
**PROPOSED CONSTRUCTION OF THE KARREEBOSCH WIND FARM AND ASSOCIATED INFRASTRUCTURE
COMMENTS AND RESPONSES REPORT**

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COMMENTS RECEIVED: EIA PHASE

No.	Issue	Issue Raised By	Response
LATE COMMENTS RECEIVED ON THE SCOPING REPORT INCLUDED IN THE EIA REPORT			
1.	<p>Your application of 20 March 2015 has reference.</p> <p>The Western Cape Department of Agriculture has no objection to Phase II of the Roggeveld Wind Farm Project. Please ensure that the farmers are timeously informed of all processes and impacts. All degradation factors must be fully monitored and managed.</p> <p>Please take note:</p> <ul style="list-style-type: none"> » That this is only a recommendation to the relevant deciding Authorities in terms of the Subdivision of Agricultural Land Act 70 of 1970, Conservation of Agricultural Resources Act no 43 of 1983 and the Land Use Planning Ordinance 15 of 1985. The applicant must provide the local government and the National Department of Agriculture, Fisheries and Forestry with copies of the application. » Kindly quote the above-mentioned reference number in any future correspondence in respect of the application. » The Department reserves the right to revise initial comments and request further information based on the information received. 	<p>Cor Van Der Walt Land Use Management and A.S Roux Director: Sustainable Resource Management</p> <p>Western Cape Department of Agriculture</p> <p>Letter: 2015-05-05</p>	<p>Farmers impacted by the project have been informed of the Environmental Impact Assessment (EIA) process in terms of Chapter 6 of the EIA Regulations, 2014.</p> <p>Copies of the application and the Scoping report were sent to local and provincial government departments and the National Department of Agriculture, Fisheries and Forestry (DAFF). Copies of the EIA report were circulated to relevant local and provincial government departments and the National DAFF.</p> <p>Copies of the applications pertaining to the Subdivision of Agricultural Land Act 70 of 1970 and Land Use Planning will be sent to the National Department of Agriculture, Fisheries and Forestry, respectively. The applications will be prepared and submitted after a decision been issued for this EIA application.</p>
2.	<p>The abovementioned proposal and the draft Scoping Report ("DSR") received by this Directorate on 28 March 2015 refer.</p> <p>This letter serves as acknowledgment of receipt of the aforementioned information by this Department and to notify you of whom the case officer is for the commenting</p>	<p>Jessica Christie Development Management</p> <p>Western Cape Department of Environmental</p>	<p>A hydrological study assessing impacts on water resources has been completed and included as Appendix H (aquatic study).</p> <p>Impacts associated with soil erosion are included in Appendix G (soils study)</p>

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	<p>authority.</p> <p>Based on information contained in the DSR, this Directorate has the following notes and considerations that need to be taken into account with regard to the site layout and what impact this will have on the receiving environment and what limitations the receiving environment will have on the proposed layout of the development:</p> <p>Biophysical Impacts:</p> <ul style="list-style-type: none"> » Potential impacts on surface water resources that occur in close proximity to the site and possible riparian zones. » Potential impacts of increased surface water run-off (viz. increased soil erosion) associated with the establishment of hard surfaces and vegetation clearing (mainly during the construction phase); » Potential impacts on ground and surface water quality due to hydrocarbon spillages from vehicles during the construction phase of the development; » Potential impacts on soils due to hydrocarbon spillages from vehicles during the construction and operational phase of the development; » Destruction of flora within the proposed area stemming from construction activities such as vegetation clearing and topsoil stripping within the site; » The disruption of ecological processes and loss of landscape connectivity must be addressed. » Faunal displacement mainly during the construction phase of the project; and adverse impacts on avifauna 	<p>Affairs and Development Planning</p> <p>Letter: 2015-05-15</p>	<p>Impacts on ground water are assess in Appendix D (the ecological assessment)</p> <p>All potential impacts on ecology, flora and fauna are also assessed in the ecological assessment.</p> <p>It is noted that reference is made to a solar facility by DEADP. This is assumed to be an error and is considered in light of impacts relating to a wind farm.</p> <p>Impacts regarding noise and dust are addressed in Appendix I (NIA) and Appendix J (VIA) respectively</p> <p>Social impacts are assessed in Appendix L. A summary of all findings and mitigation measures can be found in chapter 8 of the EIA report.</p> <p>Feasible power line corridors alternatives have been included and assessed as alternatives in the EIA report. There are four possible power line routes that were assessed. The number of alternate route options assessed is considered acceptable by the EAP, no further power line route options are to be assessed.</p> <p>It is noted that reference is made to a solar facility by DEADP. This is assumed to be an error and is considered in light of impacts relating to a wind farm.</p>

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	<p>as a result of potential habitat loss, additional overhead power lines and the potential reflections of the solar panels (during the operation phase);</p> <ul style="list-style-type: none"> » Potential impacts of the development on soil and agricultural potential of the site » Potential increase in dust and noise generation during the construction phase. <p>Socio-Economic:</p> <ul style="list-style-type: none"> » Job creation during the construction and operational phases of the proposed project; » Develop education and training initiatives to enable the youth to develop skills especially in Science and Technology. <p>Alternatives:</p> <ul style="list-style-type: none"> » It is noted that two options (alternatives) have been described in the Scoping report regarding the routing of the 132kV transmission lines. It is however requested that further alternative route alignment be considered and presented based on the biophysical attributes and to avoid impacts that are listed above. 		
ORGANS OF STATE ACKNOWLEDGMENTS RECEIVED AND REQUESTS FOR INFORMATION			
3.	Please can you send through a locality sketch and/or farm descriptions of the proposed wind farm.	Toni Parkes Land Development Technologist Professional Land Surveyor Land Development Eskom	A locality map was sent to Toni Parkes via email on 18 August 2015. No further comments were received from Eskom.

