

Mobile Battery Energy Storage System

AlpSolar
A LIGOO BRAND



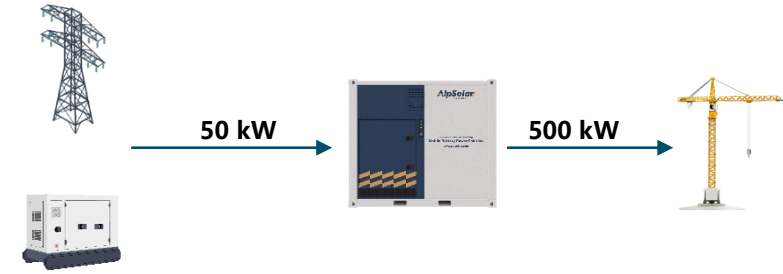
FlexCube

AlpSolarr Mobile BESS

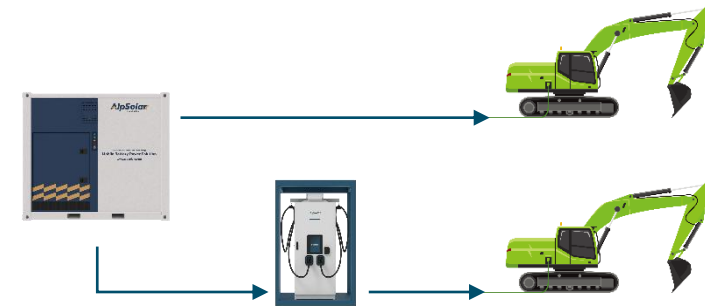
AlpSolarr's FlexCube is an innovative and reliable multifunctional mobile energy storage system that can be used as a sustainable alternative to diesel generators or in conjunction with diesel generators to reduce fuel consumption and quickly expand power capacity for limited grids. Especially construction sites, it can effectively reduce carbon emissions.

FlexCube is easy to use and can be unloaded, connected and started on site in minutes. It can provide the required power for construction sites, charging electric construction machinery and trucks, factories waiting for grid connection upgrades, temporary grid services, events and many other application scenarios.

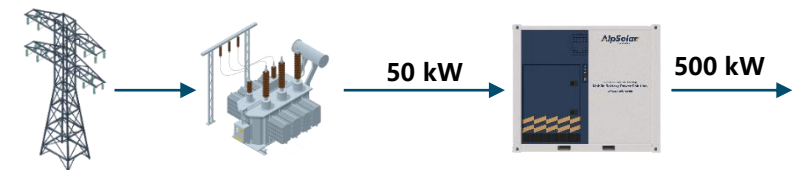
construction



charging



expansion



FlexCube-500EL



Plug and Play

Use standard CEE and Powerlock interfaces for quick plug-in and quick deployment.

Cost savings

It can reduce fuel consumption by 80% and save the cost of transformer expansion.

Quiet

The operating noise is less than 75dB, suitable for residential areas and noise-sensitive areas.

Easy deployment

Standard 10-foot container size and enhanced structural design enable fast transportation and installation.

Power expansion

40 kW continuous input, can achieve a maximum intermittent output of 500 kW.

Shock load resistance

Multiple safety and functional designs can effectively cope with intermittent and impact loads, such as tower cranes.



Easy power connections



Max.698.8 kWh



Max.500 kW AC Output



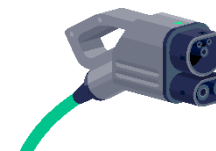
DG Support



Model	FlexCube-250EL	FlexCube-500EL
Battery		
Cell Chemistry	LFP	
Battery Type	3.2V 280 Ah 1P	
IP-value of PACK	IP 65	
Total Capacity	465.9kWh	698.8 kWh
AC Output		
Rated AC Output Power	250 kW	500 kW
Rated AC Output Voltage	AC 400V , 3P+N+PE	
Rated AC Output Frequency	50/60 Hz	
Interface 1	2*400 A Powerlocks	
Interface 2	1*63 A CEE, 1*32 A CEE, 1*16 A CEE1*16 A CEE, (Support customization)	
AC Input		
Rated AC Input Power	350 kW	
Rated AC Input Voltage	AC 400V , 3P+N+PE	
Voltage Range	320~460 V	
Rated AC Input Frequency	50/60 Hz	
Interface 1	1*400 A Powerlocks	
Interface 2	1*125 A CEE	

Model	FlexCube-250EL	FlexCube-500EL
Highlight Configuration		
STS	√	
Power Control	PQ/VF/VSG	
External Anti-backflow Meter	√	
Automatic On/Off-grid	√	
Certification	CE-RED/IEC 60529/IEC 62619/IEC 62477/IEC 60370/UN 38.3/RoSH	
General		
Cooling	Liquid cooled	
Communication Interface	Modbus TCP\Internet\CAN	
Operating Temperature Range	-20 °C ~50 °C	
Interaction	Cloud platform/touch screen	
Altitude	2000 m	
IP-value of Enclosure	IP 54	
Environment Class	C 4 (C5 and above can be customized)	
Dimensions (W * H* D)	2438*2591*2991 mm	

FlexCube and Fast Chager



CCS 2

DC standard charging connector.

