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Ecological Solutions for
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ATT: Ethanne Soar
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RE: Aggeneys 2 Amendment Application

ABO Wind Aggeneys 2 (Pty) Ltd is proposing the construction and operation of a Battery Energy Storage System (BESS) with a contracted capacity of up to 500MW/500MWh as part of the authorised Aggeneys 2 solar energy facility, on a site located 11km south-east of Aggeneys in the Northern Cape Province. The project is located within the Springbok Renewable Energy Development Zone (REDZ), within ward 4 of the Khai-Ma Local Municipality and within the greater Namakwa District Municipality in the Northern Cape Province on the Remaining Extent of Bloemhoek 61.

As part of the required amendment application, Savannah Environmental has requested comment from 3Foxes Biodiversity Solutions as to the potential impacts of the Battery Energy Storage System (BESS) on fauna and flora which was assessed as part of the Ecological Impact Assessment (March 2019). The details of the proposed amendment are described below and the implications of the potential impact of the BESS on fauna and flora are discussed thereafter.

An Ecological Impact Assessment was undertaken by 3Foxes Biodiversity Solutions in March 2019 which assessed the entire extent of the development footprint for the Aggeneys 2 solar energy facility.

Details of the Amendment

The purpose and utilisation of a Battery Energy Storage System (BESS) is to save and store excess electrical output as it is generated, allowing for a timed release when the capacity is required. BESS systems therefore provide flexibility in the efficient operation of the electricity grid through decoupling of the energy supply and demand. The development area for the battery energy storage area is ~ 5ha and is proposed within the area assessed and approved for the solar PV facility, and within the authorised laydown area. The BESS will be located either within the laydown area adjacent to the authorised on-site facility substation of the solar PV facility or within the eastern laydown area alternative.

The following infrastructure is associated with the BESS:

- Electrochemical battery storage systems with a maximum height of 3.5m; and

- Multi-core 22kV or 33kV underground cables, to follow internal access roads of the PV facility, to connect the battery storage area to the on-site facility substation.

Site Baseline and Potential Impacts Associated with the Amendment

The location of the BESS would be within the typical open plains of the area, within an area of Bushmanland Arid Grassland. The affected area is considered to be low ecological sensitivity (Figure 1) with few species or features of concern present. As it was assumed in the EIA that the laydown area would be totally transformed and would represent a 100% loss to the affected habitat. As such, the accommodation of the BESS within the laydown area would not increase habitat loss or direct impact associated with the project. As the BESS is contained within insulated containers, the risk to the environment from potential spills is considered to be low. As such, there do not appear to be any additional impacts or changes to the significance of impact identified and assessed within the Ecological Impact Assessment that would be associated with the addition of the BESS to the development. There is no significant difference between the two laydown area alternatives in terms of sensitivity and as such, there is also no significant preference for locating the BESS within one laydown area over the other.

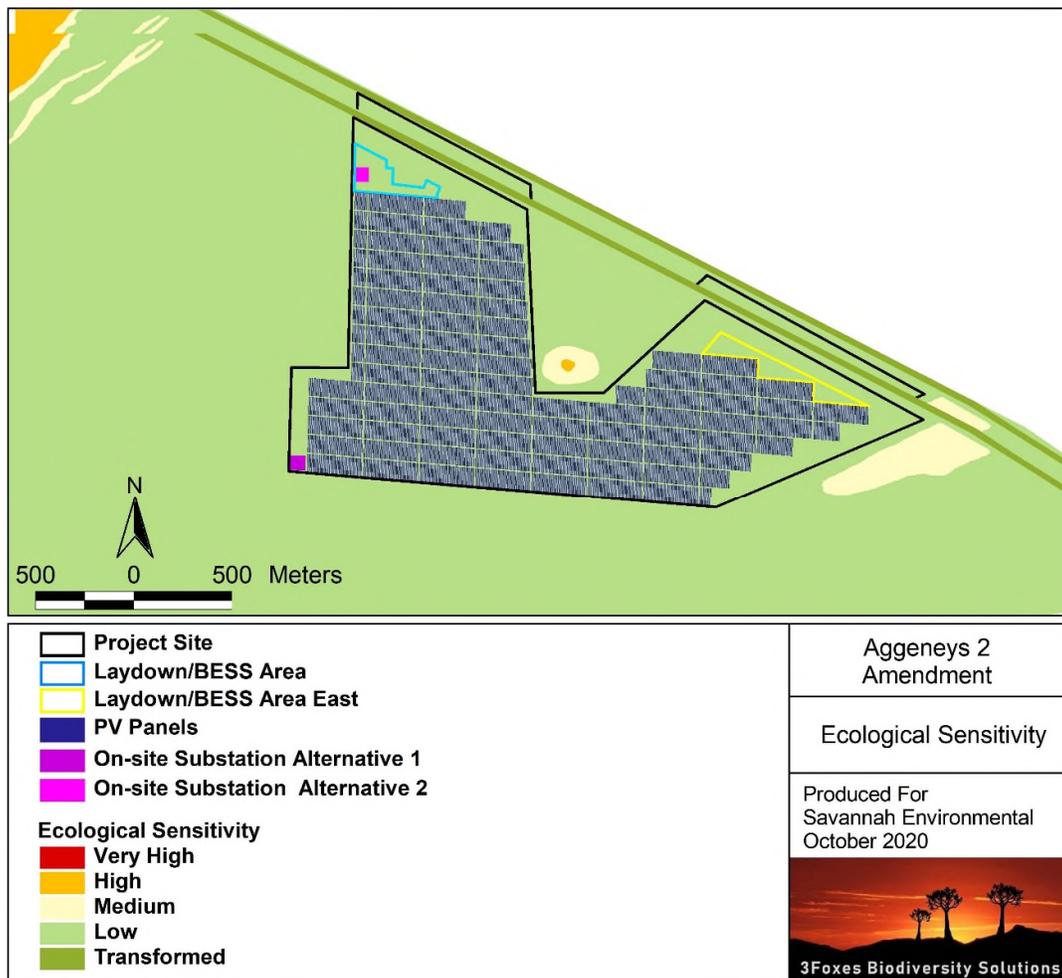


Figure 1. Location of the BESS within the Aggeneys 2 footprint, showing that it is located firstly within the project boundary and within an area classified as low sensitivity from an ecological perspective.

Cumulative Impacts

As the BESS would be located within the project area as assessed in the original specialist study and within one of the authorised laydown areas, which would have been completely transformed during construction, there would not be an increase in the development footprint, with the result that the amendment would not add to the cumulative impacts associated with the project.

New or Additional Mitigation Measures

There are no new or additional mitigation measures that need to be included in the Environmental Management Programme (EMPr) for the development of the BESS within the authorised footprint, and all of the original mitigation and avoidance measures as recommended in the original fauna and flora specialist study (i.e. Ecological Impact Assessment) would still be applicable to the development.

Conclusions and Recommendations

The footprint of the BESS would be located with the project area as assessed within the original fauna and flora specialist study. As such the amendment would not result in an increase in habitat loss associated with the project. Based on the BESS description, it is unlikely that the presence of the BESS would generate any other significant ecological impacts or change the significance of the impacts as previously identified and assessed. There is no preference for one BESS location alternative over the other and both are considered equally acceptable. As such the BESS can be supported from an ecological point of view and there are no reasons to oppose the inclusion of the BESS within the Aggeneys 2 project.

Sincerely



Simon Todd

Director
