

The nature of the land used for power supply and energy storage power station





Overview

Rooftop space is often used for smaller scale PV systems and has the advantage of not competing for space with other uses and avoiding some of the losses related to electricity transmission and distribution.

How can China Southern power grid reduce land dependence?

Finally, the coverage area of China Southern Power Grid should actively develop centralized renewable energy power generation technologies with high efficiency, to reduce its land dependence by improving the efficiency of renewable energy power generation.

How do energy systems affect land use?

The land footprint of energy systems can displace natural ecosystems, lead to land degradation, and create trade-offs for food production, urban development, and conservation. For example, a recent analysis showed that energy sprawl is now the largest driver of land-use change in the United States .

What are the spatial requirements for achieving 100% primary energy?

Table 18 provides the spatial requirements to achieve 100% primary energy in the different regions based on the various power sources examined in this paper. In general, it could be observed that nuclear power needed the smallest amount of space in each region, while biomass needed the largest amount of land.

Is energy sprawl the largest driver of land use change?

Trainor, A. M., McDonald, R. I. & Fargione, J. Energy sprawl is the largest driver of land use change in united states. PLoS ONE 11, e0162269 (2016). Hertwich, E. G. et al. Integrated life-cycle assessment of electricity-supply scenarios confirms global environmental benefit of low-carbon technologies. Proc. Natl. Acad. Sci. 112, 6277–6282 (2015).



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