



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

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DFFE Reference: 12/12/20/1778/2/AM6

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PER EMAIL / MAIL

Dear Mr Jenman

AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 02 NOVEMBER 2012 FOR THE PROPOSED CONSTRUCTION OF THE LOPERBERG WIND ENERGY FACILITY AND ITS ASSOCIATED INFRASTRUCTURE NEAR STERKSTROOM, EASTERN CAPE PROVINCE

The Environmental Authorisation (EA) issued for the abovementioned application by this Department on 02 November 2012, the first EA amendment dated 20 May 2013, the second EA amendment dated 23 February 2015, the third EA amendment dated 13 June 2016, the fourth EA amendment dated 15 November 2018, the rectification on an administrative error on the EA validity extension in terms of regulation 27(4) of the EIA Regulations, 2014, as amended, dated 02 April 2019, your application for amendment of the EA and the draft motivation report received by the Department on 06 August 2021, the acknowledgement thereof 17 August 2021, the comments on the draft motivation report dated 03 September 2021, the final motivation report received by the Department on 27 October 2021, and the email correspondence dated 11 January 2022, refer.

Based on a review of the reason for requesting an amendment to the above EA, this Department, in terms of Chapter 5 of the Environmental Impact Assessment Regulations, 2014 as amended, has decided to amend the EA dated 02 November 2012 as amended, as follows:

Amendment 1 and 2: Amendment to the turbine specifications (amendment 1) and reduction in the authorised number of turbines (amendment 2):

On page 4 of the EA dated 02 November 2012, under the associated infrastructure for the wind energy facility (WEF), the specified rotor diameter is amended from '125m' to reflect as 'up to 176m'. In addition, the authorised range of the hub height is amended from '120m' (authorised in 2013) to reflect as 'up to 120m' (amendment 1). The number of wind turbines is also decreased from the authorised 76 turbines to 34 turbines. The project description in the EA is therefore amended to include the revised number of turbines (amendment 2).

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- On page 4 of the EA dated 02 November 2012, under the associated infrastructure, the following is amended (amendment shown in underlined text):

wording for the EA dated 02 November 2012 (as amended by the EA Amendment dated 30 March 2013)	Amended wording (inclusion underlined)
<p>The infrastructure associated with this facility includes:</p> <ul style="list-style-type: none"> A maximum of 76 wind turbine units with a hub height of 120 metres and a rotor diameter of 125 metres; 	<p>The infrastructure associated with this facility includes:</p> <ul style="list-style-type: none"> <u>Wind turbine generators (up to 34 turbines), comprising a hub height of up to 120m and rotor diameter of up to 176m;</u>

Reason for the amendment to the turbine specifications (amendment 1):

Wind turbine generators are constantly under development to increase the potential energy output capacity per wind turbine. The more energy one turbine can produce, the fewer turbines are required to generate the authorised contracted capacity of the project. The proposed project is intended to be bid into future rounds of the Department of Mineral Resources and Energy (DMRE) Renewable Energy Independent Power Producers Procurement (REIPPP) Programme or similar programmes under the promulgated IRP 2010–2030. Following the issuing of the EA for the project, there have been advancements to wind turbine technology with newer turbines becoming larger and more powerful. The turbines authorised in the EA are therefore not considered to be the most suitable in terms of production and economic considerations. Based on the technologies now available and the additional data collected onsite, it has been concluded by the applicant that improved turbines should be utilised for the facility to ensure optimisation of generation.

The amendments to the turbine specifications will therefore optimise generation and economic competitiveness while allowing for the avoidance of sensitivities on site and a reduction in the disturbance footprint. The amendment to the wind turbine specifications is not a listed activity and does not trigger any new listed activities, as the amendment falls within the originally authorised footprint and capacity of the facility.

