

**Ummbila Emoyeni (Pty) Ltd** 15 Chaplin Street Illovo 2196

Department Forestry, Fisheries and the Environment Environment House 473 Steve Biko Rd Arcadia Pretoria 0001

28 April 2023

Dear Sir / Madam

## RE: UMMBILA EMOYENI WIND ENERGY FACILITY AND ELECTRICAL GRID INFRASTRUCTURE PHASE ONE: RESPONSE TO ECOLOGICAL WALKTHROUGH RECOMMENDATIONS (DFFE REF: 14/12/16/3/3/2/2160 & 14/12/16/3/3/2/2162)

The Ummbila Emoyeni Wind Energy Facility (WEF) (Ref: 14/12/16/3/3/2/2160) and associated electrical grid infrastructure (EGI) (Ref: 14/12/16/3/3/2/2162) received environmental authorisation (EA) on 26 and 27 January 2023, respectively. The EAs require that an ecological walkthrough take place prior to the commencement of construction to inform the final layout for the proposed WEF and EGI.

An ecological walkthrough of Phase One was completed by The Biodiversity Company in March 2023 and a draft report provided to the Applicant in April 2023 highlighting recommended micro-siting changes to the proposed development layout. The initial layout provided to the consultant included 26 wind turbine generators (WTGs); however, only 25 WTGs will be developed as part of Phase One.

The site for Phase One is highly constrained, with "no-go" areas identified based on ecological and social constraints during the WEF and EGI EIA processes (Figure 1, grey areas). In addition to the ecological and social constraints, is the need for the WTGs to be separated from each other for safety and to avoid turbulence resulting from wake effect. The turbine supplier is required to produce a site suitability report that requires a set distance between each turbine - this is shown in Figure 1. Turbines cannot infringe on this separation distance without compromising the ability of the turbine supplier to provide an availability guarantee. This is a guarantee that the WTG will perform to a minimum specified standard. This means that the WTGs making up the wind farm must be spaced out, with distance increasing with increasing rotor diameter, and a greater distance for main wind direction than cross wind directions. The rule applied to Ummbila Emoyeni (91m blade length) is a minimum spacing between the individual WTGs of three rotor diameters in cross wind directions and six rotor diameters in main wind direction. Figure 1 shows that there is near to zero space available to move turbines.

To ensure that we are taking appropriate steps, the ecologists have suggested a repositioning of 12 WTGs, with recommendations ranging from 30m to 700m shifts in location and, in some cases, adjustments to allow for easier access. While none of the requests are based on significant or fatally flawed environmental concerns, it may not be feasible to implement any of the recommended changes due to the highly constrained site and required separation zone between the WTGs. However, the appointed contractor will investigate the possibility of making slight position adjustments once on site. It should be noted that these adjustments are unlikely to match the degree recommended by the ecologists. A summary of the Ecologists' recommendations and the Applicant's responses can be found in the attached table.

We remain available for any queries.

Yours sincerely,

## For Ummbila Emoyeni (Pty) Ltd

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Infrastructure	Recommendation	Response
T1	Position remains unchanged.	N/A
T2	Position remains unchanged.	N/A
Т3	Position remains unchanged.	N/A
T4	Position remains unchanged.	N/A
Т5	Position remains unchanged.	N/A
Т6	Keep Turbine on the road next to the fence line.	The WTG cannot be shifted east as it would encroach on the "no-go" area.
Τ7	No changes to placement area required.	N/A
Т8	Move Turbine to the nearest road east of Soya lands.	The WTG cannot be shifted east as it would impact on the separation zones of WTGs 16 and 18.
Т9	Move Turbine slightly east into the road next to the natural veld. Access will be easier.	WTG 9 is on the edge of the "no-go" area and therefore cannot be moved east.
T10	Move Turbine to the nearest road crossing south-east of Soya lands.	WTG 10 is on the edge of the "no-go" area and therefore cannot be moved south-east.
T11	Position remains unchanged.	N/A
T12	Move Turbine slightly west into the road crossing. Access will be easier.	The WTG cannot be shifted west as it would impact on the separation zones of WTGs 15 and 21.
T13	Move Turbine towards the nearest road east of Soya lands. Do not place the Turbine on the other side of the road.	WTG 13 is on the edge of the "no-go" area and therefore cannot be moved east.
T14	Move Turbine south to the nearest road crossing next to mielie lands. It will be easier to access the turbine.	WTG 14 is on the edge of the "no-go" area and therefore cannot be moved south.
T15	Move Turbine position north onto the road crossing, for easier access.	WTG 15 is close to the edge of the "no-go" area as well as the zone of separation of WTG 23 and therefore cannot be moved north.
T16	Position remains unchanged.	N/A
T17	Move Turbine south to the nearest road crossing next to mielie lands.	The WTG cannot be shifted south to the nearest road crossing as it would impact on the separation zones of WTGs 13 and 16.
T18	No changes to placement area required. Relocation (rescue) of protected plants.	N/A in terms of relocation. Applicant is completing permit applications for the relocation of protected plant species.
T19	Position remains unchanged.	N/A
Т20	Move Turbine slightly south into the old cultivated land next to the road, access will be easier.	The WTG cannot be shifted south as it would impact on the separation zone of WTG 14.

## Table 1 Ecologist's recommendations and Applicant Responses (refer to Figure 1)

Infrastructure	Recommendation	Response
T21	Position remains unchanged.	N/A
T22	Position remains unchanged. The position of the collector site could also be moved 100 m south in case the nest recorded is active.	N/A in terms of relocation of the WTG. Applicant will monitor the nest for activity to determine the need for relocating the collector site.
T23	Move Turbines position slightly south onto nearest contour line of the maize fields.	The WTG cannot be shifted south as it would impact on the separation zone of WTG 15.
T24	Position remain unchanged.	N/A
Т25	Move Turbine slightly east to the road or south to the road crossing. Access will be easier.	The WTG cannot be shifted east as it would impact on the separation zones of WTG 1 and 8. Moving the WTG south would place the turbine within the "no-go" area as well as impacting on the separation zone of WTG 8.
T26	Position remains unchanged.	N/A
Batching plant, Construction compound, Turn in line and MTS	Position to remain unchanged.	N/A
Collector site, OM 1 and OM 1,5	Position to remain unchanged.	N/A
Pylons 1-11 From collectors to MTS	Positions of pylons to remain unchanged.	N/A