

Solar Storage Container Solutions

Power tower base station



Overview

What is a tower base station project?

The tower base station project installs photovoltaic power stations on communication base stations, integrates into the national power grid, prioritizes power generation for communication base stations, collects electricity fees from China Tower Company, and simultaneously receives national and local photovoltaic power generation subsidies.

What is the iron tower base station project?

The iron tower base station project installs photovoltaic power stations on communication base stations, connects to the national power grid, gives priority to power supply for communication base stations, charges China Tower Company for electricity, and receives national and local photovoltaic power generation subsidies at the same time.

How much power does a cellular base station use?

This problem exists particularly among the mobile telephony towers in rural areas, that lack quality grid power supply. A cellular base station can use anywhere from 1 to 5 kW power per hour depending upon the number of transceivers attached to the base station, the age of cell towers, and energy needed for air conditioning.

How to design a solar-powered base station?

In order to design and implement a solar-powered base station, PVSYST simulation software has been used in various countries including India, Nigeria, Morocco, and Sweden. This software allows for estimation of the number of PV panels, batteries, inverters, and cost of production of energy considering the geographical and other design parameters.

What type of generator does a base station use?

The air conditioning of the base station runs at 220 VAC. These base stations

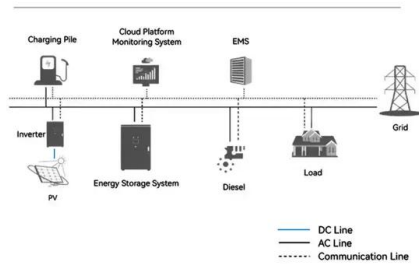
can be powered by two types of diesel generators. The first is the conventional type where 220 VAC is converted to 48 VDC to charge the batteries and power the communication equipment.

Is there a direct relationship between base station traffic load and power consumption?

The real data in terms of the power consumption and traffic load have been obtained from continuous measurements performed on a fully operated base station site. Measurements show the existence of a direct relationship between base station traffic load and power consumption.

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System Topology

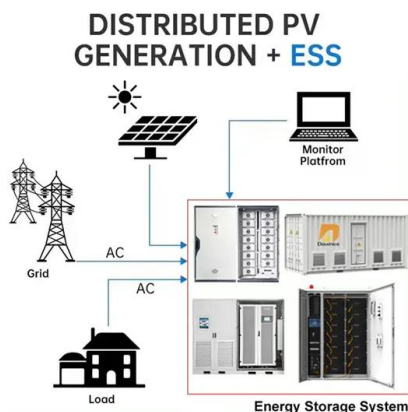


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