C&I energy storage projects

Herholdt Warehouse Power Backup Project

100kW/200kWh | NPS0100 | Backup power | 2023.11

Herholdt (Headquartered in Bloemfontein) is a well-known renewable energy industry player in Africa, and its business covers the southern African region. In order to reduce the impact of power rationing policies on the company, they installed 100kW/200kWh energy storage systems in their 10 warehouses in South Africa, which are used for product display and as backup power. NPS0100 hybrid inverter has contributed to the success of the project.

C&I energy storage projects

An oil field in southern Iraq. When the machine starts to extract oil, it creates a huge voltage load. Therefore, in order to prevent the potential power failure due to excessive load, the customer chose to cooperate with Us and use our NPS0500 to store sufficient power for the oilfield. When the machine is in operation, the total power generation can reach 1.4MWh. After cooperating with the photovoltaic system, it can not only meet the electricity demand of the oilfield, but also prevent the power failure crisis.

Iraqi Oil Field Power Supply Project

500kW/1.4MWh | NPS0500 | Power supply | 2024.08

C&I energy storage projects

In order to ensure the daily electricity consumption of residents in the Alexandria community, the Johannesburg City Power and Gauteng Provincial Government jointly invested in constructing a 500kW/1MWh microgrid system to cope with the frequent power outage crisis. Megarevo provided a 500kW NPS hybrid inverter for this project, combined with EMS to manage the charging and discharging of the microgrid system effectively.

Alexandria Community Micro-Grid Project

500kW/1MWh | NPS0500 | Self consumption | 2024.03

C&I energy storage projects

Sandton Plant Power Backup Project

250kW/500kWh | NPS0250 | Backup power | 2024.04

With the rapid increase in fuel costs, diesel generators are now only started in emergencies. In order to improve the current energy consumption environment, plant operators combine the renewable energy storage capacity of BESS with the supplementary power generation of DG sets to provide an efficient and sustainable power supply for the factory.

250kW NPS hybrid inverter plays a key role in the entire energy production and supply process. It not only maximizes the use of clean energy electricity but also quickly starts BESS to provide a continuous power supply for important loads during power outages.

