Scoping and EIA for the Proposed Development of a 75 MW Solar Photovoltaic Facility north-east of Kenhardt, Northern Cape Province (Kenhardt PV 3)

Our Ref: 8206



an agency of the Department of Arts and Culture

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Enquiries: Natasha Higgitt

Date: Tuesday April 05, 2016 Page No: 1

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# **Final Comment**

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

Attention: Scatec Solar SA 163 (PTY) Ltd

Scatec Solar SA 163 (PTY) Ltd is proposing to develop three 75 Megawatt (MW) Solar Photovoltaic (PV) power generation facilities and associated electrical infrastructure (including 132 kV transmission lines for each 75 MW facility) on the remaining extent of Onder Rugzeer Farm 168 and the connection points to the substation on the remaining extent of Portion 3 of Gemsbok Bult Farm 120. A separate full Scoping and EIA Process is being undertaken for each proposed 75 MW Solar PV facility. A separate BA Process is being undertaken for each transmission line (and associated electrical infrastructure). An integrated Public Participation Process has been undertaken for the proposed projects. Separate Applications for Environmental Authorisation have been submitted for each proposed 75 MW Solar PV facility and transmission line (and associated electrical infrastructure). Separate BA, Scoping and EIA Reports have been compiled for each project. The proposed project will take place approximately 80 km south of Upington and 30 km north-east of Kenhardt within the Northern Cape Province. The proposed 75 MW Solar PV projects are referred to as: Kenhardt PV 1, Kenhardt PV 2 and Kenhardt PV 3 respectively. The Project Applicant is Scatec Solar SA 330 (PTY) Ltd for Kenhardt PV 1, Scatec Solar SA 350 (PTY) Ltd for Kenhardt PV 2 and Scatec Solar SA 370 (PTY) Ltd for Kenhardt PV 3. This specific application will entail the construction of the proposed 75 MW facility and will be referred to as Kenhardt PV 3.

Scatec Solar SA 370 (Pty) Ltd appointed CSIR to undertake an Environmental Impact Assessment (EIA) process for the proposed 75 MW Solar Photovoltaic Facility (Kenhardt PV3), on the remaining extent of Onder Rugzeer Farm 168, north-east of Kenhardt, Northern Cape Province. An Environmental Impact Assessment (EIA) was completed for the development in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and the EIA Regulations 2014. The proposed project includes the construction of a 250 ha solar field array with associated infrastructure such as offices, operational and maintenance control centre, workshop, ablution facilities, convertor/inverter stations, on-site substation building and guard houses. Scatec Solar is in the process of applying for Environmental Authorisation for several projects in the area including three PV Solar Facilities and three Transmission Line Projects. This comment will only discuss information pertaining to the Kenhardt PV 3 Project. CSIR appointed Jayson Orton and John Almond to conduct the Archaeological Impact Assessment (AIA) and the Palaeontological Desktop Assessment for the project respectively.



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Orton, 2016. Scoping and Environmental Impact Assessment for the Proposed Development of a 75 Mw Solar Photovoltaic Facility (Kenhardt Pv 3) on the Remaining Extent of Onder Rugzeer Farm 168, North-East Of Kenhardt, Northern Cape Province.

A total of 38 heritage resources were identified within the proposed project area. The majority of these sites were described as surface scatters of Middle Stone Age (MSA) and/or Later Stone Age (LSA) lithics or flaked quartz outcrops with associated stone artefacts. These were given a rating of low significance with a low impact from the proposed development activities. One site (waypoint 234) was rated a low-medium comprising a light LSA scatter of quartz, quartzite, CCS and silcrete located near a pan. Two sites were given a rating of medium significance i.e. Waypoint number 224 and 229. One of these sites (229) is described as a hollow within a pile of quartz blocks containing bottle glass, shotgun cartridge, ostrich eggshell fragments, two retouched CCS lithics and some quartz flakes. One site (waypoint 739) was given a high significance rating as a possible grave along with waypoint 746.

Recommendations provided in the report are as follows:

- Waypoint 234 must be avoided with a 40 m from the centre of the pan or conduct archaeological excavations to rescue artefacts and data;
- The two medium significance sites (224 and 229) were recommended to be avoided with a 25 m buffer or conduct archaeological excavations to rescue artefacts and data;
- A buffer of 5 m was recommended for the possible graves (739 and 746). Alternatively, it should be tested to ascertain whether it is a grave or not;
- The construction team should be made aware of the possibility of uncovering additional graves during construction and should report any suspicious stone features prior to disturbance;
- The built elements of the facility should be painted in an earthly colour to minimise visual impact on the landscape; and
- If any archaeological material or human burials are uncovered during the course of the development then work in the immediate area must be halted. The find would need to be reported to the heritage authorities and may require inspection by an archaeologist. Such heritage is the property of the state and may require excavation and curation in an approved institution.

## Almond, 2015. Desktop Palaeontological Impact Assessment: Kenhardt PV 3 EIA

The preferred area for the PV facility is underlain by igneous and metamorphic rocks that are entirely unfossiliferous. Small patches of calcrete, gravelly to sandy river alluvium, pan sediments; surface gravels as well as Pleistocene to recent windblown sands of the Gordonia Formation may contain sparse fossil remains

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such as important vertebrate fossils. The impact of the proposed development is rated as very low during the construction phase with no significant impacts expected during the operational and decommissioning phases.

Recommendations provided in the report include that the Environmental Control Officer (ECO) must safeguard any fossil finds during the construction phase and report these finds to SAHRA. Where appropriate, sampling and recording of identified fossil material can be conducted by a qualified palaeontologist.

### **Final Comment**

Regarding archaeological and palaeontological heritage resources, the SAHRA Archaeology, Palaeontology and Meteorites Unit accepts the submitted AIA and PIA and their respective recommendations, and has no objections against the development. The following additional conditions must be adhered to and must form part of the final EMPr of the project should Environmental Authorisation be granted for the project:

- A 30 m buffer must be maintained around the possible grave until it can be tested. Testing should take the form of Ground Penetrating Radar (GPR). A report detailing the testing must be submitted to SAHRA, following which the appropriate permits can be applied if necessary;
- Waypoints 234, 224 and 229 should be avoided with either a 25 m or a 40 m buffer as indicated in the AIA or Phase 2 Archaeological Excavations must be conducted. A permit must be applied for in terms of section 35 of the National Heritage Resources Act, 1999 (NHRA);
- 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 (Itumeleng Masiteng/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, a Phase 2 rescue operation may be required.

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

Yours faithfully

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Natasha Higgitt Heritage Officer South African Heritage Resources Agency

Phillip Hine SAHRA Head Archaeologist (Acting) South African Heritage Resources Agency

# ADMIN:

Direct URL to case: http://www.sahra.org.za/node/319862 (DEA, Ref: )

#### 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.