

COMMENTS AND RESPONSE REPORT (EIA PHASE)

**Proposed “HELIOS-JUNO” 765kV Transmission Powerline & Substations Upgrades
Western Cape and Northern Cape Provinces
NEAS Ref: DEA/EIA/0001558/2012 - DEA Ref: 14/12/16/3/3/2/439**

I&AP	Comments, Concerns & Queries	Date	Response from Mokgope / Eskom
<p>Alana Duffell-Canham (CapeNature: Manager Scientific Services)</p>	<p><u>General Comments:</u> We would like to note upfront that the labelling of the power line corridors has changed – the corridor we previously referred to as Corridor 1 is now Corridor 3 and vice versa. This should not have happened for the sake of consistency and to avoid confusion. All comments below will refer to the corridor alternative numbers as provided in the DEIR.</p> <p>As stated previously, all three power line corridor alternatives lie within an area known as the Knersvlakte. Conservation of the Knersvlakte is of international importance and the area is also one of the two richest areas for succulent plants in the world. Impacts associated with the construction of a power line, particularly vehicular and machinery access could be of extremely high negative and of very long term, possibly permanent duration. It is thus extremely important that the feasibility of all proposed mitigation measures is fully assessed during the EIA process. Mitigation measures should not have to rely on additional information obtained after authorisation to determine whether sensitive areas can be avoided or not. It is for this reason that we requested that the specialists undertake detailed ground-truthing of the proposed power line routes during the EIA phase.</p> <p>Corridor Alternative 3 passes through several properties which form part of the core Knersvlakte Conservation Area. The process of acquiring the properties to be formally conserved began in 1999. Corridor 3 is thus considered to be highly undesirable in terms of impacts on biodiversity as well as in terms of visual impacts. CapeNature is therefore of the opinion that Corridor 3 should not be authorised and we are pleased to note that it is not considered to be the preferred alternative. We note that Corridor 1 with some possible deviations to Corridor 2 is currently considered to be the preferred alternative.</p>	<p>14-08-14</p>	<p>EAP: Apologies for the confusion. The Helios-Juno Corridors had to be relabeled to be consistent with the remaining Northern Alignment Corridors.</p> <p>EAP: Ground-truthing will be undertaken prior to construction phase. The additional mitigation measures from the ground-truthing process will be included in the Site Specific EMPr.</p> <p>EAP: Thank you for your comments. The final route chosen during the EIA process and with inputs from the Specialists’ Integration Meeting is the corridor close to the existing line, mostly along Corridor 1 and deviates to Corridor 2 about 28 km from Helios substation. Furthermore, a deviation is proposed along Corridor 1 near Juno substation and Varsche River. This is discussed further under <u>Avifauna Assessment</u> comments below.</p>

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	<p><u>Botanical Assessment:</u> Corridor 1 still requires fine-scale identification of sensitive patches. Although the botanical specialist has created a vegetation sensitivities map, this appears to have been largely desk-top based - species mentioned are not all site specific and there are at least two species that are not found in the vicinity of the power line corridors at all (e.g. based on the information we have available <i>Aloe dichotoma</i> and <i>Aloe pillansii</i> do not occur in this area although they may occur within the Richtersveld). Although the vegetation assessment makes recommendations such as “sensitive areas such as CBAs, hills, pans and riparian areas should be avoided by the final route alignment” and the report states that it should be possible to span these areas in “most corridors” it does not confirm that this will be possible for the entire preferred corridor (i.e. Corridor 1). Without information that can be provided only by detailed ground-truthing, the information provided is not much more useful than that provided in the Scoping Report.</p> <p>CapeNature notes that it is the applicants’ intention to conduct a walk-down and to conduct negotiations with the landowners regarding the final positions of the pylons and access roads only after environmental authorisation has been received. However, the footprint of the roads and pylons is significant and it is necessary to assess these impacts at a much finer-scale along the preferred route alternative than what has currently been done prior to environmental authorisation being granted. Decision makers need to be aware of site-specific issues regardless of the length of power line being assessed.</p> <p>Sensitive areas should be determined and considered no-go areas prior to negotiations with landowners starting. The sensitive areas should be mapped before the preferred corridor alternative is authorised i.e. a pre- and post-walk down of the route is required.</p>		<p>EAP: Ground-truthing will be undertaken prior to construction phase. The additional mitigation measures from the ground-truthing process will be included in the Site Specific EMP.</p> <p>CapeNature is welcome to be involved in the ground-truthing process to verify their areas of concern and to review the recommendations from the ground-truthing investigations.</p> <p>Please indicate if your involvement in the ground-truthing should be included in the environmental authorisation conditions.</p> <p>EAP: Your comments have been taken into consideration. The footprints of the access roads and tower positions would be verified during the ground-truthing investigations.</p> <p>EAP: Sensitive areas will be included in the maps, thank you.</p> <p>Ground-truthing period has been noted, thank you.</p>

