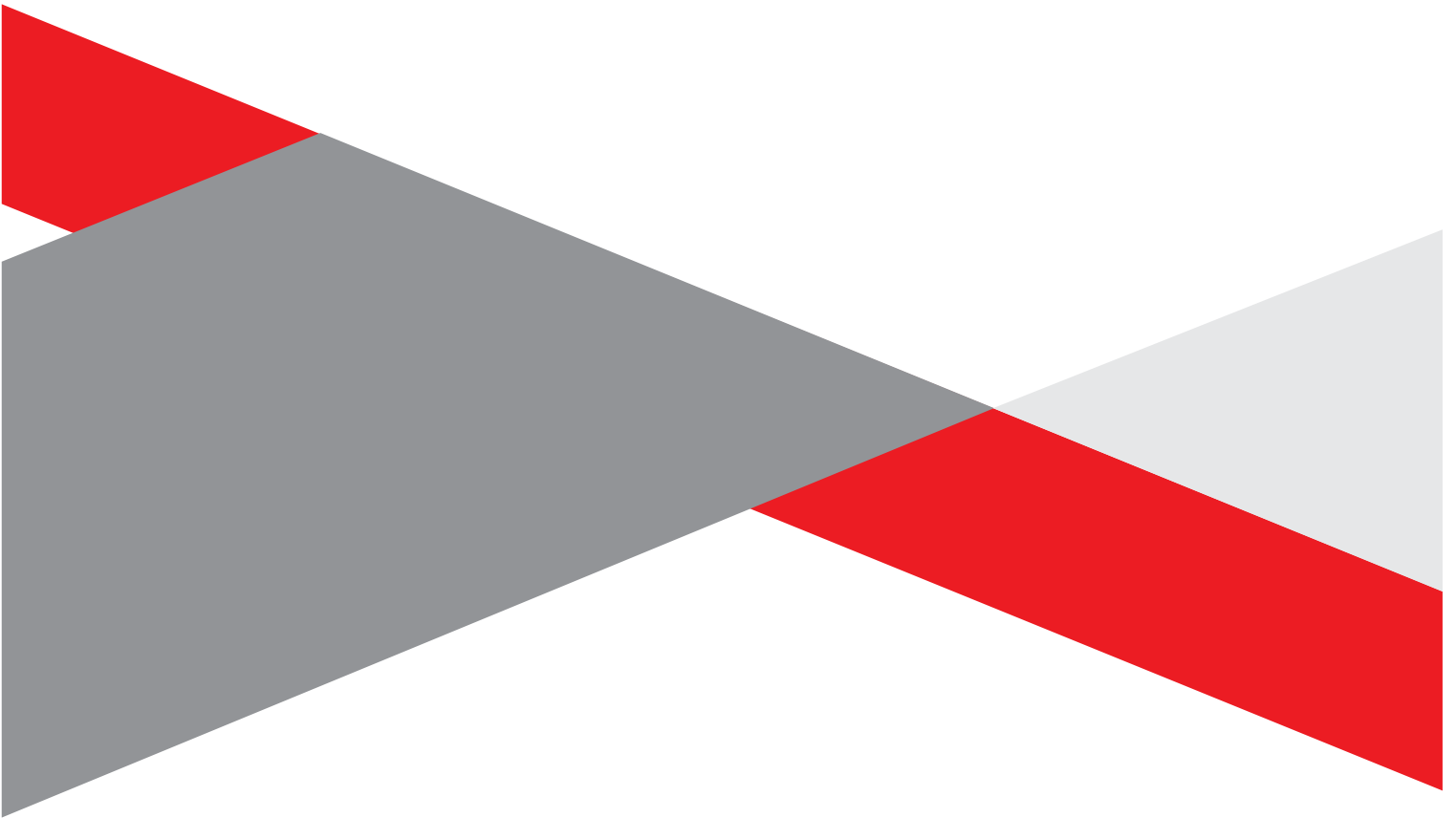


**APPENDIX C8**  
**COMMENTS RECEIVED**





# the sandf

Department:  
Defence  
REPUBLIC OF SOUTH AFRICA

C LOG/D FAC/R/401/1/3/11/3

Telephone: 012 402 2812  
Facsimile: 012 402 2833  
Email: dfacmiem@gmail.com  
Enquiries: Col Z.E. Mali

Department of Defence  
Logistics Division  
(Directorate Facilities)  
Private Bag X319  
Pretoria  
0001

14 October 2022

First Floor  
Block 25  
Woodlands Drive Office Park  
Cnr Woodlands Drive Western Service Road  
Woodmead  
2191

(Attention: The Directors)

## LETTER OF NO OBJECTION: THE PROPOSED DEVELOPMENT OF THE UMBILA EMOYENI RENEWABLE ENERGY WIND AND SOLAR PV FACILITIES AND GRID CONNECTION INFRASTRUCTURE, MPUMALANGA PROVINCE

1. The letter dated 12 June 022 refers: The Proposed Development of the Umbila Emoyeni Renewable Energy Wind and Solar PV Facilities And Grid Connection Infrastructure, Mpumalanga Province.
2. The following procedures are applied by the DOD to evaluate the potential impact of the intended development on the DOD:
  - a. Potential Impact on Landwards Activities. The potential impact of the intended development on landwards force preparation, employment and support is evaluated at the hand of the proximity of the intended development to military training areas and base areas; and possible limitations on the landwards movement and deployment of forces.
  - b. Potential Impact on DOD Communication Installations. The potential impact of the intended development on DOD communication installation is evaluated by ascertaining whether the intended development intrudes into the DOD specified buffers around communication installations, as specified by the DOD Command Management and Information Services (CMIS) Division.
  - c. Potential Impact on DOD Aviation Routes and Flight Safety. The potential impact of the intended development on military aviation is discussed and evaluated amongst applicable specialists from the South African Civil Aviation Authority (SACAA) and the South African Air Force (SAAF) as part of the proceedings of the Obstacle Evaluation Committee (OEC).

3. The following was concluded after conducting the various evaluations:



Lefapha la Boiphemelo . Umnyango wezokuVikela . Kgoro ya Tshireletso . iSebe lezoKhuselo . Department of Defence . Muhasho wa Tsiriledzo  
UmNyango WezokuVikela . Ndzawulo ya swa Vusireheleri . Lehapha la Tshireletso . Departement van Verdediging . LI'Tiko leTekuvike




RESTRICTED

5 c 2021/11/10/22/11

- a. Potential Impact on Landwards Activities. The location of the proposed solar and wind energy facility is not in the proximity of military infrastructure and it is therefore not expected to have any impacts on the landward activities. Thus, there is no objection on the part of DOD landwards activities.
  - b. Potential Impact on DOD Communication Installations. The proposed solar and wind energy facility does not intrude into the DOD specified buffers around communication installations and communication links and therefore, there is no objection on the part of DOD communication installations.
  - c. Potential Impact on DOD Aviation Routes and Flight Safety. The proposed solar and wind energy facility is located beyond the bounds of any aviation related buffers and holds no implication for the SAAF. Thus, there is no objection on the part of DOD aviation routes and light safety.
4. The letters of no objection on the part of the DOD should not be deemed to supersede or replace any other statutory authorisation.

Yours faithfully

A handwritten signature in blue ink, appearing to be 'X.B. Ndlovu', written over a horizontal line.

**(MAJOR GENERAL X.B. NDLOVU)**  
**CHIEF LOGISTICS: LIEUTENANT GENERAL**



# forestry, fisheries & the environment

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

Private Bag X 447· PRETORIA 0001· Environment House 473 Steve Biko Road, Arcadia,· PRETORIA

**DFFE Reference:** 14/12/16/3/3/2/2162

**Enquiries:** Ms Julliet Mahlangu

**Telephone:** (012) 399 9320 **E-mail:** [jmmahlangu@dfffe.gov.za](mailto:jmmahlangu@dfffe.gov.za)

Ms Jo-Anne Thomas  
Savannah Environmental (Pty) Ltd  
PO Box 148  
**SUNNINGHILL**  
2191

**Telephone Number:** 011 656 3237/3256/3251  
**Cell Phone:** 082 775 5628  
**Email Address:** [info@savannahsa.com](mailto:info@savannahsa.com)

## PER MAIL / E-MAIL

Dear Ms Thomas

### **COMMENTS ON DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR THE PROPOSED ELECTRICAL GRID INFRASTRUCTURE, MPUMALANGA PROVINCE, MPUMALANGA PROVINCE**

The draft Environmental Impact Assessment Report (EIAr) received by the Department on 14 October 2022 and acknowledged on 18 October 2022, respectively, refer.

This letter serves to inform you that the following information must be included in the final EIAr:

#### **(a) Specific comments**

- Recommendations provided by specialist reports must be considered and used to inform the layout.
- Please ensure that all mitigation recommendations are in line with applicable and most recent guidelines.
- The final EIAr must provide the technical details for the proposed facility in a table format as well as their description and/or dimensions.
- Please ensure that all softcopy maps are clear and legible
- Please ensure that the final EIAr complies with the requirements of Appendix 3 of the NEMA EIA Regulations, 2014, as amended, all conditions of the acceptance of the scoping report, and this letter.

#### **(b) Listed Activities**

- If the activities applied for in the application form differ from those mentioned in the final EIAr, an amended application form must be submitted. Please note that the Department's application form template has been amended and can be downloaded from the following link <https://www.environment.gov.za/documents/forms>.
- The relevant authorities with jurisdiction in respect of geographically designated areas in terms of GN R. 985 (Listing Notice 3) Activities must be continuously involved throughout the environmental impact assessment process. Written comments (or proof of consultation) must be obtained from the relevant authorities and submitted to this Department. In addition, a graphical representation of the proposed development within the respective geographical areas must be provided. Please also ensure that the potential impacts on the affected geographical areas are fully assessed in the EIAr.

