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PART 2 ENVIRONMENTAL AUTHORISATION (EA) AMENDMENT PROCESS FOR THE KUDUSBERG WIND ENERGY FACILITY (WEF) NEAR SUTHERLAND, WESTERN AND NORTHERN CAPE PROVINCES

Report by Johann Lanz

2 November 2020

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1 INTRODUCTION

This document is an amendment to, and should be read together with, the original Agricultural Impact Assessment for Kudusberg Wind Energy Facility Project, which was compiled in October 2018 (Lanz, 2018). This documents have been compiled in response to a Part 2 Amendment in terms of Regulation 31 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) and the EIA Regulations, 2014, as amended (GN R 982) being undertaken on the authorised 325 MW Kudusberg WEF.

The objectives of this Amendment Specialist Amendment Letter is:

- to identify and assess all potential / new impacts of the proposed amendment on agricultural resources and agricultural production potential,
- to provide assess / recommended mitigation measures, monitoring requirements, and rehabilitation guidelines for all identified impacts that may arise as part of the amendment.

Johann Lanz, who conducted the original October 2018 assessment, was also appointed as an independent specialist to conduct this Specialist Amendment Letter

2 PROJECT DESCRIPTION

Kudusberg Wind Farm (Pty) Ltd (hereafter referred to as "Kudusberg Wind Farm") was issued with an Environmental Authorisation (EA) for the proposed construction of the 325MW Kudusberg Wind Energy Facility (WEF) and associated infrastructure, between Matjiesfontein and Sutherland in the Western and Northern Cape Provinces. The EA was granted on 25 March 2019 (DEFF Reference No.: 14/12/16/3/3/1/1976), and subsequently amended on 04 April 2019 to correct a minor naming error (14/12/16/3/3/1/1976/AM1).

The layout for the authorised Kudusberg WEF is presented in **Figure 1** below

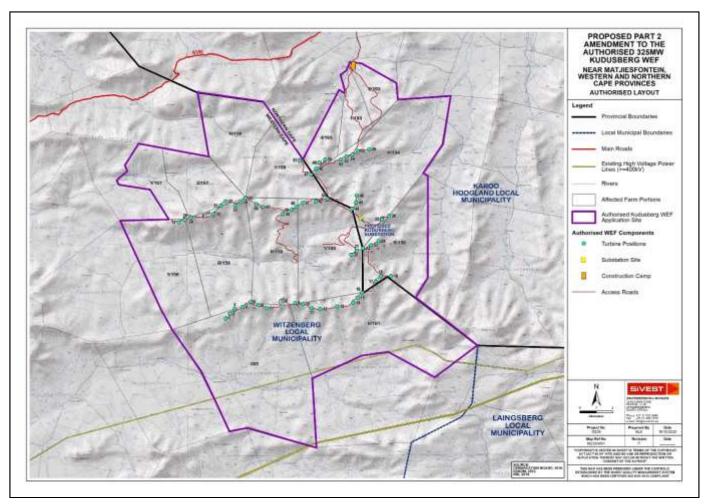


Figure 1: Layout map for authorised Kudusberg WEF (14/12/16/3/3/1/1976/AM1)

Kudusberg Wind Farm is now proposing to submit a Part 2 EA Amendment Application to split the authorised Kudusberg WEF (14/12/16/3/3/1/1976/AM1) into two (2) separate smaller WEF projects, namely the Kudusberg WEF and Oya WEF, which will result in a number of technical and administrative changes detailed below in **Table 1**. The split is being proposed to allow the projects to be suitable for numerous opportunities such as either the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP), other government run procurement programmes that may arise or for sale to private entities, if enabled and/or required in the drive for energy security in South Africa.

Following the split, the northern section of the authorised WEF will become the Oya WEF (**Figure 2**), while the southern section of the authorised WEF will remain known as the Kudusberg WEF (authorised under 14/12/16/3/3/1/1976/AM1) (**Table 1**) (**Figure 3**). In addition to the split, the final layout for the Oya WEF has been assessed and is acceptable from an agricultural impact perspective.1.

