and inefficient.

GENERATOR INEFFICIENCY

The generators often operate at low load, leading to inefficient fuel consumption, frequent maintenance issues, and premature wear.

NOISE POLLUTION

Constant generator noise hinders effective communication among workers and causes ongoing hearing discomfort and damage.

SOLUTION

A BSLBATT M-Power 30/69 was deployed alongside the existing diesel generators, forming a hybrid power system.

RESULTS

UP TO

60%

REDUCED FUEL CONSUMPTION

Decreasing resupply missions and diesel fuel dependency.

ADVANTAGES

- Enables autonomous operation without on-site staff intervention
- Ensures generators run within their optimal fuel efficiency range
- During low power demand, the battery system shuts down diesel generators and operates on stored power