**(c) Public Participation**

- Please ensure that comments from all relevant stakeholders are submitted to the Department with the EIAr. This includes but is not limited to the provincial Department of Agriculture, SANRAL, Local Municipality, the District Municipality, the Department of Water and Sanitation (DWS), the South African Heritage Resources Agency (SAHRA), the Endangered Wildlife Trust (EWT), BirdLife SA, the Department of Mineral Resources, the Department of Rural Development and Land Reform, and the Department of Forestry, Fisheries and the Environment: Directorate Biodiversity and Conservation.
- Please ensure that all issues raised and comments received during the circulation of the draft SR and draft EIAr from registered I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final EIAr. Proof of correspondence with the various stakeholders must be included in the final EIAr. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments.
- A Comments and Response trail report (C&R) must be submitted with the final EIAr. The C&R report must incorporate all comments for this development including Department's comments included in the acceptance of scoping report as well as these comments on the draft EIAr. The C&R report must be a separate document from the main report.. Please refrain from summarising comments made by I&APs. All comments from I&APs must be copied verbatim and responded to clearly. Please note that a response such as "noted" is not regarded as an adequate response to I&AP's comments.
- Comments from I&APs must not be split and arranged into categories. Comments from each submission must be responded to individually.
- The Public Participation Process must be conducted in terms of Regulation 39, 40, 41, 42, 43 & 44 of the EIA Regulations, 2014, as amended.
- The EAP is requested to contact the Department to make the necessary arrangements to conduct a site inspection prior to the submission of the final EIAr.

**(d) Specialist assessments**

- Please ensure that specialist studies conducted provide a detailed description of their methodology, as well as all other associated infrastructures that they have assessed and are recommending for the authorisation.
- The specialist studies must also provide a detailed description of all limitations to their studies. All specialist studies must be conducted in the right season and providing that as a limitation, will not be accepted.
- Should the appointed specialists specify contradicting recommendations, the EAP must clearly indicate the most reasonable recommendation and substantiate this with defensible reasons; and where necessary, include further expertise advice.
- Please include a table in the BAR summarising the specialist studies required by the Screening Tool including the sensitivity rating of Screening Tool (very high, high, medium, low), a column indicating the sensitivity of the site after the EAP/Specialist has conducted the Site Verification Assessment and a column indicating whether these studies were conducted, or compliance statement attached.
- It is further brought to your attention that the Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation, which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. "the Protocols"), and in Government Notice No. 1150 of 30 October 2020 (i.e. protocols for terrestrial plant and animal species) have come into effect. Please note that specialist assessments must be conducted in accordance with these protocols, except where the applicant provides proof to the competent authority that the specialist assessment affected by these protocols had been commissioned before the date on which the protocols came into effect, in which case Appendix 6 of the Environmental Impact Assessment Regulations, 2014, as amended, will apply to such applications. Please indicate in the EIAr whether the protocols were applied.
- Please also ensure that the specialist studies conducted as per requirements of the protocols also include the Site Verification Report that confirms the level of sensitivity from what has been identified by the screening report.

- Please note that the Protocols require the specialists to be SACNASP registered. Proof of registration in the form of valid SACNASP certificate must be submitted for each specialist conducted.
- For the themes that have been identified as medium which requires compliance statements, please ensure that these compliance statements are attached to the EIAr and that they comply with the requirement of the protocols.

## **General**

You are further reminded to comply with Regulation 23(1)(a) of the NEMA EIA Regulations, 2014, as amended, which states that: *“The applicant must within 106 days of the acceptance of the scoping report submit to the competent authority -*

*(a) an environmental impact assessment report inclusive of any specialist reports, an EMPr, a closure plan in the case of a closure activity and where the application is a mining application, the plans, report and calculations contemplated in the Financial Provisioning Regulations, which must have been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority.”*

Should there be significant changes or new information that has been added to the EIAr or EMPr which changes or information was not contained in the reports or plans consulted on during the initial public participation process, you are required to comply with Regulation 23(1)(b) of the NEMA EIA Regulations, 2014, as amended, which states: *“The applicant must within 106 days of the acceptance of the scoping report submit to the competent authority – (b) a notification in writing that the documents contemplated in sub-regulation 1(a) will be submitted within 156 days of acceptance of the scoping report by the competent authority or where regulation 21(2) applies, within 156 days of receipt of the application by the competent authority, as significant changes have been made or significant new information has been added to the documents, which changes or information was not contained in the original documents consulted on during the initial public participation process contemplated in sub-regulation (1)(a), and that the revised documents contemplated in sub-regulation 1(a) will be subjected to another public participation process of at least 30 days”.*

Should you fail to meet any of the timeframes stipulated in Regulation 23 of the NEMA EIA Regulations, 2014, as amended, your application will lapse.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No. 107 of 1998, as amended, that no activity may commence prior to an Environmental Authorisation being granted by the Department.

Yours sincerely



**Ms Milicent Solomons**

**Acting Chief Director: Integrated Environmental Authorisations**

**Department of Forestry, Fisheries and the Environment**

**Signed by: Dr Danie Smit**

**Designation: Deputy Director: National Integrated Authorisation Projects**

**Date: 03/11/2022**

cc:	Mr Peter Carl Venn	Emoyeni Renewable Energy Farm	Email: <a href="mailto:Peter.venn@windlab.com">Peter.venn@windlab.com</a>
-----	--------------------	-------------------------------	---



# forestry, fisheries & the environment

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

Private Bag X 447· PRETORIA 0001· Environment House 473 Steve Biko Road, Arcadia· PRETORIA

**DFFE Reference:** 14/12/16/3/3/2/2162

**Enquiries:** Juliet Mahlangu

**Telephone:** (012) 399 9320 **E-mail:** [jmmahlangu@dfpe.gov.za](mailto:jmmahlangu@dfpe.gov.za)

Ms Jo-Anne Thomas  
Savannah Environmental (Pty) Ltd  
P.O. Box 148  
**SUNNINGHILL**  
2157

**Telephone Number:** 011 656 3237  
**Email Address:** [joanne@savannahsa.com](mailto:joanne@savannahsa.com)

## **PER E-MAIL / MAIL**

Dear Ms Thomas

### **ACCEPTANCE OF THE SCOPING REPORT FOR THE PROPOSED UMBILA EMOYENI ELECTRICAL GRID INFRASTRUCTURE, MPUMALANGA PROVINCE**

The final Scoping Report (SR) and the Plan of Study for Environmental Impact Assessment dated June 2022 and received by the Department on 24 June 2022, refer.

The Department has evaluated the submitted final SR and the Plan of Study for Environmental Impact Assessment dated June 2022 and is satisfied that the documents comply with the minimum requirements of the Environmental Impact Assessment (EIA) Regulations, 2014, as amended. The FSR is hereby accepted by the Department in terms of Regulation 22(1)(a) of the EIA Regulations, 2014, as amended.

You may proceed with the environmental impact assessment process in accordance with the tasks contemplated in the Plan of Study for Environmental Impact Assessment as required in terms of the EIA Regulations, 2014, as amended.

In addition, the following amendments and additional information are required for the EIAr:

#### **(a) Listed Activities**

- (i) The EIAr must provide an assessment of the impacts and mitigation measures for each of the listed activities applied for.
- (ii) The listed activities represented in the EIAr and the application form must be the same and correct.
- (iii) The EIAr must assess the correct sub listed activity for each listed activity applied for.

#### **(b) Public Participation**

- (i) Please ensure that comments from all relevant stakeholders are submitted to the Department with the EIAr. This includes but is not limited to the Eskom, the provincial Department of Agriculture Rural Development, Land and Environmental Affairs, Mpumalanga Tourism and Parks Agency, Govan Mbeki Local Municipality, Lekwa Local Municipality and Msukaligwa Local Municipality, Gert Sibande District Municipality, the South African Heritage Resources Agency (SAHRA), The South African Civil Aviation

Authority (SACAA), The Department of Transport, The Department of Water and Sanitation (DWS), The South African National Roads Agency Limited (SANRAL), The Endangered Wildlife Trust (EWT), The Endangered Wildlife Trust (EWT), and the Department of Environment, Forestry and Fisheries: Directorate Biodiversity and Conservation

- (ii) Please ensure that all issues raised and comments received during the circulation of the draft SR and draft EIAR from registered I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final EIAR. Proof of correspondence with the various stakeholders must be included in the final EIAR. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments.
- (iii) A Comments and Response trail report (C&R) must be submitted with the final EIAR. The C&R report must incorporate all comments for this development. The C&R report must be a separate document from the main report and the format must be in the table format as indicated in Appendix 1 of this comments letter. Please refrain from summarising comments made by I&APs. All comments from I&APs must be copied verbatim and responded to clearly. Please note that a response such as “noted” is not regarded as an adequate response to I&AP’s comments.
- (iv) Comments from I&APs must not be split and arranged into categories. Comments from each submission must be responded to individually.
- (v) The Public Participation Process must be conducted in terms of Regulation 39, 40, 41, 42, 43 & 44 of the EIA Regulations, 2014, as amended.
- (vi) The EAP is requested to contact the Department to make the necessary arrangements to conduct a site inspection prior to the submission of the final EIAR.

### **(c) Alternatives**

- (i) Please provide a description of each of the preferred alternative type and provide detailed motivation on why it is preferred.

### **(d) Layout & Sensitivity Maps**

- (i) The EIAR must provide the four corner coordinate points for the proposed substations site (note that if the site has numerous bend points, at each bend point coordinates must be provided) as well as the start, middle and end point of all linear activities.
- (ii) The EIAR must provide the following:
  - Clear indication of the envisioned area for the proposed grid connection;
  - Clear description of all associated infrastructure. This description must include, but is not limited to the following:
    - Internal roads infrastructure; and;
    - All supporting onsite infrastructure such as laydown area, guard house and control room etc.
    - All necessary details regarding all possible locations and sizes of the proposed satellite substation and the main substation.
- (iii) A copy of the final preferred route layout map. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g. roads
- (iv) The layout map must indicate the following:
  - Grid position and its associated infrastructure;
  - Permanent laydown area footprint;
  - Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible);
  - Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used;
  - The location of sensitive environmental features on site e.g. CBAs, heritage sites, wetlands, drainage lines etc. that will be affected by the facility and its associated infrastructure;



- Substation(s) and/or transformer(s) sites including their entire footprint;
  - Location of access and service roads;
  - Connection routes (including pylon positions) to the distribution/transmission network;
  - All existing infrastructure on the site, especially railway lines and roads;
  - Buffer areas;
  - Buildings, including accommodation; and
  - All “no-go” areas.
- (v) An environmental sensitivity map indicating environmental sensitive areas and features identified during the assessment process.
- (vi) A map combining the final layout map superimposed (overlain) on the environmental sensitivity map.