The respective layouts for the proposed Kudusberg WEF (southern section of the authorised WEF) and Oya WEF (northern section of the authorised WEF) are presented in **Figure 2** and **Figure 3** below.

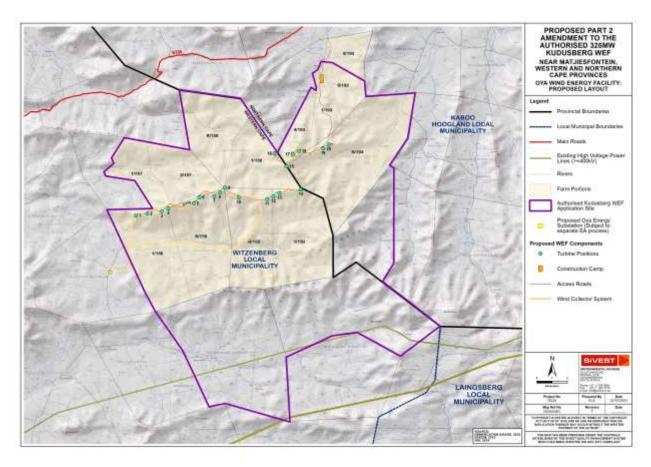


Figure 2: Layout map for proposed Oya WEF (northern section of the authorised WEF)

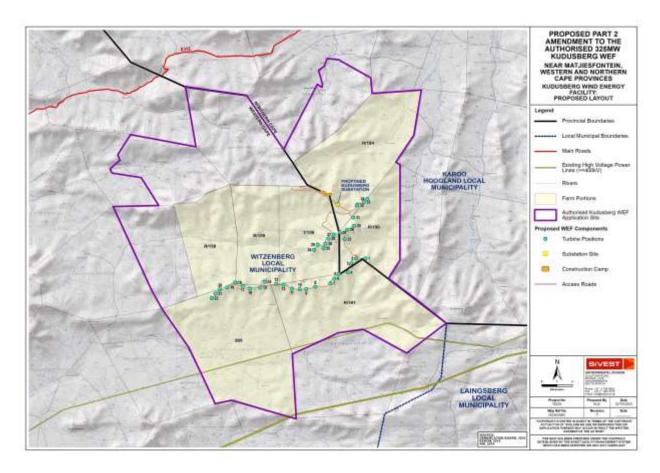


Figure 3: Layout map for proposed Kudusberg WEF (southern section of the authorised WEF)

Furthermore, the approved EMPr authorised as part of the Kudusberg EA is being amended to each WEF and to incorporate the final layout for the Oya WEF, management plans and the walk-throughs.

The amendments detailed in **Table 1** below are proposed for each of the two (2) WEFs mentioned above:

