

# Holland & Associates



Environmental Consultants

*Impact Assessments - Environmental Management Programs - Compliance Monitoring - Process Review*

25 February 2020

Dear Interested and Affected Party

## **LONGYUAN MULILO DE AAR MAANHAARBERG WIND ENERGY FACILITY NEAR DE AAR, NORTHERN CAPE PROVINCE: NOTIFICATION OF PROPOSED AMENDMENT TO THE ENVIRONMENTAL MANAGEMENT PROGRAMME AND LAYOUT PLAN**

### **PUBLIC PARTICIPATION PROCESS**

**(DEA REFERENCE NUMBER: 12/12/20/1651; DENC REF. NC/BA/05/PIX/EMT/DEA2/2014)**

The purpose of this letter is to inform Interested and Affected Parties (I&APs) that Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd propose to amend the Environmental Management Programme (EMPr) and Layout Plan for the Wind Energy Facility (WEF) near De Aar<sup>1</sup>, in the Northern Cape Province, in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA) Environmental Impact Assessment (EIA) Regulations (2014), as amended.

This letter serves to notify I&APs of the availability of the draft amended EMPr and “As Built” Layout Plan for I&AP comment in terms of Regulation 37 of the EIA Regulations, 2014, as amended<sup>2</sup>. In this regard, the draft amended EMPr and “As Built” Layout Plan is being made available for a 30-day comment period, i.e. from **28 February 2020 – 30 March 2020**. Copies of the amended EMPr and “As Built” Layout Plan have been lodged at the De Aar Public Library and are available for download on the Holland and Associates Environmental Consultants website ([www.hollandandassociates.net](http://www.hollandandassociates.net)) during the I&AP comment period.

#### **1) Background**

Environmental Authorisation (EA) for the Longyuan Mulilo De Aar Maanhaarberg Wind Energy Facility (WEF) and its associated infrastructure near De Aar in the Northern Cape Province was granted by the Department of Environmental Affairs (DEA) on 15 August 2011. Layout Alternative 1, as described in the Environmental Impact Report (EIR) dated 2010, was authorised by DEA in terms of the 2006 EIA Regulations, and includes 67 Wind Turbine Generators (WTG) with a generation capacity of 1.5MW per turbine, resulting in an optimal generation capacity of 100MW per annum, as well as associated infrastructure. Furthermore, the Northern Cape Department of Environment and Nature Conservation (DENC) granted authorisation for additional activities (i.e. activities 11 and 18 of GN 544, that were not included in the original EIA) for the WEF on 31 July 2014.

<sup>1</sup> The WEF is located on the following properties: Remainder of the Farm Smouspoort (No. 130) situated in the Division of Britstown and Remainder Portion 2 of the Farm Zwartekopjes (No. 131) situated in the Division of Britstown, near De Aar.

<sup>2</sup> Regulation 37 of GN R. 982, as amended

The Environmental Management Programme (EMPr) (May 2015) and Layout Plan dated 21 May 2015 were approved by DEA on 3 August 2015. Construction of the WEF commenced in October 2015 and was completed in 31 October 2017. The WEF has been operational since November 2017.

Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd wishes to update the approved EMPr and Final Layout Plan<sup>3</sup>, to address refinements to the Final Layout Plan made during the construction phase, to remove reference to the 132kV transmission line (given that it is subject to a separate Environmental Authorisation with its own conditions of authorisation and EMPr), amongst others. The proposed amendments to the EMPr and Layout Plan, and Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd's motivation for the proposed amendments, are outlined in Section 2 below.

## 2) Updates/ Amendments to the approved EMPr and Layout Plan

The following table includes a summary of the updates/ amendments to the EMPr and Layout Plan. In terms of the amendments to the Layout Plan (from the "Approved Layout Plan" to the proposed amended ("As Built") Layout Plan), in summary, the amendments include the following:

- The approved access road onto the Swartekopjes Mountain has been realigned
- Micro-siting of turbine 21
- Micro-siting of one of the construction camps
- Refinements to the internal 33kV reticulation lines and access roads, some of which have resulted in infringements/ transgressions on buffers (specifically heritage, botanical and freshwater buffers/ sensitivity areas).

