

Date: 15 November 2021

Ms Jo-Anne Thomas
Director
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Dear Ms Thomas

KORANA SOLAR PV GRID CONNECTION ENVIRONMENTAL AUTHORISATION AMENDMENT: SPECIALIST IMPACT STATEMENT

The grid connection for the Korana Solar Photovoltaic Facility (SPV), to be constructed on Portions 1 and 2 of the farm Namies South (212), south of Pofadder and Aggeneys in the Northern Cape, originally received environmental authorization from the then Department of Environmental Affairs (DEA) on 18 May 2015 (DEA Ref: 14/12/16/3/3/1/1347), amended 16 March 2020 (DEA Ref: 14/12/16/3/3/1/1347/AM1).

Two grid connection options were assessed as part of the Basic Assessment for the project (Alternatives 1A and 1B) (Figure 1). Alternative 1B received environmental authorization.

The project developer, South Africa Mainstream Renewable Power Development (Pty) Ltd (Mainstream), wishes to amend the current environmental authorization for the grid connection to use Alternative 1A as it links up with their other grid lines in the area and does not cut through the development footprint for the authorised Korana Wind Energy Facility.

This proposed amendment to the Korana SPV Grid Connection EA requires a Part 2 amendment process, for which a Basic Assessment is not required. Instead, a specialist impact statement is required to accompany the EA amendment application to the Department of Forestry, Fisheries and the Environment (DFFE), to confirm whether the proposed activity will result in additional impacts that were not assessed in the original environmental assessment and to recommend, where necessary, additional mitigation measures for inclusion in the Environmental Management Programme (EMPr). The specialist impact statement must be accompanied, if required, by new impact ratings, considering the additional components to the authorized project.

The heritage impact assessment (HIA) produced by ACO Associates as part of the Environmental Impact Assessment (EIA) process in 2014 (Hart *et al* 2014) (Figure 1) considered archaeological heritage resources, the historical built environment, cultural landscapes and scenic routes and sense of place. The requirement for a palaeontological assessment was scoped out at the Scoping Report stage of the Korana Solar Energy Facility, with which the grid connection is associated.

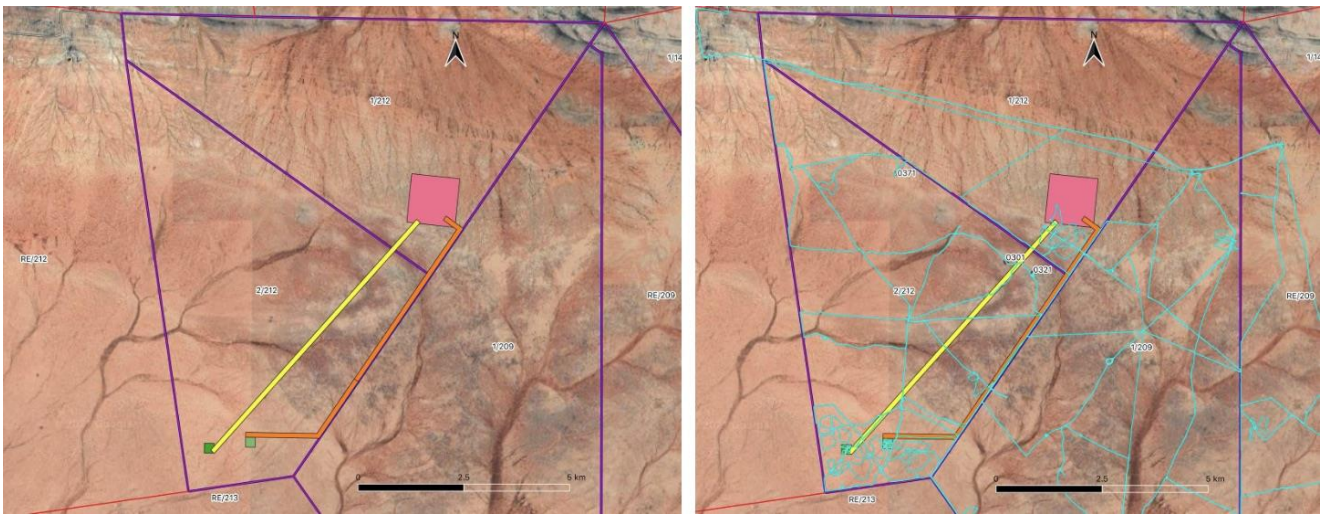


Figure 1: Korana SPV grid connection options assessed by the HIA (Hart et al 2014): the EA authorised route Alternative 1B (yellow line) as opposed to Alternative 1A (orange line), which is the subject of this EA amendment application are shown in both images. The blue lines on the image on the right are the ACO survey trackplots (Source: Google Earth).