Reason for the amendment reducing the authorised number of turbines (amendment 2):

In addition to the turbine specification amendment detailed above, the holder of the EA required an amendment to reduce the number of authorised turbines as per the revised layout. The turbines utilised by the facility will have an increased generating capacity compared to what was available at the time of the initial EIA assessment. Larger turbines require adjustments to turbine positions to cater for the minimum spacing that needs to be maintained between turbines for safety reasons and to ensure optimal operations. In order to not exceed the approved generating capacity of the facility, and to optimise the cost and disturbance footprint of the turbines by using less turbines, a reduced number of turbines was required, which in turn requires an updated layout. A revised layout based on the reduced number of turbines was attached in the motivation report submitted along with the application form, however the layout is not submitted for approval at this time. The final layout will be submitted following final design prior to construction, as per the requirements of Condition 28 of the EA.

Amendment 3 and 4: Update of the project description to reflect the revised co-ordinates of the 132kV grid connection line and substation locations in line with the updated layout (amendment 3); and Update of the project description and listed activity description with specific inclusion of the coordinates, location and capacity specification of Substation 3 and the 400kV grid line, as assessed in the Loperberg EIA (amendment 4):

The substation and 132kV grid connection location are amended to reflect the revised layout (amendment 3). The project description and listed activity description is also amended to make specific mention of the revised location and capacity specification of Substation 3 and the 400kV grid line connecting therefrom (amendment 4).

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The following amendments are accordingly made:

- On page 4 of the EA dated 02 November 2012, in the substation alternative table (amendment 3), the substation coordinates are amended:

Wording per the EA dated 02 November 2012			Amended wording (inclusion underlined)		
Substation Alternative (preferred substation alternative)	Latitude	Longitude	Substation Alternative (preferred substation alternative)	Latitude	Longitude
Substation 2 (Portion 18 of Farm Spreeukloof 59)	31° 26' 51.47" S	26° 21' 10.99" E	Substation 2 (Portion 18 of Farm Spreeukloof 59)	31° 26' 51.47" S	26° 21' 10.99" E
Substation 3 (Portion 1 of Farm Uitkeyk 67)	31° 28' 32.63" S	26° 27' 0.74" E	<u>Termination point: Substation 3 (Portion 1 of Farm Uitkeyk 67) (shared with Malabar and Spreeukloof WEF). This substation comprises two separate areas as follows:</u> 1) <u>33/132kV windfarm substation;</u> and 2) <u>132/400kV Eskom transmission substation</u>	31° 26' 59.70" S	26° 25' 54.14" E

- On page 4 of the EA dated 02 November 2012, the inclusion of a new table specifying the 132kV grid connection coordinates, as per the revised routing in the amended layout (amendment 3):

Wording per the EA dated 02 November 2012	Amended wording (inclusion underlined)		
Not specified. Although the 132kV grid connection was included in the EA (under GN R. 387 Item 1(i)), the coordinates of the 132kV grid connection were not specified in the EA.	132kV Grid Connection Start, Middle and End points as described in the Motivation Report dated July 2011	Latitude	Longitude
	Start	31° 26' 59.84" S	26° 25' 53.22" E
	Middle	31° 27' 40.68" S	26° 26' 52.04" E
	End	31° 27' 51.23" S	26° 27' 24.06" E

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- On page 4 of the EA dated 02 November 2012, the inclusion of new tables specifying the 400kV loop in and loop out grid connection coordinates, as per the revised routing in the amended layout (amendment 4):

Wording per the EA dated 02 November 2012	Amended wording (inclusion underlined)			
Not specified. Although a 400kV grid connection was depicted and assessed in the split EIA of 2012, the 400kV grid connection was not specified in the EA.		<u>400kV Grid Connection Start, Middle and End points</u>	<u>Latitude</u>	<u>Longitude</u>
	Loop in	<u>Start</u>	<u>31°27'14.75"S</u>	<u>26°26'20.03"E</u>
		<u>Middle</u>	<u>31°27'39.16"S</u>	<u>26°26'52.56"E</u>
		<u>End</u>	<u>31°27'49.30"S</u>	<u>26°27'22.90"E</u>

Wording per the EA dated 02 November 2012	Amended wording (inclusion underlined)			
Not specified. Although a 400kV grid connection was depicted and assessed in the split EIA of 2012, the 400kV grid connection was not specified in the EA.		<u>400kV Grid Connection Start, Middle and End points</u>	<u>Latitude</u>	<u>Longitude</u>
	Loop out	<u>Start</u>	<u>31°27'14.97"S</u>	<u>26°26'19.66"E</u>
		<u>Middle</u>	<u>31°27'40.65"S</u>	<u>26°26'52.30"E</u>
		<u>End</u>	<u>31°27'51.35"S</u>	<u>26°27'23.63"E</u>