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		Distribution (Western Operating Unit) Email: 18-08-2015	
4.	This is an acknowledgment of receipt of the complete hardcopy with CD of the draft EIAR. Due to staff capacity constraints comment could not be provided on the Scoping Report unfortunately. Another post has just been filled so capacity is better now, and I will ensure to provide comment on this submission.	Benjamin Walton Scientist: Land Use advice Central Karoo & Eden District Municipalities CapeNature Email: 27-08-2015	Acknowledgment noted, no further comments were received from CapeNature at the time of submitting the final EIAR to the DEA.
5.	Please note that we have received the notice regarding the availability of a draft EIA Report which is ready for review. It must be noted that such report has not been made available to this Department for comment and consideration and as such we will be awaiting for a copy of the report in order to comment on the proposed development and to see whether such development does trigger any requirements, in terms of the National Water Act, Act 36 of 1998.	Sipiwo Xongo Department of Water and Sanitation Email: 28-08-2015	A copy of the EIAR was couriered to Mr Xongo on 7 September 2015. No further comments were received at the time of submitting the Final EIAR to the DEA.
6.	The Department confirms having received the EIA Report for environmental authorisation of the above mentioned project on 17 th August 2015. As required in terms of the Environmental Impact Assessment Regulations, 2014. The application has been assigned the reference number	Ms L Tools- Bernado EAI: Administrator Northern Cape	Acknowledgment noted. Ms O. Ndzumo details were added to the database of I&APs for the project.

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	NC/NAT/NAM/KAR/KAR1/2015. Kindly quote this reference number in any future correspondence in respect of the application. Please note that the responsible officer is Ms O Ndzumo.	Department of Environment and Nature Conservation Letter: 28-08-2014	
7.	HWC acknowledges receipt of the Draft EIAR for Kareebosch Wind Farm. Please note that this project falls outside of our jurisdiction and located in the Northern Cape Province. Please enquire from SAHRA to receive a comment or response on the above-mentioned matter.	Andrew September Heritage Officer Heritage Western Cape Email: 4-09-2015	It is noted that the project falls outside the jurisdiction of Heritage Western Cape, apart from powerlines which traverse through some Western Cape properties.
PUBLIC PARTICIPATION AND I&AP REGISTRATIONS			
8.	I am interested in the attached article / tender. How do I go about, where do I get the document?	Musturah Parker I&AP Email: 18-08-2015	Savannah Environmental has been appointed to undertake the Environmental Impact Assessment (EIA) process for the proposed Kareebosch Wind Farm project. The project will be bid into the Department of Energy's Independent Power Producers Procurement Programme (REIPPPP) in 2016. The project will only be constructed if the project is awarded Preferred Bidder Status by the Department of Energy. The procurement procedures will be announced by the developer at a later stage once it is known whether the project will be constructed. Mr Parker's contact details were added to the database of I&APs for the project.
AUTHORITY COMMENTS ON THE EIA REPORT			
9.	The draft Environmental Impact Assessment report (EIAR)	Sabelo Malaza	i. All listed activities are linked to specific infrastructure

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	<p>dated August 2015 and received by this Department on 17 August 2015, and the acknowledgment letter of the EIAR issued by this Department on 19 August 2015 refer.</p> <p>This Department has the following comments on the abovementioned application:</p> <ul style="list-style-type: none"> i. Please ensure that all relevant listed activities are applied for, are specific and that it can be linked to the development activity or infrastructure as described in the project description. ii. 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 iii. Please ensure that all issues raised and comments received during the circulation of the EIAR 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 and included in the Final EIAR. Should you be unable to obtain comments, proof should be submitted to the Department of 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. iv. Please ensure that layout alternatives for the wind 	<p>Chief Director: Integrated Environmental Authorisations</p> <p>Department of Environmental Affairs</p> <p>Letter: 8-09-2015</p>	<p>in; see Chapter 5 Section 5.1 & table 5.1</p> <ul style="list-style-type: none"> ii. An amended application form was submitted previously to DEA with Draft EIR. iii. Comments and response report included in Appendix C. Proof of correspondence and attempts made also included in Appendix C. iv. "This is assessed in Chapter 8. Bird & bat flight paths are specifically addressed in section 8.2 and 8.3. A statement is also made from the bat specialist in this regard in section 3.2 of Appendix F (bat assessment). Layout <ul style="list-style-type: none"> a. CBAs are covered in the Ecology specialist report (Appendix D), flight paths and exclusion zones are covered by the Avifauna specialist report (Appendix E1&2). In addition, certain turbine positions and associated infrastructure was moved or removed from the layout as a direct result of the ecology, bat and bird recommendations, see chapter 10 for details (table 10.4)" v. Recommendations provided by specialist reports were used to inform the layout. Refer to chapter 10. vi. It should be noted that the areas being referenced by the DEA are not strictly offset areas but are actually compensation areas (refer to Appendix D2 – comment from the ecologist on these areas). These areas are discussed in sections 8.1, specifically 8.1.3.

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	<p>facility away from all areas considered high sensitive areas and bird and bat flight paths are assessed and presented in the final EIAr. If no practical or feasible alternatives exist, written proof of such an assessment and motivation as to why it is not practical or feasible must be submitted with the final EIAr.</p> <p>v. Also note that recommendations provided by specialist reports must be considered and used to inform the layout alternatives.</p> <p>vi. Issues surrounding the possibility of an offset area is highlighted in the draft EIAr must be adequately addressed and presented in the final EIAr. The provincial authorities must be considered and used to inform the layout alternatives.</p> <p>vii. The EIAr must provide the technical details for the proposed facility in a table format as well as their description and/or dimensions. A sample of the minimum information required is listed under point 2 of the EIA information required for Wind Energy Facilities as requested in the acceptance of SR.</p> <p>viii. You are further reminded that the final EIAr to be submitted to this Department must comply with all the requirements in terms of the scope of assessment and content of the EIAr in accordance with Appendix 3 of the EIA regulations, 2014.</p> <p>ix. Further note that in terms of Regulation 45 of the EIA Regulations 2014, 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).</p>		<p>Figure 8.3 shows these areas. Layout has been designed to avoid these areas. Refer to Appendix D2 for a letter drafted by the ecologist regarding this mitigation.</p> <p>vii. Table included in chapter 4, Section 4.2.2 of FEIR report</p> <p>viii. Refer to Appendix 3 checklist included in FEIR</p> <p>ix. Comment noted.</p> <p>Site inspection is to be coordinated with the Department, no date is set at this stage.</p>