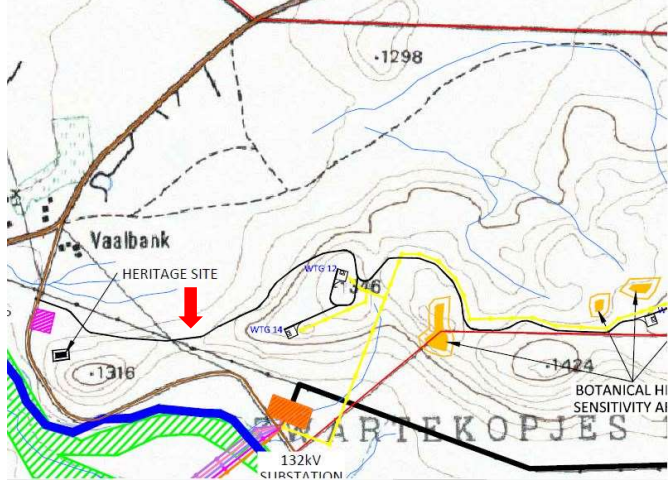
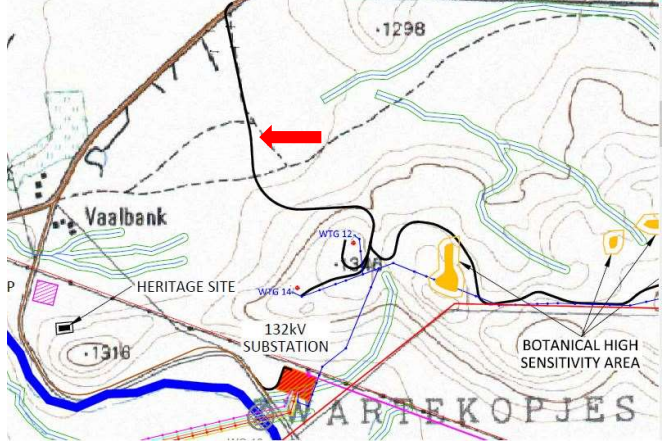
Amendments to the Operational Phase EMP are also proposed, to update the document in terms of environmental best practice and to make the document more practical.

Note: The amendments are underlined (where text has been added/ amended) or strikethrough (where text has been deleted) in the text of the EMPr, for ease of reference:

**Table 1: Summary of proposed amendments to the EMPr and Layout Plan**


Page number	Current EMPr wording	Proposed amendment to EMPr and/or Layout Plan	Motivation for proposed amendment
Final Layout Plan (Section 2.1 (page 2 - 3))	N/A (Amendment to the approved final Layout Plan included in Figure 1 and Appendix 16).	Amendment to Figure 1 and Appendix 16: "As-built" layout map to be approved by DEA and included in Figure 1 and Appendix 16 of the EMPr. The amendments to the approved final layout map include the following: <ul style="list-style-type: none"> <li>• A section of the approved access road onto the Swartekopjes Mountain has been realigned.</li> </ul>	<p><u>Amendment to a section of the access road onto the Swartekopjes Mountain:</u></p> <p>Following a detailed analysis of the route, it was found that the original alignment was a poor choice for the following reasons:</p> <ul style="list-style-type: none"> <li>○ Construction underneath a live transmission line is a health and safety risk; and</li> <li>○ The terrain required a significant amount of cut and fill to create a suitable road, which would have resulted in significantly higher impacts to the environment.</li> </ul> <p>The new alignment was subject to a botanical and fauna search and rescue to ensure that protected flora and fauna</p>


<sup>3</sup> i.e. from the approved Layout Plan to the "As Built" Layout Plan

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			<p>were relocated prior to vegetation clearance.</p> <p>Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists confirmed that the proposed amendments will not result in an increased level of the impacts for any of the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.</p>
		 <p><b>Figure 1: Approved section of access road onto Swartekopjes mountain (refer to red arrow)</b></p>	
		 <p><b>Figure 2: Amended (As Built) section of access road onto Swartekopjes mountain (refer to red arrow)</b></p>	

Page number	Current EMPr wording	Proposed amendment to EMPr and/or Layout Plan	Motivation for proposed amendment
		<ul style="list-style-type: none"> <li><b>Removal of freshwater buffers / setback provided by Nick Helme (Nick Helme Botanical Surveys</b> in his report titled "<i>Botanical Scoping Study of proposed Wind Energy Facility Site on the Maanhaarberg, De Aar, Northern Cape</i>" (2009).</li> </ul>	<p><u>Removal of freshwater buffers/ setback areas provided by Nick Helme Botanical Surveys:</u></p> <p>The freshwater buffer/ setback was provided by Nick Helme (Nick Helme Botanical Surveys in his report titled "<i>Botanical Scoping Study of proposed Wind Energy Facility Site on the Maanhaarberg, De Aar, Northern Cape</i>" (2009). The buffers were included in "preliminary vegetation sensitivity map" which identified sensitive drainage lines with a 60m wide buffer. This was a preliminary assessment as all drainage lines were identified as "high sensitive areas" irrespective of their ecological importance and sensitivity. Subsequent to this initial survey, detailed botanical assessments and freshwater assessments were undertaken by David Hoare and Toni Belcher respectively. Ms Belcher re-assessed the site with the view of confirming drainage lines and sensitive freshwater ecosystems. The findings of the specialist freshwater assessment (Belcher 2014) were taken into account and were included in the Final Site Layout Map, which was approved by DEA (Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd, 2019).</p> <p>Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists, including Nick Helme of Nick Helme Botanical Surveys, and the freshwater specialist, Ms Antonia Belcher of BlueScience, confirmed that the proposed amendments will not result in an increased level of the impacts for any of the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.</p>
		<ul style="list-style-type: none"> <li>Amendment/ refinements to internal reticulation line routes.</li> </ul> <p>Some of the amendments resulted in infringements/</p>	<p><u>Amendment/ refinements to internal reticulation line routes:</u></p> <p>The internal reticulation line routes were finalised by the surveyor while in the field. The amendments to the route layout allow for improved routing based on the topography, vegetation and rocky nature of the area. This additional</p>