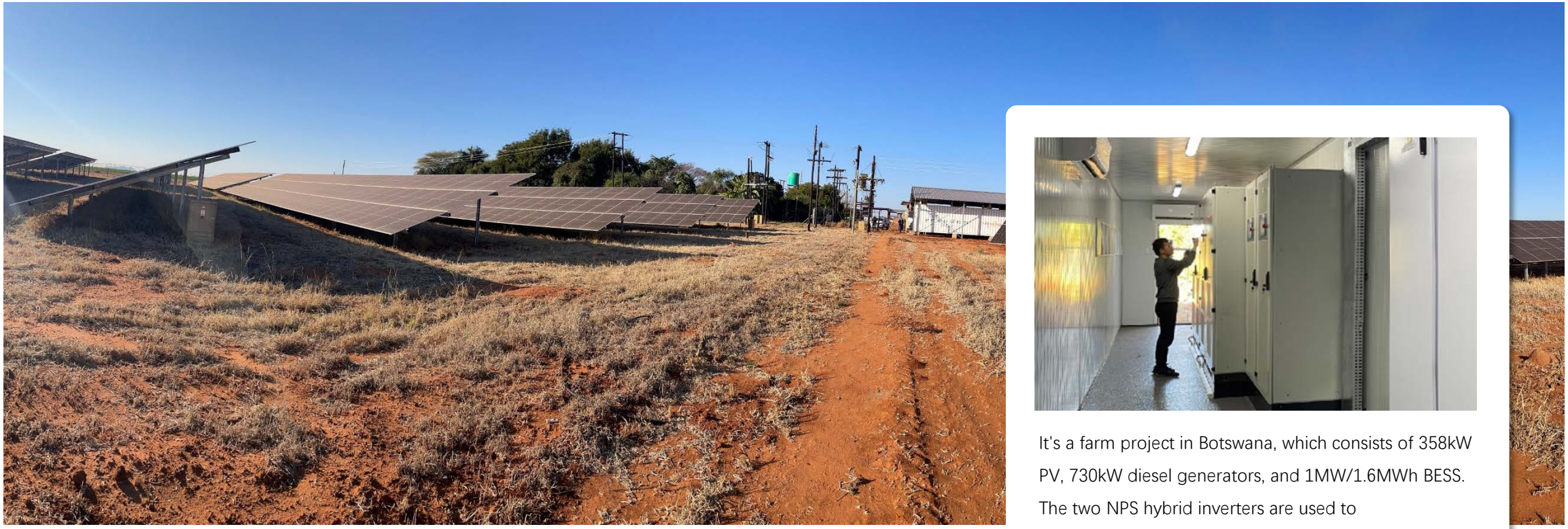
C&I energy storage projects

The largest public hospital in South Africa faces power outages lasting several hours each day. But so far, the hospital is powered only by two 1.5MW diesel generators. In order to reduce energy costs and noise pollution, the hospital operator decided to install a clean energy system. The project consists of a 1.5MW/3MWh energy storage system and a 1.5MWp rooftop PV system. With the help of 6 NPS0250, a hybrid power system is formed, which can operate reliably even when the power grid fails.

South Africa Regional Hospital project

1.5MW/3MWh | NPS0250*6 | Backup power | 2024.05

C&I energy storage projects



It's a farm project in Botswana, which consists of 358kW PV, 730kW diesel generators, and 1MW/1.6MWh BESS. The two NPS hybrid inverters are used to manage the energy of PV, cells and DG to meet the daily power supply of major loads such as farm pumps and harvesters. The successful implementation of this project can not only help the farm to ensure production but also play an important role in promoting the coordinated development of the ecological environment.

Botswana Farm Microgrid Project

1MW/1.6MWh | NPS0500*2 | Self consumption | 2024.06

C&I energy storage projects

Norway PV Charging Station Project

250kW/520kWh | N0250TS | Dynamic expansion | 2022.04

In order to meet the power supply capacity of the station and support the demand for high-power fast charging, in April 2022, Factory provided a 250kW/520kWh BESS and 50KW rooftop PV for this project, which together with the three fast charging piles at the base, formed an intelligent power supply system. After the project operation, it not only provided convenient and economical charging services for more new energy vehicles but also obtained additional economic benefits.

C&I energy storage projects

Dairy Farm Microgrid Project

150kW/300kWh | NPS0150 | Self consumption | 2024.03

A dairy farm in Johannesburg that consumes about 100,000 kWh of electricity per year. In addition to milking machines and automatic feeding systems, air circulation equipment and other load equipment in cow sheds and nearby buildings also need to be powered. In order to save energy costs and produce green solar power in the future, the farm operator decided to enable a PV & storage hybrid power supply system, which includes a 150kw hybrid inverter, 300kWh battery, and 200kW ground PV panels. The system has been successfully connected to the grid, with a self-sufficiency rate of 90%, which can reduce the purchase of electricity to almost zero.