240/480 kW

Charger DC output.

Flexible

Flexible combination use.



Transport

Can be transported by forklift.

For DG, what's the problem?



Noisy



Air Pollution



No Data Transparency



Diesel Dangers



Maintenance Downtime

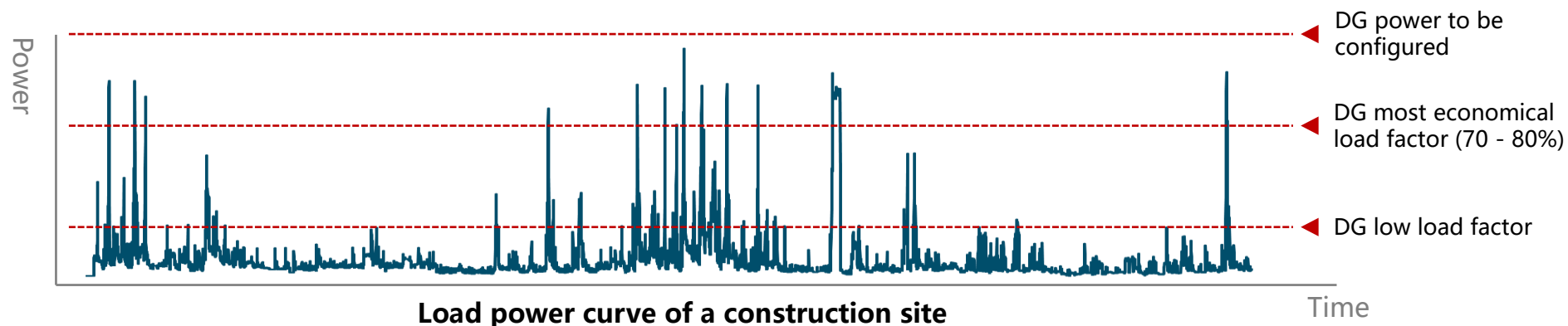


Carbon Footprint

- Huge noise when DG is running;
- Exhaust gas emitted by DG during operation pollutes the air;
- Lack of immediate data of diesel usage to actual converted useful electricity to equipment;
- Diesel is flammable, and transportation and storage are risky;
- Frequent maintenance, such as changing lubricating oil and filters;
- Increasingly stringent carbon emission and environmental protection requirements.

Reduce Diesel Consumption

Load Characteristics



Traditional Diesel Generator Solution



- DG needs to be configured according to peak power, so the diesel engine has high power;
- DG runs for a long time at low load rate, and the fuel economy is very low;
- DG runs for a long time.

AlpSolarr FlexCube Solution



- DG is only used to charge FlexCube and can continue to work at the most economical load rate;
- DG capacity is much lower than the scenario of using only DG, with less noise and less pollution;
- DG operation time is shortened.

Impact & Intermittent Loads



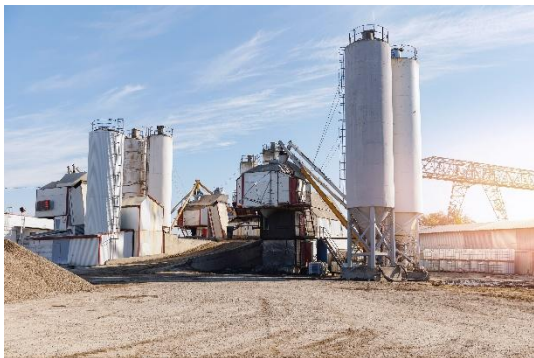
Tower Cranes



Passenger/Material Hoists



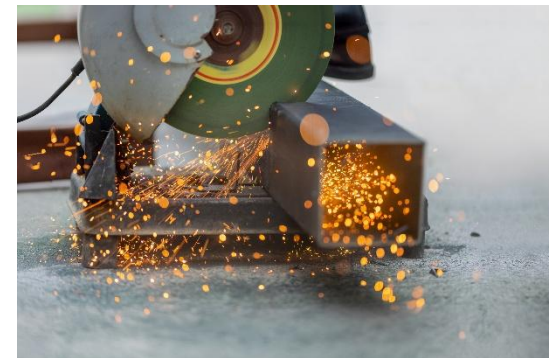
Welding Machine



Concrete Mixer



Gantry Crane



Cutting Machine

Electrification Trend ——How to Charge?