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		<p>transgressions of buffers including:</p> <ul style="list-style-type: none"> <li>- 20m stream buffer</li> <li>- 30m botanical buffer</li> </ul>	<p>information could only be provided once the surveyor was on site.</p> <p>Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists, including the freshwater and botanical specialists, confirmed that the proposed amendments will not result in an increased level of the impacts for any of the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.</p>
		<ul style="list-style-type: none"> <li>• Amendment to internal road routes.</li> </ul> <p>Some of the amendments resulted in infringements/ transgressions of buffers including:</p> <ul style="list-style-type: none"> <li>- 20m stream buffer</li> <li>- 30m botanical buffer</li> <li>- Watercourse crossings</li> </ul>	<p><u>Amendment to internal road routes:</u></p> <p>The reasons provided by BVI Engineering for the freshwater buffer and environmental sensitivity infringements during the design and construction of access roads at the WEF included the following, amongst others:</p> <ul style="list-style-type: none"> <li>• Due to undulating terrain, to minimise the volume of cut and fill (and therefore disturbance to the surrounding natural environment and/or scarring of the surrounding landscape).</li> <li>• To avoid a dam wall area (on request by a farmer)</li> <li>• Due to natural ground levels (i.e. the need to shift the alignment due to proximity to the cliff edge).</li> </ul> <p>Some of the watercourse crossings stipulated in the GA dated 30 September 2014 have changed as a result of refinements to access road alignments (resulting in 4 co-ordinates to be amended). DWS have stated that Longyuan Mulilo need to submit the new coordinates for the water course crossings and the GA will then be amended accordingly. The updated co-ordinates were submitted to DWS by Longyuan Mulilo on 12 September 2017. The Applicant is still awaiting a response from DWS.</p> <p>Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists, including the</p>

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			<p>freshwater, heritage and botanical specialists, confirmed that the proposed amendments will not result in an increased level of the impacts for any of the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.</p>
		<ul style="list-style-type: none"> <li>Amendment to construction camp position.</li> </ul>	<p>The construction camp was repositioned in response to the changes in the road layout. A botanical search and rescue operation was carried out prior to clearing the site. No protected plants were found within the area. In addition, a fauna search and rescue was carried out. No baboon spiders were found. According to the ECO, no buffer infringements were caused.</p> <p>Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists confirmed that the proposed amendments will not result in an increased level of the impacts for any of the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.</p>
			 <p><b>Figure 3: Approved position of construction camp</b></p>

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		 <p data-bbox="686 674 1409 705"><b>Figure 4: Amended (As Built) position of construction camp</b></p>	
Page 13 and page 15	<p data-bbox="443 737 667 932"><i>The turbine masts, rotors and nacelle should all be finished in a nonreflective matte white paint without decals or logos.</i></p>	<p data-bbox="686 737 959 905">“Turbine masts, rotors and nacelle will all be finished in a nonreflective matte white paint without <del>decals or logos</del>”.</p>	<p data-bbox="984 737 1435 1052">The visual mitigation measure relating to brand names (decals or logo’s) on turbines was originally included in the EMPr given that the visual impact assessment for the project (undertaken by Ms Karen Hansen in 2010), included a mitigation measure that stated “<i>It is advised that the turbine masts, rotors and nacelle will all be finished in a nonreflective matte white paint without decals or logos</i>”.</p> <p data-bbox="984 1079 1435 1591">Specialist comment has been sought from the visual specialist, Ms Karen Hansen, as the developer now wishes to have the company logo on the turbine nacelles and/or towers at the WEF. Ms Hansen indicated that formerly, it was considered that the provision of logos on any part of the tower or the nacelle would be detrimental to the visual impact, in that it would be a distraction and that one of the ways to reduce the visual impact would be to have the towers and nacelles without logos. However, in the last 5 to 10 years that has become less significant, as the tower and nacelles are higher (80m or more) and the detail on the towers is therefore less visible for receptors.</p> <p data-bbox="984 1619 1435 1927">The visual specialist, Ms Karen Hansen, indicated that the site is very distant from receptors and that the logos on the nacelle and/or towers would not be clearly seen. The visual specialist therefore indicated that “<i>the amendment to provide logos on either or both tower and nacelle would not negatively impact on the visual impact of the infrastructure. The proposed amendment would not result in an increased level or change in</i></p>



