

Basic Assessment for the Proposed Development of a 115 MW Solar Photovoltaic Facility (vryburg Solar 1) and Associated Electrical Infrastructure (including 132kV Distribution Line), south-west of Vryburg, North West Province

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Natasha Higgitt
Tel: 021 462 4502
Email: nhiggitt@sahra.org.za

Date: Wednesday September 19, 2018

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Final Comment

In terms of Section 38(4), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Vryburg Solar 1 (Pty) Ltd

ABO Wind Renewable Energies (Pty) Ltd (the project developer) with support from Veroniva (Pty) Ltd, are proposing to develop three 115 MW Solar Photovoltaic (PV) Facility and associated electrical infrastructure (including 132 kV distribution lines), near Vryburg in the North West Province. The proposed projects are referred to as Vryburg Solar 1, Vryburg Solar 2 and Vryburg Solar 3 and the project Applicant are Vryburg Solar 1 (Pty) Ltd, Vryburg Solar 2 (Pty) Ltd, Vryburg Solar 3 (Pty) Ltd, respectively. The Vryburg Solar projects and associated electrical infrastructure will occur on the following farm portions: - Portion 2 of Frankfort Farm 672 ("Erica") - Portion 1 of Frankfort Farm 672 ("Edin") - Portion 0 of Frankfort Farm 672 (Remainder) - Remainder of Rosendal Farm 673 The facilities will be developed with a possible maximum installed capacity of 115 MW Direct Current (DC) each which produces about 100 MW Alternating Current (AC) of electricity from PV solar energy. Each solar PV facility will contain a on-site collector substation that will connect to the Eskom Mookodi Substation via an overhead 132 kV distribution line. The proposed projects fall entirely within the Renewable Energy Zone (REDZ) 6 (i.e. Vryburg REDZ), that was Gazetted in February 2018 by the Minister of Environmental Affairs. In terms of the National Environmental Management Act (Act 107 of 1998, as amended) (NEMA) and the 2014 NEMA EIA Regulations promulgated in Government Gazette 40772 and Government Notice (GN) R326, R327, R325 and R324 on 7 April 2017, wind and solar PV projects located within a REDZs are subject to a Basic Assessment (BA) and reduced decision-making period by the authorities. Basic Assessment (BA) Processes in terms of Appendix 1 of the Environmental Impact Assessment (EIA) Regulations (2014, as amended) are therefore been undertaken for the proposed projects. An integrated Public Participation Process is being undertaken for the BA Processes. Separate Applications for Environmental Authorisation have been submitted for each proposed 115 MW Solar PV facility and distribution line. Separate BA Reports have been compiled for each project. The proposed projects referred to as Vryburg Solar 1, Vryburg Solar 2 and Vryburg Solar 3 will take place approximately 8 km south-west of Vryburg, North West Province.

The CSIR Environmental Management Services have been appointed by ABO Wind Renewable Energies (Pty) Ltd to undertake an Environmental Authorisation (EA) Application for the proposed Vryburg Solar 1 115MW Solar Photovoltaic (PV) Facility and associated infrastructure including 132kV distribution lines near Vryburg, North West Province. A Basic Assessment Process will be conducted in terms of the National



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Environmental Management Act, no 107 of 1998 (NEMA), NEMA Environmental Impact Assessment (EIA) Regulations. The proposed development includes photovoltaic panels, an on-site substation, offices, warehouse/workshop, convertor, overhead and underground transmission lines, access roads, stormwater channels and a laydown area.

Skarab CC and Dr van Schalkwyk have been appointed to provide heritage specialist input as part of the EA process in terms of section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA).

Durand, J. F. 2018. Palaeontological Impact Assessment for the proposed construction of three Solar Photovoltaic (PV) Facilities (i.e. Vryburg Solar 1, Vryburg Solar 2 and Vryburg Solar 3) and associated electrical infrastructure, near Vryburg, in the North-West Province.

**It must be noted that although the report assesses all three PV Facilities, only the results of the assessment of Vryburg PV 1 and associated powerline route will be discussed in this comment.*

The proposed PV development area is underlain by calcrete, while the proposed powerline route is underlain by the Boomplaas Formation, the Clearwater Formation and the Vryburg Formation. Quaternary aged fossils are known to occur in the Tertiary calcrete and Quaternary soils, while stromatolites are known to occur in the remaining formations located in the area. The overall impact rating post-mitigation during the construction phase for the PV area is low, and very high and low for the powerline corridors.

Recommendations provided in the report include the following:

- The ECO should be aware of the palaeontological sensitivity of each of the sites where development is taking place and should familiarise themselves with the Chance Find Procedure which should be followed upon the discovery of a fossil site;
- Rocks of the Schmidtsdrif Formation occur in the central and western part of the proposed Power Corridor and therefore there is a very high probability of uncovering stromatolites in this section;
- In the unlikely event of fossils being discovered in the sands, soils, calcrete or dolomite formations in the study area, the ECO should follow the Chance Find Procedure. Although disturbed fossils should be collected and stored safely until it can be inspected by a palaeontologist, no attempt should be made to remove such accidentally discovered fossils from the rock by an unqualified person.

Van Schalkwyk, J. 2018. Cultural Heritage Impact Assessment: For the Proposed Development of a 100 MW

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AC (115 MW DC) Solar Photovoltaic Facility (Vryburg Solar 1) and Associated 132kv Transmission Line near Vryburg, North West Province.

Middle Stone Age (MSA) and Later Stone Age tools of low cultural significance were identified on site. Six graves were previously located in the proposed powerline route; however, they could not be re-identified.

Recommendations provided in the report include that should archaeological sites or graves be exposed during construction work, it must immediately be reported to a heritage practitioner so that an investigated and evaluation of the finds can be made.

In an Interim Comment issued on 13/09/2018, SAHRA requested that Basic Assessment Report (BAR) and all appendices be uploaded to the SAHRIS Application in order for an informed comment to be issued.

The BAR and appendices have since been submitted.

Final Comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit and Burial Grounds and Graves (BGG) Unit has no objections to the proposed development and supports the recommendations of the specialists. The graves mentioned in the HIA were successfully relocated on the 25th August 2014 (SAHRIS Case ID5357 <https://www.sahra.org.za/sahris/cases/exhumation-graves-eskom-mookodi-substation>). The recommendations of the specialist's reports discussed above, and the following conditions must be incorporated into the EMPr:

- Construction within the section of the powerline corridor that runs through the Schmidtsdrift Formation must be monitored by a qualified palaeontologist. A report detailing the results of the monitoring must be submitted to SAHRA upon completion;
- The Final BAR and EMPr must be submitted to SAHRA for record purposes;
- If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip Hine 021 462 5402) must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Mimi Seetelo 012 320 8490), must be alerted immediately. A professional archaeologist or palaeontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance,

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- a Phase 2 rescue operation may be required subject to permits issued by SAHRA;
- Should the project be granted Environmental Authorisation, SAHRA must be notified and all relevant documents submitted to the case file.

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

Yours faithfully

Natasha Higgitt
Heritage Officer
South African Heritage Resources Agency

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

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/510841>

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.