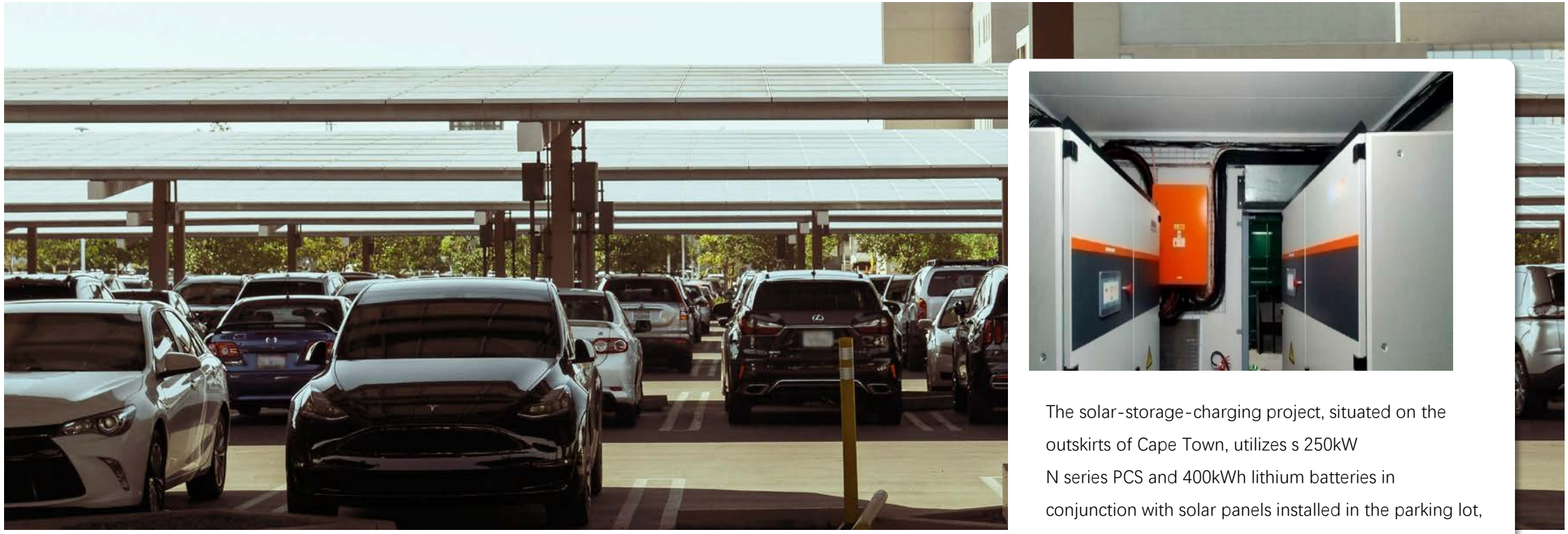
C&I energy storage projects

Farm Microgrid Project

50kW/150kWh | NPS0050 | Self consumption | 2023.04

Due to weak power infrastructure, farms in the suburbs cannot access reliable power sources. To generate electricity, they rely heavily on fossil fuels. As fuel costs continue to rise, low-income farmers are even more unable to afford expensive energy expenditures. For this reason, the local government installed a microgrid system for the farm. The PCS of the system uses a 50kw hybrid inverter, which not only helps residents use the available local resources to generate electricity but also empowers them to manage and control this distributed new energy.

C&I energy storage projects



The solar-storage-charging project, situated on the outskirts of Cape Town, utilizes s 250kW N series PCS and 400kWh lithium batteries in conjunction with solar panels installed in the parking lot, to supply ample green electricity for the 40 charging piles at the station.

This not only enhances convenience for residents and alleviates strain on the power grid during peak hours but also employs intelligent charging & discharging strategies to optimize cost-effectiveness.

Cape Town Solar Storage & Charging Project

250kW/400kWh | N0250TS | Transformer expansion | 2024.07

C&I energy storage projects

In the wood production process, the load fluctuations of major processes such as cutting, gluing, and grinding are large. In order to smooth the load curve, the customer installed 300kWp PV and 250kW/500kWh BESS in the factory. The inverter used NPS0250. Since the system was put into operation, the Factory has followed one charge-discharge operation strategy every day, allowing the BESS to charge during valley price periods and discharge during peak price periods, further improving the efficiency of overall energy management and greatly saving electricity expenses.

Slovakia Wood Processing Plant Project

250kW/500kWh | NPS0250 | Peak shaving and valley filling | 2023.07

C&I energy storage projects

Czech Energy Storage Project

2.5MW/2.5MWh | N0630*4 | frequency modulation | 2023.07

This is a frequency regulation demonstration project located at the a factory production base in the Czech Republic, which aims to quickly respond to grid dispatch instructions and open up new revenue channels. In the project, Four N0630 PCS were used in parallel, closely combined with 2.5MWh batteries and PV, forming a powerful "energy warehouse". It not only provides solid power support for the factory, but also actively participates in grid auxiliary services by providing FCR and FFR services, thus achieving a double harvest of economy and environmental protection.

C&I energy storage projects

Jiangsu Power Plant Project

0.8MW/2.6MWh | NMA060*13 | Peak shaving and valley filling | 2024.07

The project is located in the Jiangsu Yancheng Guotou New Materials Production Base. The factory mainly produces electronic materials such as copper wire, tinned wire, copper busbars, etc. These production equipment have high requirements for power quality. In order to reduce the company's production power costs. Factory cooperated with the system integrator to deploy a 0.8MW/2.6MWh BESS for the customer. The system uses 13 *60kW modular PCS. Each PCS is equipped with a 200.7kWh battery string. The EMS manages a single PCS according to the status of each battery string , and finally achieves one string one management.

C&I energy storage projects

Ghana Hotel Energy Storage Project

50kW/55kWh | NPS0050 | Self consumption | 2024.02

In order to face energy challenges, This hotel which is located in Kumasi, Ghana, installed a 50kW/55kWh A outdoor cabinet energy storage system and a rooftop photovoltaic system. The combination of the two can not only effectively reduce electricity bills, but also provide 55kWh of stored energy. When a power outage occurs, the system can provide long-term backup power for key loads such as elevators and lighting. This not only improves customer experience but also obtains considerable investment returns when online, killing two birds with one stone.