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	<p>Ground-truthing must occur during late Winter (i.e. August-September).</p> <p>We would like to note that we are still concerned about the impacts of driving between pylons and as stated above, the power line should rather completely avoid these areas. Alternatively, proof of methodology should be provided which shows that sensitive areas can be avoided during both construction and operational phases of the project.</p> <p>The project should be planned so that construction takes place in the dry summer months as the soils become slippery in Winter, resulting in more damage from driving.</p> <p><u>Avifauna Assessment:</u> It is apparent from the information provided that the section of the power line close to the Varsche River is of high sensitivity from both an avifaunal and botanical perspective. We note that the avifaunal specialist report suggests a deviation between Corridor 1 and Corridor 2 for the crossing over the Varsche River. However, CapeNature does not support this suggestion as it lies close to (or possibly within) one of the core Knersvlakte Nature Reserve properties. CapeNature would like to suggest a deviation south of Corridor 1. The shapefile provided indicates the approximate location of the suggested deviation.</p> <p>With regard to the other information provided by the avifaunal specialist report we are generally satisfied with the findings and recommendations.</p>		<p>EAP: If Corridor 2 and Corridor 1(along existing line) are utilised then maximum use of existing roads/tracks will be made which will reduce impact on undisturbed sensitive areas, i.e. impacts will be confined to areas already disturbed. Methodology: difficult/impossible to move construction workers by helicopter on daily basis, use of vehicles will be required therefore utilising existing route as much as possible. Moving pylon materials and stringing wire by helicopter feasible although expensive.</p> <p>EAP: Thank you for your recommendations. Constructions period (summer months) will be brought to Eskom’s attention.</p> <p>EAP: Thank you for providing us with the shapefiles to be overlaid in our final maps.</p> <p>EAP: Thank you for your comments.</p>

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	<p><u>Wetland and Riparian Assessment:</u> The scope of the assessment did not allow for delineation of wetlands. Although most wetlands have been located, they need to be clearly mapped and delineated prior to construction. In addition, the specialist needs to provide an opinion on the feasibility of avoiding or spanning wetlands.</p> <p>Rehabilitation and erosion prevention measures must be included in detail in the EMP. Driving in or across all watercourses, even when they are dry must be avoided. If driving across a watercourse is deemed essential, a single crossing point must be identified and monitored for erosion and rehabilitated if necessary.</p>		<p>Wetland Specialist: The strategic assessment of wetlands allows for delineation according to visible hydrological gradients as observed on aerial images, and limited field verification. Detailed verification is very time intensive and usually not realistic at this scale of study. Prior to commencement of activities, pylon positions should be refined based on a walk-down assessment during which a fine scale delineation can be done. The feasibility of spanning wetlands is usually restricted by techniques and materials/methods used by the engineers and cannot be commented on by an ecologist. In terms of wetland ecology it is always suggested that wetlands be spanned or avoided. This is not always possible from an engineering point of view</p> <p>EAP: Your recommendations have been noted with thanks.</p> <p>Rehabilitation measures will be outlined in the EMP under <i>Chapter 13 Post Construction Phase</i>, and Erosion measures will be outlined in the EMP under <i>Chapter 12 Construction Phase: Soil Erosion:</i> In terms of mitigation hierarchy, the aim would be to first avoid then mitigate. The first emphasis is therefore to avoid the crossing of watercourses, and then where this can't be avoided, that crossings are rehabilitated afterwards.</p>
<p>Dr Adrian Tiplay (SKA: Site Bid Manager)</p>	<p>The SKA configuration took into account existing transmission line infrastructure when optimising the location of individual stations. As a result, existing transmission and distribution infrastructure does not pose a significant risk of detrimental impact on the SKA.</p> <p>In order to accurately determine the impact the development of the transmission line could have on the SKA, Electromagnetic Interference studies are required.</p> <p>During the meeting that was held on 5th November 2013 between</p>	<p>28-07-14</p>	<p>EAP: Thank you for your comments.</p> <p>EAP: The Radio Interference Report for 765kV by KR Hubbard from Eskom has been provided to SKA.</p>