#### **(e) Cumulative Assessment**

- (i) Should there be any other similar projects within a 30km radius of the proposed development site, the cumulative impact assessment for all identified and assessed impacts must be refined to indicate the following:
- Identified cumulative impacts must be clearly defined, and where possible the size of the identified impact must be quantified and indicated, i.e., hectares of cumulatively transformed land.
  - Detailed process flow and proof must be provided, to indicate how the specialist’s recommendations, mitigation measures and conclusions from the various similar developments in the area were taken into consideration in the assessment of cumulative impacts and when the conclusion and mitigation measures were drafted for this project.
  - The cumulative impacts significance rating must also inform the need and desirability of the proposed development.
  - A cumulative impact environmental statement on whether the proposed development must proceed.

#### **(f) Specialist assessments**

- (i) The EAP must ensure that the terms of reference for all the identified specialist studies must include the following:
- A detailed description of the study’s methodology; indication of the locations and descriptions of the development footprint, and all other associated infrastructures that they have assessed and are recommending for authorisations.
  - Provide a detailed description of all limitations to the studies. All specialist studies must be conducted in the right season and providing that as a limitation will not be allowed.
  - Please note that the Department considers a ‘no-go’ area, as an area where no development of any infrastructure is allowed; therefore, no development of associated infrastructure including access roads is allowed in the ‘no-go’ areas.
  - Should the specialist definition of ‘no-go’ area differ from the Departments definition; this must be clearly indicated. The specialist must also indicate the ‘no-go’ area’s buffer if applicable.
  - **All specialist studies must be final, and provide detailed/practical mitigation measures for the preferred alternative and recommendations, and must not recommend further studies to be completed post EA.**
  - Should a specialist recommend specific mitigation measures, these must be clearly indicated.
  - Regarding cumulative impacts:
    - Clearly defined cumulative impacts and where possible the size of the identified impact must be quantified and indicated, i.e. hectares of cumulatively transformed land.
    - A detailed process flow to indicate how the specialist’s recommendations, mitigation measures and conclusions from the various similar developments in the area were taken into consideration in the assessment of cumulative impacts and when the conclusion and mitigation measures were drafted for this project.
    - Identified cumulative impacts associated with the proposed development must be rated with the significance rating methodology used in the process.

- The significance rating must also inform the need and desirability of the proposed development.
  - A cumulative impact environmental statement on whether the proposed development must proceed.
- (ii) Should the appointed specialists specify contradicting recommendations, the EAP must clearly indicate the most reasonable recommendation and substantiate this with defensible reasons; and where necessary, include further expertise advice.
- (iii) Please include a table in the EIA summarising the specialist studies required by the Screening Tool, a column indicating whether these studies were conducted or not, and a column with motivation for any studies not conducted.
- (iv) It is further brought to your attention that Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation, which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. "the Protocols"), and in Government Notice No. 1150 of 30 October 2020 (i.e. protocols for terrestrial plant and animal species), have come into effect. Should this study be required, the specialist assessments must be conducted in accordance with these protocols. Please note further that the Protocols require the specialists to be SACNASP registered.
- (v) Please be reminded that section 2(3) of NEMA requires developments to be socially, environmentally and *economically* sustainable, while section 2(4)(i) of NEMA requires the social, *economic* and environmental impacts of activities, including disadvantages and benefits, to be considered, assessed and evaluated
- (vi) The following Specialist Assessments will form part of the EIA:

<b>Specialist Study</b>	<b>Company</b>
Terrestrial Ecology (Fauna and Flora)	Gerhard Botha of Nkurenkuru Ecology and Biodiversity (Pty) Ltd
Freshwater resources (including all waterbodies and wetlands)	Gerhard Botha of Nkurenkuru Ecology and Biodiversity (Pty) Ltd
Bats	Jonathan Aronson of Camissa
Avifauna	Owen Davies of Arcus Consulting
Soils and Agricultural Potential	van Baker/Andrew Husted of the Biodiversity Company
Heritage (including Cultural Landscape, Archaeology and Palaeontology)	Jenna Lavin of CTS Heritage
Visual	Jon Marshall of Environmental Planning & Design CC
Traffic	Iris Wink of JG Afrika
Socio-Economic	Pierre van Jaarsveld of Urban-Econ Development Economist (Pty) Ltd

**(g) Environmental Management Programme (EMPr)**

- (i) It is drawn to your attention that for substation infrastructure and overhead electricity transmission and distribution infrastructure, when such facilities trigger activity 11 or 47 of the Environmental Impact Assessment Regulations Listing Notice 1 of 2014, as amended, and any other listed and specified activities necessary for the realisation of such facilities, the generic Environmental Management Programme (EMPr), contemplated in Regulations 19(4) must be used and submitted with the EIA over and above the EMPr for the wind facility. Please ensure that any specific mitigation measures identified in the EIA and specialist reports for the on-site substations are incorporated into the generic EMPr.
- (ii) Please ensure that the mitigation measures specified in the EIA and specialist reports are also incorporated into the EMPr. In addition, ensure that the EMPr complies with the content of the EMPr in terms of Appendix 4 of the EIA Regulations, 2014, as amended.

- (iii) Please also include in the EMPr, a recommended frequency for the auditing of compliance with the conditions of the EA and EMPr, and for the submission of such compliance reports to the competent authority.
- (iv) EMPr must include an environmental sensitivity map indicating environmental sensitive areas and features identified during the assessment process.
- (v) A map combining the final layout map superimposed (overlain) on the environmental sensitivity map.
- (vi) EMPr must include measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

**(h) General**

- (i) The EIAr must provide the technical details for the proposed facility in a table format as well as their description and/or dimensions.
- (ii) Details of the future plans for the site and infrastructure after decommissioning in 20-30 years and the possibility of upgrading the proposed infrastructure to more advanced technologies must be indicated.
- (iii) Should a Water Use License be required, proof of application for a license needs to be submitted.
- (iv) The EAP must provide landowner consent for all farm portions affected by the proposed project, whether the project component is linear or not, i.e. all farm portions where the access road and associated infrastructure is to be located.
- (v) A construction and operational phase EMPr that includes mitigation and monitoring measures must be submitted with the final EIAr.
- (vi) Please also ensure that the final EIAr includes the period for which the Environmental Authorisation is required and the date on which the activity will be concluded as per Appendix 3 of the NEMA EIA Regulations, 2014, as amended.

The applicant is hereby reminded to comply with the requirements of Regulation 45 of GN R982 of 04 December 2014, as amendment, with regard to the time period allowed for complying with the requirements of the Regulations.

Should you fail to meet any of the timeframes stipulated in Regulation 23 of the NEMA EIA Regulations, 2014, as amended, your application will lapse.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No. 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours faithfully



**Ms Milicent Solomons**  
**Acting Chief Director: Integrated Environmental Authorisations**  
**Department of Forestry, Fisheries and the Environment**  
**Signed by: Dr Danie Smit**  
**Designation: Deputy Director: National Infrastructure Projects**  
**Date: 04/08/2022**

cc:	Mr Peter Carl Venn	Emoyeni Renewable Energy Farm (Pty) Ltd	E-mail: <a href="mailto:Peter.venn@windlab.com">Peter.venn@windlab.com</a>
-----	--------------------	---	--

## Annexure 1

Format for Comments and Response Trail Report:

<b>Date of comment, format of comment name of organisation/I&amp;AP</b>	<b>Comment</b>	<b>Response from EAP/Applicant/Specialist</b>
<p><b>Pule Joseph Lenong Department of Water and Sanitation (DWS) Email correspondence: 07 February 2022</b></p>	<p>On behalf of the Provincial Head of the Department of Water and Sanitation: Free State, I hereby would like to acknowledge receipt your e-mail with kindness. The contents are receiving attention. In future, if you do not mind, please send your EIA directly to this office. Mr George Nel is copied here and myself</p>	<p>The comment raised by the DWS has been noted. In addition, George Nel has been added onto the database for all future correspondence.</p>



Samora Machel Building, Ext 2, No. 7 Government Boulevard, Riverside Park, Mbombela, 1200, Mpumalanga Province  
Private Bag X11304, Mbombela, 1200. Tel: 013 766 0000, Int Tel: +27 (13) 766 6087, Tel: 013 766 6087  
Tel: 013 766 8252, Int: Fax: +27 (13) 766 8252

Litiko  
Lekubusa  
ngekubambisana  
netebuholi bendzabuko

Departement van  
Koöperatiewe Regering  
en Tradisionele Sake

umNyango  
wezekuBusa  
ngokuHlanganyela  
neeNdaba zamaKhosi

Ref : 12/1/4/1/6/1/7/4  
Enquiries : TP SEBOGODI  
Contact no. : 013 766 1733/1782

Savannah Environmental  
publicprocess@savannahsa.com

Dear Nicolene Venter

**APPLICATION FOR PROPOSED DEVELOPMENT OF THE UMBILA EMOYENI RENEWABLE ENERGY WIND AND SOLAR PV FACILITIES & GRID CONNECTION INFRASTRUCTURE WITHIN GERT SIBANDE DISTRICT MUNICIPALITIES**

1. The subject matter has reference.
2. The department has received an application submitted in fulfilment of the National Environmental Management Act, Act 107 of 1998 (NEMA).
3. The application is for the proposed Emoyeni Renewable Energy Farm (Pty) Ltd development which is a cluster of renewable energy facilities and associated infrastructure, including grid connection infrastructure and battery energy storage.
4. The department also notes the regional impact and potential positive socio-economic and infrastructure development more so given the countries energy supply.
5. The department supports the application subject to the following conditions:
  - 5.1 The application must comply with all provision of the municipal Spatial Planning and Land Use Management By-law and town planning scheme.
  - 5.2 Consent and conditions imposed by the Local Municipality be adhered to.
  - 5.3 Compliance with that the National Water Act, No 36 of 1998 and an Environmental Authorisation (As required by National Environmental Management Act, 1998)).
  - 5.4 All site specific assessment recommendations be strictly adhered to mitigate impacts.
  - 5.5 All other laws that may be triggered must be complied with relevant departments.

