# Energy Management System EMS

Product introduction

The new energy monitoring system of PV&ESS&GE monitors photovoltaic and energy storage equipment through the front service module, and realizes the management and dispatching of energy of large integrated energy stations by transmitting commands through the front service module, realizing system operation, interface design and real-time monitoring function, alarm service function, historical data query function, operation function, parameter setting function and user management function. The developed system can support

The developed system can support the management and scheduling of new energy and energy storage plants of 100 MW level, and realize advanced application functions such as energy storage scheduling.

System Architecture
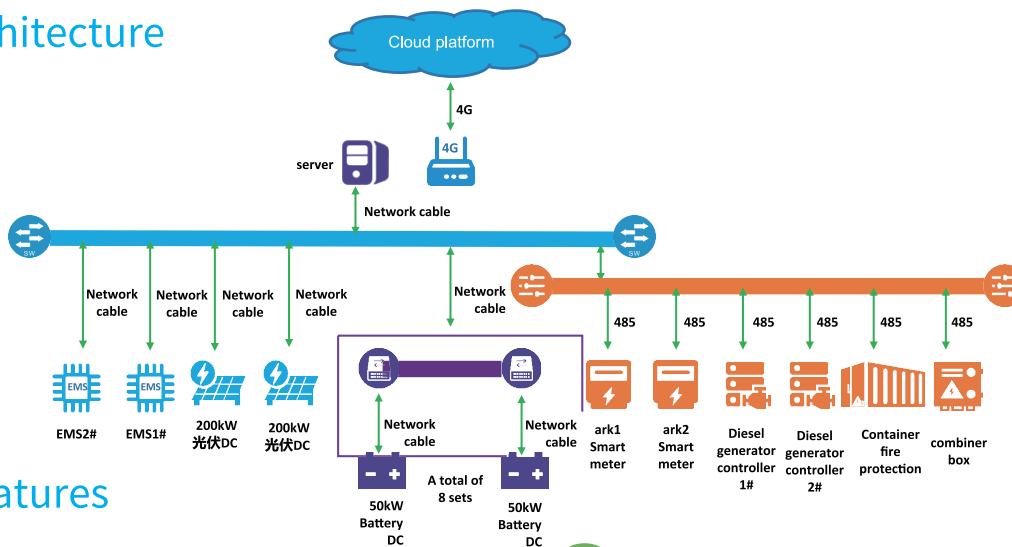
Product Features

System operation

When the system is started, the whole process of system start-up is presented. When the system runs abnormally, it needs to describe the abnormal phenomenon precisely and ensure the normal operation of the system. When the system exits, it presents the system exit process and ensures the stable operation of the field station when it exits. For system status view, the system can see the status of each process, CPU memory main and backup information, etc.

Historical data

This system historical data function, realize can backup, dump, restore, clear and so on. History database mainly stores key data of the system

Alarm service function

The system will classify alarm events and classify alarm levels, store different alarms into different tables, display them in the interface in the form of tables, and support filtering queries. The main interface will display the alarm information in real time, and the alarm will be marked in red when the alarm occurs, and configured with ringing and voice prompts to prompt the user to deal with the alarm as soon as possible.

User management function

The system user management function, to achieve the management of user rights, partial content of the system cannot be viewed if the user has insufficient permissions.

Energy storage coordination control function

This system energy storage coordination control function operation mode to meet no control, local control, scheduling control mode switching. The control mode supports support for constant power, constant power factor, constant charge/discharge current, reactive power control, and voltage control mode switching. Realize active power control, reactive power control, rate regulation, dead zone regulation.

Interface design & real-time monitoring function

The interface design of this system can strictly follow UI regulations and meet the concept of green environment protection. The system supports displaying power and frequency real-time curves, displaying voltage real-time curves, displaying primary FM core variables, displaying wind power energy management core variables, displaying energy management core variables, displaying energy storage core variables, displaying SVG core variables, and displaying various third-party real-time variables.

Parameter setting function

The parameter setting function of this system allows users to set the system operation parameters and control indexes, and for users with different authority, the open settable options are different.

Operation log function

The system operation log function is used to record the system operation log.