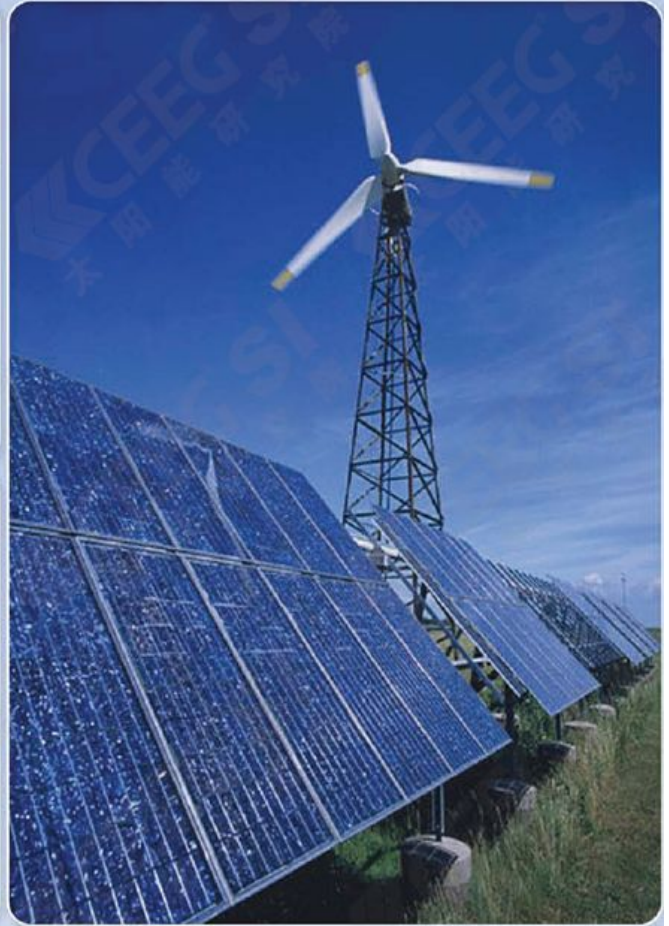


Wind- Solar Grid-Connected Power Generation System



Introduction to scheme

Solar energy and wind energy is the most common natural resources and they are also the renewable resources that will not be used up. Solar energy is the source of all energy sources on earth. The sun shines each land in the world. Wind energy is another form of solar energy on the surface of earth. Different topographies on the surface of earth (such as sandy soil, vegetation or water) have different heat absorption coefficients for the sun, so temperature difference is formed on the earth surface. And wind energy is produced from the cross-ventilation arising from different temperatures of air above ground. Therefore, solar energy and wind energy have strong complementarity both in time and region. At day, the sunlight is strong but the wind is weak. And at night after the sun goes down, the sunlight is weak but the wind becomes stronger for the large temperature difference on earth surface. In summer, the sunlight is strong but the wind is weak. In winter, the sunlight is weak but the wind is strong. The complementarity of solar energy and wind energy in time makes the wind-solar complementary power generation system have the optimum matching ability in resources.

Applicable range

It is applicable to the areas with rich solar radiation and wind power and large diurnal amplitude.



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Function characteristics

Strong complementarity and suitable price: The advantage of photoelectric system is that the reliability of the power supply of system is high, but the construction cost of the system is high. The advantage of wind power system is that the energy output of system is high, and the construction cost of the system is low. The deficiency is that the reliability of small windmill generator is low. Wind-solar complementary power generation can relieve the deficiencies of the two independent systems, and the complementarity of the two kinds of systems can be sufficiently exerted and the construction cost can be reduced. In addition, the two sets of system have complementarity in working environment, which can make natural resources utilized sufficiently to generate power.

Can be configured freely, strong adaptability: Reasonable configuration of system capacity can be performed for wind-solar complementary power generation system in accordance with users' power consumption load and resource conditions, which not only guarantees the reliability of system's power supply, but also reduces the construction cost of the power generation system. No matter what the environment is, the wind-solar complementary power generation system can give the optimum system design scheme to adjust to local conditions. Wind-solar complementary grid-connected power generation system is the new energy source grid-connected power generation system with the largest application value.