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	<p>In addition to the above, this Department requests that a site inspection be undertaken prior to or upon receipt of the final EIAR for review and consideration.</p> <p>You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 f 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.</p>		
ECOLOGICAL IMPACTS			
10.	<p>Based on the information contained in the Draft Environmental Impact Report, this Directorate has the following comments and considerations that need to be taken into account with regard to the site layout and what impact this will have on the receiving environment and what limitations the receiving environment will have on the proposed layout of the development:</p> <p>This Directorate supports the recommendations and conclusions of the various specialists report subject to the following:</p> <ol style="list-style-type: none"> 1) This Directorate supports the recommendations made by the Ecological Specialist and agrees that the three turbines in the areas that are considered very high sensitivity must be removed from the layout. 2) Furthermore, this Directorate is of the opinion that the additional 20 turbines located within the ridgeline that is considered highly sensitive must also be relocated or alternatively, be removed from the layout. Please take note of this 	<p>Jessica Christie Development Management (Region 3)</p> <p>Western Cape Department of Environmental Affairs and Development Planning</p> <p>Letter: 14-09-2015</p>	<ol style="list-style-type: none"> 1) Noted, these turbines have been removed from the layout as seen in chapter 10 of the EIA report. 2) The identified high sensitivity areas are not considered to be absolute no-go areas and the specialist has conceded that the project would be fatally flawed if they are sited in these areas. Due to the large number of turbines located within these areas as well as the linear nature of the ridges, it is not possible to relocate all of these turbines and dropping them from the layout would render the development uneconomical. Due to the need for a high wind resource, turbines have to be positioned on high ridges so that the wind resource can be maximised. This is especially critical as the DoE's bidding process is tariff competitive and therefore depends on excellent wind resource on high ridges. <p>Therefore, it is important to seek non-traditional mitigation options which could reduce the negative impact of the development on these ridges.</p> <p>The options for avoidance for these turbines are limited</p>

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	<p>Department's <i>"Guideline for the Management of Development on Mountains, Hills and Ridges of the Western Cape"</i>.</p> <p>3) In terms of mitigation hierarchy, biodiversity offsets are to be used as "the last resort" and this Directorate is of the opinion that offsets are not appropriate for this development. The assessment of alternative sites must be fully exhausted if to allow the consideration of having biodiversity offsets and must be included in the EIA process from inception to determine the feasibility thereof.</p>		<p>as there are no alternative locations outside of the sensitive areas available. Development of these areas would generate a high cumulative impact on the ridgeline habitat that cannot easily be mitigated through traditional avoidance measures. Although mitigating this impact represents a serious challenge for the development, a viable option for reducing the overall impact of the development on these areas is detailed below.</p> <p>Although off-site mitigation or offsets can be invoked to offset the impact of development in situations where mitigation is difficult or not possible, offsets are difficult to implement and manage. This mitigation measure is not intended to be a offset but rather a compensation/reduction of impacts within the same habitat from a different impact source. This process addresses the local cumulative impact concern. Furthermore, offsets are not appropriate in situations where the receiving environment is still largely intact and there are still extensive tracts of non-threatened habitat available. As a result, on-site mitigation is viewed as the most practical and appropriate option for the current situation. As there is little scope for avoidance due to the limited extent of the ridges, improving the quality of the remaining habitat is a potential mitigation mechanism. The extent of the demarcated area on the central ridge is approximately 3000 ha and the protection of this area from grazing would significantly improve the quality of the remaining habitat and is deemed to be the most suitable mitigation measure to address the likely impacts of the development on the ridgeline habitats. As this</p>

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			<p>requires the co-operation of the landowners, it may not be possible to secure the entire area and a minimum of 1300 ha is identified as a minimum area required to counter the impact of the development. As these areas are currently within much larger paddocks, it may be necessary to fence some of these areas off in order to retain the use of the lower-lying areas for livestock grazing. As it would not be possible to fence off the areas as demarcated, the actual area set aside would need to be larger than required as it would include areas outside of the demarcated area.</p> <p>The rationale for setting these areas aside from grazing is that the ridgelines are currently grazed by livestock and this has a visible impact on the vegetation condition of these areas and also introduces alien species in sheep wool and dung. Setting these areas aside from grazing would release the vegetation from grazing pressure and improve the quality of the habitat for fauna as well as grazing-sensitive plant species. Although grazing is an important disturbance that serves to maintain the diversity of plant communities, there are more than enough indigenous grazing animals in these areas to perform this function and the overall impact of livestock is negative. With the implementation of the above grazing protection mitigation area as, the impacts on listed flora and the cumulative impact on the ridgeline habitat would be reduced to an acceptable level.</p> <p>3) The site selection and motivation for why alternative sites were not included in the EIA is provided in chapter 2 of the EIA report. This chapter also examines the need and</p>

