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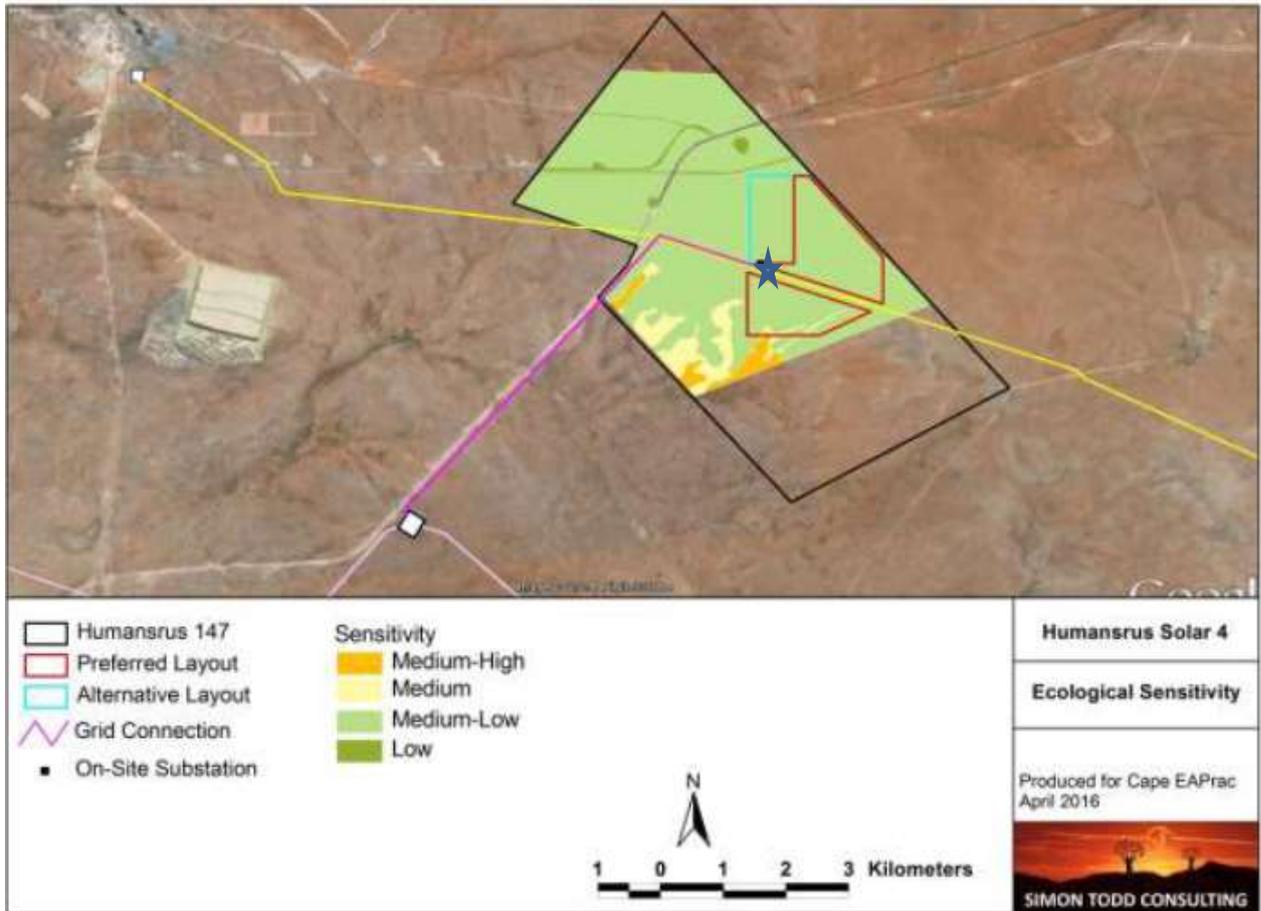
**RE: PROPOSED BATTERY ENERGY STORAGE SYSTEM FOR THE HUMANSRUS 4 SOLAR PV ENERGY FACILITY ON THE FARM HUMANSRUS 147 NEAR PRIESKA, NORTHERN CAPE**

Cape Environmental Assessment Practitioners (Cape EAPrac) have been appointed by Humansrus Solar 4 (Pty) Ltd. to apply for an amendment to the EA for the authorised project. The applicant intends to amend the EA to make provision for a Battery Energy Storage System (BESS) within and adjacent to the authorised footprint. The applicant intends including provision for a BESS with an extent of up to 4 hectares within the authorised footprint. As part of the amendment application, Cape EAPrac has requested input from 3Foxes Biodiversity Solutions to provide an assessment of the proposed changes in the context of the original Ecological Impact Assessment and to determine any novel impacts resulting from the proposed amendment. The request includes the following:

1. Whether the inclusion of a BESS adjacent to the on-site substation will change the nature or significance of any of the impacts as assessed in the original ecological study.
2. Whether the BESS is likely to result in any additional impacts that were not previously assessed.
3. Whether any additional management outcomes or mitigation measures would be applicable

**1.1.1 Change in Impact Due to the Proposed Inclusion of the BESS**

The location of the BESS within the previously assessed footprint area of the project as shown in the image below. The BESS is located within a medium - low sensitivity area with no features of concern in close proximity to the BESS.



In the original ecological assessment, it was assumed that the habitat within the facility would be largely lost in its entirety to the development. As such, the addition of the BESS within the assessed footprint would not increase direct habitat loss. In terms of additional risks, there do not appear to be any significant additional risks to ecology associated with the BESS. The original impacts associated with Humansrus Solar 4 are illustrated in the Table below.

Based on the footprint and technical specifications of the BESS as provided for this statement, there are no changes to the assessed impacts that are warranted based on the inclusion of the BESS into the Humansrus Solar 4.

**Table 1.** The pre- and post-mitigation ecological impacts associated with Humansrus Solar 4 as originally assessed which remain applicable.

Phase & Impact	Without Mitigation	With Mitigation
<b>Planning &amp; Construction</b>		
Impacts on vegetation and listed or protected plant species resulting from construction activities	Medium Negative	Medium-Low Negative
Direct Faunal Impacts During Construction	Medium Negative	Medium-Low Negative
Soil Erosion Risk During Construction	Medium-Low Negative	Low Negative
<b>Operation</b>		
Alien Plant Invasion Risk During Operation	Medium Negative	Low Negative

Soil Erosion Risk During Operation	Medium Negative	Low Negative
Faunal impacts during operation:	Medium-Low Negative	Low-Negative
<b>Cumulative Impacts</b>		
Impact on broad-scale ecological processes due to cumulative loss and fragmentation of habitat	Medium-Low Negative	Low Negative

### 1.1.2 Potential for Novel Impacts Associated with the BESS

The BESS consists of battery storage units in containers and would not change the nature of impacts associated with the solar facility. However, the BESS would include cooling systems which presumably would include fans that would generate some noise above that which would have occurred at the substation alone. As such, the BESS may increase noise associated with the facility to a small degree. However, since this is likely to be of a low intensity, this is not seen as adding significant impact to the existing development. Overall, there are no additional or novel impacts associated with the BESS that were not already assessed for the existing solar facility.

### 1.1.3 Additional Mitigation Measures

No additional mitigation measures or changes to the EMPr mitigation measures would be required in terms of this amendment, as no significant change to impacts or new impacts will occur. All the original avoidance and mitigation measures as indicated in the original botanical and faunal study are still relevant and applicable to the amended layout and must be implemented.

Prepared by Simon Todd

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