- On page 5 of the EA dated 02 November 2012, under the infrastructure associated with the facility, the project description is amended to specifically mention the 132kV grid connection and to specifically mention the revised location and capacity specification of Substation 3 and the 400kV grid line (amendments 3 and 4):

Wording per the EA dated 02 November 2012	Amended wording (inclusion underlined)
Not specified. Although a 132kV grid connection was included in the EA under GN R. 387 Item 1(l), and a 400kV grid connection to the existing Beta/Delphi 400kV Eskom transmission line was assessed in the EIA, these grid connections were not mentioned under the infrastructure associated with the facility on page 4 and 5 of the EA.	<ul style="list-style-type: none"> A <u>132kV overhead power line from Substation 3 (Shared with Malabar and Spreeukloof WEFs). This substation will comprise two separate areas as follows: 1) 33/132kV windfarm substation; and 2) 132/400kV Eskom transmission substation;</u> A <u>400kV overhead power line from the Substation 3 connecting to the existing Beta/Delphi 400kV Eskom transmission line via a loop-in-loop-out (or similar) solution;</u>

- On page 4 of the EA dated 02 November 2012, in the listed activity table, the activity description is amended to specifically mention the revised location and capacity specification of Substation 3 and the 400kV grid line (amendment 4):

Wording per the EA dated 02 November 2012		Amended wording (inclusion: underlined)	
Listed activities	Activity/Project Description	Listed activities	Activity/Project Description
<u>GN R. 387 Item 1(l):</u> The construction of facilities or infrastructure, including associated structures or infrastructure for the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more.	New 132kV overhead powerline will be constructed.	<u>GN R. 387 Item 1(l):</u> The construction of facilities or infrastructure, including associated structures or infrastructure for the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more.	The facility will include the construction of: <ul style="list-style-type: none"> A 132kV overhead power line from Substation 3 (Shared with Malabar and Spreeukloof WEFs). This substation will comprise two separate areas as follows: 1) 33/132kV windfarm substation; and 2) 132/400kV Eskom transmission substation. A 400kV overhead power line from Substation 3 connecting to the existing Beta/Delphi 400kV Eskom transmission line via a loop-in-loop-out (or similar) solution, as indicated on the facility layout map dated July 2021.

Reason for the amendment to update the project description to reflect the revised co-ordinates of the 132kV grid connection line and substation locations in line with the updated layout (amendment 3):

A revised layout has been produced for the facility which considered the reduced number of turbines as per the amendments detailed above. In addition, the current authorised grid connection points for the Loperberg facility are Substation 2 (Portion 18 of the farm Spreeukloof) and Substation 3 (Portion 1 of the farm Uitkeyk 67) located within the Loperberg WEF. Since issuance of the EA in 2012 and following further discussions with Eskom around grid connectivity the holder of the EA has determined that from a technical perspective the authorised locations of these substations are no longer optimal and feasible. Loperberg WEF therefore underwent a layout revision towards moving the shared Substation 3 location. As the substation location has been revised, this amendment was required to ensure that the authorised substation locations specified in the EA accurately reflects the revised location of the respective substations.

The resulting change in substation locations will result in the reduction of the length of the power line connection originally authorised by 300m, as the onsite substation (Substation 3) and the Stormberg MTS are now located immediately adjacent to each other and therefore direct connection is possible. The revised locations of these substations under the proposed layout for this amendment also reduces the length requirements for the connecting power line from the Malabar and Spreeukloof WEFs, and therefore indirectly result in a reduced potential for impact for those facilities. Furthermore, from a technical perspective, the proposed layout of this

amendment allows for direct connection with the Eskom MTS from the shared Substation 3, and thereby reduces the technical complexity of connection and therefore construction and maintenance costs, while consolidating infrastructure and reducing the facility extent across the landscape. This further reduces the maintenance requirements and the potential for avifaunal impact by reducing the grid connection length (albeit minor) between the respective substations.