**APPLICATION FOR PROPOSED DEVELOPMENT OF THE UMBILA EMOYENI  
RENEWABLE ENERGY WIND AND SOLAR PV FACILITIES & GRID CONNECTION  
INFRASTRUCTURE WITHIN GERT SIBANDE DISTRICT MUNICIPALITIES**

---

Trust the above is in order.

Regards,



**MS. R.V. JONES**

**(A) HEAD: CO-OPERATIVE GOVERNANCE & TRADITIONAL AFFAIRS**

**08/8/2022**  
DATE

# **SCOPING PHASE**

## Savannah Public Process

---

**From:** John Geeringh <GeerinJH@eskom.co.za>  
**Sent:** Thursday, 12 May 2022 14:32  
**To:** Savannah Public Process  
**Subject:** RE: [CAUTION:EXTERNAL EMAIL] - SE3292: UMMBILA EMOYENI RENEWABLE ENERGY WIND & SOLAR PV FACILITIES & GRID CONNECTION INFRASTRUCTURE - EIA Process and notification of availability of Scoping Reports for review and comment  
**Attachments:** Eskom requirements for work in or near Eskom servitudes.doc; Renewable Energy Generation Plant Setbacks to Eskom Infrastructure Rev2 - signed.pdf  
**Follow Up Flag:** Follow up  
**Due By:** Monday, 16 May 2022 12:00  
**Flag Status:** Completed

Please send me a KMZ file of the affected properties. Please find attached Eskom general requirements for works at or near Eskom infrastructure, as well as the Eskom setbacks guideline for renewable energy developments.

Kind regards

John Geeringh (Pr Sci Nat) Reg. EAP (EAPASA)  
Senior Consultant Environmental Management  
Grid Planning: Land and Rights  
Eskom Transmission Division  
Megawatt Park, D1Y42, Maxwell Drive, Sunninghill, Sandton.  
P O Box 1091, Johannesburg, 2000.  
Tel: 011 516 7233  
Cell: 083 632 7663  
Fax: 086 661 4064  
E-mail: [john.geeringh@eskom.co.za](mailto:john.geeringh@eskom.co.za)

---

**From:** Savannah Environmental Public Process <publicprocess@savannahsa.com>  
**Sent:** Thursday, 12 May 2022 14:13  
**To:** John Geeringh <GeerinJH@eskom.co.za>  
**Subject:** [CAUTION:EXTERNAL EMAIL] - SE3292: UMMBILA EMOYENI RENEWABLE ENERGY WIND & SOLAR PV FACILITIES & GRID CONNECTION INFRASTRUCTURE - EIA Process and notification of availability of Scoping Reports for review and comment

**PROPOSED DEVELOPMENT OF THE UMMBILA EMOYENI RENEWABLE ENERGY WIND AND SOLAR PV FACILITIES, AND  
GRID CONNECTION INFRASTRUCTURE, MPUMALANGA PROVINCE  
(DFFE Reference Nos.: To be Issued)**

Dear Stakeholder and Interested & Affected Party,

Emoyeni Renewable Energy Farm (Pty) Ltd proposes the development of a cluster of renewable energy facilities and associated infrastructure, including grid connection infrastructure and battery energy storage, ~6km southeast of Bethal and ~1km east of Morgenzon in the Mpumalanga Province. The cluster of renewable energy facilities (to be known as the Ummbilla Emoyeni Renewable Energy Farm) consists of an up to 666MW wind farm, and 150MW solar PV



facility. The grid connection infrastructure for both facilities will include a 400/132kV Main Transmission Substation (MTS), to be located between Camden and SOL Substations, which will be looped in and out of the existing Camden-Sol 400kV transmission line. The location of the MTS will be refined through an ongoing process of communication with Eskom Planning but will be within close proximity to the 400kV line in order to cut into this line. The size of the MTS will likely be 600m x 600m as per Eskom requirements.

Each renewable energy facility will be constructed as a separate stand-alone project and therefore, separate Scoping and Environmental Impact Assessment (S&EIA) processes will be undertaken for each of the renewable energy facilities. Similarly, the grid connection solution will be subjected to a separate EIA process. Due to the proximity of the renewable energy facilities and their associated grid connection solution to one another, the public participation processes for the projects will be undertaken concurrently, providing the public with an opportunity to understand and provide comment on all the projects.

Attached for your perusal is the Background Information Document that provides technical details regarding the proposed renewable energy facilities and grid connection and a Registration & Comment Form.

The attached letter serves to:

- inform you that the Scoping Reports drafted for each of the above cluster of wind farms and solar PV applications are available for your review and comment from **Thursday, 12 May 2022** until **Monday, 13 June 2022**. The Scoping Reports can be downloaded from our website: [click here](#); and
- invite you to attend the on-line public participation process meeting taking place on Tuesday, 31 May 2022 at 17h00.

Please do not hesitate to contact us should you require any additional information.

Kind regards,

[Unsubscribe this type of email](#)



t: 011 656 3237  
f: 086 684 0547

**Nicolene Venter**  
Public Process

e: [publicprocess@savannahsa.com](mailto:publicprocess@savannahsa.com)  
c: +27 (0) 60 978 8396

[SAWEA Award for Leading Environmental Consultant on Wind Projects in 2013 & 2015](#)

NB: This Email and its contents are subject to the Eskom Holdings SOC Ltd EMAIL LEGAL NOTICE which can be viewed at [http://www.eskom.co.za/Pages/Email Legal Spam Disclaimer.aspx](http://www.eskom.co.za/Pages/Email_Legal_Spam_Disclaimer.aspx)

## TO WHOM IT MAY CONCERN

### Eskom requirements for work in or near Eskom servitudes.

1. Eskom's rights and services must be acknowledged and respected at all times.
2. Eskom shall at all times retain unobstructed access to and egress from its servitudes.
3. Eskom's consent does not relieve the developer from obtaining the necessary statutory, land owner or municipal approvals.
4. Any cost incurred by Eskom as a result of non-compliance to any relevant environmental legislation will be charged to the developer.
5. If Eskom has to incur any expenditure in order to comply with statutory clearances or other regulations as a result of the developer's activities or because of the presence of his equipment or installation within the servitude restriction area, the developer shall pay such costs to Eskom on demand.
6. The use of explosives of any type within 500 metres of Eskom's services shall only occur with Eskom's previous written permission. If such permission is granted the developer must give at least fourteen working days prior notice of the commencement of blasting. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued in terms of the blasting process. It is advisable to make application separately in this regard.
7. Changes in ground level may not infringe statutory ground to conductor clearances or statutory visibility clearances. After any changes in ground level, the surface shall be rehabilitated and stabilised so as to prevent erosion. The measures taken shall be to Eskom's satisfaction.
8. Eskom shall not be liable for the death of or injury to any person or for the loss of or damage to any property whether as a result of the encroachment or of the use of the servitude area by the developer, his/her agent, contractors, employees, successors in title, and assignees. The developer indemnifies Eskom against loss, claims or damages including claims pertaining to consequential damages by third parties and whether as a result of damage to or interruption of or interference with Eskom's services or apparatus or otherwise. Eskom will not be held responsible for damage to the developer's equipment.
9. No mechanical equipment, including mechanical excavators or high lifting machinery, shall be used in the vicinity of Eskom's apparatus and/or services, without prior written permission having been granted by Eskom. If such permission is granted the developer must give at least seven working days' notice prior to the commencement of work. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued by the relevant Eskom Manager

Note: Where an electrical outage is required, at least fourteen work days are required to arrange it.

10. Eskom's rights and duties in the servitude shall be accepted as having prior right at all times and shall not be obstructed or interfered with.
11. Under no circumstances shall rubble, earth or other material be dumped within the servitude restriction area. The developer shall maintain the area concerned to Eskom's satisfaction. The developer shall be liable to Eskom for the cost of any remedial action which has to be carried out by Eskom.
12. The clearances between Eskom's live electrical equipment and the proposed construction work shall be observed as stipulated by *Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)*.
13. Equipment shall be regarded electrically live and therefore dangerous at all times.
14. In spite of the restrictions stipulated by Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), as an additional safety precaution, Eskom will not approve the erection of houses, or structures occupied or frequented by human beings, under the power lines or within the servitude restriction area.
15. Eskom may stipulate any additional requirements to highlight any possible exposure to Customers or Public to coming into contact or be exposed to any dangers of Eskom plant.
16. It is required of the developer to familiarise himself with all safety hazards related to Electrical plant.
17. Any third party servitudes encroaching on Eskom servitudes shall be registered against Eskom's title deed at the developer's own cost. If such a servitude is brought into being, its existence should be endorsed on the Eskom servitude deed concerned, while the third party's servitude deed must also include the rights of the affected Eskom servitude.