Table 1: Proposed Amendments

Aspect to be amended	Authorised	Proposed Amendment			
		Oya WEF	Kudusberg WEF		
	Adı	ministrative Aspects			
Amend the holder of the EA's	Kudusberg Wind Farm (Pty) Ltd	Oya Energy (Pty) Ltd	Kudusberg Wind Farm (Pty) Ltd		
Amend the name of the WEFs	<i>σ σ</i> , ,	Oya Wind Energy Facility	Kudusberg Wind Energy Facility		
Contact Details	kudusberg@g7energies.com	oya@g7energies.com	kudusberg@g7energies.com		
Extend the validity of the EA	This activity must commence within a period of five (05) years from the date of issue of this environmental authorization.	This activity must commence within a period of five (05) years from the date of issue of this amended environmental authorization.	This activity must commence within a period of five (05) years from the date of issue of this amended environmental authorization.		
Location of Activity and	Western Cape	Western Cape	Western Cape		
SG codes	 Portion 1 of 156 Gats Rivier Farm: C019000000000015600001 Portion 3 of 156 Gats River Farm: C01900000000015600002 Remainder of 156 Gats Rivier Farm: C01900000000015600000 Portion 1 of 157 Riet Fontein Farm: C01900000000015700001 Portion 1 of 158 Amandelbloom Farm: C0190000000015800001 Remainder of 158 Amandelboom Farm: C01900000000015800000 Portion 1 of 159 Oliviers Berg Farm: C01900000000015900001 Remainder of 159 Oliviers Berg Farm: C01900000000015900000 Portion 2 of 157 Riet Fontein Farm: C019000000000015700002 Remainder of 161 Muishond Rivier 	 Portion 1 of the Farm Gats Rivier No 156: C01900000000015600001 Portion 2 of the Farm Gats Rivier No 156: C01900000000015600002 Remainder of the Farm Gats Rivier No 156: C01900000000015600000 Portion 1 of the Farm Riet Fontein No 157: C01900000000015700001 Portion 2 of the Farm Riet Fontein No 157: C01900000000015700002 Portion 1 of the Farm Amandelbloom No 158: C0190000000015800001 Remainder of the Farm Amandelboom No 158: C0190000000015800000 Portion 1 of the Farm Oliviers Berg No 159: C01900000000015900001 Remainder of the Farm Oliviers Berg No 159: C019000000000015900000 	 Portion 1 of the Farm Gats Rivier No 156: C0190000000015600001 Remainder of the Farm Gats Rivier No 156: C01900000000015600000 Portion 1 of the Farm Oliviers Berg No 159: C0190000000015900001 Remainder of the Farm Oliviers Berg No 159: C01900000000015900000 Klipbanks Fontein No 395: C0190000000039500000 Remainder of the Farm Muishond Rivier No 159: C0190000000016100000 Northern Cape Remainder of the Farm Karee Kloof No 196: C07200000000019600000 		

- Farm: C0190000000016100000
- 11. Remainder of 395 Klipbanks Fontein Farm: C01900000000019500000

Northern Cape

- 12. Portion 4 of 193 Urias Gat Farm: C07200000000019300004
- 13. Portion 6 of 193 Urias Gat Farm: C07200000000019300006
- 14. Remainder of 193 Urias Gat Farm: C07200000000019300000
- 15. Remainder of 194 Matjes Fontein Farm: C07200000000019400000
- 16. Remainder of 196 Karree Kloof Farm: C07200000000019600000

Properties affected by public road:

- 17. 169 Zeekoegat Farm: C07200000000016900000
- 18. Portion 1 of 170 Roodeheuvel Farm: C07200000000017000001
- 19. Remainder of 170 Roodeheuvel Farm: C07200000000017000000
- 20. Remainder of 190 Wind Heuvel Farm: C07200000000019000000
- 21. Portion 1 of 190 Wind Heuvel Farm: C07200000000019000001
- 22. Portion 5 of 193 Urias Gat Farm: C07200000000019300005
- 23. Remainder of 171 Vinke Kuil Farm: C07200000000017100000
- 24. Alkant Re/220 Farm: C072000000000022000000
- **25.** Portion 1 of 174 Lange Huis Farm: C07200000000017400001

Northern Cape

- 10. Portion 4 of the Farm Urias Gat No 193: C0720000000019300004
- 11. Portion 6 of the Farm Urias Gat No 193: C0720000000019300006
- 12. Remainder of the Farm Urias Gat No 193: C0720000000019300000
- 13. Remainder of the Farm Matjies
 Fontein No 194:
 C07200000000019400000
- 14. Portion 5 of the Farm Urias Gat No 193: C0720000000019300005

Properties affected by access road:

- 1. Zeekoegat Farm No 169: C07200000000016900000
- 2. Portion 1 of the Farm Roodeheuvel No 170: C0720000000017000001
- 3. Remainder of the Farm Roodeheuvel No 170: C0720000000017000000
- 4. Remainder of the Farm Wind Heuvel No 190: C07200000000019000000
- 5. Portion 1 of the Farm Wind Heuvel No 190: C0720000000019000001
- 6. Portion 5 of the Farm Urias Gat No 193: C07200000000019300005
- 7. Remainder of the Farm Vinke Kuil No 171: C0720000000017100000
- 8. Alkant Farm No 220: C072000000000022000000
- 9. Portion 1 of the Farm Lange Huis No 174: C0720000000017400001

