



Final Comment

In terms of Section 35(4) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Solar Reserve South Africa (Pty) Ltd
159 Rivonia Road
Sandton
2191

Environmental Impact Assessment for the Proposed 600 hectares, Two Phase Photovoltaic Solar Power Park on Portion 0 of the Farm Rooipunt 617, Gordonia RD, near Upington in the Northern Cape

Fourie, W., March 2014. Proposed Rooipunt Solar Power Park near Upington, KAI !GARIB Municipality, Northern Cape Province - Heritage Impact Assessment inclusive of Almond, J., November 2011.

Palaeontological specialist study: desktop assessment - Proposed Rooipunt Solar Power Park on Farm Rooipunt 617, near Upington, Gordonia District, Northern Cape Province

WorleyParsons resources and energy is undertaking the Environmental Impact Assessment process for the PV solar power park on Portion 0 of Farm Rooipunt 617 on behalf of SolarReserve LLC. The project will consist of two phases, each of which will have a plant covering 300ha and feeding 100MW of power back into the national grid. The PV will require DC-AC current inverters and transformers along with auxiliary infrastructure such as water reticulation and purification works, sewer reticulation and treatment works, access roads of up to 6m wide and 14km in length, storm water infrastructure, a substation, a switching station, a construction camp for about 600 people, office buildings, a visitor centre, a lay down area, an assembly plant, a concrete batching plant, vehicle workshops and wash bays, a fuel storage area, a temporary general waste storage facility and a hazardous material storage facility. The PV panels will be organised in 6m² sections for a total length of the row of up to 1km and they will be placed about 3m above ground supported by rammed, concrete or screw pile foundations. Three separate alternatives were identified on the farm, Northern, Southern and Western Option. Of the three, the Southern Option is the preferred one since it has the smallest direct footprint from an environmental perspective.

Mr Fourie, Mr Steyn and Mr Hutten undertook a survey of the area for the Phase 1 Heritage Impact Assessment. It is noted that the assessment was undertaken when the final layout of the solar PV and CSP had not been decided yet, however, since the area undergoing the survey did not differ, SAHRA is satisfied with the assessment included in the submitted report.

According to the palaeosensitivity maps of SAHRA, the proposed development is located in an area which is of moderate palaeontological sensitivity, as such a desktop study is required, as undertaken by Dr Almond. The proposed area for the development is underlain mostly by unfossiliferous igneous and metamorphic basement rocks (granites, gneisses etc) or mantled by superficial sediments (Quaternary to recent calcretes and wind-blown sands) of low palaeontological sensitivity.



During their desktop study the archaeologists failed to make reference to previous studies undertaken in the area, namely Morris, September 2010 (Upington Solar Thermal Plant - Archaeology- Specialist Input for the Environmental Impact Assessment Phase and Environmental Management Plan for the Proposed Upington Solar Thermal Plant, Northern Cape Province) and Morris, June 2012 (Upington Solar Thermal Plant - Preliminary Report On A Phase 2 Archaeological Study Of The Site McTaggarts Camp 1 (National Site Number 2821CA003).

During the field survey the archaeologist identified sixteen isolated occurrences of stone tools from the ESA to the LSA and six scatters of stone tools with low density, although the density was not defined in the description of the site.

No image of site 56, a possible herder site, is provided in the report. However, since the site will most likely be excluded from the footprint area, no impact on the site is expected. For future reference, a short description of the site without images and without its contextualization within the broader pastoralism of the area is not sufficient for the heritage authority to understand the significance of the site.

Regarding the description of the Stone Age sites, SAHRA APM Unit expects that a minimum description of the site entails the density of the scatter (beyond very low and low), the type of artefacts and the type of raw material used for the stone tools. This information is not included in the submitted report and therefore it is impossible for SAHRA to understand and assess the extent of the necessary mitigation for these sites. It is requested that in future this information is included in the Phase 1 of the HIA, along with images of each sites and track paths of the area walked during the survey.

Recommendations:

In terms of the establishment of Phase 1 and Phase 2 of the PV facility, SAHRA recommends that:

If the preferred option (**Southern Layout**) is approved:

- the isolated stone tools (sites 32 to 36, 47, 48 and 50 to 54) may be disturbed without a permit issued by SAHRA;
- site 56: a 50m buffer zone should be implemented around it to ensure that no accidental damage to the site may occur;
- sites 55 to 57 must be recorded and mapped before destruction;
- any alteration or demolition to site 42 (mine quarry) must be permitted by the Northern Cape Provincial Heritage Resources Authority, Ngwao Boswa Kapa Bokone;
- the ECO should be made aware of the possibility of important fossils being present or unearthed on site and should monitor all substantial excavations into fresh (i.e. unweathered) sedimentary bedrock for fossil remains.



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Department of Arts and Culture

If the **Northern Option Layout** is approved:

- sites 32 to 38, 43 to 45 and 53 may be disturbed without a permit issued by SAHRA;
- any alteration or demolition to sites 40 to 42, 46 and 64 to 68 must be permitted by the Northern Cape Provincial Heritage Resources Authority, Ngwao Boswa Kapa Bokone;
- if any impact on site 39 is envisaged, test excavation under section 35 of the NHRA must be undertaken to identify whether the site is a grave;
- site 56: a 50m buffer zone should be implemented around it to ensure that no accidental damage to the site may occur;
- sites 55 and 57 must be recorded and mapped before destruction;
- the ECO should be made aware of the possibility of important fossils being present or unearthed on site and should monitor all substantial excavations into fresh (i.e. unweathered) sedimentary bedrock for fossil remains.

If the **Western Option layout** is approved:

- sites 36 to 38, 43, 45, 47, 48, 50, 60 and 61 may be disturbed without a permit issued by SAHRA;
- any alteration or demolition to sites 40 to 42, 44, 46, and 62 to 68 must be permitted by the Northern Cape Provincial Heritage Resources Authority, Ngwao Boswa Kapa Bokone;
- if any impact on site 39 is envisaged, test excavation under section 35 of the NHRA must be undertaken to identify whether the site is a grave;
- site 56: a 50m buffer zone should be implemented around it to ensure that no accidental damage to the site may occur;
- sites 55 to 57 must be recorded and mapped before destruction;
- the ECO should be made aware of the possibility of important fossils being present or unearthed on site and should monitor all substantial excavations into fresh (i.e. unweathered) sedimentary bedrock for fossil remains.

If any other evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are found during the proposed activities, SAHRA APM Unit (Phillip Hine/Colette Scheermeyer, tel. 021 462 4502) must be alerted immediately, and a professional archaeologist or palaeontologist, depending on the nature of the finds, must



The South African Heritage Resources Agency

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be contacted 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 might be necessary.

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

Yours faithfully

Mariagrazia Galimberti
Heritage Officer: Archaeology
South African Heritage Resources Agency

Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/174421>
(DEA, Ref: 12/12/20/2488/01, 12/12/20/2488/02)

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.

