

Proposed development of SBPM solar PV and battery storage facility near Northam in the Limpopo and North West Provinces

Our Ref: 18742



an agency of the
Department of Arts and Culture

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Date: Friday July 22, 2022

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Interim Comment

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Savannah Environmental (Pty) Ltd

PO Box 148
Sunninghill
2157

Main Street 1886 Proprietary Limited proposes the development of the Solar PV facility and associated infrastructure on a site bordering the eastern end of the Siyanda Bakgatla Platinum Mine area near Northam. The solar PV facility will comprise several arrays of PV panels, a Battery Energy Storage System (BESS), and associated infrastructure with a contracted capacity of up to 100MW. The purpose of the proposed project is to generate electricity for exclusive use by the Siyanda Mine, following which any excess power produced will be distributed to the national grid, if applicable. The construction of the PV facility aims to reduce the Siyanda Mine's dependency on direct supply from Eskom's national grid for operation activities, while simultaneously decreasing the mine's carbon footprint. A preferred project site with an extent of ~1138ha and a development area of 574 ha has been identified by Main Street 1886 Proprietary Limited as a technically suitable area for the development of the Solar PV Facility. The study area is located on Portion 4 of Farm Grootkuil 409. The project site falls within the Thabazimbi Local Municipality within the Waterberg District Municipality in the Limpopo Province. The site is located ~6.5km west of the town of Northam and is accessible via the Swartklip Road which branches off the R510 provincial route. Infrastructure associated with the solar PV facility will include: 100MW Solar PV array comprising PV modules and mounting structures. Inverters and transformers. Cabling between the project components. Battery Energy Storage System (BESS). On-site facility substation and power lines between the solar PV facility and the Mine and Eskom substation. Site offices, Security office, operations and control, and maintenance and storage laydown areas. Access roads, internal distribution roads Grid connection solution. To evacuate the generated power to the Siyanda Mine, the grid connection solution consisting of the following is proposed: The power generated by the solar PV facility will be transferred to the three step up transformers at the on-site/plant substation. Power will then be delivered from each step-up transformer as follows: two 6.6 km, 33 kV transmission lines to the Mortimer substation with four step down transformers (33/6.6 kV; 10 MVA), two 4.7 km, 33 kV transmission lines to the Fridge substation with two step down transformers (33/6.6 kV; 10 MVA), two 2.9 km, 33 kV transmission lines to the Ivan

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substation with three step down transformers (33/11 kV; 10 MVA) The grid connection is proposed on the following properties: Portion 3 of Farm Grootkuil 409 Portion 4 of Farm Grootkuil 409 Portion 5 of Farm Grootkuil 409 Portion 0 of Farm Spitskop 410 Portion 0 of Farm Turfbult 404 Portion 1 of Farm Zwartklip 405 Portion 2 of Farm Zwartklip 405

Main Street 1886 (Pty) Ltd have appointed Savannah Environmental (Pty) Ltd to undertake an Scoping and Environmental Impact Assessment application process in support for an Environmental Authorisation (EA) application for the construction and operation of two solar facilities named BPM Solar PV and SCSC Solar PV. Each of the facilities will have a generation capacity of 100MW. This case will deal with the SBPM Solar PV plant. The SBPM Solar PV will be 574 ha in extent and the footprint will be 204ha in extent, there will be an onsite battery energy storage system, inverters and transformers, 6 33kV power lines totaling 14.2km in length that will connect to Siyanda Mine's substation, and to Eskom's Mortimer, Fridge and Ivan substations. The development is located on Portion 3 of the farm Grootkuil 409, in the Thabazimbi Local Municipality of the Limpopo Province. The grid connection from the PV plant will extend into the Moses Kotane Local Municipality of the North West Province.

A similar case has been created for the SCSC Solar PV plant (Case 18741).

A Scoping Report has been submitted to SAHRA for commenting in terms of the National Environmental Management Act, Act no 107 of 1998 (NEMA) as amended, for activities that trigger the NEMA Environmental Impact Assessment (EIA) 2014 Regulations, as amended.

A Heritage Screener by CTS Heritage cc has been submitted to SAHRA for commenting in terms of section 38 of the National Heritage Resources Act, no. 25 of 1999 (NHRA).

Lavin, J. May 2022. Desktop Heritage Screening Assessment for the Proposed development of SBPM solar PV and battery storage facility near Northam in the Limpopo and North West Provinces.

An assessment of available reports and previous Heritage Impact Assessments (HIA) in the study area have not identified heritage resources however the broader region is known for the occurrence of significant archaeological heritage which may be impacted by the proposed development. A desktop PIA study by Prof B. Rubidge (2015) for the Siyanda Chrome Smelter was undertaken and found that the farms adjacent to the current study area are underlain by gabbros and norites of the Precambrian Bushveld Igneous Complex, fossil preservation was highly unlikely. However, there is a low possibility of fossilised bearing Quaternary alluvial deposits can occur in low lying area. The present study area is also in a grey zone on the palaeosensitivity map and according to the palaeomap policy an assessment of impacts on palaeontological resources is not

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required.

The author recommends that a field based HIA is undertaken in the EIA phase.

Interim Comment

The SAHRA Archaeological, Palaeontological, and Meteorite (APM) Unit accepts the recommendation to undertake a field based HIA as part of the EIA phase of the EA application. The report must be submitted to SAHRA for commenting prior to the submission of the final EIA report to the competent authority.

The development is exempted from undertaking an assessment of impacts to palaeontological resources because the study area is located in a zone that has negligible palaeontological sensitivity.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Nokukhanya Khumalo
Heritage Officer
South African Heritage Resources Agency

Phillip Hine
Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

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ADMIN:

Direct URL to case: <https://sahris.sahra.org.za/node/598613>