8. Remainder of the Farm Matjes Fontein No 194: C0720000000019400000

Properties affected by public road:

- **1.** Zeekoegat Farm No 169: C07200000000016900000
- 2. Portion 1 of the Farm Roodeheuvel No 170: C07200000000017000001
- **3.** Remainder of the Farm Roodeheuvel No 170: C07200000000017000000
- **4.** Remainder of the Farm Wind Heuvel No 190: C07200000000019000000
- **5.** Portion 1 of the Farm Wind Heuvel No 190: C0720000000019000001
- **6.** Portion 5 of the Farm Urias Gat No 193: C0720000000019300005
- **7.** Remainder of the Farm Vinke Kuil No 171: C0720000000017100000
- 8. The Farm Alkant No 220: C072000000000022000000
- **9.** Portion 1 of the Farm Lange Huis No 174: C0720000000017400001

Technical Aspects					
Overall Capacity	325 MW	86 MW	239 MW		
Number of turbines	56	20	36		
Hub height	Up to 140 m	92 m above the foundation	No Change i.e. up to 140 m		
Rotor diameter	Up to 180 m	150 m	No Change i.e. up to 180 m		
Blade length	Up to 90 m	75 m	No Change i.e. up to 90 m		
Wind Measuring Lattice	Up to 4 x 140 m high depending the	2 x met masts (same as hub height)	2 x up to 140 m high depending the		
Masts	final hub height		final hub height		
Layout	-	Layout submitted for final approval	Final layout to be submitted prior to		
			the start of construction		
EMPr	The EMPr submitted as part of the	Approve Final EMPr	To be submitted based on final		
	Application for EA is hereby approved.		approval of layout.		

3 METHODOLOGY

The methodology used to identify and assess the agricultural impacts of the proposed amendment are identical to those used in the original assessment (Lanz, 2018).

4 SPECIALIST COMMENT

Table 1 above. All impacts identified in the original Agricultural report (2018) are still valid for the proposed amendments. The amendments and final layout will not change the nature or significance of any of the impacts assessed in the original study. There are no agricultural advantages or disadvantages related to the amendments. The amendment does not require any changes or additions to the mitigation measures for agricultural impacts that were recommended for the authorised development, and there are therefore no required changes to the EMPr(s). The agricultural impacts of the amended projects will therefore be identical to the impact for the authorised development, that was assessed in the original specialist assessment report.

5 **CONCLUSION**

The conclusion of this assessment is that the proposed amendments will have no agricultural impacts. No additional No-Go areas were identified as a result of this amendment. Therefore, from an agricultural impact point of view, the amendments and final layout should be authorised.

6 REFERENCES

Lanz, J. 2018. Agricultural Impact Assessment for Kudusberg Wind Energy Facility project between Matjiesfontein and Sutherland in the Northern and Western Cape Provinces

APPENDIX 1: SPECIALIST CURRICULUM VITAE

Johann Lanz Curriculum Vitae

Education

M.Sc. (Environmental Geochemistry)	University of Cape Town	1996 - 1997
B.Sc. Agriculture (Soil Science, Chemistry)	University of Stellenbosch	1992 - 1995
BA (English, Environmental & Geographical Science)	University of Cape Town	1989 - 1991
Matric Exemption	Wynberg Boy's High School	1983

Professional work experience

I have been registered as a Professional Natural Scientist (Pri.Sci.Nat.) in the field of soil science since 2012 (registration number 400268/12) and am a member of the Soil Science Society of South Africa.