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			<p><i>the nature of visual impacts, and is considered acceptable from a visual impact perspective"</i> (Hansen, 2019).</p> <p>Note: Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists confirmed that the proposed amendments will not result in an increased level of impacts for any of the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.</p>
Page 12	<i>In addition to that, the 132kV grid connection should also be inspected at least once a quarter to establish if there is any significant collision mortality.</i>	Removal of the sentence, i.e. <del>In addition to that, the 132kV grid connection should also be inspected at least once a quarter to establish if there is any significant collision mortality.</del>	The 132kV power line is subject to a separate Environmental Authorisation (EA), with its own conditions of authorisation and EMPr. The Applicant has handed over the responsibility of the 132kV line to Eskom.
Page 11 and 27	<i>If nest VE3 is active, a monitoring programme must be initiated between November 2015 and February 2016 to record the flight patterns of the fledgling.</i>	If nest VE3 is active, a monitoring programme must be initiated between November 2015 and February 2016 to record the flight patterns of the <u>fledgling breeding pair. One of the adult Verreaux's Eagles of the breeding pair at nest VE3 should be fitted with a telemetry device, rather than a fledgling, as recommended by Chris van Rooyen consulting (letter dated 5 August 2016).</u>	<p>Specialist comment from avifaunal specialist, Chris van Rooyen (November 2016) confirmed that the proposed amendment would not result in a change to the "impact management outcomes or objectives" of the EMPr, in terms of the management of potential avifauna impacts. He stated "<i>If we tag the adult eagle instead of the juvenile, it will provide us with long term data (at least two – to three years depending on how long the device works) of flight movements of a breeding adult over the facility. This will be of significantly greater value as far as the conservation of the species at the wind farm than the three to four months of relevant data that we will obtain from tagging the juvenile eagle before it is driven away from the area by the parents</i>".</p> <p>Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists confirmed that the proposed amendments will not result in an increased level of impacts for any of</p>



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			the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.
Appendix 3	N/A	Inclusion/ addition of the EA amendment dated 3 December 2015	<p>DEA granted an amendment of the EA on 3 December 2015. In terms of this amendment, Condition 10.5.7 of the EA is removed, Condition 10.7.8 was amended and the contact details of the holder of the EA were changed.</p> <p>The EMPr is to be updated to include the DEA EA amendment decision dated 3 December 2015, to ensure that the EMPr includes all relevant correspondence from DEA relating to the EA.</p>
Appendix 3	N/A	Inclusion/ addition of the EA amendment dated 25 February 2016.	<p>The DENC granted an amendment of the EA on 25 February 2016. In terms of this amendment, Condition 39 of the DENC EA was amended.</p> <p>The EMPr is to be updated to include the DENC EA amendment decision dated 25 February 2016, to ensure that the EMPr includes all relevant correspondence from DENC relating to the DENC EA.</p>
<p>Appendix 4 - Operational Phase Environmental Management Plan (OEMP):</p> <p>Page 3 - 7, page 9 - 10, page 14</p>	Refer to OEMP table (Table 1) in Appendix 4 of the EMPr.	<p>Insert mitigation measures, update the "schedule", and various other text edits, including the insertion of conditions from the DENC permit and conditions from the General Authorisation (GA).</p> <p>The amendments to the OEMP have been underlined in the text (in Appendix 4 of the EMPr) for ease of reference). The amendments include, amongst others:</p> <ul style="list-style-type: none"> <li>Row 1: Amendments to the mitigation measures (i.e. adding "Appoint an independent Environmental Professional to undertake <u>bi</u>-annual audits for the first three years of operation and once</li> </ul>	<p>The OEMP has been updated in terms of environmental best practice, to make the document more practical, and to ensure that conditions from other permits (i.e. conditions from the DENC permit relating to the operational phase and GA) for the project are included in the OEMP.</p> <p>Furthermore, avifauna specialist, Chris van Rooyen, has compiled a "Proposed Strategy for the Mitigation of Raptor-Unfriendly poles on the 33kV network at De Aar 1 and De Aar 2 North Wind Farms", to minimise potential impacts on birds associated with the 33kV powerlines at the WEF. The OEMP has been updated to include the mitigation strategy.</p> <p>The visual mitigation measure relating to brand names (decals or logo's) on turbines was originally included in the EMPr given that the visual impact assessment for the project (undertaken by Ms Karen Hansen in 2010), included a mitigation measure that stated "It is advised that the turbine masts, rotors and nacelle will all be finished in a nonreflective matte white paint without decals or logos".</p>

