Wind and solar hybrid power system for communication base station

With the rapid development of communication industry, the need of remote area and area without electricity for mobile communication increase sharply. This demand of communication base station cover more area. Wind and solar hybrid power generation system for communication base station utilize solar and wind of nature and the overall cost is much lower than the cost of grid. The system can solve communication quality problems in these areas. Communication base stations supplied by wind and solar hybrid power system of ShuangDeng consists of solar modules, small wind turbines, hybrid energy management integrated controller for communication, battery and battery outdoor incubator. Hybrid energy management integrated controller for communication adopt modular design which fully meet the communication power standards. It support hot-swappable and hot backup for PV control modules, wind turbines control modules and rectifier modules, including CU3000 hybrid power monitor module and providing standard communication interface.

ShuangDeng fully participate in wind and solar hybrid power system for communication base station construction since 2005 and more 2300 base station systems operate normally at present. ShuangDeng has construction experience in all kinds of areas under various conditions and provide perfect construction proposal of wind and solar hybrid power system for communication base station according to customer needs. According to different application requirements of base stations, ShuangDeng can provide power mode of solar-grid hybrid, wind-solar hybrid, wind-grid hybrid, wind solar diesel and wind solar diesel grid hybrid. ShuangDeng can also provide power system solutions for communication base station in alpine areas.
Technology features and Advantage
◎ Adopt wind, solar, diesel and grid hybrid power supply design, wide application range, Customize according to user needs;
◎ The control system uses modular design, including wind turbine control module, rectifier module, PV control module, AC power distribution, the central monitor unit, power distribution unit, etc. The control system is easy to maintain and expand, in line with base station power systems standard;
◎ PV control modules use high voltage input and MPPT control technology that the conversion efficiency is more than 97%; Inputs and outputs are in parallel and backup is supported for the control module to increase reliability;
◎ Proprietary hybrid energy control algorithm to achieve efficient hybrid energy operating efficiency and maximize the new energy sources value, also include intelligent control algorithm of oil machine and grid, realize intelligent management to the oil machine and grid in a hybrid system;
◎ Adopt the open system design to facilitate connection with other power, plug and play;
◎ The system has a sophisticated remote communication and data management function, so that user can carry out real-time analysis to base station energy consumption and optimize operation management to reduce cost;
◎ Successful experience of more than 2,300 base station, full turnkey project.