

How accurate are solar maps for South Africa and Lesotho & Swaziland?

The accuracy enhancement of two high-resolution solar maps for South Africa, Lesotho and Swaziland is based on regional adaptation of SolarGIS solar model with data measured at fourteen high-standard solar measuring stations. SolarGIS is a global database of solar resource and meteorological parameters, developed and operated by GeoModel Solar.

What is Solargis?

SolarGIS is a global database of solar resource and meteorological parameters, developed and operated by GeoModel Solar. SolarGIS is updated daily by real-time satellite, atmospheric and meteorological data inputs.

Is Solargis a good model for South Africa?

SolarGIS model shows robust and uniform behaviour in South Africa, which is consistent with our experience worldwide [4,19]. Validation shows bias and RMSD within expected range of values. Due to higher computational complexity, bias for DNI is approximately two times higher compared to GHI.

Are solar maps available in the public domain?

In 2014, a solar mapping project was conducted in collaboration with GIZ, Stellenbosch University, Solargis and GeoSUN Africa. This allowed for updated and accurate solar maps and data to be available on the public domain. [Click here for Solar resources maps & GIS layers for South Africa.](#)

Are solar irradiation maps available in the public domain?

In 2014 GeoSUN was involved in a solar mapping project for South Africa. From this project, highly accurate solar maps and GIS layers were generated and are now available in the public domain. Accuracy enhanced solar irradiation maps for South Africa. GIS Layers for GHI and DNI for South Africa available.

What is the uncertainty of Solargis model in South Africa?

Most of analyzed ground-measurements in South Africa, after quality control, are of good quality and their uncertainty is included in the estimate of the model uncertainty. The uncertainty of SolarGIS model before and after regional adaptation is shown in Tab. 5, and its geographic distribution is discussed in Tab. 6.

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Learn about Solargis" data collection methods, data accuracy and uncertainty, and our validation sites. Find out more in this article. ... Most of Europe, North America below 50&#176;N, South Africa, Chile, Brazil, Australia, Japan, Morocco, the Mediterranean region, the Arabian Peninsula (except the Gulf region), and

regions with good availability ...

This work uses a 5-stage solar PV system assessment and system performance evaluation utilising Solargis Prospect software. The PV potential and system performance of nine selected site locations in South Africa was conducted using this method. The nine PV site locations are Bloemfontein (Free State), Germiston (Gauteng), Mahikeng (North-West ...

Solar resource maps of South Sudan. The map and data products on this page are licensed under the Creative Commons Attribution license (CC BY ... We also request you to provide a backlink to <https://solargis.com> website when appropriate. Direct Normal Irradiation Medium Size. English PNG, 1.7 MB. English PNG, 943.6 KB. Poster Map. English TIF ...

Solargis pre-calculated weather database connected to the online applications iMaps and pvPlanner has been updated. ... Present coverage include most of Europe, USA, Mexico, Caribbean region, Chile, Morocco, South Africa, Uganda, Kenya, Tanzania, islands Reunion and Mauritius, Saudi Arabia, UAE, India, China, Japan, Korea. provides forecast of ...

The potential of solar PV is location-dependent that needs to be assessed before installation. This study focuses on the assessment of a solar PV potential of a site on coordinates -29.853762°; 031.00634°; at Glenmore Crescent, Durban North, South Africa. In addition, it evaluates the performance of a 6-kWp installed capacity grid-connected rooftop ...

Upington South Africa ESKOM SolarGIS -28.45 21.24 2007/07-2009/12 Cebecauer T., Perez R., Suri M., Comparing performance of SolarGIS and SUNY satellite models using monthly and daily aerosol data. Proceedings of the ISES Solar World Congress 2011, 28 August - 2 September 2011, Kassel, Germany.

The maps and data have been prepared by Solargis for The World Bank. ... South Africa. Mid-size maps. This set of maps is optimized for on-screen presentations (e.g. PowerPoint, Web, etc.) and for letter page printing (A4 format or similar). The maps are provided in the loss-less PNG format, with the approximate size 1 to 4 MPix. ...

In recognition of the popularity of the Solargis maps, we have just released updated versions of world GHI and DNI maps, now completely covering the land between latitudes 60°N and 60°S. ... Our contribution Accuracy-enhanced solar resource maps of South Africa achieved outstanding paper award in solar resource session at 3rd Southern African ...

Specifically for South Africa, country factsheet has been elaborated, including the information on solar resource and PV power potential country statistics, seasonal electricity generation variations, LCOE estimates and cross-correlation with ...

Nowcasting service is now available for South Africa, Namibia, Botswana, part of Zimbabwe, and

Mozambique. ... GOES-East (GOES-13) satellite was replaced by new generation GOES-R (GOES-16) satellite. A new Solargis model based on GOES-R data was released. Basic features: - Regular 15 minute time resolution (GOES13 has ca 30min resolution)

Explore Solargis" blog for the latest news, tips, and insights on the solar energy industry and other renewable energy topics. Solutions. Services. ... Our contribution Accuracy-enhanced solar resource maps of South Africa achieved outstanding paper award in solar resource session at 3rd Southern African Solar Energy Conference (SASEC 2015) in ...

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planning and performance assessment of PV systems. SolarGIS is based on more than 10 years of R& D, international collaboration, and experience with previous projects, such as PVGIS. The system consists of high-resolution database of solar radiation and air temperature (which are operationally calculated for Europe, Africa, Asia and Brazil) and

To identify regions with the highest solar potential, we use Solargis modeled solar radiation data as well as locally available ground measurements. We analyze both the short-term and seasonal variability of solar power production to help you understand how it matches demand.

Mr. Marcel Suri (managing director of Solargis) was also interviewed by journalists from CSPPLAZA. ... Our contribution Accuracy-enhanced solar resource maps of South Africa achieved outstanding paper award in solar resource session at 3rd Southern African Solar Energy Conference (SASEC 2015) in Skukuza in South Africa. Read More.

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