John Geeringh (Pr Sci Nat)(EAPASA)  
Senior Consultant Environmental Management  
Eskom Transmission Division: Land & Rights  
Megawatt Park, D1Y42, Maxwell Drive, Sunninghill, Sandton.  
P O Box 1091, Johannesburg, 2000.  
Tel: 011 516 7233  
Cell: 083 632 7663  
Fax: 086 661 4064  
E-mail: john.geeringh@eskom.co.za

	<p style="text-align: center;"><b>SCOT</b></p>	<p style="text-align: center;"><b>Technology</b></p>
---	--	--

Title: **Renewable Energy Generation Plant Setbacks to Eskom Infrastructure** Unique Identifier: **240-65559775**

Alternative Reference Number: **N/A**

Area of Applicability: **Power Line Engineering**



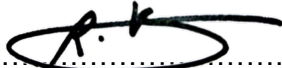
Documentation Type: **Guideline**

Revision: **2**

Total Pages: **9**

Next Review Date: **N/A**

Disclosure Classification: **CONTROLLED DISCLOSURE**

Compiled by	Approved by	Authorised by
		
<p><b>J W Chetty</b> Mechanical Engineer</p>	<p><b>B Ntshuntsha</b> Chief Engineer (Lines)</p>	<p><b>R A Vajeth</b> Snr Manager (Lines) and SCOT/SC/ Chairperson</p>
<p>Date: 15 / 09 / 2020</p>	<p>Date: 30/10/2020</p>	<p>Date: 30/10/2020</p>

## **CONTENTS**

	<b>Page</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>1. INTRODUCTION .....</b>	<b>4</b>
<b>2. SUPPORTING CLAUSES.....</b>	<b>4</b>
2.1 SCOPE .....	4
2.1.1 Purpose .....	5
2.1.2 Applicability.....	5
2.2 NORMATIVE/INFORMATIVE REFERENCES.....	5
2.2.1 Normative .....	5
2.2.2 Informative.....	5
2.3 DEFINITIONS.....	6
2.3.1 Disclosure Classification .....	6
2.4 ABBREVIATIONS.....	6
2.5 ROLES AND RESPONSIBILITIES.....	6
2.6 PROCESS FOR MONITORING .....	6
2.7 RELATED/SUPPORTING DOCUMENTS.....	6
<b>3. DOCUMENT CONTENT.....</b>	<b>6</b>
3.1 INTERNATIONAL SETBACK COMPARISON .....	6
3.2 ESKOM REQUIRED SETBACKS .....	7
<b>4. AUTHORISATION.....</b>	<b>9</b>
<b>5. REVISIONS .....</b>	<b>9</b>
<b>6. DEVELOPMENT TEAM .....</b>	<b>9</b>

## **FIGURES**

Figure 1: Horizontal Axis Wind Turbine.....	8
---	---

### **CONTROLLED DISCLOSURE**

When downloaded from the EDMS, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

## **EXECUTIVE SUMMARY**

In recent decades, the use of wind turbines, concentrated solar plants and photovoltaic plants have been on the increase as it serves as an abundant source of energy. This document specifies proposed setbacks for wind turbines and the reasons for these setbacks from infrastructure as well as setbacks for concentrated solar plants and photovoltaic plants. Setbacks for wind turbines employed in other countries were compared and a general setback to be used by Eskom was suggested for use with wind turbines and other renewable energy generation plants.

### **CONTROLLED DISCLOSURE**

When downloaded from the EDMS, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

## **1. INTRODUCTION**

During the last few decades, a large amount of wind turbines have been installed in wind farms to accommodate for the large demand of energy and depleting fossil fuels. Wind is one of the most abundant sources of renewable energy. Wind turbines harness the energy of this renewable resource for integration in electricity networks. The extraction of wind energy is its primary function and thus the aerodynamics of the wind turbine is important. There are many different types of wind turbines which will all exhibit different wind flow characteristics. The most common wind turbine used commercially is the Horizontal Axis Wind Turbine. Wind flow characteristics of this turbine are important to analyse as it may have an effect on surrounding infrastructure.

Wind turbines also cause large turbulence downwind that may affect existing infrastructure. Debris or parts of the turbine blade, in the case of a failure, may be tossed behind the turbine and may lead to damage of infrastructure in the wake path.

This document outlines the minimum distances that need to be introduced between a wind turbine and Eskom infrastructure to ensure that debris and / or turbulence would not negatively impact on the infrastructure and future expansion of infrastructure (lines and substation) as per the long term planning scenario.

Safety distances of wind turbines from other structures as implemented by other countries were also considered and the reasons for their selection were noted. All renewable energy developments are approved by The Department of Environmental Affairs, Forestry and Fisheries (DEFF) in terms of NEMA. The DEFF is aware of the setbacks guideline, however they cannot use it in terms of decision making since the setbacks document has no legal standing in SA and it would be outside of their mandate who have been advised to follow the guidelines herein.

Concentrated solar plants and photovoltaic plants setbacks away from substations were also to be considered to prevent restricting possible power line access routes to the substation and possible expansion of substations.

## **2. SUPPORTING CLAUSES**

### **2.1 SCOPE**

This document provides guidance on the safe distance that a wind turbine should be located from any Eskom power line or substation. Although it is not based on any legislative requirement, it is deemed important that Eskom's infrastructure and future network expansion planning is not impeded. The document specifies proposed setback distances for transmission lines (220 kV to 765 kV), distribution lines

**CONTROLLED DISCLOSURE**

(66 kV to 132 kV) and all Eskom substations. Proposed setbacks for concentrated solar plants and photovoltaic plants are also specified away from substations.

### **2.1.1 Purpose**

Setbacks for wind turbines and power lines / substations are required for various reasons. These include possible catastrophic failure of the turbine blade that may release fragments and which may be thrown onto nearby power lines that may result in damage with associated unplanned outages. Turbulence behind the turbine may affect helicopter flight during routine Eskom live line maintenance and inspections that may lead to safety risk of the aircraft / personnel. Concentrated solar plants and photovoltaic plants setback away from substations were required to prevent substations from being boxed in by these renewable generation plants limiting line route access to the substations and possible future substation expansion.

### **2.1.2 Applicability**

This document is applicable to the siting of all new and existing wind turbines, concentrated solar plants and photovoltaic plants near power lines and substations and in line of site between Eskom telecommunication infrastructure, including future Eskom renewable energy development.

## **2.2 NORMATIVE/INFORMATIVE REFERENCES**

### **2.2.1 Normative**

1. <http://www.envir.ee/orb.aw/class=file/action=preview/id=1170403/Hiiumaa+turbulence+impact+EMD.pdf>.
2. <http://www.energy.ca.gov/2005publications/CEC-500-2005-184/CEC-500-2005-184.PDF>
3. <http://www.adamscountywind.com/Revised%20Site/Windmills/Adams%20County%20Ordinance/Adams%20County%20Wind%20Ord.htm>
4. [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=PA11R&RE=1&EE=1](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=PA11R&RE=1&EE=1)
5. <http://www.wind-watch.org/documents/european-setbacks-minimum-distance-between-wind-turbines-and-habitations/>
6. <http://www.publications.parliament.uk/pa/ld201011/ldbills/017/11017.1-i.html>
7. [http://www.caw.ca/assets/pdf/Turbine\\_Safety\\_Report.pdf](http://www.caw.ca/assets/pdf/Turbine_Safety_Report.pdf)
8. Rogers J, Slegers N, Costello M. (2011) A method for defining wind turbine setback standards. Wind energy 10.1002/we.468

### **2.2.2 Informative**

None

**CONTROLLED DISCLOSURE**

When downloaded from the EDMS, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.



## 2.3 DEFINITIONS

Definition	Description
Setback	The minimum distance between a wind turbine and boundary line/dwelling/road/infrastructure/servitude etc.
Flicker	Effect caused when rotating wind turbine blades periodically cast shadows
Tip Height	The total height of the wind turbine ie. Hub height plus half rotor diameter (see Figure1)

### 2.3.1 Disclosure Classification

**Controlled disclosure:** controlled disclosure to external parties (either enforced by law, or discretionary).

## 2.4 ABBREVIATIONS

Abbreviation	Description
None	

## 2.5 ROLES AND RESPONSIBILITIES

All parties involved in the positioning wind turbines, concentrated solar plants and photovoltaic plants near power lines/substations should endeavour to follow the setbacks outlined in this guideline.

## 2.6 PROCESS FOR MONITORING

Agreement by Eskom in writing on any encroachment of the setbacks distance should be requested via the Grid Access Unit. Eskom should ensure that every application for renewable energy (RE) developments are informed about the existence of the setbacks document early in the RE planning process to ensure maximum effect. This includes Eskom RE development.

## 2.7 RELATED/SUPPORTING DOCUMENTS

None

## 3. DOCUMENT CONTENT

### 3.1 INTERNATIONAL SETBACK COMPARISON

Wind Turbine setbacks employed by various countries were considered. It was found that setbacks were determined for various reasons that include noise, flicker, turbine blade failure and wind effects as well as

**CONTROLLED DISCLOSURE**

future network expansion planning. The distances (setbacks) varied based on these factors and were influenced by the type of infrastructure

Wind turbine setbacks varied for roads, power lines, dwellings, buildings and property and it was noted that the largest setbacks were employed for reasons of noise and flicker related issues [1-7]. Very few countries specified setbacks for power lines.

The literature survey [1-7], yielded information about studies and experiments were conducted to determine the distance that a broken fragment from a wind turbine might be thrown. Even though of low probability of hitting a power line [ $5.0 \times 10^{-5}$  <sup>[8]</sup>], the distances recorded were significant [750m <sup>[8]</sup>]

Wind turbines may also cause changes in wind patterns with turbulent effects behind the hub. These factors influence the wind turbine setbacks specified in this document.

Setbacks were thus introduced to prevent any damage to Eskom infrastructure and impedance to operation and future network expansion planning.

Renewable energy plant can also limit access into substations for power lines of all voltages. A setback distance should therefore be employed to prevent substations from being boxed in by these generation plants and preventing future network expansion. These setback distances are specified in this document.