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		<p><i>every five years thereafter. Each audit is to be based on site visits by the auditor as well as a review of any records of environmental management to be kept by the EM. The audit must also determine whether the OEMP is adequately dealing with the range of environmental impacts on the site, i.e. whether the plan is still appropriate, or whether it needs to be extended. The Audit Report produced shall comply with the requirements of Regulation 34 of GN R982, as amended, and shall meet the content requirements laid out in Appendix 7 of GN R982, as amended. The audit report is to include recommendations of changes required to the OEMP document and/or any Appendices to the EMPr that have relevance to the Operational Phase, management practices etc to improve environmental management of the site. The results of this audit must be submitted to DEA and DENC".</i></p> <p>Insert the following conditions from the DENC permit:</p> <ul style="list-style-type: none"> <li>• Rescued plants must be monitored for at least 3 years post-relocation and survival success must be reported annually by November to</li> </ul>	<p>Specialist comment has been sought from the visual specialist, Ms Karen Hansen, as the developer now wishes to have the company logo on the turbine nacelles and/or towers at the WEF. Ms Hansen indicated that formerly, it was considered that the provision of logos on any part of the tower or the nacelle would be detrimental to the visual impact, in that it would be a distraction and that one of the ways to reduce the visual impact would be to have the towers and nacelles without logos. However, in the last 5 to 10 years that has become less significant, as the tower and nacelles are higher (80m or more) and the detail on the towers is therefore less visible for receptors.</p> <p>The visual specialist, Ms Karen Hansen, indicated that the site is very distant from receptors and that the logos on the nacelle and/or towers would not be clearly seen. The visual specialist therefore indicated that <i>"the amendment to provide logos on either or both tower and nacelle would not negatively impact on the visual impact of the infrastructure. The proposed amendment would not result in an increased level or change in the nature of visual impacts, and is considered acceptable from a visual impact perspective"</i> (Hansen, 2019).</p> <p>Note: Specialist comments have been obtained from all the specialists involved in the original EIA for the project and/or pre- and post- construction monitoring programmes, to inform the Application for Amendment of the EMPr and Layout Plan. All the specialists confirmed that the proposed amendments will not result in an increased level of impacts for any of the potential impacts. There would be no changes to the significance of impacts, after mitigation. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr.</p>

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		<p>Permits (M Smit) and RDS (E Swart).</p> <ul style="list-style-type: none"> <li>Only locally indigenous species may be used for rehabilitation.</li> </ul> <p>Monitoring reporting to be provided annually (November) to the DENC Permits for at least 5 years post rehabilitation activities.</p> <p>Insert the following condition from the General Authorisation (GA):</p> <ul style="list-style-type: none"> <li>Upon completion of the water use, the water user must undertake a habitat assessment study annually for 3 years to ensure that the rehabilitation is stable, failing which remedial action must be taken to rectify any impacts.</li> </ul> <p>Pages 5 – 7, in the subsection “Protection of Avifauna”:</p> <p>Include the mitigation measures included in the “Proposed Strategy for the Mitigation of Raptor-Unfriendly poles on the 33kV network at De Aar 1 and De Aar 2 North Wind Farms” (refer to Appendix 18 of the amended EMPr).</p> <p>On Page 10: Separating the mitigation measures relating to the protection of “Fauna and Bats” into two separate sections (Row 4)</p> <p>Page 9 under “general recommendations”:</p> <p>Removal of the condition that states: <i>“In addition to that, the 132kV grid connection should also be inspected at</i></p>	

Page number	Current EMPr wording	Proposed amendment to EMPr and/or Layout Plan	Motivation for proposed amendment
		<p><i>least once a quarter to establish if there is any significant collision mortality</i>”, as the Applicant has handed over the responsibility of the 132kV line to Eskom.</p> <p>Page 14 (visual):  <i>Removal of “Turbines should not display brand names”.</i></p>	
Appendix 15	N/A (Figure 1 (Environmental Sensitivity Layout) of Appendix 15, i.e. the Open Space Management Plan).	The “As-built” layout map i.e. the proposed amended Layout Plan (including Environmental exclusion zones), as outlined above and attached as Appendix 16 of the amended EMPr, to be approved by DEA and included in Figure 1 of Appendix 15 (Open Space Management Plan)	It is proposed that Figure 1 of the Open Space Management Plan (which is the Site Layout Plan (Environmental Sensitivity Layout) be replaced with the updated layout plan (included in Appendix 16 of the EMPr). This update to Figure 1 of the Open Space Management Plan is proposed to ensure that the plans incorporated within the EMPr contain the most up to date site layout plan (including environmental exclusions zones) for the project (and that there are no inconsistencies in that regard).
Appendix 16	Appendix 16 includes the Final Site Layout and Preliminary Design Report	Replace the Final Site Layout Plan with the updated Layout Plan, i.e. the “As Built” Layout, and updated AECOM technical report.	Refer to section above detailing the motivation for the amendments to the Layout Plan. Furthermore, the Applicant wishes to replace the Preliminary Design Report with an updated technical report, to ensure that the EMPr contains up to date information regarding the design of the project.
Appendix 18	N/A	Addition of the “ <i>Proposed Strategy for the Mitigation of Raptor-Unfriendly poles on the 33kV network at De Aar 1 and De Aar 2 North Wind Farms</i> ”	Avifauna specialist, Chris van Rooyen, has compiled a “Proposed Strategy for the Mitigation of Raptor-Unfriendly poles on the 33kV network at De Aar 1 and De Aar 2 North Wind Farms”, to minimise potential impacts on birds associated with the 33kV powerlines at the WEF. The EMPr has been updated to include the mitigation strategy for the operational phase of the project.

