### Loeriesfontein Orlight PV Our Ref: 9/2/017/0020

Enquiries: Kathryn Smuts Tel: 021 462 4502

Email: ksmuts@sahra.org.za

CaseID: 126

Date: Thursday July 05, 2012

Page No: 1



## **Final Comment**

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

Attention:
Johan Nel
Digby Wells Environmental
Private Bag X10046
Randburg
2125

# Proposed Loeriesfontein Photo-voltaic Solar Power Plant on Portion 5 of the Farm Klein Rooiberg 227, Northern Cape Province

Webley, L and Halkett, D. May 2012. Heritage Impact Assessment: Proposed Loeriesfontein Photo-voltaic Solar Power Plant on Portion 5 of the Farm Klein Rooiberg 227, Northern Cape Province.

Pether, J. April 2012. Brief Palaeontological Impact Assessment: Proposed Orlight SA Development of a Solar Photovoltaic Power Plant Near Loeriesfontein, Northern Cape Province: Portion 5 of Kleine Rooiberg 227 RD

Orlight SA (Pty) Ltd, a subsidiary of BSG Resources Limited, has proposed the construction of five Solar Photovoltaic (PV) Power Plants across the Northern and Western Cape Provinces. The proposed development of up to 84 MW on 350 ha of Portion 5 of the Farm Klein Rooiberg 227, north of Loeriesfontein, constitutes one of these facilities. The facility will include the Solar PV panels with their associated support structures, foundations and electrical cabling; an on-site substation; a transmission line; access roads; temporary construction lay-down yard and access control and fencing of the site. The transmission line will connect to the Eskom Helios substation via 11 km of 22 kV overhead transmission lines. Two alternative site layouts have been proposed within the property, althought these differ only slightly from each other.

The proposed development site is fairly flat, bordered to the north and south by koppies. and is bisected by several drainage channels associated with the Volstruisnesholte River. A buffer zone of 100m will be obseved around these channels. The site vegetation comprises low succulent, with several open pavements. The area is currently used for grazing and farm infrastructure includes a small concrete dam, a wind pump and several farm fences.

The archaeological background study revealed that little work has been conducted in the Loeriesfontein area, and little could be determined beyond the likelihood of encountering MSA material on site, while rock engravings are also known. Stone hut circles have also been identified in association with quartz microliths, ceramics and ostrich eggshell beads. Historically, the area was known to be inhabited by San prior to the arrival of the Trekboers from the 1850s. Klein Rooiberg farm was surveyed in 1880.

The field survey revealed scatters of MSA artefacts across the entire site, while LSA sites were concentrated on the top of seven koppies within the area. One of these, Site 86, consisted of a 20m<sup>2</sup> scatter including freshly flaked hornfels and many blades together with CCS flakes and blades as well as potsherds. Sit L051/3



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Page No: 2



(124), also on a koppie, was similar to Site 86 but less dense, while only two other sites (149 and 150) were located off the koppies, along a stream near the gravel road. All LSA sites also contained numerous broken ostrich eggshell beads with Site 86 containing the only whole bead found. Some sites contained European ceramics, while others contained metal debris that is probably more recent. A single stone-built semi-circular shelter was found, associated with an enamel bowl and other metal items. Several stone cairns were located on top of the koppies, but these were considered unlikely to represent graves and were possibly elevation markers; a single cairn was identified in the open. The survey also considered the possible alignment of the transmission line and concluded that the likely impact on the archaeological resources would be negligible.

The palaeontological assessment identified the underlying deposits as belonging to the Prince Albert Formation of the Ecca Group, which is known to contain trace fossils. Outcrops of the bedrock are common in the area and the soil cover is thin. While the drainage channels could expose fossil-bearing rock, these are to be protected by buffer zones.

#### Decision:

SAHRA supports the recommendations of the authors and requires that:

- The ECO be advised of the possibility of uncovering fossils and inform SAHRA and a professional palaeontologist should any significant fossils be uncovered
- An alert for the discovery of fossils be included in the projects EMP
- The possible graves the stone cairns should be temporarily fenced off during construction, with the fence located 5m from the cairns and an exclusion zone of 20m from the fence should be enforced, within which no construction may take place. All cairn locations should be identified on the construction maps so that they can be avoided.
- The koppies should be avoided by all construction activities and the buffer zones around the drainage channels should include the stream that runs near the gravel road if it is not already protected

If the recommendations made in the specialist report and in this comment are adhered to, the SAHRA Archaeology, Palaeontology and Meteorites Unit has no objection to the development (in terms of the archaeological and palaeontological components of the heritage resources). If any new evidence of archaeological sites or artefacts, palaeontological fossils, graves or other heritage resources are found during development, construction or mining, SAHRA and a professional archaeologist and/or palaeontologist, depending on the nature of the finds, must be alerted immediately.

Decisions on Built Environment (e.g. structures over 60 years) and associated Living Heritage (e.g. sacred sites) must be made by the Provincial Heritage Resources Authority of the Northern Cape (*Mr. Andrew Timothy, email:* ratha.timothy@gmail.com) to whom this Archaeological Review Comment will be copied.

See Appendix 1



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Page No: 3



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

Yours faithfully

Kathryn Smuts

Heritage Officer: Archaeology

Colette Scheermeyer

SAHRA Head Archaeologist

South African Heritage Resources Agency

ADMIN:

(DEA, Ref: 12/12/20/2632) (DEA, Ref: 14/12/16/3/3/1/536)

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.