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			<p>desirability of the project at the preferred site location. Wind monitoring has been undertaken using 6 x 60m wind monitoring masts in order to confirm the wind resource on the site, and ultimately inform the layout of the facility well as the turbine selection process. The site displays characteristics which, in the opinion of the developer, make this project site desirable for Karreebosch Wind energy facility. These characteristics are also unpacked in chapter 2 of the EIA report.</p>
WATER USES AND WATER USE LICENSE			
11.	<p>The Department of Water and Sanitation (DWS) hereby acknowledges receipt of your Draft Environmental Impact Assessment Process (Draft Scoping Report) for the proposed construction of the Karreebosch Wind Farm and associated infrastructure approximately 30km North of Matjiesfontein, and approximately 40km South of Sutherland, Northern Cape, that is on quaternary catchment D51A.</p> <p>The water user / developer is expected to assess all the potential water uses (associated with the development) as defined under section 21 of the National Water Act, 1998 (Act 36 of 1998). All identified water uses will need to be authorized in terms of section 40 of the National Water Act unless such a water use is permissible under section 22 of the Act.</p> <p>Our assessment indicates that quaternary drainage region D51A is excluded from General Authorisations for taking of water from a ground water resources (as extended under Notice 837 in the Government Gazette of 23 September</p>	<p>MC Cebekhulu Northern Cape Operations – Orange Proto- CMA</p> <p>Letter: 2015-06-09</p>	<p>The department’s comments regarding water use and are noted.</p> <p>All activities that may impact on water resources have been assessed in the EIA report. A separate hydrological study (Appendix H) was also conducted as part of the EIA-phase specialist studies. All relevant mitigation measures in this regard are included in the EMPr document (Appendix M). The EMPr includes detail on stormwater and erosion control, erosion prevention management plan in Appendix B of EMPr.</p> <p>Please also note that the project does <i>not</i> fall within quaternary drainage region D51A but instead falls within E23A and J11D.</p>

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	<p>2010). Kindly note that energy developments / projects are not part of small industrial users and as such cannot be entitled to water use allowance set aside for small industrial users and as such cannot be entitled to the water use allowance set aside for small industrial users as determined by the General Authorisation.</p> <p>Activities that might have an impact on water resources such as (i) storm water management (ii) waste management (iii) sanitation (iv) sedimentation and erosion (where it is not defined as a water use (v) storage of hazardous substances, should be managed and mitigated as stated in the EMP of the Proposed Project. The Department will be content with the inclusion of these proposed management and mitigation measures in the environmental management plan for the project. Kindly note that any deviations of these measures should be communicated to DWS in writing.</p> <p>Due to the high number of renewable energy projects that are taking part in the Department of Energy (DOE) bidding process, the Department (DWS) has resolved to only processing applications for water use authorisations received from developers who have attained preferred bidder status. Developers who wish to submit applications for water use authorisations may however proceed to do so, with the understanding that their applications will be processed as soon as we have confirmation of their status with the DOE. Attached to this letter is annexure 1 that details information, which must be submitted as part of the application for water use authorisation.</p>		

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	<p>As part of the requirements for the DOE proposals, The DWS will issue non-binding letters to water users / bidders as required under clauses 2.4.4.1.2 and 2.4.4.1.3 of Part B: Qualification Criteria of Tender Number DOE/001/2011/2012. The information required by the Department in order to issue the non-binding letters is contained on the attached annexure 2 (notes on the confirmation to be provided by DWS on water availability on request from bidders in the REFIT programme).</p>		
12.	<p>The Department has the following comments:</p> <ul style="list-style-type: none"> » This letter has reference to your Draft Environmental Impact Assessment Report (EIA) with reference number (DEA) 12/12/20/1988/2¹ dated December 2014 submitted to this office for comments on the above activity. » No operation is allowed within 100m of a water resource or 1:100 year flood line whichever is the greatest. If the proposed activity falls within these criteria, you need to apply for authorisation to ensure that the riparian ecological status of the water resource will not be negatively impacted. » Please note that any development within 500m from the boundary of any wetland requires a water use license according to this Department's regulations. » No water may be abstracted from any surface water 	<p>Mr M J. Murovhi Deputy Director: Olifants Doorn and Asanda Mnyaka Department of Water and Sanitation Letter: 2015-07-28</p>	<p>Comments noted. A surface water hydrological impact assessment has also been completed as part of this EIA report (see Appendix H).</p> <p>Additional licences in terms of water use will be applied for if and when required.</p> <p>Please also note that the reference number for the project has now changed, and a new application has been applied for under the 2014 regulations (DEA reference 14/12/16/3/3/2/807). The old reference number (12/12/20/1988/2) is no longer applicable and that file has been closed by DEA.</p>

¹ The EIA application reference number DEA 12/12/20/1988/2 relates to the previous EIA process undertaken for the broader Roggeveld Wind Farm Project. The EIA application for the Karreebosch Wind Farm (Phase 2 of the Roggeveld Wind Farm) has been registered with the DEA under application reference number: 14/12/16/3/3/2/807.

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	<p>body and groundwater unless authorised by this Department.</p> <ul style="list-style-type: none"> » No surface, ground or storm water may be polluted as a result of any activities on the site. » Where solid waste disposal is to take place on site, ensure that only non-toxic material which has no risk of polluting the groundwater, are buried in designated approved areas at acceptable depths below ground level. » The rehabilitation of the site must ensure that the final conditions of the site is environmentally acceptable and that there will be no adverse long term effects on the surrounding environment especially the water resources. » All requirements as stipulated in the National Water (NWA) 1998 (Act No. 36 of 1998) must be adhered to. » The Department reserves the right to amend and / or add to the comments made above in light of subsequent information received. 		
IMPACTS OF INFORMATION COMMUNICATIONS TECHNOLOGY			
13.	<p>The above matter refers.</p> <p>We wish to advised that Sentech SOC Ltd ("Sentech") has received an application from G7 Renewable Energies (Pty) Ltd ("the applicant"), which plans to construct one Wind Turbine Generator (WTG) farm as described in annexure 1 hereto, at the Karreebosch Wind Turbine Generator (WTG)</p>	<p>Johan Koegelenberg Manager: GIS & Measurements Network Planning and Markus Venter</p>	<p>The approval letter and conditions of approval received from Sentech is acknowledged.</p>