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	<p>SKAPO, yourself and ESKOM, ESKOM committed to conducting these studies on already existing 756KV transmission lines. To date, ESKOM has not yet communicated these results to SKAPO</p> <p>SKAPO did, however, receive an ESKOM report on radio interference in January 2013 where 400kV transmission lines were considered for the ESKOM Solar Park near Upington – investigations indicated that 16km buffer distances would probably be appropriate for 400kV transmission line infrastructure. However, this same assumption cannot be made for 765kV line infrastructure until a proper analysis is conducted.</p> <p>The 16 kilometre protection buffer was a tentative figure, which required further investigation as information relating to the design of the transmission line and electromagnetic emission profile of 765KV transmission line was not available. In light of these, we cannot approve the protection buffer until a more rigorous analysis is conducted, which may result in some mitigation measures that could be adopted in the line design.</p> <p>The SKAPO request that further engagement be undertaken in order to not only ascertain the potential impact the development of the transmission lines could have on the SKA but also to ensure that appropriate mitigation measures are put in place to ensure its protection from EMI.</p>		<p>EAP: The SKA buffer zone for 765kV Transmission Lines has been established to be 22km. The buffer zone has been included in the locality maps in the EIR.</p> <p>EAP: Our Draft EIR’s stated that the proposed 765kV power lines should be aligned outside the 16km buffer. Based on your comments, the 16km buffer is more appropriate for a 400kV power line than for a 765kV line. To this regard, we will await for the approved protection buffer for 765kV power lines, which would be included in the final EIR. <i>(The Radio Interference Report for 765kV by KR Hubbard from Eskom has been provided to SKA).</i></p> <p>EAP: A meeting took place on the 12 February 2016 between the EAP, Eskom and SKA to finalise mitigation measures of the final chosen corridor based on the 22km buffer zones. Minutes to the meeting are available on request.</p>
<p>Ms D Moleko (Northern Cape DENC: Assistant Director, Impact Management)</p>	<p>The Department of Environmental and Nature Conservation (DENC) recommends that all the protected indigenous floral species under NCNCA may not be removed from the site without the necessary permits from DENC. This includes the removal of bird nests, especially of raptor species, no animals (including snakes) may be hunted (poached), trapped, injured or removed (transported) in any way without the necessary permits (during construction phase and thereafter). It is strongly recommended that this must be incorporated into the Environmental Management</p>	<p>06-08-14</p>	<p>EAP: Thank you for the recommendations. Plant removal Permits, Water Use License Permits and any other required permits would be applied for prior to construction phase during the walk-down process.</p>

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	<p>Programme (EMPr). Kindly indicate how workers will be made aware of this.</p> <p>It is recommended that Critical Biodiversity Areas must be avoided at all times.</p> <p>There were no indications in the Draft EIR from where the drinking water for workers and water for the dust suppression would be obtained from.</p> <p>Fire management around the tower structures must be included in the Final EIR.</p> <p>No vehicles may be allowed in the watercourse during the construction phase or thereafter.</p> <p>It is recommended that a procedure for soil pollution and handling of oil, diesel and petrol spillages should be included in the Final EIR prior to construction phase.</p>		<p>Prior to construction phase, the ECO would be required to educate the site construction workers on general and environmental conduct. This has been outlined in the EMPr under <i>Chapter 11 Pre Construction Phase: Education</i>. Unfortunately at this EIA Process Stage, Eskom is not in a position to know how many workers will be employed during the construction and operational phases.</p> <p>EAP: Your recommendations have been noted. These were also part of the Vegetation Specialist's inputs, which will be clearly highlighted in the EMPr under <i>Chapter 12 Construction Phase: Conservation of the Natural Environment Section</i>.</p> <p>EAP: Your recommendations have been noted. This is noted in the EMPr under <i>Chapter 12 Construction Phase: Access to Site: Survey Points Section</i>.</p> <p>Eskom: The water is generally supplied by the municipality within the area where the route is being constructed. The process is usually via a local company that would supply Eskom with the water in tanks and that company would need to have approved permits from the local municipality.</p> <p>EAP: Thank you for your recommendations. Fire management around tower structures will be included in the EMPr under <i>Chapter 12 Construction Phase: Risks Associated with Infrastructure / Materials on Site Section</i>.</p> <p>EAP: Your recommendations are included in the EMPr.</p> <p>EAP: This has been included in the EMPr under <i>Chapter 11: Pre-Construction Phase: Establishing Equipment Lay-down and Storage Areas: Hazardous Substances and Materials Section</i>.</p>

