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Ms Jo-Anne Thomas Director Savannah Environmental (Pty) Ltd 1st Floor, Block 2, 5 Woodlands Drive Office Park Cnr of Woodlands Drive & Western Service Road Woodmead 2191

Dear Ms Thomas

POORTJIES WIND ENERGY FACILITY ENVIRONMENTAL AUTHORISATION AMENDMENT APPLICATION - INCREASE IN TURBINE SPECIFICATIONS: SPECIALIST IMPACT STATEMENT

The Poortjies Wind Energy Facility (WEF), to be constructed on farm portions Poortje Rem 209 and Poortje 209 Portion 1, south of Pofadder and Aggeneys in the Northern Cape, originally received environmental authorization (EA) from the then Department of Environmental Affairs on 28 May 2015.

The project developer, South Africa Mainstream Renewable Power Development (Pty) Ltd (Mainstream) has authorization to construct up to 50 turbines with a hub height of up to 90 m and a blade diameter of up to 150 m as part of the Poortjies WEF.

Mainstream wishes to amend this current environmental authorization to increase turbine hub height to a maximum of 200 m and rotor blade diameter to a maximum of 200 m.

The proposed amendment to the Poortjies WEF 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 amendment application, to confirm whether the proposed changes to the project 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 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 process in 2014 (Hart *et al* 2014c) considered archaeological heritage resources, the historical built environment, cultural landscapes and scenic routes and sense of place in the proposed WEF footprint. The requirement for a palaeontological assessment as part of the HIA was scoped out at the Scoping Report stage of the project.

The Poortjies WEF HIA assessed the proposed facility layout and found the following:

• <u>Archaeology</u>: No clearly definable archaeological sites were recorded. The typical pre-colonial archaeology of the site is limited to a diffuse litter of stone artefacts across the landscape

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- <u>Built environment</u>: No elements of the historical built environment were encountered on the Poortjies site.
- <u>Cultural landscape:</u> Given the results of the archaeological survey, the fact that the farm was only granted in the early 20th century and that all the structures date to this time and later, there are few, if any, cultural landscape elements of concern.
- <u>Sense of place and visual impacts</u>: The site is very remote and has a distinct sense of place. The vast open spaces of Bushmanland mean that visual impacts will be high, but due to the remoteness of the area, there are very few visual receptors.

The N14 lies some 15 km to the north of the WEF site and is the only route that can be regarded as a significant scenic route through the area. To the north the site is completely screened from the N14 by the intervening low mountains and from the west it is too distant from the N14 to result in an impact. The R358 is has scenic qualities but being a gravel road, carries far less traffic than the N14. It lies some 13 km to the east of the WEF.

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 site. Generally, the impact of the proposed activity on archaeological material is expected to be <u>very low</u>.
- No colonial period heritage i.e. buildings and historical sites of significance was identified within the boundaries of the study area.

The only area of concern, which is outside of the boundary of the WEF, was the proposed access road from the N14 which passes through the old Namies Village area. Impacts to this site can, however, be avoided by the proposed diversion of the road to the south or by using either of the alternative routes into the WEF from the south.

 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 such as a WEF 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 <u>medium negative</u>.

The following heritage mitigation measures were proposed in the Poortjies 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 within the study area that require mitigation. The access road which passes through the site of the village of

Namies will result in impacts if widened. The diversion of the route to the south as proposed is supported, as is the use of the alternative or second alternative access road.

- 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 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 Poortjies WEF is for an increase in turbine hub height and blade diameter, both to a maximum of 200 m.

The larger WTGs mean an increase in the turbine footprint and foundation size, but this will be small and will result in no change to the assessed impacts on archaeological heritage.

The larger turbines will also be a more prominent visual element in the landscape with potentially increased impacts on the cultural landscape and sense of place. Based on the impact assessment in the HIA, which found that this particular landscape is of limited aesthetic value, not particularly rare and extremely isolated, it is likely that the significance of the landscape impact will no increase if the larger turbines are installed. It therefore remains as <u>medium negative</u>.

It is our reasoned opinion that the increase in turbine specification proposed in this EA amendment application is tolerable, generally of low significance and will occasion <u>no changes</u> to the identified impacts of the Poortjies WEF on heritage resources, provided the relevant mitigation measures recommended in the HIA are implemented.

From a heritage resources perspective, therefore, the proposed amendments to the environmental authorisation for the Poortjies WEF are considered acceptable.

Yours sincerely

John Gribble Senior Archaeologist and Heritage Consultant

References:

Hart, T., Webley, L., Halkett, D. and Kendrick, N. 2014c. *Heritage Impact Assessment for the Proposed Poortje Wind Energy Facility on Two Farm Portions South of Pofadder in the Northern Cape Province*. Unpublished report for Savannah Environmental (Pty) Ltd. ACO Associates. Cape Town.