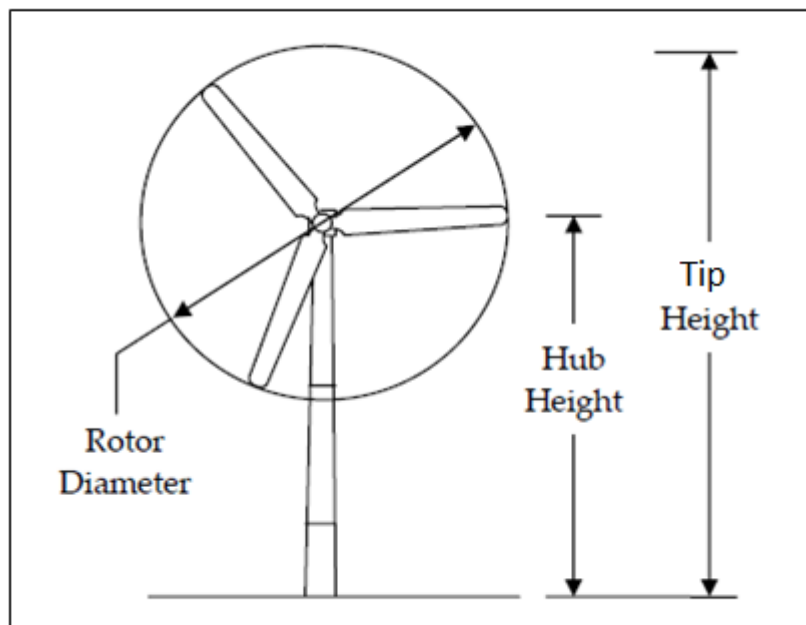
### **3.2 ESKOM RECOMMENDED SETBACKS**

Any renewable energy applicant should engage with Eskom to determine if their plant layout or positioning of turbines, CSP or PV infrastructure would encroach on the proposed setbacks provided for in this guideline and to ensure that their planning and Eskom's future expansion planning is taken into account. Eskom must inform all renewable energy developers, including Eskom RE, of the existence of the setbacks guideline early in the development process. Should there be an encroachment, a formal request should be sent to and accepted by Eskom in writing if any of the below mentioned setback distances are infringed upon:

- Eskom requests a setback distance of 3 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for transmission lines (220kV to 765kV) and Substations.
- Eskom requests a setback distance of 1 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for distribution lines (66 kV to 132 kV) and Substations.

**CONTROLLED DISCLOSURE**

- A written request should be sent to Eskom via the Grid Access Unit regarding any proposed wind turbine, concentrated solar plants and photovoltaic activity within a 5 km radius of a substation for Eskom to comment on.
- Where concentrated solar plants, photovoltaic structures, battery storage systems (BESS) and other renewable generation plants fall within a 2 km radius of the closest point of a transmission or distribution substation (66kV to 765kV), a written agreement with Eskom is recommended during the planning phase of such plant or structures to ensure Eskom’s future planning is not impeded.
- Applicants should not position any wind turbine in the line of site between and two Eskom Radio Telecommunication masts. It should be proven that Eskom radio telecommunication systems (mainly microwave systems) will not be affected in any way by wind turbines due to the criticality of this infrastructure in terms of network operation. Eskom Telecommunications should be engaged on this matter.
- If the position or size of any turbine changes and subsequently infringes on any of the above stated setbacks, a request for relaxation must be sent through to Eskom as per the point mentioned above.



**Figure 1: Horizontal Axis Wind Turbine [2]**

**CONTROLLED DISCLOSURE**

#### **4. AUTHORISATION**

This document has been seen and accepted by:

<b>Name &amp; Surname</b>	<b>Designation</b>
V Naidoo	Chief Engineer
Dr P Pretorius	Electrical Specialist
J Geeringh	Snr Consultant Environ Mngt
B Haridass	Snr Consultant Engineer
B Ntshunsha	Chief Engineer
R Vajeth	Snr Manager (Lines)
D A Tunncliff	Snr Manager L&R (Acting)
B Branfield	Snr Consultant Engineer

#### **5. REVISIONS**

<b>Date</b>	<b>Rev.</b>	<b>Compiler</b>	<b>Remarks</b>
November 2013	0	J W Chetty	First Publication - No renewable energy generation plant setback specification in existence.
October 2018	1	JW Chetty	Modification to sub-section 3.2 to provide more clarity for application procedure.
June 2020	2	JW Chetty	Content within the guideline was re-worded to explain the benefits of mutual agreements between the applicants and ESKOM rather than the application being a legal obligation.

#### **6. DEVELOPMENT TEAM**

The following people were involved in the development of this document:

Jonathan Chetty (Mechanical Engineer)

Vivendhra Naidoo (Chief Engineer)

Dr Pieter Pretorius (Electrical Specialist)

John Geeringh (Snr Consultant Environ Mngt)

Bharat Haridass (Snr Consultant Engineer)

Riaz Vajeth (Snr Manager (Lines))

Bruce Ntshunsha (Chief Engineer)

David Tunncliff (Snr Manager L&R Acting)

**CONTROLLED DISCLOSURE**

	<p style="text-align: center;"><b>SCOT</b></p>	<p style="text-align: center;"><b>Technology</b></p>
---	--	--

Title: **Renewable Energy Generation Plant Setbacks to Eskom Infrastructure** Unique Identifier: **240-65559775**

Alternative Reference Number: **N/A**

Area of Applicability: **Power Line Engineering**



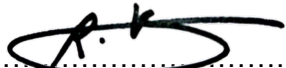
Documentation Type: **Guideline**

Revision: **2**

Total Pages: **9**

Next Review Date: **N/A**

Disclosure Classification: **CONTROLLED DISCLOSURE**

Compiled by	Approved by	Authorised by
		
<p><b>J W Chetty</b> Mechanical Engineer</p>	<p><b>B Ntshuntsha</b> Chief Engineer (Lines)</p>	<p><b>R A Vajeth</b> Snr Manager (Lines) and SCOT/SC/ Chairperson</p>
<p>Date: 15 / 09 / 2020</p>	<p>Date: 30/10/2020</p>	<p>Date: 30/10/2020</p>

## **CONTENTS**

	<b>Page</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>3</b>
<b>1. INTRODUCTION .....</b>	<b>4</b>
<b>2. SUPPORTING CLAUSES.....</b>	<b>4</b>
2.1 SCOPE .....	4
2.1.1 Purpose .....	5
2.1.2 Applicability.....	5
2.2 NORMATIVE/INFORMATIVE REFERENCES.....	5
2.2.1 Normative .....	5
2.2.2 Informative.....	5
2.3 DEFINITIONS.....	6
2.3.1 Disclosure Classification .....	6
2.4 ABBREVIATIONS.....	6
2.5 ROLES AND RESPONSIBILITIES.....	6
2.6 PROCESS FOR MONITORING .....	6
2.7 RELATED/SUPPORTING DOCUMENTS.....	6
<b>3. DOCUMENT CONTENT.....</b>	<b>6</b>
3.1 INTERNATIONAL SETBACK COMPARISON .....	6
3.2 ESKOM REQUIRED SETBACKS .....	7
<b>4. AUTHORISATION.....</b>	<b>9</b>
<b>5. REVISIONS .....</b>	<b>9</b>
<b>6. DEVELOPMENT TEAM .....</b>	<b>9</b>

## **FIGURES**

Figure 1: Horizontal Axis Wind Turbine.....	8
---	---

### **CONTROLLED DISCLOSURE**

When downloaded from the EDMS, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

## **EXECUTIVE SUMMARY**

In recent decades, the use of wind turbines, concentrated solar plants and photovoltaic plants have been on the increase as it serves as an abundant source of energy. This document specifies proposed setbacks for wind turbines and the reasons for these setbacks from infrastructure as well as setbacks for concentrated solar plants and photovoltaic plants. Setbacks for wind turbines employed in other countries were compared and a general setback to be used by Eskom was suggested for use with wind turbines and other renewable energy generation plants.

### **CONTROLLED DISCLOSURE**

When downloaded from the EDMS, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

## **1. INTRODUCTION**

During the last few decades, a large amount of wind turbines have been installed in wind farms to accommodate for the large demand of energy and depleting fossil fuels. Wind is one of the most abundant sources of renewable energy. Wind turbines harness the energy of this renewable resource for integration in electricity networks. The extraction of wind energy is its primary function and thus the aerodynamics of the wind turbine is important. There are many different types of wind turbines which will all exhibit different wind flow characteristics. The most common wind turbine used commercially is the Horizontal Axis Wind Turbine. Wind flow characteristics of this turbine are important to analyse as it may have an effect on surrounding infrastructure.

Wind turbines also cause large turbulence downwind that may affect existing infrastructure. Debris or parts of the turbine blade, in the case of a failure, may be tossed behind the turbine and may lead to damage of infrastructure in the wake path.

This document outlines the minimum distances that need to be introduced between a wind turbine and Eskom infrastructure to ensure that debris and / or turbulence would not negatively impact on the infrastructure and future expansion of infrastructure (lines and substation) as per the long term planning scenario.

Safety distances of wind turbines from other structures as implemented by other countries were also considered and the reasons for their selection were noted. All renewable energy developments are approved by The Department of Environmental Affairs, Forestry and Fisheries (DEFF) in terms of NEMA. The DEFF is aware of the setbacks guideline, however they cannot use it in terms of decision making since the setbacks document has no legal standing in SA and it would be outside of their mandate who have been advised to follow the guidelines herein.

Concentrated solar plants and photovoltaic plants setbacks away from substations were also to be considered to prevent restricting possible power line access routes to the substation and possible expansion of substations.

## **2. SUPPORTING CLAUSES**

### **2.1 SCOPE**

This document provides guidance on the safe distance that a wind turbine should be located from any Eskom power line or substation. Although it is not based on any legislative requirement, it is deemed important that Eskom's infrastructure and future network expansion planning is not impeded. The document specifies proposed setback distances for transmission lines (220 kV to 765 kV), distribution lines

**CONTROLLED DISCLOSURE**



(66 kV to 132 kV) and all Eskom substations. Proposed setbacks for concentrated solar plants and photovoltaic plants are also specified away from substations.

### **2.1.1 Purpose**

Setbacks for wind turbines and power lines / substations are required for various reasons. These include possible catastrophic failure of the turbine blade that may release fragments and which may be thrown onto nearby power lines that may result in damage with associated unplanned outages. Turbulence behind the turbine may affect helicopter flight during routine Eskom live line maintenance and inspections that may lead to safety risk of the aircraft / personnel. Concentrated solar plants and photovoltaic plants setback away from substations were required to prevent substations from being boxed in by these renewable generation plants limiting line route access to the substations and possible future substation expansion.

### **2.1.2 Applicability**

This document is applicable to the siting of all new and existing wind turbines, concentrated solar plants and photovoltaic plants near power lines and substations and in line of site between Eskom telecommunication infrastructure, including future Eskom renewable energy development.

