

# **The nature of the land used for solar energy storage facilities**





## Overview

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How can solar power improve land-use efficiency?

In the context of large-scale solar power deployment, increasing the actual solar PV generation and reducing the gap to their technical potential will increase the land-use efficiency and take better advantage of limited land resources.

What is a solar landuse module?

Solar land-use module. An additional module has been developed for the GCAM model to link the consumption of solar energy with land use, competing with other commercial (crops, timber and intensive pastures) and non-commercial (natural forest, grassland, scrubland) land uses.

Do solar and wind power have land-use requirements?

Rising shares of wind power and solar power in energy systems raises concerns over their land-use requirements (LURs) and associated impacts. Although abundant literature is available on LURs of solar and wind power, existing estimates exhibit a large variance, if not even inconsistency.

Which countries have solar land requirements and related land use change emissions?

In this work, the potential solar land requirements and related land use change emissions are computed for the EU, India, Japan and South Korea. A novel method is developed within an integrated assessment model which links socioeconomic, energy, land and climate systems.



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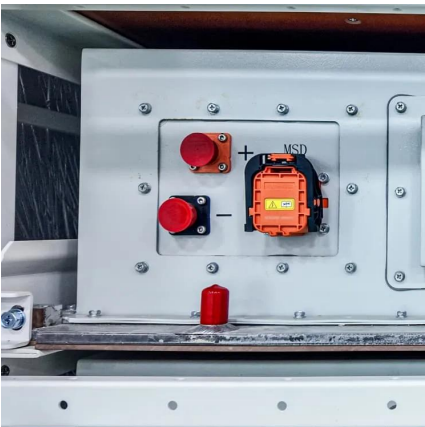
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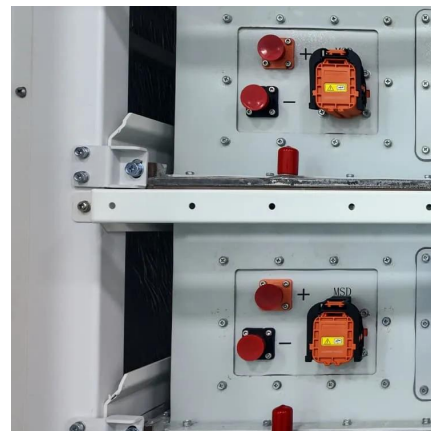


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