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Andile Dlodla  
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By email: ADlodla1@csir.co.za

Dear Andile

**Heritage comment:**

**Second Substantive Amendment Application for a Revision to Turbine and Hub Specifications of the proposed split and amended Sutherland Wind Energy Facilities (i.e. three 140 MW Wind Energy Facilities: Sutherland Wind Energy Facility (WEF); Sutherland 2 WEF; and Rietrug WEF), Sutherland, Northern and Western Cape Provinces.**

South Africa Mainstream Renewable Power Developments (PTY) Ltd (hereinafter referred to as Mainstream) has already obtained an Environmental Authorisation (EA) on 22 February 2012 (DEA Reference Number: 12/12/20/1782) for a renewable energy facility with a maximum output of 650 MW from wind energy. An amended EA was also issued to Mainstream (following a non-substantive amendment process) on 6 October 2015 (DEA Reference Number: 12/12/20/1782/AM1). However, the present conditions applicable to the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) stipulate that a maximum generation capacity of 140 MW may be included per project bid. For this reason Mainstream has conducted an additional amendment application (i.e. Amendment 1), in April 2016, to split their existing EA into three separate EAs such that three separate bids of 140 MW can be made. The three projects will be referred to as Sutherland Wind Energy Facility (56 turbines), Sutherland 2 Wind Energy Facility (47 turbines) and Rietrug Wind Energy Facility (56 turbines). The original proposal (DEA Reference Number: 12/12/20/1782) was authorised with 325 turbines but the split has a total of 159 turbines. This amendment application was approved on 10 November 2016 (DEA Reference Numbers: 12/12/20/1782/1; 12/12/20/1782/2; and 12/12/20/1782/3). These EAs replace the original EA (dated 22 February 2012) and the amended EA (dated 6 October 2015). The farm portions included in each of these applications are as follows (note one portions falls in Western Cape as marked):

Sutherland Wind Energy Facility	<ul style="list-style-type: none"><li>• Schietfontein 179/1</li><li>• Beeren Valley 150/1</li><li>• Beeren Valley 150/remainder</li><li>• Nooitgedaght 148/remainder</li><li>• Boschmans Kloof 9/1 (WC)</li></ul>
Sutherland 2 Wind Energy Facility	<ul style="list-style-type: none"><li>• Tonteldoosfontein 152/1</li></ul>

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Rietrug Wind Energy Facility

- Beeren Valley 150/1
- Beeren Valley 150/remainder
- Nooitgedaght 148/remainder

A second amendment application is also required and it is this second amendment with which the present letter deals. This amendment entails the following:

- Increase in hub height and rotor diameter from the authorised 120 m to 150 m. The higher turbines will have more powerful generators with a greater output of power in order to make up for the reduction in the total number of turbines effected by Amendment 1.

From a heritage point of view there are two aspects to consider:

1. The footprint area of the facilities will be less than previously authorised because of the reduction in turbine numbers (this aspect was relevant to the already authorised Amendment 1 referred to above); and
2. The visual/contextual impacts to the landscape will be reduced by having fewer turbines, although the turbines may be visible from further away due to their increased height.

The first point above is not relevant to this application.

The second point is relevant and discussed here. The study area is very remote and located a long distance from major roads which means that very few people will see the facility. There are few houses in the area and some are unoccupied. An increase in turbine height and rotor diameter from 120 m to 150 m (a 25% height and diameter increase) will likely make very little difference to the overall impacts to the landscape, especially considering that the original height was already very substantial and that there are now considerably fewer turbines planned in total. It is likely that the contextual/visual impacts to the landscape and any other visually sensitive heritage features will, in fact, be reduced. There will be no new impacts.

Having fewer turbines and related roads (Amendment 1) is likely to create a benefit (positive impact) that will substantially outweigh the negative impact introduced by a 25% greater turbine height and rotor diameter (Amendment 2). It is thus my opinion that the Amendment application to increase the turbine height and rotor diameter from 120 m to 150 m for the three Wind Energy Facilities of concern here is totally acceptable in terms of impacts to heritage resources and that, as was the case with the earlier amendment, no further heritage-related work is required. The proposed increase in hub height and rotor diameter should be authorised.

Yours sincerely



Jayson Orton

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