## **2.2 NORMATIVE/INFORMATIVE REFERENCES**

### **2.2.1 Normative**

1. <http://www.envir.ee/orb.aw/class=file/action=preview/id=1170403/Hiiumaa+turbulence+impact+EMD.pdf>.
2. <http://www.energy.ca.gov/2005publications/CEC-500-2005-184/CEC-500-2005-184.PDF>
3. <http://www.adamscountywind.com/Revised%20Site/Windmills/Adams%20County%20Ordinance/Adams%20County%20Wind%20Ord.htm>
4. [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=PA11R&RE=1&EE=1](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=PA11R&RE=1&EE=1)
5. <http://www.wind-watch.org/documents/european-setbacks-minimum-distance-between-wind-turbines-and-habitations/>
6. <http://www.publications.parliament.uk/pa/ld201011/ldbills/017/11017.1-i.html>
7. [http://www.caw.ca/assets/pdf/Turbine\\_Safety\\_Report.pdf](http://www.caw.ca/assets/pdf/Turbine_Safety_Report.pdf)
8. Rogers J, Slegers N, Costello M. (2011) A method for defining wind turbine setback standards. Wind energy 10.1002/we.468

### **2.2.2 Informative**

None

## **CONTROLLED DISCLOSURE**

When downloaded from the EDMS, this document is uncontrolled and the responsibility rests with the user to ensure it is in line with the authorised version on the system.

## 2.3 DEFINITIONS

Definition	Description
Setback	The minimum distance between a wind turbine and boundary line/dwelling/road/infrastructure/servitude etc.
Flicker	Effect caused when rotating wind turbine blades periodically cast shadows
Tip Height	The total height of the wind turbine ie. Hub height plus half rotor diameter (see Figure1)

### 2.3.1 Disclosure Classification

**Controlled disclosure:** controlled disclosure to external parties (either enforced by law, or discretionary).

## 2.4 ABBREVIATIONS

Abbreviation	Description
None	

## 2.5 ROLES AND RESPONSIBILITIES

All parties involved in the positioning wind turbines, concentrated solar plants and photovoltaic plants near power lines/substations should endeavour to follow the setbacks outlined in this guideline.

## 2.6 PROCESS FOR MONITORING

Agreement by Eskom in writing on any encroachment of the setbacks distance should be requested via the Grid Access Unit. Eskom should ensure that every application for renewable energy (RE) developments are informed about the existence of the setbacks document early in the RE planning process to ensure maximum effect. This includes Eskom RE development.

## 2.7 RELATED/SUPPORTING DOCUMENTS

None

## 3. DOCUMENT CONTENT

### 3.1 INTERNATIONAL SETBACK COMPARISON

Wind Turbine setbacks employed by various countries were considered. It was found that setbacks were determined for various reasons that include noise, flicker, turbine blade failure and wind effects as well as

**CONTROLLED DISCLOSURE**

future network expansion planning. The distances (setbacks) varied based on these factors and were influenced by the type of infrastructure

Wind turbine setbacks varied for roads, power lines, dwellings, buildings and property and it was noted that the largest setbacks were employed for reasons of noise and flicker related issues [1-7]. Very few countries specified setbacks for power lines.

The literature survey [1-7], yielded information about studies and experiments were conducted to determine the distance that a broken fragment from a wind turbine might be thrown. Even though of low probability of hitting a power line [ $5.0 \times 10^{-5}$  <sup>[8]</sup>], the distances recorded were significant [750m <sup>[8]</sup>]

Wind turbines may also cause changes in wind patterns with turbulent effects behind the hub. These factors influence the wind turbine setbacks specified in this document.

Setbacks were thus introduced to prevent any damage to Eskom infrastructure and impedance to operation and future network expansion planning.

Renewable energy plant can also limit access into substations for power lines of all voltages. A setback distance should therefore be employed to prevent substations from being boxed in by these generation plants and preventing future network expansion. These setback distances are specified in this document.

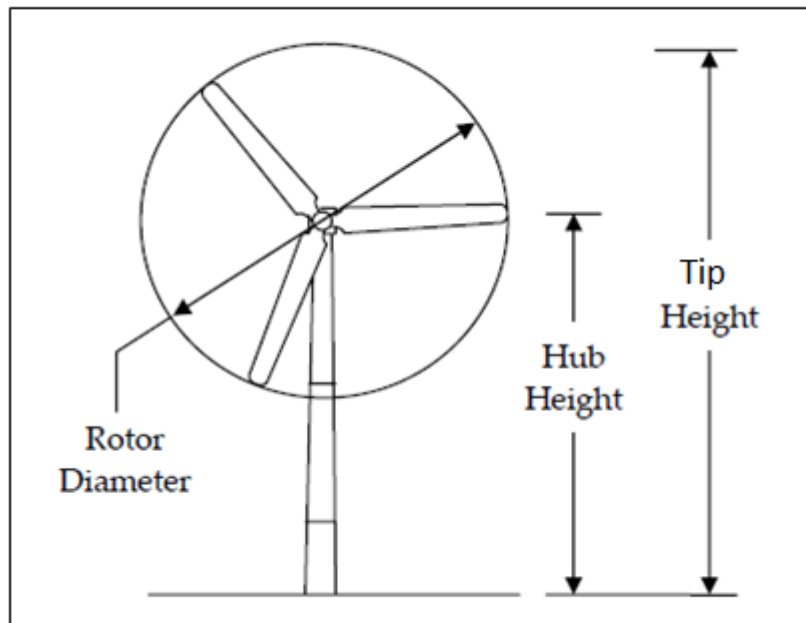
### **3.2 ESKOM RECOMMENDED SETBACKS**

Any renewable energy applicant should engage with Eskom to determine if their plant layout or positioning of turbines, CSP or PV infrastructure would encroach on the proposed setbacks provided for in this guideline and to ensure that their planning and Eskom's future expansion planning is taken into account. Eskom must inform all renewable energy developers, including Eskom RE, of the existence of the setbacks guideline early in the development process. Should there be an encroachment, a formal request should be sent to and accepted by Eskom in writing if any of the below mentioned setback distances are infringed upon:

- Eskom requests a setback distance of 3 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for transmission lines (220kV to 765kV) and Substations.
- Eskom requests a setback distance of 1 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for distribution lines (66 kV to 132 kV) and Substations.

**CONTROLLED DISCLOSURE**

- A written request should be sent to Eskom via the Grid Access Unit regarding any proposed wind turbine, concentrated solar plants and photovoltaic activity within a 5 km radius of a substation for Eskom to comment on.
- Where concentrated solar plants, photovoltaic structures, battery storage systems (BESS) and other renewable generation plants fall within a 2 km radius of the closest point of a transmission or distribution substation (66kV to 765kV), a written agreement with Eskom is recommended during the planning phase of such plant or structures to ensure Eskom's future planning is not impeded.
- Applicants should not position any wind turbine in the line of site between and two Eskom Radio Telecommunication masts. It should be proven that Eskom radio telecommunication systems (mainly microwave systems) will not be affected in any way by wind turbines due to the criticality of this infrastructure in terms of network operation. Eskom Telecommunications should be engaged on this matter.
- If the position or size of any turbine changes and subsequently infringes on any of the above stated setbacks, a request for relaxation must be sent through to Eskom as per the point mentioned above.



**Figure 1: Horizontal Axis Wind Turbine [2]**

**CONTROLLED DISCLOSURE**

#### **4. AUTHORISATION**

This document has been seen and accepted by:

<b>Name &amp; Surname</b>	<b>Designation</b>
V Naidoo	Chief Engineer
Dr P Pretorius	Electrical Specialist
J Geeringh	Snr Consultant Environ Mngt
B Haridass	Snr Consultant Engineer
B Ntshunsha	Chief Engineer
R Vajeth	Snr Manager (Lines)
D A Tunncliff	Snr Manager L&R (Acting)
B Branfield	Snr Consultant Engineer

#### **5. REVISIONS**

<b>Date</b>	<b>Rev.</b>	<b>Compiler</b>	<b>Remarks</b>
November 2013	0	J W Chetty	First Publication - No renewable energy generation plant setback specification in existence.
October 2018	1	JW Chetty	Modification to sub-section 3.2 to provide more clarity for application procedure.
June 2020	2	JW Chetty	Content within the guideline was re-worded to explain the benefits of mutual agreements between the applicants and ESKOM rather than the application being a legal obligation.

#### **6. DEVELOPMENT TEAM**

The following people were involved in the development of this document:

Jonathan Chetty (Mechanical Engineer)

Vivendhra Naidoo (Chief Engineer)

Dr Pieter Pretorius (Electrical Specialist)

John Geeringh (Snr Consultant Environ Mngt)

Bharat Haridass (Snr Consultant Engineer)

Riaz Vajeth (Snr Manager (Lines))

Bruce Ntshunsha (Chief Engineer)

David Tunncliff (Snr Manager L&R Acting)

**CONTROLLED DISCLOSURE**



# forestry, fisheries & the environment

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

Private Bag X 447· PRETORIA 0001· Environment House 473 Steve Biko Road, Arcadia,· PRETORIA

**DFFE Reference:** 14/12/16/3/3/2/2162

**Enquiries:** Ms Julliet Mahlangu

**Telephone:** (012) 399 9320 **E-mail:** [jmmahalngu@dff.gov.za](mailto:jmmahalngu@dff.gov.za)

Ms Jo-Anne Thomas  
Savannah Environmental (Pty) Ltd  
PO Box 148  
**SUNNINGHILL**  
2191

**Telephone Number:** 011 656 3237/3256/3251  
**Email Address:** [joanne@savannahsa.com](mailto:joanne@savannahsa.com)

## PER MAIL / E-MAIL

Dear Ms Thomas

### COMMENTS ON THE DRAFT SCOPING REPORT FOR THE PROPOSED UMBILA EMOYENI ELECTRIC GRID INFRASTRUCTURE, MPUMALANGA PROVINCE

The Application for Environmental Authorisation and Draft Scoping Report (SR) dated May 2022 and received by the Department on 13 May 2022, refer.