C&I energy storage projects

Wenzhou Steelworks On-grid Project

300kW/650kWh | NMA060*5 | Peak shaving and valley filling | 2023.08

The operation of steelworks demonstrates that heavy processing enterprises have a significant demand for high-quality electricity during production. However, the high load periods of steelworks almost coincide with the local power grid's peaks and valleys. Coupled with the continuous operation of various production processes such as smelting and hot rolling, the power consumption of steel mills often exceeds the local power supply. Therefore, based on the actual situation of the steelworks, implemented a solution using five 60kW NMA modular inverters combined with a 650kWh LFP battery to form a 10-foot energy storage system to provide reliable power support.

C&I energy storage projects

Data Center Backup Power Project

150kW/170KWh | NPS0050*3 | Backup power | 2024.03

A data center located in Cape Town, South Africa, uses a 150kW/170kWh energy storage system and 160KW PV to replace UPS as the main backup power supply to improve the utilization rate and operating income of the data center's power assets. With the future growth of business, customers can flexibly expand capacity according to actual power needs. For this reason, the customer selected three 50kW MPS hybrid inverters on the AC side of the project, which were quickly put into use through brief wiring debugging.

C&I energy storage projects

Farm Solar Energy Storage Project

200kW/200kWh | N0100TS*2 | Dynamic expansion | 2023.12

As the breeding scale of the dairy farm near Port Elizabeth continues to expand, the electricity demand fluctuates greatly, and the original power system is difficult to transform. For this reason, the farmer uses two energy storage PCS, Each connected to a 100kWh lithium battery, in conjunction with two 130kWp Huawei photovoltaic inverters and a 130kW diesel generator to power the farm's production equipment.

C&I energy storage projects

Community Microgrid Project

500kW/500kWh | NPS0500 | Backup power | 2024.03

Dominica, beautifully situated on the eastern edge of the Caribbean Sea, sometimes faces challenges with power reliability due to seasonal hurricanes and occasional natural events. The island has traditionally relied on diesel generators for its power needs. However, these generators are often noisy, expensive, and not environmentally friendly. That's why in partnership with local battery experts, has introduced a clean, quiet, cost-effective microgrid solution for the community. Using the NPS0500 hybrid inverter, paired with 500kWh batteries, this innovative approach helps ensure a more stable power supply. It provides a peaceful and comfortable environment for everyone, especially for pregnant women and children.

C&I energy storage projects

Winter Olympics Microgrid Project

500kW/1000kWh | NPS0250*2 | Self consumption | 2021.12

The project is located at the Beijing Winter Olympics's Chongli South Transportation Hub Station. Centered around a flexible substation, the project includes various distributed power sources such as small wind power generation, PV, and BESS, as well as DC charging piles, office lighting, and other loads. It constructs an AC/DC hybrid microgrid that integrates multiple grid, source, load, and storage elements, enabling on-site consumption of distributed power sources, participated in the construction of this project and provided two sets of NPS0250 hybrid inverters, which, combined with external power, achieve a 100% clean energy supply.

C&I energy storage projects

The Taklimakan Desert Highway is the world's longest grade highway that runs through a mobile desert, stretching 522 km and featuring 86 diesel-generation stations along its route. In response to China's dual-carbon policy, the Tarim Oilfield has upgraded and renovated these 86 stations. Besides installing PV systems, it has also extensively deployed microgrid systems. 86 NPS0030 units were used in the project due to their high degree of integration and intelligence. After the project became operational, it reduced diesel consumption along the route by 1,000 tons and cut carbon dioxide emissions by about 3,410 tons annually.

Taklimakan Desert Highway Microgrid Project

2580kW/6450kWh | NPS0030*86 | Off-grid | 2022.06

C&I energy storage projects

China-Mongolia Border Microgrid Project

50kW/128kWh | NPS0050 | Backup power | 2022.06

Ganqimaodu Port, located at the border between China and Mongolia, is the largest highway port in China in terms of freight volume. The area frequently encounters sandstorms and power outages, which not only damage the precision inspection equipment at the checkpoint but also affect the efficiency of port inspection work. Therefore, We provided a 50kW/128kWh smart microgrid solution, forming a coordinated and reliable energy supply system with the existing 40.5kW PV power generation system at the base to ensure the power security of the port.