### 3. Specialist comments on the amendments to the EMPr and Layout Plan

The following specialist studies were undertaken during the EIA process (in 2010) for the proposed project:

- Botanical Assessment (Nick Helme and Dr David Hoare) (note: whilst David Hoare did not undertake the botanical assessment for the original EIA for the project, Dr Hoare assessed the botanical impacts in a separate Basic Assessment process for the project, which addressed activities erroneously excluded from the original EIA process. Both Nick Helme and David Hoare therefore commented on the implications of the proposed amendments).
- Avifauna assessment (Avisense – Rob Simmons/ Andrew Jenkins)

- Bat assessment (Prof David Jacobs)
- Heritage assessment (Melanie Atwell of Melanie Atwell & Associates)
- Archaeology (Jonathan Kaplan of Agency for Cultural Resource Management)
- Palaeontology (John E. Almond of NaturaViva)
- Visual Assessment (Karen Hansen)
- Noise Assessment (Demos Dracoulides of DDA Environmental Engineers)
- Traffic Assessment (Pieter Arangie of ITS)
- Socio-economic Assessment (Urban Econ)
- Freshwater Assessment (Antonia Belcher of BlueScience) (Note: Whilst Ms Belcher did not undertake a freshwater assessment for the original EIA for the project, freshwater impacts were addressed and assessed in the Basic Assessment process for the project, which addressed activities erroneously excluded from the original EIA process).

The specialists that undertook the 12 month pre-construction monitoring were:

- Avifauna (Alvaro Camiña of ACRENASL)
- Bats (Alvaro Camiña of ACRENASL)

All the specialists who undertook the original specialist impact assessments for their respective fields, except for avifauna and bats, were appointed to compile a comment/ addendum to their original reports to outline the implications, if any, of the proposed amendments. Given that Alvaro Camiña undertook the 12-month pre-construction monitoring for avifauna and bats, he was considered to be best placed to comment on the implications of the proposed amendments in terms of avifauna and bat impacts. Furthermore, given that Mr Chris van Rooyen provided specialist comment on Mr Camiña's avifauna pre-construction monitoring reports, that Mr Van Rooyen's recommendations are included in the EMPr for the project and that he is also doing the follow-up work on the site during the operational phase, Mr van Rooyen also provided specialist comment on Mr Camiña's re-assessment of impacts associated with the proposed amendments. Similarly, given that Mr Werner Marais of Animalia Consultants provided specialist comment on Mr Camiña's pre-construction bat monitoring reports, Mr Marais also provided specialist comment on Mr Camiña's re-assessment of impacts on bats associated with the proposed amendments.

The findings of the specialists (in terms of the proposed amendments) are summarised<sup>4</sup> below.

### 3.1 Heritage:

*“Impact of the amendments on heritage including archaeological and character landscape areas are not expected to change. There is no physical impact on the heritage resources which have been identified as of local significance; and there is no level of change in terms of any further nature of the impact. No further mitigation is therefore required in terms of heritage (S 38(4)) of the NHRA.*

*Insofar that Visual Assessments form part of the assessment of the landscape character of the area and the impacts of the proposal thereof, they have been viewed for the purposes of this addendum. Visual impacts have been assessed (Hansen) and it has been concluded that there would be no increased level of impact on the landscape because of the proposed amendments.*

*Kaplan (2017) assess that the proposed amendments will not result in an increased level or change in terms of the nature of the impacts [on archaeology] nor are further mitigation measures required in terms of the amendments or the Environmental Management Programme Report (EMPr).*

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<sup>4</sup> Specialist comments/ addendum reports are available on request

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Consequently, impact on heritage is regarded as unchanged and no further mitigation measures are identified other than those existing in terms of the NHRA.

*I therefore conclude that from a heritage perspective, proposed amendments do not alter the original heritage impact assessment in any significant way". (Melanie Attwell & Associates, 2018)*

### **3.2 Visual:**

*"The proposed amendments would not result in an increased level of the impact nor result in a greater significance of visual impact or change in the nature of the impact.*

*The potential advantages are those relating to the terrestrial environment; no disadvantages have been identified.*

*No changes to mitigation measures affecting visual impact were identified.*

*The impact management outcomes of the EMPr are expected to result in beneficial changes". (Karen Hansen, 2017)*

Furthermore, in terms of the proposed removal of the restriction of having logo's on turbines, the visual specialist stated the following:

*The proponent ... has indicated that they require the option to apply a logo on not only the nacelle, but also on the tower of each turbine installation; that on the Nacelle would be 1.5 meters long, 6 meters wide, and that on the 80m Tower, 16m long and 3.5m wide.*

*Formerly, it was considered that the provision of logos on any part of the tower or the nacelle would be detrimental to the visual impact, in that it would be a distraction and that one of the ways to reduce the visual impact would be to have the towers and nacelles without logos. However in the last 5 to 10 years that has become less significant. Towers and nacelles are higher and detail on the towers is less visible for receptors.*

*Both of those sites in De Aar are very distant from receptors; the logos would not be clearly seen. It is agreed that this amendment to provide logos on either or both tower and nacelle would not negatively impact on the visual impact of the infrastructure. The proposed amendment would not result in an increased level or change in the nature of visual impacts, and is considered acceptable from a visual impact perspective. (Karen Hansen, 2019)*

### **3.3 Archaeology:**

*"It is my professional opinion that the proposed above amendments to the Environmental Authorisation, EMPr and Layout Plan will not have a significant impact on archaeological resources documented during the original study, and that the findings of my original impact assessment remain valid.*

