

Reports of backsheet failures at 75 MW Mulilo Sonnedix Prieska solar farm in South Africa

The South African project is reportedly experiencing serious problems due to premature module degradation. Claims of extensive backsheet failure have emerged and it is said widespread module replacement will be required. The modules used in the project were supplied by Chinese manufacturer BYD and South African producer Artsolar.

FEBRUARY 11, 2020 **PV MAGAZINE**

[HIGHLIGHTS](#) [INSTALLATIONS](#) [QUALITY](#) [UTILITY SCALE PV](#) [SOUTH AFRICA](#)



The 75 MW Mulilo Sonnedix Prieska solar project

Image: Mulilo

Share     

*This article is part of an ongoing investigation by **pv magazine** and [Green Building Africa](#) into difficulties at the South African project.*

The ZAR1.3 billion (US\$89 million) Mulilo Sonnedix Prieska solar farm appears to be encountering significant problems. Reports from insiders involved in the project indicate backsheet degradation is affecting power output and widespread module replacement may be necessary.

The [75 MW solar project was commissioned on July 22, 2016](#), to much fanfare. At the time, Spanish renewables company [Sonnedix](#) announced the facility was its first plant in South Africa and the biggest in its portfolio.

This website uses cookies to anonymously count visitor numbers. [View our privacy policy.](#) ×

The milestone project was developed with South African developer Mulilo Renewable Energy and renewables company Ixowave Women in Power, and was built for Sonnedix by the juwi Renewable Energies (Pty) Ltd South African subsidiary of the German juwi group, under the leadership of MD Greg Austin.

Green Building Africa approached Austin for comment about the problems at the Prieska site. "We cannot comment on the quantum or the assertion regarding factory defects and/or underperformance, as this kind of information is confidential within projects and the project structures are such that issues such as these that may occur are managed and solved through the related project documents," he said in a statement.

The South Africa unit MD added, "All relevant parties to the project are subject to strict non-disclosure and confidentiality obligations in the construction contract, the sub-contracts and the agreements with [South African utility] Eskom and [the] government. As such, neither we nor any other party in the project are entitled to deal with any information that is confidential to the project, and so are simply not entitled to comment on anything you have raised, irrespective of its accuracy or otherwise."

pv magazine and Green Building Africa have spoken with South African PV industry insiders who have confirmed plant remediation work, which may include replacing failed modules, is under way.

Project developer Mulilo has further confirmed BYD was the module supplier for the Mulilo Sonnedix Prieska site. It is one of three large scale solar projects Mulilo developed at Prieska, in the Northern Cape province. A second 75 MW project was completed in August 2016, which used modules supplied by [SunPower](#). The U.S. module manufacturer, which is [owned by French oil and gas group Total](#), also supplied engineering, procurement and construction [EPC] services on that project.

Questions remain as to the provenance of the modules used on the Prieska project.

Popular content

Poweron presents new hybrid inverters for residential solar applications

30 NOVEMBER 2022

**Pc
Ca**
29 N

This website uses cookies to anonymously count visitor numbers. [View our privacy policy.](#) ×

In early 2016, South African module maker Artsolar claimed it was supplying some of the modules used at the Mulilo Sonnedix project. At the time, Artsolar director Derek Lawrance said, "These PV modules were manufactured at the Artsolar plant in KwaZulu-Natal for the Mulilo Sonnedix Prieska PV solar plant project. This plant, which supplies the electricity it produces to the Eskom Kromos substation in the Northern Cape, is the first 75 MWac size REIPPP [Renewable Energy Independent Power Producer Program incentives regime] project to have PV modules produced by a South African-owned company."

BYD has not replied to Green Build Africa and **pv magazine's** enquiries. Sonnedix and Mulilo would not confirm the plant is under-performing.

Referring to the Mulilo Sonnedix project, Artsolar said, "A substantial amount of the panels are from our facility ... but certainly not all." The manufacturer produced the modules on an OEM basis for BYD.

The challenges at the Mulilo Sonnedix Prieska project illustrate the importance of sourcing durable modules for use in hot climates. High temperatures have been shown to cause more frequent backsheet failures – an issue particularly prevalent in rooftop projects, where temperatures are typically 15 degrees Celsius higher than for ground-mounted arrays.