Policy Support

The electrification of construction machinery is currently a trend in Europe, and the government has introduced relevant policy support, such as the Netherlands' Clean and Zero-Emission Construction Equipment Procurement Subsidy Program (SSEB)'.

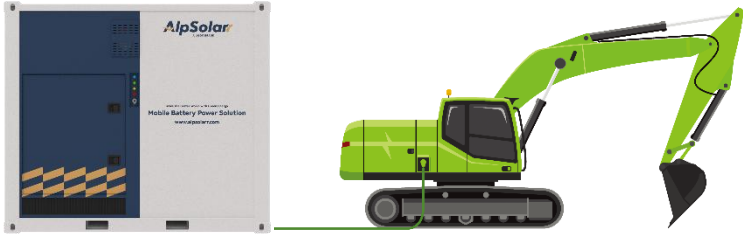
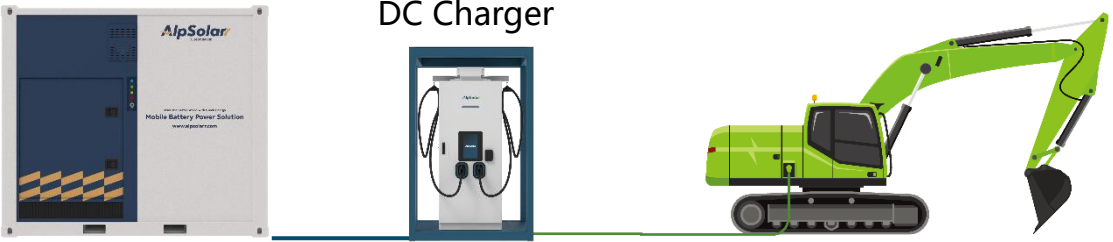
Product Launch

Volvo CE launched its first pure zero-emission product line at Bauma 2025 (April 7-13). Leading construction machinery companies around the world have already made in-depth layouts of electrified equipment, such as Caterpillar, Volvo Construction Equipment, XCMG, Sany Heavy Industry, and Liugong Machinery, which have launched several electrified construction machinery products.

*Image from Volvo official website

Charging Electric Machinery



Solution A	Solution B
	
CEE Charging: Max 125A	FlexCube + DC Charger
If the construction machinery is equipped with a CEE interface, you can directly connect the plug to the CEE interface of the device, which can provide a maximum charging power of 125A for machines.	Flexcube can connect to a DC charger with a maximum capacity of 500kw, providing more than 240kw charging power for construction machinery.

Grid Congestion

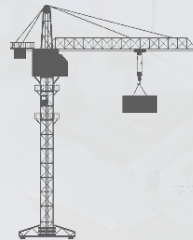
We increasingly demand more electricity than the grid can handle. This can lead to grid capacity being full (grid congestion). As a result, companies, new buildings and new projects are often unable to purchase or supply additional electricity.