Soil & Agricultural Consulting Self employed

2002 - present

In the past 5 years of running my soil and agricultural consulting business, I have completed more than 120 agricultural assessments (EIAs, SEAs, EMPRs) in all 9 provinces for renewable energy, mining, urban, and agricultural developments. My regular clients include: Aurecon; CSIR; SiVEST; Arcus; SRK; Environamics; Royal Haskoning DHV; Jeffares & Green; JG Afrika; Juwi; Mainstream; Redcap; G7; Mulilo; and Tiptrans. Recent agricultural clients for soil resource evaluations and mapping include Cederberg Wines; Western Cape Department of Agriculture; Vogelfontein Citrus; De Grendel Estate; Zewenwacht Wine Estate; and Goedgedacht Olives.

In 2018 I completed a ground-breaking case study that measured the agricultural impact of existing wind farms in the Eastern Cape.

Soil Science Consultant Agricultural Consultors International (Tinie du Preez) 1998 - 2001

Responsible for providing all aspects of a soil science technical consulting service directly to clients in the wine, fruit and environmental industries all over South Africa, and in Chile, South America.

Contracting Soil Scientist De Beers Namaqualand Mines July 1997 - Jan 1998

Completed a contract to advise soil rehabilitation and re-vegetation of mined areas.

Publications

- Lanz, J. 2012. Soil health: sustaining Stellenbosch's roots. In: M Swilling, B Sebitosi & R Loots (eds). Sustainable Stellenbosch: opening dialogues. Stellenbosch: SunMedia.
- Lanz, J. 2010. Soil health indicators: physical and chemical. *South African Fruit Journal*, April / May 2010 issue.
- Lanz, J. 2009. Soil health constraints. South African Fruit Journal, August / September 2009 issue.
- Lanz, J. 2009. Soil carbon research. AgriProbe, Department of Agriculture.
- Lanz, J. 2005. Special Report: Soils and wine quality. Wineland Magazine.

I am a reviewing scientist for the South African Journal of Plant and Soil.



APPENDIX 2: DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

Part 2 Environmental Authorisation (EA) Amendment Process for the Kudusberg Wind Energy Facility (WEF) Near Sutherland, Western and Northern Cape Provinces

Kindly note the following:

- This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- This form is current as of 01 September 2018. It is the responsibility of the Applicant /
 Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of
 the form have been published or produced by the Competent Authority. The latest available
 Departmental templates are available at https://www.environment.gov.za/documents/forms.
- A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
- All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
- All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details

Postal address: Department of Environmental Affairs, Attention: Chief Director: Integrated Environmental Authorisations, Private Bag X447, Pretoria, 0001

Physical address: Department of Environmental Affairs, Attention: Chief Director: Integrated Environmental Authorisations, Environment House, 473 Steve Biko Road, Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at: Email: EIAAdmin@environment.gov.za

1. SPECIALIST INFORMATION

Specialist Company Name:	Johann Lanz – Soil Scientist				
B-BBEE	Contribution level (indicate 1 to 8 or non- compliant)	4	Percentage Procurement recognition		100%
Specialist name:	Johann Lanz				
Specialist Qualifications:	M.Sc. (Environmental Geochemistry) Registered Professional Natural Scientist				
Professional affiliation/registration:					
Physical address:					
Postal address:					
Postal code:	7800	Cell:		082 927 9018	
Telephone:	elephone: 082 927 9018		Fax: Who still uses a		l uses a fax? I don't
E-mail:	johann@johannlanz.co.za				

2. DECLARATION BY THE SPECIALIST

I, Johann Lanz, declare that -

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may Signature of the Specialist compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report Johann Lanz Soil Scientist (sole proprietor) relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the Signature of the Commissioner of Marine LWA competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of the Specialist

Johann Lanz - Soil Scientist (sole proprietor)

Name of Company

Details of Specialist, Declaration and Undertaking Under Oath

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, Johann Lanz, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

Name of Company

SUID-AFRIKAANSE POLISIEDIENS STATION COMPANIES US OCT 7023 SOUTH AFRICAN POLICE SERVICE