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	<p>Post monitoring of the transmission line effect on bird populations must be conducted to determine the areas of high bird collisions and subsequently develop possible mitigation procedures for these areas.</p> <p>Include an alien plant control programme in the Final EIR.</p> <p>Indicate how many workers will be employed during the construction phase and the operational phase? Will the workers be local or non-local?</p> <p>The Knersvlakte Nature Reserve must be avoided. If this is not possible a walk down must be conducted to ensure that the towers will be placed in already disturbed areas.</p> <p>Include a detailed map of all the heritage no-go areas that must be avoided.</p> <p>Search and rescue of all the protected and indigenous floral species must be done prior to the commencement of the proposed development.</p>		<p>EAP: Prior to construction, a walk-down (ground-truthing) of the chosen route alignment from tower to tower, would be conducted for the various biodiversity assessments, including avifauna assessments for recommendations. In the EIA process, the Avifauna Studies identified Important Bird Areas, which need to be avoided. These areas will be verified during the walk down assessments.</p> <p>EAP: Your concerns have been noted and are included in the EMPr under <i>Chapter 11 Construction Phase: Conservation of the Natural Environment: Fauna and Flora Section</i>.</p> <p>EAP: It is difficult to supply exact numbers at the EIA Phase. However the teams may consist of construction workers, supervisor/s, on-site engineer, amongst others. Local workers or not depends on contractor and where they draw their staff from although contractors will be encouraged to use local labour as much as possible</p> <p>EAP: Thank you for your comments. As responded to CapeNature: Ground-truthing will be undertaken prior to construction phase. The additional mitigation measures from the ground-truthing process will be included in the Site Specific EMPr, which must be adhered to by the ECO and Contractors.</p> <p>EAP: A detailed map of the no-go areas with the final route alignment has been provided in the Final EIR. Also see the kmz files of the final route corridor in Appendix C of the Final EIR.</p> <p>EAP: Your recommendations are included in the EMPr.</p>

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	<p>With regards to the EMPr it must be made clear that the hunting and poaching of animals are not allowed at all and indicate how the workers will be made aware of this.</p> <p>With regards to the EMPr, all waste must be disposed at a licence landfill site.</p> <p>Indicate in the Final EIR how the workers will be made aware of the impacts of littering and that it will not be allowed.</p> <p>Will there be diesel stored at the construction camps, and if yes in what quantities will the diesel be stored?</p>		<p>EAP: Your recommendations are included in the EMPr.</p> <p>EAP: Your recommendations are included in the EMPr.</p> <p>EAP: This is indicated in the EMPr and would have to form part of the environmental induction conduct provided to the site workers.</p> <p>EAP: This has been included in the amended application form in Appendix D of the Final EIR. Also see Table 5 in the Final EIR.</p>
<p><u>Department of Environmental Affairs & Development</u> (Western Cape Planning) Ms K Adriaanse</p>	<p>Given that all the alternative corridors will traverse Environmentally Sensitive Areas, the physical footprint of the proposed development must be limited as far as practically possible.</p> <p><u>Specialist Reports</u> The terrestrial Fauna Biodiversity Assessment (compiled by James Harvey). Recommendations indicate that the alternative 3 is the most preferred. However, in the point numbered 4.3 (i.e. Consideration of the Alternative Routes), alternative 1 is the most preferred. Clarity is therefore required.</p> <p>The recommendations of the Avifauna Impact assessment (dated October 2013) must be taken into account when determining the preferred route alternative.</p> <p>In accordance with Regulation 32(3)(a) and (b) of the NEMA EIA Regulations, 2010, the expertise and the duly dated and original signed declaration of the following specialists must be included in</p>	<p>24-07-14</p>	<p>EAP: Your comments have been noted, thank you.</p> <p>EAP: Thank you for bringing this to our attention. The report was meant to indicate that Alternative 1 is the most preferred. Corrections were made.</p> <p>EAP: The Avifauna's recommendation regarding the crossing of the route alignment close to Varsche River was opposed by the property owner (CapeNature) as the area is a sensitive area. CapeNature suggested a deviation in that same area. Nonetheless, it has been recommended that a walk-down should be conducted by an Avifauna specialist together with CapeNature to determine the tower positions within the area of concern.</p> <p>EAP: Specialists signed declarations and are provided in Appendix D of the Final EIR. The Ecotourist and Visual Specialists have not responded to our request for signed</p>