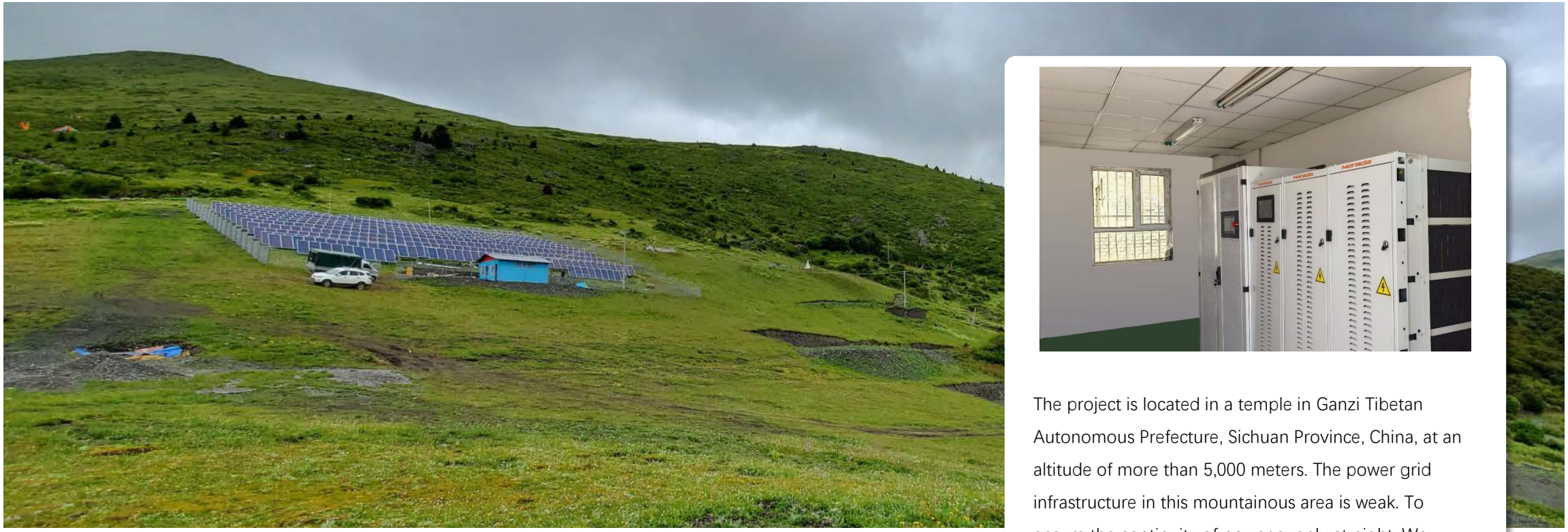
C&I energy storage projects

Shaanxi Microgrid Project

600kW/3000kWh | NPS0030*20 | Off-grid | 2022.05

Coal mining produces large amounts of mine water, which is often considered wastewater. To convert it into a source of clean water, 20 sets of NPS0030 hybrid inverters were applied to 20 sites. Each site is equipped with a 10kW generator, 30kW inverter, 15.8kWp PV, and 150kWh battery, which together form an off-grid microgrid to power the regulating valves and electric valves of the local coal mine drainage pipes. This setup effectively promotes the recycling of drainage water in coal mines and contributes to green development.

C&I energy storage projects



Ganzi Prefecture Microgrid Project

150kW/391.68kWh | NPS0150 | Self consumption | 2021.06

The project is located in a temple in Ganzi Tibetan Autonomous Prefecture, Sichuan Province, China, at an altitude of more than 5,000 meters. The power grid infrastructure in this mountainous area is weak. To ensure the continuity of power supply at night, We deployed a 150kW/391.68kWh microgrid system for the temple in June 2021. The PCS uses NPS0150 high-power hybrid system, which employs intelligent control algorithms to coordinate photovoltaics and batteries, providing electricity for residents.

C&I energy storage projects

Solar Storage & Charging Project

150kW/300kWh | N0150 | Dynamic expansion | 2021.08

The Smart Solar Storage and Charging Project uses Our 150kW energy storage converter on the AC side, matched with 300kWh lithium batteries, 300kWp photovoltaic panels, photovoltaic inverters, eight 30kW charging piles, and EMS control systems, forming a flexible power supply system through AC coupling. The project has been running stably for three years, with zero safety accidents and equipment failures during this period.

Grid side energy storage projects

Power Station Frequency Regulation Project

100MW/200MWh | N0630*80 | Frequency modulation | 2021.05

The project, located in Shaoyang City, Hunan Province, is a peaking and frequency modulation initiative constructed by the State Grid on the power grid side. The project has a total capacity of 100 MW/200 MWh, with the DC side utilizing 1C high-rate batteries. To enhance the utilization efficiency of the energy storage system, 80 N0630 energy storage converters were installed, representing half of the total converters used. The product features safety, reliability, intelligence, and efficiency, with the highest efficiency reaching 98.7%, which better meets the application's needs.