As a result, less potential for environmental impact on avifauna features is incurred by the current proposed routing of the power line, whilst consolidating infrastructure, reducing technical construction and operational complexity and costs. The relocation of the infrastructure is therefore optimal from a technical connection perspective, whilst reducing the potential for environmental impact, and reducing the length of the power line connection required. The amended substation locations and grid connection routes remain within the authorised footprint of the WEFs as assessed in the EIA application (2010), and do not trigger a listed activity.

Reason for the amendment to update of the project description and listed activity description with the specific inclusion of the coordinates, location and capacity specification of Substation 3 and the 400kV grid line, as assessed in the Loperberg EIA (amendment 4):

The consideration of the grid connection infrastructure assessed in the EIA of 2010 (combined 5- phase development), as well as the 2012 split EIA (where each phase was authorised separately) included the 400kV grid connection infrastructure between the main shared on-site substation (Substation 3 – as authorised in the EA dated 02 November 2012) and the existing Eskom Beta/Delphi transmission line. This connection was intended to be a 400kV line from the on-site substation connecting the Beta/Delphi 400kV power line via a loop-in-loop out (or similar) solution. As the existing Beta/Delphi power line is rated as a 400kV, the connecting infrastructure logically necessitated a 400kV connection. The EIA (2012) included an on-site substation with a 132kV portion, as well as a 400kV portion, to allow for the regulation upwards of the voltage rating and therefore allowing for export into the 400kV Beta/Delphi power line. The 400kV line, with explicit reference to the 400kV capacity, was also indicated in the locality maps in the EIA of 2012. This grid connection solution was therefore assessed in the split EIA of 2012 and fully considered in the assessment process.

The explicit inclusion of this infrastructure was not however made during issuance of the EA in 2012, while this infrastructure was assessed, considered and included in the EIA. This amendment was therefore required for the avoidance of doubt and assurance on behalf of third parties that the grid connection to the national energy grid at 400kV forms part of the authorisation and has been specified in the EA. The amended grid connection falls within the ambit of the already authorised listed activity and is therefore considered and authorised under the existing EA. The amended substation locations and grid connection routes remain within the authorised footprint of the WEFs as assessed in the EIA application (2010), and do not trigger a listed activity

Amendment 5: Inclusion of Portion 6 of the Farm Paarde Kraal 64 in the project description, as assessed in the Loperberg EIA:

The project description is updated to make specific mention of the Farm Paarde Kraal 64, Portion 6. Subsequently the following amendments are made:

On page 4 of the EA dated 02 November 2012, Portion 6 of Farm Paardekraal 64 is included under the paragraph containing the properties specified for the project:

Wording per the EA dated 02 November 2012, as amended by the amendment 12/12/2011/778/2 of 20 May 2013	Amended wording (inclusion underlined)
For the proposed establishment of a commercial wind farm and associated infrastructure. The proposed	For the proposed establishment of a commercial wind farm and associated infrastructure. The

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facility is referred to as the Loperberg Wind Energy Facility and will be located on Bushman's Hoek 3, Portion 7 of Farm Paardekraal 64, remaining extent of Farm Uitekyk 67, Portion 1 and 3 of Farm Uitkeyk 67 and Portion 1,2,3,4,5 and 9 of the Farm Cypher Gat 69 near Sterkstroom within the Inkwanca Local Municipality in the Eastern Cape Province.	proposed facility is referred to as the Loperberg Wind Energy Facility and will be located on Bushman's Hoek 3, Portion <u>6 and</u> 7 of Farm Paardekraal 64, remaining extent of Farm Uitekyk 67, Portion 1 and 3 of Farm Uitkeyk 67 and Portion 1, 2, 3, 4, 5 and 9 of the Farm Cypher Gat 69 near Sterkstroom within the Inkwanca Local Municipality in the Eastern Cape Province.
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Reason for the amendment:

The EA specified the authorised properties for the Loperberg development as the following:

- Bushman's Hoek 3;
- Portion 7 of Farm Paardekraal 64;
- Remaining extent of Farm Uitekyk 67;
- Portion 1 and 3 of Farm Uitkeyk 67; and
- Portions 1,2,3,4,5 and 9 of the Farm Cypher Gat 69.

