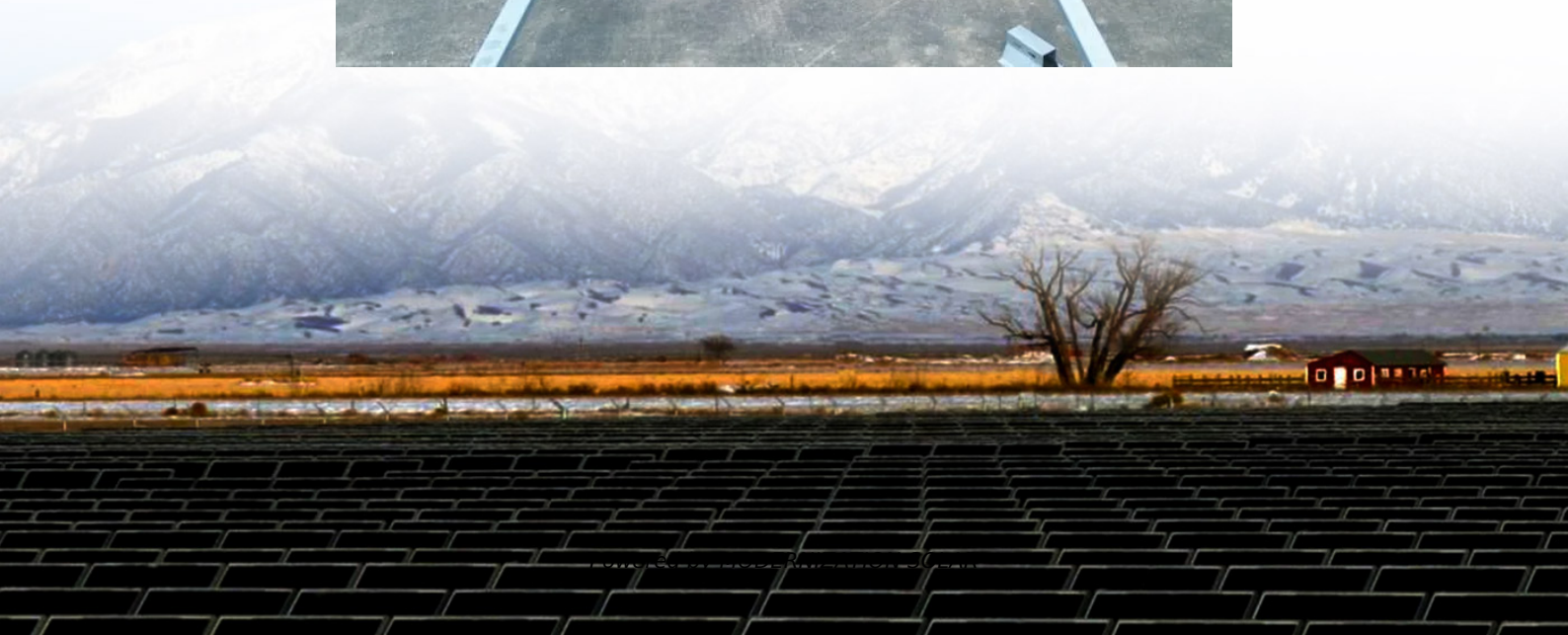


Building small solar mobile base stations in remote areas





Overview

Can solar and wind provide reliable power supply in remote areas?

Solar and wind are available freely and thus appears to be a promising technology to provide reliable power supply in the remote areas and telecom industry of Ethiopia. The project aim generate and provide cost effective electric power to meet the BTS electric load requirement.

Do cellular mobile towers need a generator?

There is a clear challenge to provide reliable cellular mobile service at remote locations where a reliable power supply is not available. So, the existing Mobile towers or Base Transceiver Station (BTSs) uses a conventional diesel generator with backup battery banks.

Can a hybrid system be used to supply electricity to telecom towers?

. A hybrid system consisting of Photovoltaic modules and wind energy-based generators may be used to produce electricity for meeting power requirements of telecom towers (Acharya & Animesh, 2013; Yeshalem & Khan, 2017). A schematic of a PV-wind-batterybased hybrid system for electricity supply to telecom tower is shown in Fig. 17.



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Low cost solar base station

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Low cost solar base station

Low-cost solar base stations As Mobile Network Operators strive to increase their subscriber base, they need to address the "Bottom of the Pyramid" segment of the market and extend ...



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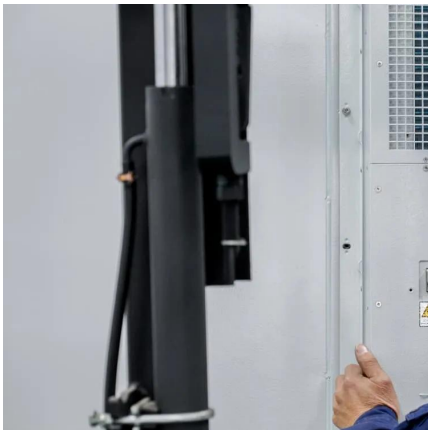
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For general mobile base stations in remote areas, depending on the local geographical location and environmental conditions, solar panels and wind turbines of different powers are equipped



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