*The proposed amendments will not result in a change to the significance of the impact(s) assessed in the original Environmental Impact Assessment for the project.*

*The proposed amendments to the Environmental Authorisation, EMPr and Layout Plan will not result in an increased level or change in the nature of the archaeological impacts.*

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*I also confirm that the proposed amendments will not require any changes or additions to the mitigation measures recommended in my original specialist report.*

*Proposed changes to the Environmental Management Programme Report (EMPr) will also not result in changes to the impact management outcomes of the EMPr". (Agency for Cultural Resource Management, 2017)*

### **3.4 Palaeontology:**

*"The proposed amendments will not result in a change to the significance of the impact assessed for the original EIA.*

*The proposed amendments will not result in an increased level or change in the nature of impact. There are no advantages nor disadvantages associated with the proposed amendments in terms of palaeontological heritage, when compared to the original assessment.*

*The proposed amendments will not require any changes or additions to the recommended mitigation.*

*The proposed changes to the EMPr will not result in changes to the impact management outcomes of the EMPr in terms of palaeontological heritage.*

*There are thus no significant implications of the proposed amendments in terms of the potential impacts on palaeontological heritage or the significance of those impacts. The findings and recommendations of the PIA conducted in 2010 remain unchanged". (NaturaViva, 2017)*

### **3.5 Freshwater:**

*"With regards to the proposed amendments to the EA and EMPr (including layout) for the De Aar 1 WEF, the following statements can be made with regards to the potential freshwater impacts:*

- The overall impact of the proposed amended layout for the project, as well as the associated required amendments to the EA and EMPr, as assessed in the freshwater report was deemed to be very similar to that of the approved layout and is of a very low significance;*
- Any potential freshwater impacts emanating from the amendments can easily be mitigated;*
- From a freshwater perspective, there is thus no reason that the proposed amended layout will result in an increased level or change in the nature of impacts to the aquatic ecosystems;*
- There are no known potential advantages and disadvantages of the proposed amendments in terms of potential freshwater impacts; and*
- The proposed amendments will not require different mitigation from the recommendations for the approved crossings and discussed above".*

*(BlueScience, 2017)*

### **3.6 Botanical (Nick Helme of Nick Helme Botanical Surveys):**

*"There is thus **no net change** in the overall project botanical impacts, with the amended alternative (Low – Medium negative) having the same impact as the authorised alternative (Low – Medium negative).*

*No additional mitigation measures (to those included in my original specialist report) are required.*

*The proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr in terms of botanical impacts". (Nick Helme Botanical Survey, 2017)*

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### 3.7 Botanical (David Hoare of David Hoare Consulting cc):

*“In terms of the assessment of potential impacts, the proposed amendments to the EA and EMPr will not affect the scale, magnitude or duration of the potential impacts. The significance of the impacts will therefore remain the same.*

*The proposed changes in the project layout between the Authorised Project and the Proposed Amended Project are local. They do not result in any impact arising that was not already assessed, only in the local location of impacts. The overall impacts are therefore the same, just locally displaced in places. There are therefore no advantages or disadvantages of the proposed amendments in terms of potential impacts, with the exception that some local sensitivities are avoided, which is advantageous.*

*Due to the fact that there are no changes to any impacts between the Authorised Project and the Proposed Amended Project, no additional mitigation measures are proposed and no changes to existing mitigation measures are proposed.*

*Due to the fact that there are no material changes to the impacts assessed in the original EIA on the ecological environment and no changes to mitigation measures are proposed, the proposed changes to the EMPr will not result in changes to the impact management outcomes of the EMPr”. (David Hoare Consulting cc, 2018)*

### 3.8 Avifauna:

*“The proposed amendments will not result in a change to the significance of the impact(s) assessed in the original EIA for the project, after mitigation. Related to powerlines, the electrocution risk remains as a potential impact due to the nature of the pylons and the need for insulation between the conductors of the 33 kV lines. There is also an increased risk of collision with power lines because of the change from buried to overhead connecting lines among turbines. Mitigation includes the installation of flying deterrents in areas where bird fatalities occur and also in areas close to ridges or steep slopes used by large birds. This point was considered already during the pre-construction avifaunal study.*

*As a conclusion, the proposed changes do not affect the impact management outcomes of the EMP and OEMP in terms of impacts on birds”. (ACRENASL, 2017)*

### 3.9 Avifauna Comment:

*“Camiña does not discuss the proposed changes to the EMPr in great detail, save to state that “the proposed changes do not affect the impact management outcomes of the EMP and OEMP in terms of impacts on birds.”*

*In my opinion, the most important proposed change to the EMPr is as follows:*

- *Original EMPr: Continue with the Argos / GPS satellite tracking.*
- *Proposed amendment to the EMPr: Operational phase: Avifauna: Continue with the satellite tracking of the Verreaux’s Eagle until the objectives of the avifauna monitoring programme have been achieved.*