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	<p>farm, hereafter referred to as "the site", in accordance with the provisions of Section 29(1) (b) of the Electronic Communications Act no. 36 of 2005 ("the Act").</p> <p>Sentech has analysed the information provided by the applicant in accordance with the provisions of Section 29(1) (c) of the Act, and specifically the location of the site and confirm that there would be limited degradation of Sentech transmitted Terrestrial UHF/VHF Television (TV), and/or FM radio services in the planned deployment area, as indicated in annexure 1.</p> <p>Sentech hereby grants the applicant approval to proceed with the construction of its energy project at the site subject to the following terms and conditions:</p> <ul style="list-style-type: none"> » Due to the fact that the findings made by Sentech are based on simulations and calculated on a theoretical model, using available data and assumptions where no data was provided, such findings may change at any time should any further information be made available to or come to Sentech's attention; » At any time after the approval, and during construction of the project, should any radio transmissions be affected by construction activities, Sentech will give the applicant 7 (seven) day's written notice to remove the cause of the interference. » Under no circumstances whatsoever will Sentech be liable to the applicant or any third party for any damages, loss or costs, of any nature whatsoever or howsoever arising, suffered as a consequence of the aforementioned request and the applicant fully indemnify Sentech; 	<p>Head: Network Planning</p> <p>Sentech</p> <p>Letter: 2015-07-21</p>	

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	<p>» Sentech prior written consent must first be obtained before any construction activities underneath, along, across or within close proximity to Sentech infrastructure can begin and shall comply with the applicable Sentech guidelines relating to clearances between equipment and the proposed construction activity. Furthermore, the applicant shall clearly adhere to, and ensure all installations shall be fully compliant with the Occupational Health and Safety Act No. 85 of 1993.</p> <p>This approval is further subject to the submitted applications boundaries or structures listed in annexure 1 hereto, the materials used, as well as the size and positioning of structures declared in the application. If the Services of Sentech or its clients is in any way compromised by a deviation or change of this submission, the applicant or any other third party of any damages, loss or costs, of any nature whatsoever or howsoever arising, suffered as a consequence.</p> <p>This approval is valid and applicable between Sentech and the applicant only. It does not include any approval for any of the other electronic communication operator which have current co-sharing agreements to utilise Sentech's radio masts.</p> <p>Any additions, amendments, additional structures to be built, or any change to the energy farm boundaries, will require a new application to Sentech.</p> <p>The validity of this approval is for the period of 12</p>		

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	<p>(twelve) months. If construction of the designed project commences after the expiry of the twelve month period, the application must be e-submitted to Sentech for further evaluation and approval.</p> <p>This approval does not imply any rights of access whatsoever to Sentech property or use of Sentech’s access roads for construction or maintenance of the design project. Separate permission must be obtained from Sentech in this regard. Furthermore, Sentech reserves the right to claim damages in terms of Section 29 of the Act, for any loss of damages sustained as a result of damages to any of Sentech’s electronic broadcast and communications infrastructure.</p> <p>The applicant shall, in carrying out any work or project, take all the necessary precautions for the safety of Sentech’s employees, contractors, representatives and its property, including the radio transmitters and links on or near the site against damages as a result of construction of the applicant’s energy project.</p> <p>The applicant shall be liable for all and any direct and/or indirect, and/or consequential damages or injury that may be caused by the applicant, its contractors, subcontractors, employees, agents or representatives to any employee, contractor, representative or property of Sentech including radio network transmitters and/or links or land which may have been disturbed shall be restored to the same condition in which it was before commencement of the construction of the energy project.</p>		

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	<p>In no event will Sentech, its employees, contractors, or representatives be liable to the applicant or any third party whatsoever for special, collateral, exemplary, direct, indirect, incidental, consequential or any other damages of any nature whatsoever or howsoever arising (including without limitation, loss of goodwill. Loss of profits or revenues, loss of savings, loss of use, interruptions or noisiness, or injury) whether or not such damages or injury occurred prior or subsequent to, or are alleged as a result of any Sentech radio network approved and/or not approved in terms of this letter, even if Sentech has been advised of the possibility of such damages or injury.</p>		
IMPACTS WITHIN THE SUTHERLAND CENTRAL ASTRONOMY ADVANTAGE AREA			
14.	<p>The proposed Wind Energy Facility by Karreebosch Wind Farm (Pty) Ltd near Sutherland, Northern Cape Province will be located within the declared Sutherland Central Astronomy Advantage Area and for which protection regulations are still to be promulgated. An authorisation or permit cannot at this stage be granted in terms of the Astronomy Geographic Advantage Act although the whole of the Northern Cape Province has been declared as an astronomy advantage area in terms of section 5 of the Act and is subject to protection measures to be determined by regulations to be promulgated. Please note that where the regulation does not cover the area concerned, South African Astronomy Observatory (SAAO) inputs should be considered.</p> <p>Astronomy Management Authority (AMA) would like to advise Savannah Environmental (Pty) Ltd and Karreebosch Wind Farm (Pty) Ltd to follow the development of the AGA Act declaration and regulations and respond to any</p>	<p>Mr Mere Kgampe Director: Astronomy Management Authority</p> <p>Department of Science and Technology</p> <p>Letter: 9-09-2015</p>	<p>Chapter 5 Table 5.2 provides an indication of the applicability of the project in terms of the Geographic Advantage Act.</p> <p>The report has been sent out for comment to all stakeholders for comment.</p> <p>SALT/SAAO is a stakeholder on the I&AP database and their comments on the draft EIAR have been included in the final EIAR</p>

