



# Asme solar energy Chile

How much solar energy does Chile need?

Chile's DNI is 3,800 kWh/m<sup>2</sup> in the Atacama desert, the world's highest solar resource for CSP projects. The region is not subject to sandstorms. Variable renewables, PV and wind, increasingly supply the grid, and to complement these renewables, flexible dispatchable generation, such as is provided by CSP with thermal energy storage, is needed.

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Could Chilean manufacturing benefit from CSP?

A study assessing the benefits to Chilean manufacturing estimated that Chilean industries could supply between 18% and 56% of the parts needed for CSP overall and could supply most of the thermal energy storage between building the tanks and providing the molten salts.

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The Chilean Energy Policy calls for 15 percent of new power generation capacity to come from renewable energy sources from 2006 to 2010, and then a 5% of

Chile is considered one of places around the world with the greatest potential for solar energy generation. This paper shows the installed power capacity of conventional and non-conventional renewable energy in the electrical system networks found in the country.

In what follows, we will review and analyze the available solar energy data from ground stations, compare it to satellite-derived measurements obtained by the Brazilian National institute of space research INPE and simulations from Universidad de Chile, and propose radiation maps that intend to serve as temporary data sources while an adequate ...

The Journal of Solar Energy Engineering - Including Wind Energy and Building Energy Conservation - publishes research papers that contain original work of permanent interest in all areas of solar energy, wind energy, and energy conservation, as well as discussions of policy and regulatory issues that affect renewable energy technologies and ...

Chile is undoubtedly a country with potential when it comes to solar energy, but to understand this potential it

is necessary to review the worldwide situation. This paper presents an analysis of the global situation and the geographic value that allows the a region to identify the potential for solar energy will be identified.

Here, we compare the existing database of solar radiation in Chile with estimations made with satellite measurements, obtained from the GOES program through collaboration with the Brazilian space institution, INPE. Monthly mean solar energy maps are created from both data sources and compared, using Krigging methods for spatial interpolation.

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Chile is undergoing a remarkable energy matrix transition to renewable energy. Renewable energies are expanding extraordinarily fast, exceeding earlier predictions. Despite a relatively small energy market, Chile became the second largest market, after Brazil, for renewable energy investment in South America.

Chile is a country with a huge potential for solar energy. This paper presents an analyses of the global situation of solar energy, identifying the geographical regions with the maximum potential source of solar energy.

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