

**THE PROPOSED MOLEMO PHOTOVOLTAIC (PV) SOLAR ENERGY FACILITY
AND ASSOCIATED INFRASTRUCTURE, NEAR KOPPIES, FREE STATE
PROVINCE**



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: Stephen van der Heever
Tel:
Email: svandenheever@sahra.org.za
Case ID: 25144

Date: Friday, 20 June, 2025

Interim Comment

In terms of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999)/In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

South Africa Mainstream Renewable Power Developments (Pty) Ltd
South Africa Mainstream Renewable Power Developments (Pty) Ltd
4th Floor Mariendahl House
Newlands on Main Corners Main & Campground Roads
Claremont
7800

Blue Crane Environmental has been appointed by South Africa Mainstream Renewable Power Developments (Pty) Ltd to conduct an Environmental Authorisation (EA) Application for the proposed Molemo Photovoltaic (PV) Solar Energy Facility (SEF) and associated infrastructure, on the Remaining Extent and Portion 2 of the Farm Vlakkul No. 235 and the Remaining Extent and Portion 3 of the Farm Josina No. 371, situated within the Ngwathe Local Municipality and the Fezile Dabi District Municipality, Free State Province (DFFE ref no: 2025-05-0016).

A draft Scoping Report (DSR) has been submitted in terms of the National Environmental Management Act, no 107 of 1998 (NEMA) and the NEMA Environmental Impact Assessment (EIA) Regulations. The proposed development will entail the construction of Photovoltaic (PV) Solar Energy Facility (SEF) and associated infrastructure on and assessment area of 810 ha. The SEF will comprise several arrays of PV panels with a capacity of up to 100 MW covering 280 ha. Associated infrastructure includes a Battery Energy Storage System (BESS) covering 6 ha, inverters, transformers, Operation and Maintenance buildings, temporary and permanent laydown areas, and access roads (up to 1500 m long and 8 m wide) and internal roads (up to 31,254 m long and 6 m wide). The Molemo SEF will connect to the existing Eskom Greenlands Rural substation via an 88 kV overhead power line to an 88 kV feeder bay or via a Loop-In-Loop-Out (LILO) configuration to the existing Greenlands Rural/Heilbron Rural 1 88 kV overhead power line from the proposed on-site substation. A grid connection corridor of up to 650 m wide and up to 800 m long has been proposed.

CTS Heritage and Prof. Marion Bamford have been appointed to provide heritage specialist input as part of the EIA process as required by section 24(4)b(iii) of NEMA and section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA).



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

Bamford, M. 2024. Proposed Development of the Molemo Solar PV Facility near Koppies and associated infrastructure, Free State Province.

The proposed development is underlain by Jurassic Dolerite, Volkrust Formation, and Vryheid Formation which have a palaeontological sensitivity of Zero, High, and Very High respectively, as per the SAHRIS PalaeoSensitivity map. No fossil-bearing sediments were identified during the field survey. The anticipated impact on palaeontological resources is low to moderate due to the landscape having been significantly altered by farming and an established high voltage pylon. However, any excavations exceeding 1m in depth could disrupt Ecca Group sediments, which are highly fossiliferous and would increase the impact of the development to moderate to high.

The author recommends the following:

- Any excavations within the development footprint exceeding 1m in depth into unweathered/fresh Vryheid Formation sediments, will need monitoring by a responsible person on site. The high sensitivity Vryheid Formation sediments are mapped in Figure 5.4. It is therefore recommended that any unweathered/fresh sedimentary bedrock exposed during large scale excavations be monitored by the ECO or equivalent. Photographs of potential fossils can be sent to a professional palaeontologist to assess the validity and importance.

A Fossil Chance Finds Protocol is required to be followed.

Lavin, J. 2025. Proposed Development of the Molemo Photovoltaic (PV) Solar Energy Facility and Associated Infrastructure near Koppies, Free State Province.

A total of seven heritage resources were identified within the proposed development boundary which include two burial grounds (graded IIIA), composed of a possible grave marked by stones (008) and an unfenced farmworkers graves (009), containing up to 50 graves from the 19th to 20th century; two historic sites graded as IIIB, composed of Groenvlei historic ruins (012) and the Groenvlei German Lutheran Church (013); and three IIIC sites composed of a stone walled features (ruined kraals and buildings).

The author recommends the following:

- Sites 008, 009, 012, and 013 are to be avoided with a 100 m buffer

**THE PROPOSED MOLEMO PHOTOVOLTAIC (PV) SOLAR ENERGY FACILITY
AND ASSOCIATED INFRASTRUCTURE, NEAR KOPPIES, FREE STATE
PROVINCE**



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: Stephen van der Heever
Tel:
Email: svandenheever@sahra.org.za
Case ID: 25144

Date: Friday, 20 June, 2025

- Sites 003, 004, and 005 are to be avoided with a 50 m buffer
- The mitigation measures detailed in Table 2 above are implemented in the development layout. This recommendation is adhered to in the layout provided and mapped in Figures 5.1 to 5.3.
- The no-go areas identified in Figure 5.1 and 5.2 are excluded from the development area. This recommendation is adhered to in the layout provided and mapped in Figures 5.1 to 5.3.
- A Management Plan for the ongoing conservation of these burials is developed prior to construction, along with a Guide on how to identify marked and unmarked burials and how to proceed should previously unidentified burials be uncovered during the construction process.
- Although all possible care has been taken to identify sites of cultural importance during the investigation of the study area, it is always possible that hidden or subsurface sites could be overlooked during the assessment. 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, burials or other categories of heritage resources are found during the proposed development, work must cease in the vicinity of the find and SAHRA must be alerted immediately to determine an appropriate way forward.

Interim Comment

The SAHRA Development Applications Unit (DAU) notes the submitted draft Scoping Report, Heritage Impact Assessment, and Palaeontological Impact Assessment.

Further comments will be issued upon receipt of the DBAR and appendices.

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

Yours faithfully

**THE PROPOSED MOLEMO PHOTOVOLTAIC (PV) SOLAR ENERGY FACILITY
AND ASSOCIATED INFRASTRUCTURE, NEAR KOPPIES, FREE STATE
PROVINCE**



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: Stephen van der Heever
Tel:
Email: svandenheever@sahra.org.za
Case ID: 25144

Date: Friday, 20 June, 2025

Stephen van der Heever
Heritage Officer
South African Heritage Resources Agency

Natasha Higgitt
Manager: Development Applications Unit
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <https://sahris.org.za/node/379891>