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	<p>requirements for authorization that may be prescribed. It needs to be pointed out that there may be protection requirements for dust and light pollution caused by the activities within the declared astronomy advantage areas.</p>		
<p>15.</p>	<p>As registered stakeholder in the Sutherland area, we have received and studied your draft of Environmental Impact Assessment (EIA) Report, relevant documents and the invitation letter to comment on the EIA report.</p> <p>We note that part of the proposed facility is within the Sutherland Central Astronomy Advantage Area, which was declared by the Minister of Science and Technology and published in the Government Gazette (No. 37434, Notice 199 of 2014) on 12 March 2014 as part of the Astronomy Geographic Advantage (AGA) Act of 2007.</p> <p>Our main concern with the proposed facility is with regard to any night lighting associated with the wind turbines and/or with any other aspect of the development as required by the CAA regulations for tall structures, as well as the generation of dust during construction. Accordingly, we wish to point out that all developments in the Sutherland and surrounding areas must conform to the AGA Act Regulations.</p> <p>The Draft EIA report makes reference to visual impact of which it can be translated as visual impact for a naked eye. However, the Southern African Large Telescope (SALT), the largest single telescope in the southern hemisphere, is designed to detect light from very faint and distant objects and therefore it is very sensitive to any</p>	<p>Dr Ramotholo Sefako Acting Director South African Astronomical Observatory Letter: 14-09-2015</p>	<p>Table 5.2 provides an indication of the applicability of the project in terms of the Geographic Advantage Act.</p> <p>It is acknowledged that the project is within the designated Sutherland Central Astronomy Advantage Area regulated in term of the AGA Act.</p> <p>The project developers are engaging with the CAA to ensure that requirements for night lighting of turbines make a provision for reducing/limiting impacts on the activities of the SALT.</p> <p>Discussions have been held between DST, SAOO, CAA and the developer during 2015 to discuss a practical measure that will be adopted to mitigate for night lighting of turbines in the area while maintaining the safety requirements of the civil aviation industry.</p> <p>It is acknowledged that the visual impact assessment as it currently may have been inadequate to assess the impact of lighting impacts on SALT. The developer concedes that such a study will be necessary should the CAA requirements require permanent night lighting on the turbines. As a condition of approval, such a study will be undertaken in consultation with SAAO/SALT to ensure that the potential light pollution impacts on SALT activities are mitigated.</p> <p>All necessary input will be obtained from SALT to ensure that</p>

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	<p>kind of stray light. Its ability to detect faint astronomical sources could easily be overwhelmed and compromised by terrestrial light sources and that is why it is protected by the AGA Act.</p> <p>Our recommendation is, therefore, to do a proper study and assess the impact of lighting at SALT as a result of lighting at the Karreesbosch Wind Farm on the dark skies at SAAO, with proper inputs of the planned lighting requirements as approved by the CAA. It is impossible to conclude that the facility will have little impact on the night skies at the Observatory without undertaking a proper light pollution study, which incorporates all the planned aspects of lighting at the facility. The SAAO can help with recommendations and suggestions of who can assist to professionally undertake such a study.</p> <p>The conclusion that the Karreebosch wind turbines will not be visible from SALT, because they are supposedly below the escarpment should be supported by a proper study showing the position of the turbines, their altitude and the altitudes of the escarpment in the direction of SALT, and thereby confirming that none of the wind turbines will be visible from the Observatory. Even in that case, where lights would be below the escarpment and not directly visible at SALT, it is still not possible to conclude that the sky glow from the facility will have no impact on observations at SALT and other SAAO telescopes.</p> <p>Please consider this letter as SAAO's formal response to your Draft-EIA report.</p>		<p>the terms of reference for such a study are adequate. Mitigation measures will be discussed with all affected stakeholders (ie DST, SALT, CAA).</p>
16.	This letter is a follow-up to the letter we sent on 14	Dr Ramotholo	It is acknowledged that although the SAAO have no objection

No.	Issue	Issue Raised By	Response
	<p>September 2015, as the formal SAAO response to your scoping report on the proposed construction of the Karreebosch Wind Farm (and should be read together). The SAAO, after discussion with you regarding the above mentioned, while having no objection to the project in general, feels that the scoping report does not give enough information to assess the impact of lighting of the facility. In particular, it was not clear how the conclusion that the lighting of the facility will have no impact on observations at SALT was reached. In light of that, and the discussion we had telephonically, we thus request that:</p> <ol style="list-style-type: none"> 1. A topographical assessment of the wind farm and the landscape between the facility and the SAAO observing plateau must be done to confirm that there are no direct lines of sight from the lights of the facility to SALT. This assessment should be done regardless of the decision about aircraft warning lights due to e.g. unavoidable construction time lighting. 2. If the South African CAA requires the aircraft warning lights on the wind towers and related structures to be used and be constantly lit at night, a study must be, in addition, conducted to assess the impact on the dark skies at SAAO at SALT, as the result of lighting at the Karreebosch Wind Farm, with inputs of the planned lighting requirements as approved by the SACAA. Mitigation measures should be given if the study indicates an impact on observations at SALT. 	<p>Sefako Acting Director South African Astronomical Observatory Letter: 21-09-2015</p>	<p>to the project and that the visual impact assessment as it is currently may have been inadequate to assess the impact of lighting impacts.</p> <p>Should the CAA requirements require permanent night lighting on the turbines, a night-lighting study must be undertaken in consultation with SAAO/SALT to ensure that the potential light pollution impacts on SALT activities are mitigated prior to construction of the wind energy facility. This should be made a condition of the Environmental Authorization.</p>

No.	Issue	Issue Raised By	Response
	The SAAO reserves the right to object to the proposed construction of the Karreebosch Wind Farm and associated infrastructure, if it poses a threat to optical astronomy at SAAO's observing station near Sutherland.		
ISSUES RAISED BY THE AFFECTED LOCAL MUNICIPALITIES			
17.	How tall are these structures?	Johan Mouton PMU Manager: Department Infrastructure	The wind turbines will have a hub height of up to 100m high. The visual impact of the facility is described in the EIA report and the accompanying visual impact assessment. Operational visual impacts associated with the wind turbines are not possible to mitigate.
18.	How are the landowners who own property that is part of the planned facility compensated?	Jan Venter PMU Manager: Planning Department Laingsburg Local Municipality	The developer generally leases the land from the farmers and they will receive compensation from the wind farm owner as part of the agreement. The farmers will continue to use the land for agricultural purposes as they are likely to do so, since only a small percentage of the land is taken up by the footprint of the infrastructure associated with the wind farm.
19.	Since the majority of the site falls within the Northern Cape Province and Karoo Hoogland Municipality, won't they be legible for a higher percentage of the profits generated for the community trust?	Meeting: 18-08-2015	The community trust benefits are relevant for an area that falls within a radius of 50km around the site (in accordance with the requirements of the Department of Energy's REIPPP Programme). The fact that most of the site for the Karreebosch project falls with Northern Cape should not really make a difference in terms of the community benefits from the project.
20.	How much money will the community trust generate?		It is not possible to state exact figures at this stage but it will be a percentage of the revenues generated from the wind farm activities. The SED/ED requirements are stipulated and guided by DoE's REIPPP Programme. The distribution of funds allocated to the trust be managed and determined by the trustee, who will be appointed after the project has been approved in consultation with the community stakeholders, including the municipality.