However, the EA dated 02 November 2012 did not include explicit detailing of Portion 6 of Farm Paardekraal 64. This property was considered and included in the EIA study area (2012). Portion 6 of the Farm Paarde Kraal 64 was wholly contained within the development site as assessed and depicted in the various maps in the split EIA of 2012. This evidences the inclusion and consideration of the then-proposed infrastructure over the broader study area, which includes Portion 6 of Farm Paardekraal 64. Portion 6 of Farm Paardekraal 64 is bounded by the currently authorised properties to the east, west and south. Given this property was however not listed as an affected property and subsequently detailed within the EA, the explicit inclusion thereof is requested to ensure the complete accuracy of the EA and for assurance of third parties.

Further, the specialist studies undertaken as part of the amendment application process have concluded that there are no fatal flaws associated with the amendments requested by the holder of the EA for the Loperberg Wind Energy Facility. All specialists concluded that the amendments are considered acceptable from their respective specialisation, provided the mitigation measures supplied are implemented and adhered to by the developer. These mitigation measures have been included within the Environmental Management Plan (EMPr), to ensure they are made binding on the developer and contractors. Based on the specialist findings, it is concluded that decreasing the number of turbines and changing the turbines specifications, updating of the project description with the amended substation locations and grid connection routes per the revised layout, and the specification of the Farm Paarde Kraal 64 are not expected to result in an increase to the significance ratings for the identified potential impacts following implementation of mitigation. There is a reduction in significance in some impacts as a result of the reduced number of turbines and the location of these outside of identified high sensitivity areas. In addition, the amended wind turbine positions considered avoids all identified avifaunal exclusion zones and areas of high sensitivity.

Refusal of Amendment 6: Extension of the EA validity period by an additional two years:

The current validity period of the EA dated 02 November 2012 as amended expires on 02 November 2022 (per page 1 of the EA Amendment dated 2 April 2019, DFFE Reference number: 12/12/20/1778/2/AM5). The holder of the EA requested an amendment to Condition 7 of the EA to extend the validity period of the EA by an additional two (2) years.

This amendment is **refused**.

Reason for the refusal:

The validity period of the EA has already been extended to the maximum period of ten (10) years, as per the rectification on an administrative error on the EA validity extension in terms of regulation 27(4) of the EIA Regulations, 2014, as amended, dated 02 April 2019. The Department is aware that the environment changes constantly, as a result it might be significantly different from the one that existed at the time of the issuing of the EA, hence the validity of the EA cannot exceed a maximum period of 10 years. Failure to commence with construction activities within the maximum 10 year period, your EA will be deemed to have lapsed and a new application for Environmental Authorisation will have to be lodged.

Conditions of the Amendment

The recommendations and mitigation measures recorded in the Loperberg WEF Final Motivation for Amendment of Environmental Authorisation Report dated October 2021, must be included and/or addressed in the finalisation of the EMPr and layout plan. The finalised EMPr and layout plan must be submitted to the Competent Authority for written approval prior to commencement of the activity in accordance with the requirements of Conditions 13 and 28 of the EA.

General

This EA amendment letter must be read in conjunction with the EA dated 02 November 2012 as amended.

In terms of the Promotion of Administrative Justice Act, 2000 (Act No 3 of 2000), you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, 2013 (Act no. 4 of 2013) which stipulate that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 14 (fourteen) days of the date of the decision, of the Department's decision, as well as the provisions regarding the submission of appeals that are contained in the Regulations.

Your attention is drawn to Chapter 2 of National Environmental Management Act, 1998 (Act No. 107 of 1998) National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribes the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appeals@environment.gov.za;

By hand: Environment House


473 Steve Biko,
Arcadia,
Pretoria,
0083; or

By post: Private Bag X447,
Pretoria,
0001;

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appeals@environment.gov.za.

Yours faithfully


Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment
Date: *13/01/2022*

cc:	Jo-Anne Thomas	Savannah Environmental (Pty) Ltd	E-mail: joanne@savannahsa.com
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