This letter serves to inform you that the following information must be included to the Final Scoping Report:

#### **(a) Layout & Sensitivity Maps**

The layout map submitted under appendix of the SR does not show the location of the proposed Grid infrastructure and only shows the project area to be covered by the proposed Umbila Emoyeni Renewable Energy Project. Appendix 2 (1) (c) (i) requires that the SR must include a plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken. You are therefore requested to provide a layout map which indicates the following:

- location of the proposed grid infrastructure
- All supporting onsite infrastructure e.g. roads (existing and proposed);
- The location of sensitive environmental features on site e.g. CBAs, heritage sites, wetlands, drainage lines etc. that will be affected;
- Buffer areas; and
- All “no-go” areas.
- The above map must be overlain with a sensitivity map and a cumulative map which shows neighbouring renewable energy developments and existing grid infrastructure.
- Google maps will not be accepted.

#### **(b) Public Participation Process**

- Please ensure that all issues raised and comments received during the circulation of the SR from registered I&APs and organs of state which have jurisdiction (including this Department’s Biodiversity

Section) in respect of the proposed activity are adequately addressed in the Final SR. Proof of correspondence with the various stakeholders must be included in the Final SR. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments. The Public Participation Process must be conducted in terms of Regulation 39, 40, 41, 42, 43 & 44 of the EIA Regulations 2014, as amended.

- A comments and response trail report (C&R) must be submitted with the final SR. The C&R report must incorporate all historical comments for this development. The C&R report must be a separate document from the main report and the format must be in the table format as indicated in Annexure 1 of this comments letter. Please refrain from summarising comments made by I&APs. All comments from I&APs must be copied verbatim and responded to clearly. Please note that a response such as “Noted” is not regarded as an adequate response to I&AP’s comments.
- The final SR must provide evidence that all identified and relevant competent authorities have been given an opportunity to comment on the proposed development; particularly the South African Astronomical Observatory, the Mpumalanga Environmental Department, the District and Local Municipalities.

### **(c) Specialist Assessments**

- Specialist studies to be conducted must provide a detailed description of their methodology, as well as indicate the locations and descriptions of turbine positions, and all other associated infrastructures that they have assessed and are recommending for authorisations.
- The specialist studies must also provide a detailed description of all limitations to their studies. All specialist studies must be conducted in the right season and providing that as a limitation, will not be accepted.
- Should the appointed specialists specify contradicting recommendations, the EAP must clearly indicate the most reasonable recommendation and substantiate this with defensible reasons; and where necessary, include further expertise advice.
- It is further brought to your attention that Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation, which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. “the Protocols”), and in Government Notice No. 1150 of 30 October 2020 (i.e. protocols for terrestrial plant and animal species), have come into effect. **Please note that specialist assessments must be conducted in accordance with these protocols.**

### **(d) Cumulative Assessment**

- Should there be any other similar projects within a 30km radius of the proposed development site, the cumulative impact assessment for all identified and assessed impacts must be refined to indicate the following:
  - Identified cumulative impacts must be clearly defined, and where possible the size of the identified impact must be quantified and indicated, i.e. hectares of cumulatively transformed land.
  - Detailed process flow and proof must be provided, to indicate how the specialist’s recommendations, mitigation measures and conclusions from the various similar developments in the area were taken into consideration in the assessment of cumulative impacts and when the conclusion and mitigation measures were drafted for this project.
  - The cumulative impacts significance rating must also inform the need and desirability of the proposed development.
  - A cumulative impact environmental statement on whether the proposed development must proceed.

**General**

You are further reminded to comply with Regulation 21(1) of the NEMA EIA Regulations 2014, as amended, which states that:

*“If S&EIR must be applied to an application, the applicant must, within 44 days of receipt of the application by the competent authority, submit to the competent authority a scoping report which has been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority”*

You are further reminded that the final SR to be submitted to this Department must comply with all the requirements in terms of the scope of assessment and content of Scoping reports in accordance with Appendix 2 and Regulation 21(1) of the EIA Regulations 2014, as amended.

Further note that in terms of Regulation 45 of the EIA Regulations 2014, as amended, this application will lapse if the applicant fails to meet any of the timeframes prescribed in terms of these Regulations, unless an extension has been granted in terms of Regulation 3(7).

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No. 107 of 1998, as amended, that no activity may commence prior to an Environmental Authorisation being granted by the Department.

Yours sincerely



**Milicent Solomons**  
**Acting Chief Director: Integrated Environmental Authorisations**  
**Department of Forestry, Fisheries and the Environment**  
**Letter signed by: Dr Danie Smit**  
**Designation: Deputy Director: National Infrastructure Projects**  
**Date: 08/06/2022**

cc:	Mr Peter Carl Venn	Emoyeni Renewable Energy Farm	Email: <a href="mailto:Peter.venn@windlab.com">Peter.venn@windlab.com</a>
-----	--------------------	-------------------------------	---





Our Ref:



an agency of the  
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za  
South African Heritage Resources Agency | 111 Harrington Street | Cape Town  
P.O. Box 4637 | Cape Town | 8001  
www.sahra.org.za

Enquiries: Natasha Higgitt  
Tel: 021 462 4502  
Email: nhiggitt@sahra.org.za  
CaseID: 18578

Date: Friday June 10, 2022  
Page No: 1

## Interim Comment

**In terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999)**

Attention: Savannah Environmental (Pty) Ltd

PO Box 148  
Sunninghill  
2157

**Emoyeni Renewable Energy Farm (Pty) Ltd is proposing the development of renewable energy facilities, collectively known as the Umbbilla Emoyeni Renewable Energy Facility, consisting of a commercial wind farm, solar PV facility, and associated grid infrastructure, including a battery energy storage system, located approximately 6km southeast of Bethal in the Mpumalanga Province of South Africa. A preferred project focus area with an extent of 27 819ha been identified by Emoyeni Renewable Energy Farm (Pty) Ltd as a technically suitable area for the development of the Umbbilla Emoyeni Renewable Energy Farm with a contracted capacity of up to 666MW of wind energy and 150MW of solar energy. This layout, and project capacity, will reduce as the EIA and scoping process identifies environmental constraints that exclude areas for development. The project will include associated grid infrastructure that is required to connect the Umbbilla Emoyeni Renewable Energy Facility to the national grid. The grid connection solution entails establishing a 400/132 kV MTS, between Camden and SOL Substations, which will be looped in and out of the existing Camden-Sol 400 kV line<sup>1</sup>. The location of the MTS will be refined through an ongoing process of communication with Eskom Planning but will be within close proximity to the 400kV line in order to cut into this line.**

Savannah Environmental (Pty) Ltd has been appointed by Emoyeni Renewable Energy Farm (Pty) Ltd to conduct an Environmental Authorisation (EA) Application for the proposed Umbbilla Emoyeni Electrical Grid Infrastructure, near Bethal, Mpumalanga Province.

A draft Scoping Report (DSR) has been submitted in terms of the National Environmental Management Act, 1998 (NEMA) and the 2017 NEMA Environmental Impact Assessment (EIA) Regulations. The proposed development will include the construction of a new 400/132kV main transmission substation (MTS), two 400kv loop-in loop-out powerlines to the existing Camden-Sol 400kV transmission line, on-site switching stations at each renewable energy facility, 132kV powerlines from the switching stations to the new MTS and access roads.

Our Ref:



an agency of the  
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za  
South African Heritage Resources Agency | 111 Harrington Street | Cape Town  
P.O. Box 4637 | Cape Town | 8001  
www.sahra.org.za

Enquiries: Natasha Higgitt  
Tel: 021 462 4502  
Email: nhiggitt@sahra.org.za  
CaseID: 18578

Date: Friday June 10, 2022  
Page No: 2

CTS Heritage has been appointed to provide heritage specialist input as required by section 24(4)b(iii) of NEMA and section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA).

*Lavin, J. 2022. Desktop Heritage Screening Assessment for the Umbila Emoyeni Renewable Energy Wind and Solar PV Facilities, Mpumalanga Province.*

The desktop study noted that heritage resources such as Stone Age resources, Late Iron Age sites, burial grounds and graves, historical werfs and Anglo-Boer war remains may be located within the proposed development. The proposed development footprint is located in areas of moderate and very high palaeontological sensitivity, underlain by the Vryheid formation.

The report recommends that further field assessment of the impact to heritage including palaeontological resources must be undertaken.

### **Interim Comment**

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit notes the pending assessment of the impact to heritage resources. The HIA must comply with section 38(3) of the NHRA as required by section 38(8) of the NHRA. The HIA must include an archaeological and palaeontological component.

The archaeological component of the HIA must be conducted by a qualified archaeologist and must comply with the SAHRA 2007 Minimum Standards: Archaeological and Palaeontological Components of Impact Assessment Reports.

The proposed development footprint is located in areas of moderate and very high sensitivity as per the SAHRIS PalaeoSensitivity Map. Therefore, a field-based Palaeontological Impact Assessment must be undertaken by a qualified palaeontologist. The report must comply with the 2012 Minimum Standards: Palaeontological Components of Heritage Impact Assessments.

Any other heritage resources as defined in section 3 of the NHRA that may be impacted, such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewsapes must also be assessed.

Further comments will be issued upon receipt of the draft EIA documents inclusive of appendices and the above pending heritage specialist reports.

Our Ref:



an agency of the  
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: [info@sahra.org.za](mailto:info@sahra.org.za)  
South African Heritage Resources Agency | 111 Harrington Street | Cape Town  
P.O. Box 4637 | Cape Town | 8001  
[www.sahra.org.za](http://www.sahra.org.za)

Enquiries: Natasha Higgitt  
Tel: 021 462 4502  
Email: [nhiggitt@sahra.org.za](mailto:nhiggitt@sahra.org.za)  
CaseID: 18578

Date: Friday June 10, 2022  
Page No: 3

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

---

Natasha Higgitt  
Heritage Officer  
South African Heritage Resources Agency

---

Phillip Hine  
Manager: Archaeology, Palaeontology and Meteorites Unit  
South African Heritage Resources Agency

**ADMIN:**

Direct URL to case: <https://sahris.sahra.org.za/node/597544>