No.	Issue	Issue Raised By	Response
21.	We support these types of projects, there are benefits for the community and hopefully it will strengthen our local electricity grid.		Comment noted. Please note that the project is intended to be connected to the 400kV transmission lines and therefore will not have much bearing on the local electricity grid (but national).
22.	What are the timeframes going forward?		The draft EIA report is available for public review until the 14th of September 2015. Thereafter the report will be finalized and submitted to DEA. We expect a decision before the end of the year. After that the project must still be entered into a competitive bidding process run by the DoE. Only after the project has been awarded preferred bidder status may it be constructed if all other relevant permits are in place.
23.	Thank you for detailing the project, we do not have any comments at this stage.	Allistar Gibbons Regional Manager	Comment noted, no response required.
24.	The municipalities Integrated Development Plan (IDP) documents should be the main documents that guide where and how the funds from the community trust are allocated and spent, if the project does go ahead.	- Sutherland Region Karoo Hoogland Local Municipality	Comment noted, no response required.
25.	When would construction begin?	Meeting: 18-08-2015	The draft EIA report is available for public review until the 14th of September 2015. After the review period ends the draft EIA report will be finalized and submitted to DEA. After that the project must still be entered into a competitive bidding process run by the DoE. Only after the project has been awarded preferred bidder status is there a strong change that it will be constructed if all other relevant permits are in place.

COMMENTS RECEIVED: SCOPING PHASE

No.	Issue	Issue Raised By	Response
ACKNOWLEDGMENT LETTERS FROM ORGANS OF STATE AND I&APS			
1.	<p>The Department of Energy hereby acknowledges receipt of the Draft Scoping Report for the proposed Construction of the Karreebosch Wind Farm and Associated Infrastructure.</p> <p>We would like to confirm that the Department has invited Independent Power Producers to submit proposals for the generation of electricity from renewable energy sources under the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).</p> <p>We have gone through the report and wish to inform Savannah Environmental that we have no comments on the report. We further wish you all the best in securing a positive Environmental Authorisation from the Department of Environmental Affairs. The Department would appreciate being kept informed of progress with this project.</p>	<p>Pheladi Masipa Project Coordinator: Renewable Energy Initiatives</p> <p>Department of Energy</p> <p>Letter: 27-03-2015</p>	<p>Acknowledgment noted, no response required.</p>
2.	<p>1. The following refer:</p> <p>1.1. Your letter dated 4 December 2014;</p> <p>1.2. This Branch's letter 16/9/6/1-15/03 (Job 22837) dated 13 February 2015 and</p> <p>1.3. Your letter dated 20 March 2015.</p> <p>2. This Branch provided comment at the inception of the EIA process in its letter referred to in</p>	<p>Ms GD Swanepoel Road Network Management</p> <p>Western Cape Department of Transport and Public Works</p> <p>Letter:21-04-2015</p>	<p>Acknowledgment noted. The comments referred to are captured under the heading "Roads and Traffic Impacts" (Item 4) of this Comments and Responses Report.</p>

No.	Issue	Issue Raised By	Response
	<p>paragraph 1.3 above.</p> <p>3. No further comment is offered at this stage.</p>		
I&AP REGISTRATION AND PUBLIC PARTICIPATION			
3.	<p>Herewith acknowledge receipt of the EIA application for Karreebosch wind farm. This application is not for the western cape region but forward the application to our Northern cape office on the 16/04/2015. Hope you find all in order and for future can liaise direct with our Northern Cape Office.</p>	<p>Lameez Salim Breede-Gouritz WMA Department of Water and Sanitation Email: 16-04-2015</p>	<p>Comment noted. The Draft Scoping Report was circulated to both the Western Cape Regional office and the Northern Cape Regional office of the Department of Water and Sanitation on 20 March 2015. No further comments were received.</p>
ROADS AND TRAFFIC IMPACTS			
4.	<p>1. Your letter dated 4 December 2014 refers.</p> <p>2. Kareebosch Wind Farm (Pty) Ltd proposes the construction of a 140MW wind energy facility approximately 30 km North of Matjiesfontein.</p> <p>3. The project was previously referred to as Roggeveld Phase 2.</p> <p>4. This Branch would like to register as an Interested and Affected Party.</p> <p>5. The proposal affects Provincial Roads Trunk Road 20/1, Divisional Road 2243, and Minor Roads OP6159, 8042, 8041, 8043 and other proclaimed roads (dependent on routes taken by construction and delivery vehicles).</p>	<p>Ms GD Swanepoel Road Network Management Western Cape Department of Transport and Public Works Letter: 13-02-2015</p>	<p>Comments noted. The developer is aware of these restrictions and requirements. Building restriction line distances are complied with in terms of the current layout. No advertising will appear on the turbines and have been spaced at a safe distance from the road reserve boundary.</p> <p>Additional requirements in terms of the LUPO application will be complied with when the LUPO application is made.</p>

