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For attention:

22 October 2020

Ethanne Soar  
Environmental Consultant  
Savannah Environmental

Dear Ethanne

## **Vryburg Solar 3 Part 2 Amendment, North West Province: AVIFAUNA**

Vryburg Solar 3 (Pty) Ltd is proposing the inclusion of the construction and operation of a Battery Energy Storage (BESS) for the authorised Vryburg Solar 3 Energy Facility, with a capacity of up to 500MW/500MWh into the project description of the Environmental Authorisation (EA). The BESS which will have an extent of no more than 5ha will be developed within the authorised development footprint of Vryburg Solar 3, within the authorised 15 ha construction compound/laydown area. The BESS will connect to the authorised on-site facility substation of Vryburg Solar 3 via underground cables. The project is located within the Vryburg Renewable Energy Development Zone (REDZ), within ward 4 of the Naledi Local Municipality and within the greater Dr Ruth Segomotsi Mompati District Municipality in the North West Province 10km south-west of Vryburg. The authorised solar energy facility and associated infrastructure will be located on the following farm portions:

- Portion 1 of Retreat Farm 671;
- Portion 2 of Frankfort Farm 672;
- Remaining extent of Frankfort Farm 672;
- Portion 1 of Frankfort Number Farm 672; and
- The Remainder of Rosendal Farm 673.

The BESS will be located on Portion 1 of Retreat Farm 671.

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 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.

In addition, Vryburg Solar 3 (Pty) Ltd is also proposing a change in the description included in the Environmental Authorisation pertaining to the on-site substation. The change relates to the addition of collector infrastructure as part of the authorised on-site substation and within the authorised footprint of the substation.

It is the Developer's intention to bid the solar PV facility and the battery energy storage under the Risk Mitigation Independent Power Producer (IPP) Procurement Programme and/or Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) of the Department of Mineral Resources and Energy and/or any future relevant procurement programme. Ultimately, the development of the solar PV facility as well as the battery energy storage is intended to be part of the renewable energy projects portfolio for South Africa, as contemplated in the Integrated Resources Plan (IRP).

The proposed addition of the BESS and collector infrastructure were assessed in the following manner:

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- All potential impacts related to the proposed changes were identified
- The advantages and disadvantages associated with the changes were considered
- A comparative assessment of the impacts before the changes and after the changes were made
- Measures to ensure avoidance, management and mitigation of impacts associated with such proposed changes, and any potential changes to the EMPr were considered

The findings are as follows:

- The inclusion of a BESS within the authorised 15ha construction compound/laydown area, and the collector infrastructure within the authorised footprint of the substation, will not change the nature or significance of any of the impacts already assessed in the initial EIA report in any significant manner.
- The BESS and collector infrastructure are not likely to result in any new impacts that were not previously assessed in the EIA report.
- No additional management outcomes or mitigation measures over and above those already contained in the EIA report in terms of avifaunal impacts, would be applicable to the BESS and collector infrastructure.

There is therefore no objection to the Part 2 amendment from an avifaunal perspective.

Sincerely



Signed:

Name: Chris van Rooyen

Position: Director/ Avifaunal Specialist