Solar Energy South Africa

Qingshi Liuchang Solar Power Generation

Overview

What is the capacity potential for large-scale solar PV in China?

4. Discussion This work reports that the total capacity potential for large-scale PV in China is 108.22 TW with 150.73 PWh annual solar PV generation (implying an average capacity factor of 15.9), which can bring 150.28 billion tones of CO 2 emission mitigation caused by coal-fired power generation.

What is the potential of solar PV power generation in Xinjiang?

(3) In the situation where the construction of PV power plants in Xinjiang is fully developed, the theoretical potential of annual solar PV power generation in Xinjiang is approximately 8.57 × 10 6 GWh. This is equivalent to 2.59 × 10 9 tce of coal. Furthermore, 6.58 × 10 9 t of CO 2 emissions can be reduced.

Does China have a potential for solar PV power station installation & generation?

The results of this study indicated that China, as one of the fast-growing countries in the global south, shows outstanding potential for solar PV power station installation and generation potential.

What is the potential PV power generation in China?

The potential PV power generation in China is estimated to be 1.38874 × 10 14 kWh. China's eight developed coastal provinces account for 1% of generation potential. Associated CO 2 reduction could meet China’s emission reduction commitment. Maximum PV scenario needs inter-regional transmission capacity reach 300 GW.

Can China develop large-scale solar power?

The power generation at maximum installed capacity would be 1.38874 × 10 14 kWh, or 21.4 times the total national electricity production of China in 2016. These results show that there is significant scope for the further development of large-scale PV in China.

Can large-scale PV generation meet China's power demand?

All regions of China except those in the North China and Jiangsu, Zhejiang as well as Fujian, have sufficient generation potential to meet their power demand by vigorously developing large-scale PV generation as a substitute for current power generation.

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