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	<p>the submission of the final EIR to DEA:</p> <ul style="list-style-type: none"> • The Soil and Agricultural Potential Assessment (dated March 2013); • The Visual Impact Assessment (dated March 2014); • The Ecotourism Impact Assessment (dated July 2013); and • The Socio-Economic Assessment (dated June 2013). <p>The following comments are related to the Draft EMPr:</p> <p>All recommended mitigation measures identified in the draft EIR must be included in the draft EMPr and must be strictly adhered to.</p> <p>Route Alternative 1 is deemed the preferred alternative on condition that the abovementioned outstanding concerns are adequately responded to and addressed and the recommended mitigation measures are adhered to.</p>		<p>declarations. We will keep trying them and once the declarations are available, they will be provided to your department.</p> <p>EAP: Noted with thanks.</p> <p>EAP: Your comments have been taken into consideration, thank you.</p>
<p><u>Department of Environmental Affairs & Development</u> (Western Cape Planning) Ms K Adriaanse</p>	<p>Refer to attached comments:</p>	<p>20-11-15</p>	<p>Response to attached comments:</p> <p>1.1: “The biodiversity maps indicate where Critical Biodiversity Areas (CBAs) as well as Ecological Support Areas (ESAs) occur within the Helios-Juno Corridors” (Figure 2, page 9 in the Vegetation Report – Appendix M in the Final EIR).</p> <p>1.2: Similar listed activities in terms of the EIA Regulations of 2014 were considered. The amended application form was revised and is adequate.</p> <p>2.1: Comments have been updated and included in the Comments and Response Report as well as in the Public Participation Minutes date July 2014.</p> <p>2.2: Above commented dated 24-07-14 have been responded to.</p> <p>2.3: Please note that we have taken note of the Western Cape Process in terms of heritage resources management. We will</p>

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			<p>follow the Heritage Western Cape (HWC) Process and their regulations. We are in a process of undertaking a Notice for Intent to Develop (NID) in the month of May. Proof will be provided to your department as soon as it is available. Unfortunately we had submitted all projects to SAHRA assuming comments would also be made for the Helios-Juno Project. It was only realised recently that the SAHRA process is different from HWC process. We have appointed a Heritage Specialist who is familiar to the HWC process to make submissions on our behalf. Please find attached letter.</p> <p>2.4: We await comments from Water and Sanitation. Please see the email “correspondents from Matzikama Municipality” in Appendix L and also attached here. We will follow-up with them early May 2016 and provide you with proof.</p> <p>2.5: Comments have been updated.</p> <p>2.6: Thank you for bringing it to our attention. We thought counting from the 22nd was the first day of comments.</p>
<p>CapeNature Alana Duffell-Canham (Manager Scientific Services)</p>	<p>Refer to attached comments:</p>	<p>25-11-15</p>	<p>1. Once the preferred corridor is authorized, the next process would be the negotiation phase with the land owners for servitude acquisition. Thereafter ground-truthing will be undertaken for final tower positions.</p> <p>2. Noted with thanks. Recommendations for ground-truthing to be undertaken with Avifauna and CapeNature have been included in the final EIR.</p> <p>3. It is suggested that the conclusion for either deviation near Varsch River be conducted during the walk-down.</p> <p>4. This may be done during the walk-down where coordinates of sensitive areas would be captures at a local scale. Also noted in</p>

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			the EMPr. 5. Thank you, noted in the EMPr. 6. Thank you, noted in the EMPr.