The Korana PV HIA (including the grid connection) found the following:

- **Archaeology:** No clear archaeological sites were recorded during the ACO survey of the site and the few natural foci for human use in the landscape seem not to have attracted any form of stable or long-term pre-colonial occupation. The typical archaeology comprises a diffuse litter of stone artefacts, most of which were informal. The only formal artefact found was a single small biface made from quartzite. Natural occurrences of quartz and crystal quartz showed limited flaking or harvesting for raw materials.
- **Built environment:** No elements of the historical built environment were encountered on either of the Korana SPV grid connection route alternatives.
- **Cultural landscape:** Given the results of the archaeological survey and the fact that the farm Namies South was only granted in the early 20th century and that all the structures date to this time and later, the HIA noted few, if any, cultural landscape elements of concern.
- **Sense of place and visual impacts:** The site is very remote and has a distinct sense of place. The vast open spaces of Bushmanland mean that visual impacts of power lines are high, but due to the remoteness of the area, there are very few visual receptors.

The N14 lies a minimum of 22 km to the north of both grid connection alternatives and is the only route in the area that can be regarded as a significantly scenic. The SPV site and the grid connection routes are, however, screened from the N14 by the intervening low mountains and are too distant from the N14 to result in an impact. The R358 has scenic qualities but being a gravel road, carries far less traffic and also lies some 21 km to the east of the grid connection route options.

The HIA made the following assessment of impacts on heritage resources:

- The study area is not archaeologically sensitive and rescue excavations of archaeological material will not be necessary for any development of the site, along the power line routes or at the proposed substation sites. Generally, the impact of the proposed activity on archaeological material is expected to be very low.
- No colonial period heritage (i.e. buildings and historical sites of significance) was identified within the boundaries of the study area and no impacts are thus expected.

- Cultural landscapes are highly sensitive to large scale development activities that change the character and public memory of a place and the cumulative impacts of these. In terms of the National Heritage Resources Act, a cultural landscape may also include a natural landscape of high rarity value, aesthetic, and scientific significance. The construction of a large facility can result in profound changes to the overall sense of place of a locality, if not a region. Given the fact that this particular landscape is of limited aesthetic value, not particularly rare and extremely isolated, the significance of the landscape impact is moderated and was assessed to be low.

The following heritage mitigation measures were proposed by Hart *et al* (2014) in the Korana PV HIA:

- Archaeological heritage: There is no surface archaeological material that requires any form of mitigation prior to construction work.
- Built environment and colonial period sites: There are no protected sites or structures that require mitigation.
- Cultural landscape: No mitigation measures are suggested.
- Human remains can occur at any place on the landscape and are protected by a range of legislation, including the National Heritage Resources Act (Act No 25 of 1999). In the event of human bones being found during construction activities, SAHRA must be informed immediately, and the remains removed under an emergency SAHRA permit. This process will incur some expense as removal of human remains is at the cost of the developer. Time delays may result while application is made to the authorities and an archaeologist is appointed to do the work.

Heritage Specialist Impact Statement:

The EA amendment application for the Korana SPV Grid Connection arises from the desire to utilise Alternative 1A as opposed to the authorised Alternative 1B route option.

Both grid connection options were assessed as part of the 2014 HIA for the project and both were found to be acceptable in terms of potential impacts to heritage resources.

It is our reasoned opinion, therefore, that the proposal to amend the EA to use grid connection Alternative 1A will occasion no changes to the identified impacts of the Korana SPV Grid Connection on heritage resources, and provided the relevant mitigation measures recommended in the HIA are implemented no additional mitigation measures will be required.

From a heritage resources perspective, therefore, the proposed amendment to the environmental authorisation for the Korana SPV grid connection route option is considered acceptable.

Yours sincerely



John Gribble
Senior Archaeologist and Heritage Consultant

References:

Hart, T., Webley, L., Halkett, D. and Kendrick, N. 2014. *Heritage Impact Assessment for the Korana Solar Energy Facility on Farm Namies South 212/Portion 2; Khai-Ma Municipality, Northern Cape*. Unpublished report for Savannah Environmental (Pty) Ltd. ACO Associates. Cape Town.

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