New Building



New Factory



New Construction



Expanding

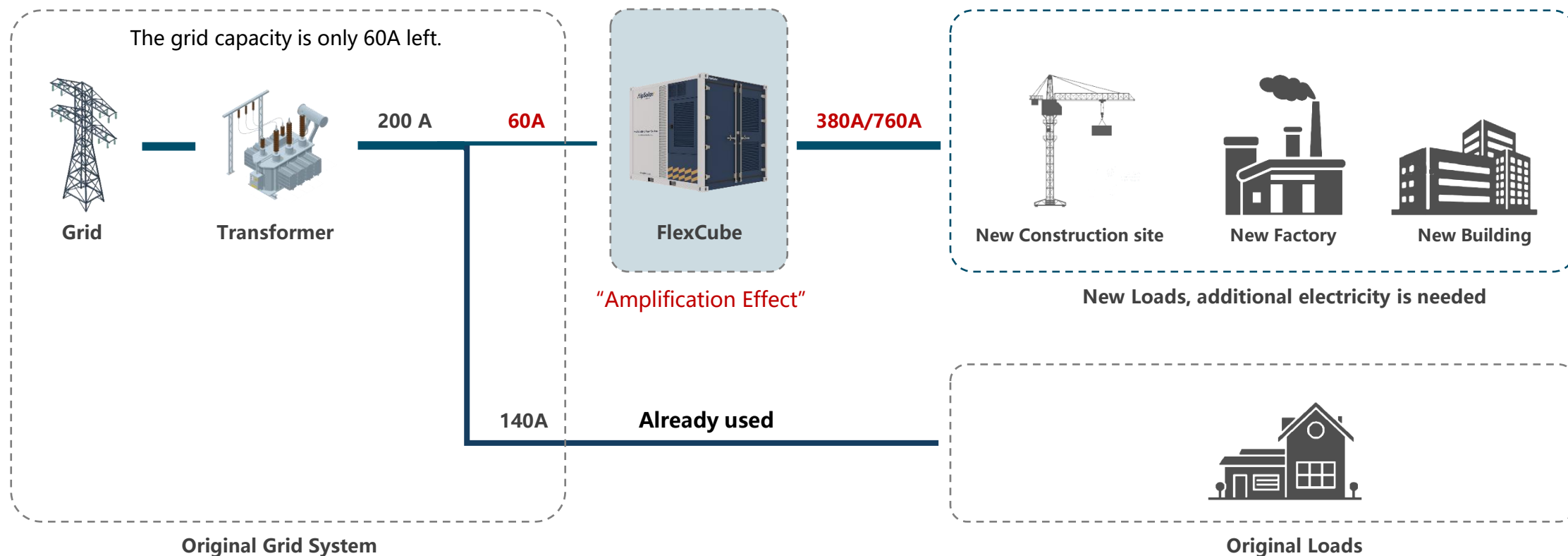


EVCS

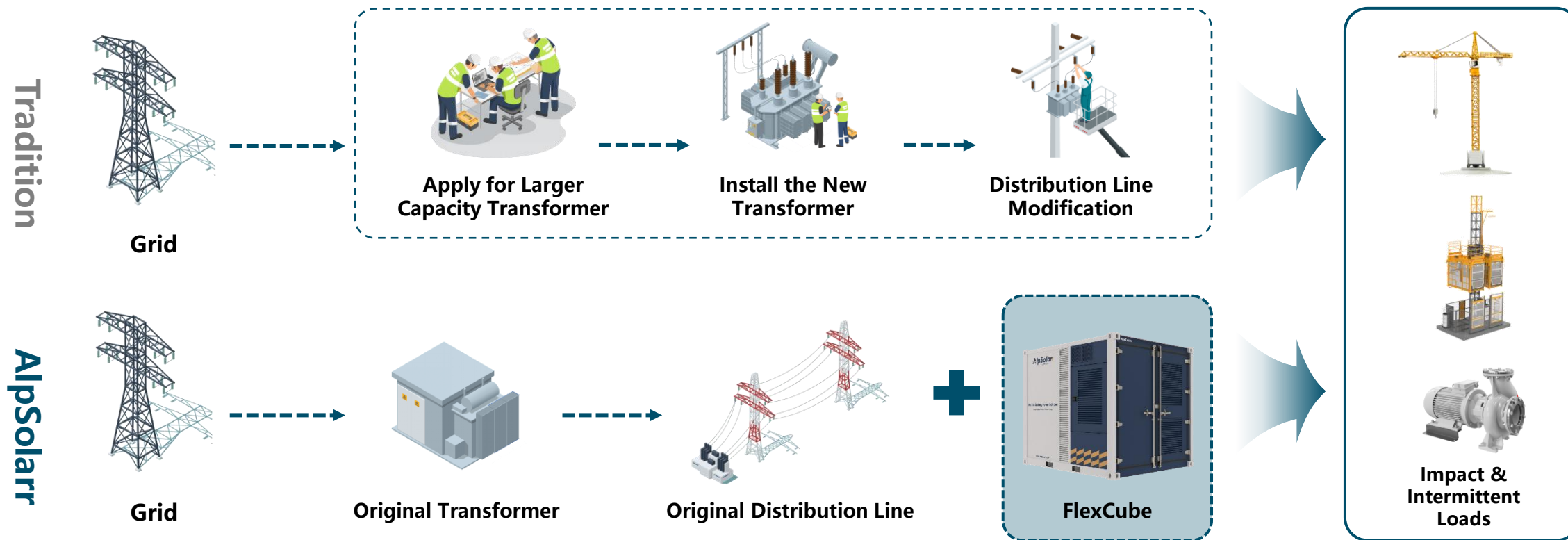
'Power Amplifier'

For new construction sites, new factories and new buildings, additional electricity is needed, which often requires upgrading and transforming the power grid. However, upgrading and transforming the power grid often takes a long time, which will seriously hinder the implementation of business plans.

The remaining power is 60A, and our new demand is 760A or even more.



Advantages of Power Amplifier



No Power Outage

There is no need for regional power outages to replace transformers and transform old power grids.

Quick installation

The installation, disassembly, cable connection and power supply can be completed within a few hours.

No DG

No need to add DGs to provide electricity, which is environmentally friendly and economical.

Lower Cost

Compared to the high cost of applying for the installation of a new transformer, our cost is lower.



Drive the Better World with Green Energy

—THANKS—

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