

Is Burkina Faso suitable for solar power projects?

This suitability assessment was carried out at the request of the Government of Burkina Faso to map potential areas for utility-scale solar photovoltaic (PV) and wind projects. Currently, less than 25% of the population has access to electricity and the majority of those with access live in urban areas.

Can Burkina Faso achieve 95% electricity access?

The country aims to reach 95% electricity access, with 50% in rural areas and universal access to clean cooking solutions in urban areas, with 65% in rural areas by 2030, up from 9% in 2020. The utilisation of Burkina Faso's renewable resource potential would enable the country to reduce its heavy reliance on thermal generation and energy imports.

How will Burkina Faso improve electricity trade with neighbouring countries?

Additionally, the results from this report are intended to inform the design and development of the country's regional projects as Burkina Faso is planning to enhance electricity trade with neighbouring countries through regional interconnectors with Benin, Niger, Nigeria and Togo.

Which land area is suitable for solar PV & wind project development?

The results obtained indicate that 27.4% and 0.5% of the total country land area is suitable for solar PV and wind project development, respectively (i.e. suitability index exceeding 60%). These areas are largely located along the transmission network.

What is Burkina Faso's road network?

The road network considered in this analysis was provided by the National Observatory of Territorial Economy office in Burkina Faso. It includes the national, regional and departmental roads across the country as shown in Figure 6. Figure 6. Burkina Faso's road network

What are the 7 criteria for solar PV and wind power projects?

The seven criteria considered (resource quality; transmission line network; road network; topography; protected areas; population density; and land use) are explained in detail in terms of their effect on the planning of solar PV and wind power projects. The second section of this report explains the data sources for each criterion.

The objective of this research study is to create a hybrid system comprising hydro-wind and solar (Hybrid-HWS) integration for power balancing in an isolated electrical network in...

In this study, interest is focused on the complementarity of solar and wind energy, in order to assess the profitability of a hybrid renewable energy system that can be installed at three sites located in Burkina Faso, in

West Africa.

This work is a contribution to the study of hybrid systems for converting solar and wind energy into electricity in Burkina Faso. The approach consists of evaluating and analyzing the production ...

This study seeks to map areas in Burkina Faso that are suitable for deploying utility-scale solar photovoltaic (PV) and wind power projects. It aims to i) provide insights into the country's potential to adopt solar PV and wind power; ii) inform national infrastructure planning across the electricity supply value chain, spanning generation,

profitability of a hybrid renewable energy system that can be installed at three sites located in Burkina Faso, in West Africa. An analysis of the relationship intensity that may exist between the temporal and energy variations of solar and wind sources

This study aimed to provide a mathematical model for the determination of optimal wind power price in the case of construction of new off-grid-connected wind power plants in different...

This work is a contribution to the study of hybrid systems for converting solar and wind energy into electricity in Burkina Faso. The approach consists of evaluating and analyzing the production of a wind turbine and a solar field in order to optimize the production of all the technologies.



Hybrid solar wind power systems Burkina Faso

