

SITE SENSITIVITY VERIFICATION REPORT FOR THE PROPOSED ZIONSHEUVEL SOLAR PV FACILITY AND ASSOCIATED INFRASTRUCTURE ON REMAINDER OF FARM LEEUWBERG 79 IN THE RENOSTERBERG LOCAL MUNICIPALITY IN THE GREATER PIXLEY KA SEME DISTRICT MUNICIPALITY IN THE NORTHERN CAPE PROVINCE (DFFE REFERENCE: TBC)

Zionsheuvel Solar Energy (Pty) Ltd (a consortium consisting of Akuo Energy Afrique, Africoast Investments and Golden Sunshine Trading) proposed to develop the Zionsheuvel Solar PV Facility and its associated electrical infrastructure on Remainder of Farm Leeuwberg 79 in the Renosterberg Local Municipality in the greater Pixley ka Seme District Municipality in the Northern Cape Province. The project site is located approximately 20km north of Philipstown and 30km west of Petrusville and within the Central Transmission Corridor.

The Project (Zionsheuvel Solar PV Facility) is part of a cluster of solar facilities known as the Crossroads Green Energy. The Cluster entails the development of up to 21 solar energy facilities, each up to 240MW in capacity, and each including grid connection infrastructure connecting the facilities to the proposed Hydra B Substation¹. Each solar energy facility will be constructed as a separate stand-alone project and therefore, separate Scoping and Environmental Impact Assessment (S&EIA) processes will be undertaken for each of the renewable energy facilities. The projects will be considered through the EIA process in batches, with Batch 1 consisting of 9 projects, Batch 2 considering 6 projects and Batch 3 considering 6 projects. Zionsheuvel Solar PV Facility forms part of the EIA process for Batch 1 consisting of 9 projects to be undertaken in 2023

The Zionsheuvel Solar PV Facility is proposed in response to the identified objectives of the national and provincial government and local and district municipalities to develop renewable energy facilities for power generation purposes. It is the developer's intention to bid the Zionsheuvel Solar PV Facility under the Department of Mineral Resources and Energy's (DMRE's) Renewable Energy Independent Power Producer Procurement (REIPPP) Programme, or similar renewable energy programme organized by public or private commercial & industrial customers through tenders or bilateral consultations, with the aim of evacuating the generated power into the national grid. This will aid in the diversification and stabilisation of the country's electricity supply, in line with the objectives of the Integrated Resource Plan (IRP), with the Zionsheuvel Solar PV Facility set to inject up to 240MW into the national grid.

From a regional perspective, the Northern Cape Province, and particularly the area under investigation, is considered favourable for the development of a commercial solar facility by virtue of prevailing climatic conditions, relief, the extent of the affected properties, the availability of a direct grid connection (i.e., a point of connection of the national grid) and the availability of land on which the development can take place.