The South African grid has been subjected to an extended load shedding program, because of electricity supply problems attributed to the country's coal-fired generation assets. As a result, the nation can ill afford its solar power generation facilities to under-perform.

Mulilo Sonnedix Prieska 75 MW solar project profile:

- **75 MW solar PV**
- **Location: Copperton, Northern Cape**
- **EPC: Juwi**
- **Operations and maintenance: Juwi**
- **Mounting: Fixed structure, drilled and rammed rock anchor**
- **Module supplier: BYD Solar Modules, 315Wp**
- **Inverters: ABB**
- **Lender: Nedbank and Standard Bank**

Authors: Bryan Groenendaal/Jonathan Gifford

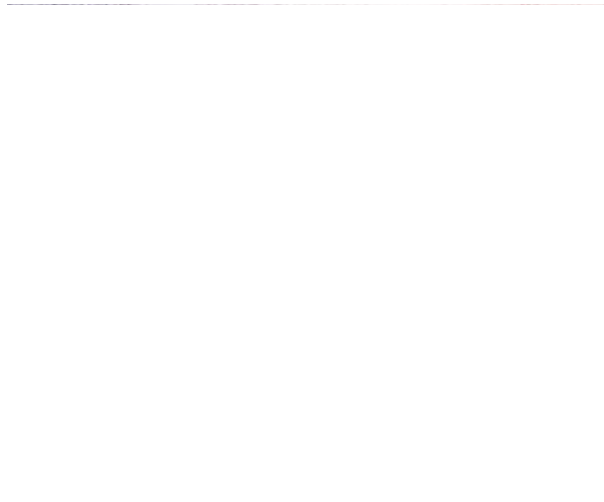
This content is protected by copyright and may not be reused. If you want to cooperate with us and

This website uses cookies to anonymously count visitor numbers. [View our privacy policy.](#) ×



PV MAGAZINE

The pv magazine editorial team includes specialists in equipment supply, manufacturing, policy, markets, balance of systems, and EPC.
[More articles from pv magazine](#)



Related content

A ‘must have’ for households

Solar’s happy place

Brick-and-iron heat battery for zero-carbon industrial processes

Elsewhere on pv magazine...

Honnold Foundation receives \$2 million to bring solar energy to underserved communities
PV-MAGAZINE-USA.COM

Generación limpia vía geotermia podría alcanzar 400 MW en el 2050
PV-MAGAZINE-MEXICO.COM

Andrews urged to take bold approach to Victoria's energy policies
PV-MAGAZINE-AUSTRALIA.COM

6 comments

James B B Radebe

REPLY

February 12, 2020 at 9:01 pm

This website uses cookies to anonymously count visitor numbers. [View our privacy policy.](#) ×

Thanks for the information.

Chris Ellingson

REPLY

February 17, 2020 at 7:40 am

That stock image looks like it comes from a single axis tracker site. Are those fixed tilt or tracking?

Max Hall

February 17, 2020 at 10:48 am

Hi Chris, Yours is merely a humble copy editor so I would bow to your no-doubt-superior knowledge on that question.

Jerry Govender

February 18, 2020 at 6:28 am

The Prieska site was fitted with a fixed tilt system

Max Hall

February 18, 2020 at 9:37 am

Thanks for clearing that up Jerry. I knew our **pv magazine** community wouldn't let us down.

Pingback: » [Study of 100000 arrays finds proactive O&M preferable – pv magazine Internationalsolarequipmentinstaller.com](#)

Leave a Reply

Please be mindful of our [community standards](#).

Your email address will not be published. Required fields are marked *

Comment

Name *

Email *

Website

 Save my name, email, and website in this browser for the next time I comment.

Post Comment

By submitting this form you agree to pv magazine using your data for the purposes of publishing your comment.

Your personal data will only be disclosed or otherwise transmitted to third parties for the purposes of spam filtering or if this is necessary for technical maintenance of the website. Any other transfer to third parties will not take place unless this is justified on the basis of applicable data protection regulations or if pv magazine is legally obliged to do so.

You may revoke this consent at any time with effect for the future, in which case your personal data will be deleted immediately. Otherwise, your data will be deleted if pv magazine has processed your request or the purpose of data storage is fulfilled.

Further information on data privacy can be found in our [Data Protection Policy](#).