No.	Issue	Issue Raised By	Response
	<p>6. This Branch offers the following initial comment on the proposed project and will provide further comment on the LUPO application. In terms of Act 21 of 1940 and Ordinance 19 of 1976, the following conditions apply:</p> <p>6.1. A building restriction line of 95m is applicable along trunk, main and divisional roads and is measured from the centreline of the road reserve;</p> <p>6.2. A building restriction line of 500m is applicable from the centrelines of intersecting trunk, main, and divisional roads and where these roads intersect other roads;</p> <p>6.3. No advertising of any nature is allowed on the turbine structures;</p> <p>6.4. Turbines should be located a distance equal to or greater than their toppling distance plus 5m from the road reserve boundary.</p> <p>6.5. Turbines shall be located far enough from the road reserve boundary so that they do not present a distraction to motorists and this Branch may require the applicant to engage the services of a traffic engineer to assess such impact once the location of the wind turbines have been determined;</p> <p>6.6. A 5m building line is applicable; and</p>		

No.	Issue	Issue Raised By	Response
	<p>6.7. A Traffic Impact Assessment (TIA) will be required when the LUPO application is made. Amongst the usual items that the TIA addresses it should also consider the impact on road infrastructure and what maintenance measures may be required during construction and decommissioning of the facility.</p>		
IMPACTS ON ESKOM INFRASTRUCTURE			
4.	Please find attached Eskom requirements for works at or near Eskom infrastructure.	<p>John Geeringh Senior Consultant Environmental Management</p> <p>Eskom</p> <p>Email: 27-03-2015</p>	The requirements for works at or near Eskom infrastructure are noted and have been forwarded to the project developer.
SOCIO-ECONOMIC IMPACTS			
5.	<p>Your correspondence regarding the above mentioned refers. The Department wishes to make the following comments to the proposed establishment.</p> <p>It is noted by the Department that the socio-economic impacts arising from the proposed development are considered and reflected in the draft scoping report, indicating possible short-term employment opportunities, as well as skills development that may be provided during the construction phase. With no explicit number of permanent jobs that might be created during the</p>	<p>M. Lakay Deputy Director: Regional & Local Economic Development</p> <p>Western Cape Department of Economic Development and Tourism</p>	<p>The following response has been provided by the project developer:</p> <p><i>Job Creation: Extract from the Socio-Economic Specialist report (Tony Barbour):</i></p> <ul style="list-style-type: none"> » Estimated Capital Expenditure: ~R2.5 billion » Number of employment opportunities: <ul style="list-style-type: none"> o Construction (~300), o Operational (~30) » Total wage bill (construction phase): Approximately R75 million

No.	Issue	Issue Raised By	Response
	<p>operation phase of the proposed development, it is difficult to determine the project's long-term job creation potential and significant economic impact in the area.</p> <p>It is important to note that the Laingsburg municipality has an adopted LED strategy with clear key result areas, to be considered. The proposed development should especially consider the Guiding Principles in the National Framework for LED to ensure that an enabling environment for economic/business activity is established and contributing to the Municipality's plans for local economic development.</p> <p>The department wishes to draw the attention to the alignment of the draft scoping report to important national and provincial legislative priorities, i.e. NDP, Provincial Objectives, etc. to promote economic development in the area.</p>	<p>Letter: 13-04-2015</p>	<p><i>Local Economic Development</i> It is noted that the project developers will need to consult with the Local Municipalities in order to align with their Local Economic Development (LED) strategies so that there is symbiotic benefit in terms of contribution to the local economy.</p> <p><i>National /Provincial Objectives</i> The proposed Karreebosch Wind Energy project is developed with an intent to participate on the Department of Energy's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), which is a national programme that allows the private sector to bring renewable energy into the national grid. As part of the REIPPPP requirements, the project is expected to meet the REIPPPP ED requirements, which include community ownership, BB-BEE, local content and enterprise development. All these requirements underpin the principles of the National Development Plan (NDP). Both the Western Cape and Northern Cape governments are supportive of the programme to generate energy from renewable energy sources. The Western Cape aims to be a leading province in the advancement of the Green Economy, which the proposed development falls under.</p>
IMPACTS ON THE SAAO AND SALT			
6.	<p>We have studied your Environmental Impact Assessment (EIA) Process for the proposed construction of the Karreebosch Wind Farm.</p> <p>We note that part of the proposed facility is within the Sutherland Central Astronomy Advantage Area, which was declared by the Minister of Science and Technology and published in the Government Gazette (No. 37434, Notice 199 of 2014) on 12 March 2014</p>	<p>Prof. Ted Williams Director</p> <p>South African Astronomical Observatory</p> <p>Letter: 21-04-2015</p>	<p>See latest comment from SALT and response above.</p>

No.	Issue	Issue Raised By	Response
	<p>as part of the Astronomy Geographic Advantage (AGA) Act of 2007.</p> <p>It should be noted that, in the same publication, a Central Astronomy Advantage Area (Central AAA) is defined as an area declared by the Minister so that activities, which may affect astronomy and related scientific endeavours, or astronomy advantage, such as light pollution or radio frequency interference, may be restricted or prohibited in the Central AAA to ensure or facilitate the protection of a Core Astronomy Advantage Area (Core AAA) from such activities. Basically activities that may be detrimental to astronomy and related endeavours may be restricted or prohibited in the Central AAA.</p> <p>Our main concern with the proposed facility is with regard to any night lighting associated with the turbines and/or with any other aspect of the development. Accordingly, we wish to point out that all developments in the Sutherland and surrounding areas must conform to the Astronomy Geographic Advantage Act Regulations.</p> <p>Although the document does mention SALT and the need for absence of light at night, there is no mention of how SALT will be protected against light and dust emissions as a result of the facility. It is important that potential impacts to astronomy relating to dust and lighting at night and mitigation measures that will be taken to protect optical astronomy at SALT are part of the EIA process.</p>		

No.	Issue	Issue Raised By	Response
	It is also important that the Astronomy Geographic Advantage Act, No. 21, of 2007 is mentioned in Chapter 4, Table 2, as one of the relevant legislations with its applicable requirements (to optical astronomy) and how these will be complied with (Compliance requirements).		