*The original EMPr does not provide a time limit for the satellite tracking programme, which has the implication that it should continue for the life-time of the wind farm. This places an unreasonably onerous burden on the developer as it implies that tracking of birds need to take place for the next 20 years at least, or more, which could entail the fitting of new devices every time a bird dies, or a*

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*device stops working. While it would be advantageous to have long-term tracking data spanning two decades, it is questionable whether the advantage will be of such value to justify the costs. I also doubt that it was the intention of the original EMPr that the programme should be pursued for the lifetime of the facility, as the original EMPr states explicitly “The expected duration of the programme is three years”. I therefore agree with Camiña that the proposed changes will not affect the impact management outcomes of the EMP and OEMP in terms of impacts on birds”.*

*(Chris van Rooyen Consulting, 2017)*

### **3.10 Bats:**

*“The proposed amendments will not result in an increased level or change in the nature of impacts.*

*The proposed changes do not affect the previous EMPr are the same so it remains valid as previously. Only the potential impact for the operational phase was overestimated and rated higher than it really is, even when no bats were detected in the pre-construction study in 2010”.*  
*(ACRENASL, 2017)*

### **3.11 Bat comment:**

*“I’m in agreement with the conclusions of Mr Camiña’s addendum report (2017), i.e. that the proposed amendments will not result in an increased level or change in the nature of impacts on bats, and it is also my specialist opinion that the proposed amendments are not deemed as significant to impacts on bats. Furthermore, the proposed amendments to the EMPr will not result in changes to the impact management outcomes of the EMPr, in terms of impacts on bats. Operational mitigations should not be limited to site layout only but should also make provision for reactive management based on the operational data, which will be guided by the relevant mortality Threshold and Mitigation guidance documents that are available at the time”.* (Animalia Consultants, 2018)

### **3.12 Noise:**

*“Based on the provided information on the authorised layout and the proposed amendment, the only difference between the two versions regarding the wind turbine generators’ (WTG) positions, is the shift of the original WTG21 position by approximately 250 m towards the north-west.*

*Such relocation will only have a very small and localised change in the noise environment only in the immediate vicinity of the WTG21, thus shifting the generated noise contours towards the north-west by an equal distance. The WTG21 is not situated close to any residential area or community receptor, nor is it close to the site boundaries. As such, the noise impacts of the original study are considered valid and in need of no alterations”.* (DDA Environmental Engineers, 2017)

### **3.13 Traffic:**

*“The proposed amendments to the Environmental Authorisation, Environmental Management Programme and Site Layout Plan will not result in an increased level or change in the nature of traffic impacts along the public road network and the findings and recommendations of the original September 2010 TIA and the subsequent Addendum dated 26 March 2014 remain valid. Furthermore, the proposed changes to the EMPr will not result in changes to the impact management outcomes of the EMPr in terms of traffic impacts along the public road network”.* (ITS Engineers, 2018)

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### 3.14 Socio-economic:

*Urban-Econ has reviewed the application for amendments and it is our professional opinion that the findings of our original socio-economic impact assessment will remain the same with the proposed amendments. This includes the following:*

- *The proposed amendments will not result in a change to the significance of impacts assessed in the original EIA for the project*
- *The proposed amendments will not result in a change in the nature or level of impact of the initial environmental authorisation*
- *The proposed amendments will therefore not require any changes or additions to the mitigation measures recommended in our original specialist report*
- *The proposed changes to the EMPr will not result in changes to the impact management outcomes of the EMPr (in terms of impacts within our area of expertise).*

(Urban Econ Development Economists, 2017)

## 4. Way Forward

The draft amended EMPr and “As Built” Layout Plan have been made available to I&APs for a 30 day comment period, i.e. from **28 February 2020 – 30 March 2020**.

The draft EMPr and “As Built” Layout Plan have been made available for review at the De Aar Public Library and have also been made available for download on the Holland and Associates Environmental Consultants website ([www.hollandandassociates.net](http://www.hollandandassociates.net)) for the 30 day I&AP comment period, i.e. from 28 February 2020 – 30 March 2020.

Should you have any comments regarding the proposed amendments, please submit your comments to the holder of the Environmental Authorisation (i.e. Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd) c/o Holland & Associates Environmental Consultants within 30 days of the invitation to comment in terms of Regulation 37 of the EIA Regulations, 2014, as amended, i.e. by **30 March 2020**. Comments are to be submitted in writing via post, e-mail or fax to:

Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd  
c/o Holland & Associates Environmental Consultants  
For attention: Mrs Nicole Holland  
Post: P.O. Box 31108, Tokai, 7966;  
Fax: 086 762 6126, or  
email: [nicole@hollandandassociates.net](mailto:nicole@hollandandassociates.net)

Once the 30 day I&AP comment period closes, any issues raised and comments received from I&APs will be addressed where applicable in the final EMPr and will be included in the submission of the final amended EMPr and “As Built” Layout Plan to DEA.

Should you have any queries, please contact the undersigned.

Yours sincerely



**NICOLE HOLLAND** (Pr. Sci. Nat.)

**For: Holland & Associates - Environmental Consultants**