# **SOLAR PRO.** Desire solar energy Bolivia

What is the primary source of energy for Bolivia?

The primary source of energy for Bolivia from this study is solar PV. Such high shares of solar PV in Bolivia are supported by solar resource findings in Breyer and Schmid (2010), which determined Bolivia to be among the ten countries with the maximum solar irradiation for fixed optimally tilted PV systems.

#### How much solar power does Bolivia have?

In the study of Jacobson et al. (2017),Bolivia's all-purpose end load would be covered by 22% wind energy,15% geothermal,3% hydropower,49% solar PV,and 10% CSP. For the whole of South America,Löffler et al. (2017),find roughly 40% shares of both hydropower and solar PV,with the remaining 10% covered by wind offshore and onshore.

#### Can solar PV reduce energy poverty in Bolivia?

These efficiency savings can be estimated to about 22%,14%,and 26% for BPS-1,BPS-2,and BPS-3,respectively. Furthermore,large-scale development of solar PV,particularly in off-grid communities,can serve to reduce energy poverty in Bolivia(Sovacool,2012).

#### Should Bolivia use solar energy to generate synthetic fuels?

Using Bolivia's own excellent solar resources to generate synthetic fuels in BPS-1 and BPS-2 would result in energy independence and security. Due to the lack of GHG emission costs in BPS-3 fuel costs remain for the fossil fuels used in the heat and transport sectors. Fig. 23.

#### How will Bolivia's energy transition affect fuel imports?

Increase in CAPEX suggests that during the transition, fuel imports will reduce, particularly those for fossil oil. Using Bolivia's own excellent solar resources to generate synthetic fuels in BPS-1 and BPS-2 would result in energy independence and security.

#### Will Electric based heating drive the transition in Bolivia?

Heating demand in Bolivia transitions from a system dominated by natural gas and biomass to a largely electrified heating sector. Because of the low cost of renewable electricity, electric based heating will drive the transition for Bolivia's heat sector. Fig. 13.

Given Bolivia"s strong and consistent solar radiation, the country has high potential to expand its photovoltaic energy production capacity, and new plants with an additional capacity of 300 MW are already being studied.

In response to these issues, the paper provides a modelling basis for very large-scale deployment of solar and wind energy in Bolivia by modelling a future 100 % renewable Bolivian electricity system supplied mostly by solar PV and wind with some hydroelectricity, and balanced by off-river pumped hydro energy storage and transmission.

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Energética works to develop energy access using solar technologies in three realms: energy for the people, which seeks to meet the energy demands of families for lighting, communication and cooking; energy for the community, which develops projects to "strengthen social infrastructure" and services such as rural schools and clinics; and ...

GENERIS-Bolivia aims to develop policy guidelines to promote an energy transition that will strengthen Bolivia"s productive structure, with special emphasis on the role of decentralised renewable energies in the economic performance of micro-,small- and medium-sized enterprises (MSMEs) and in job creation.

Bolivia Solar Energy Investments. The world"s largest vertically integrated photovoltaic manufacturer, has supplied over 5 megawatts of solar panels for Bolivia"s first solar power plant. The plant is expected to deliver clean energy to over 49,000 people.

The solar power plant in Oruro will be a major part of this diversification and of Bolivia's low-carbon and sustainable economic development. In its first phase (50 MW), the electricity produced by the solar power plant and fed into the national electricity grid will allow for the production of cleaner energy and will reduce greenhouse gas ...

Energy self-sufficiency (%) 241 196 Bolivia (Plurinational State of) COUNTRY INDICATORS AND SDGS TOTAL ENERGY SUPPLY (TES) Total energy supply in 2021 Renewable energy supply in 2021 48% 36% ... Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity

As per NDC (2021-2030), Bolivia has set a target to attain an annual growth of 10% in the share of electric vehicles in the Bolivian public transportation by 2030.7 Bolivia receives high solar irradiation (GHI) of 5.4 kWh/m2/day and specific yield 4.9 kWh/kWp/day indicating a high technical feasibility for solar in the country.8

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