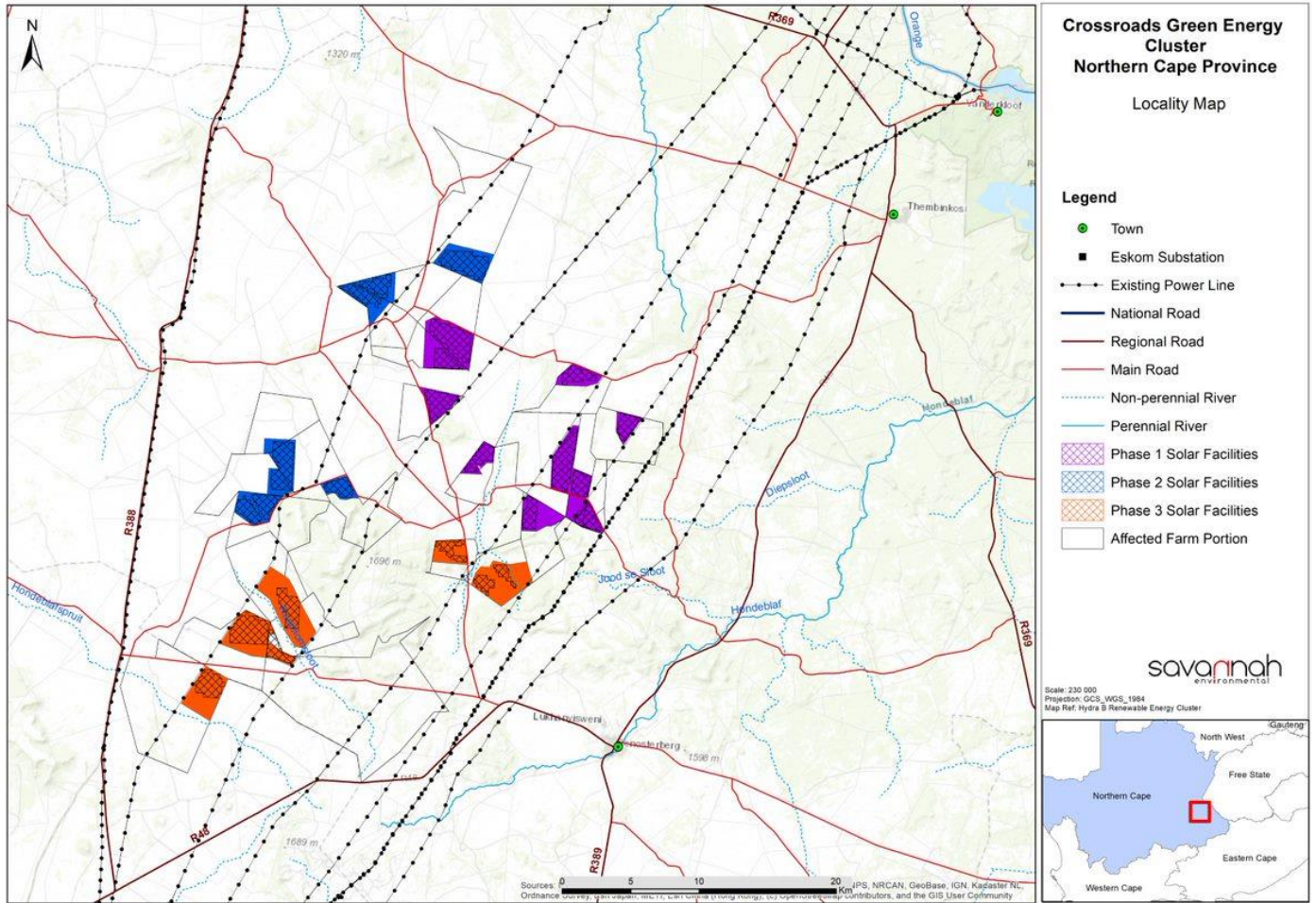


Figure 1: Locality map illustrating the location of the Crossroads Green Energy renewable energy cluster (Batch 1, Batch 2, and Batch 3)

SENSITIVITY VERIFICATION METHODOLOGY:

The site sensitivity verification report was compiled by the EAP and is based on specialist desktop information and field work undertaken as part of the S&EIA process. This report forms part of the Scoping and Environmental Impact Assessment (S&EIA) process being undertaken for the proposed Zionsheuvel Solar PV Facility and associated infrastructure on Remainder of Farm Leeuwberg 79 in the Renosterberg Local Municipality in the greater Pixley ka Seme District Municipality in the Northern Cape Province.

SITE SENSITIVITY VERIFICATION:

The table below and reference to specialist assessments serve to:

- » Verify land use and sensitivities identified in the screening report; and
- » Confirm / contest the need for the various specialist inputs called for in terms of the screening tool report.

Environmental Theme/Specialist Assessment	Sensitivity Rating as per the Screening Tool (relating to the need for the study)	Verification of Site Sensitivity
Agriculture	High	The Soils and Agricultural scoping study is included in this Scoping Report as Appendix D. Based on the outcome of the desktop analysis of available data, it has been concluded that the entire development area has a Low to Medium sensitivity to the development from the perspective of soil and agricultural potential conservation. A compliance statement will be compiled during the EIA phase.
Animal Species	Medium	An Ecological scoping study (including flora and fauna) has been undertaken for the PV facility and is included as Appendix D of the Scoping Report. Based on the outcomes of the desktop study and available data, it has been indicated that the development area falls within the areas identified as Medium Sensitivity in terms of animal and plant species sensitivity. The sensitivity will be confirmed, and the impacts will be further assessed during the EIA phase.
Archaeological and Cultural Heritage	Low	A Heritage Screening (which covers both archaeological and cultural aspects of the project site) is included in this Scoping Report as Appendix E. There is the potential for the project to impact on heritage resources and, therefore, heritage impacts will be further assessed during the EIA phase.
Palaeontology	High	A Heritage Screening (which covers palaeontological aspects of the project site) is included in this Scoping Report as Appendix E. There is the potential for the project to impact on palaeontological resources and, therefore, paleontological impacts will be further assessed during the EIA phase.
Terrestrial Biodiversity	Very High	An Ecological scoping study (including flora and fauna) has been undertaken for the PV facility and is included as Appendix D of the Scoping Report. Based on the outcomes of the desktop study and available data, it has been indicated that the development area falls within the areas identified as Very High Sensitivity. The sensitivity will be confirmed, and the impacts will be further assessed during the EIA phase.
Aquatic Biodiversity	Very High	An Ecological scoping study (including freshwater) has been undertaken for the PV facility and is included as Appendix D of the Scoping Report. The available data also suggests the presence of drainage features in the

Environmental Theme/Specialist Assessment	Sensitivity Rating as per the Screening Tool (relating to the need for the study)	Verification of Site Sensitivity
		area. It is however not possible from a desktop assessment perspective to determine if wetland conditions are present in these and therefore, further assessments are required in the EIA phase.
Avian	Low	An Avifauna scoping study (including winter season monitoring as per the BirdLife SA Best Practice Guidelines) has been undertaken for the PV facility and included as Appendix D of the Scoping Report. Based on the outcome of the desktop study and available data, it has been concluded that the development area has a Low Sensitivity. The sensitivity will be confirmed, and the impacts will be further assessed during the EIA phase.
Civil Aviation (Solar PV)	Low	No major aerodromes or small airfields are known to occur in the larger area. The Civil Aviation Authority and ATNS will be consulted throughout the Scoping/EIA process to obtain any relevant comments regarding the proposed project. A compliance statement will be compiled by the EAP in the EIA Phase of the process.
Defence	Low	A defence or military base is not located within close proximity to the PV facility.
RFI	Medium	The project site under consideration is not located near a telecommunications tower. Relevant telecommunications service providers will be consulted during the Scoping/EIA process to obtain any relevant comments regarding the proposed project. In addition, SARAO will be consulted regarding any specific requirements in terms of the SKA. A compliance statement will be compiled by the EAP in the EIA Phase of the process.
Plant Species	Low	An Ecological scoping study (including flora and fauna) has been undertaken for the PV facility and is included as Appendix D of the Scoping Report. Based on the outcomes of the desktop study and available data, it has been indicated that the development area falls within the areas identified as Medium Sensitivity in terms of animal and plant species sensitivity. The sensitivity will be confirmed, and the impacts will be further assessed during the EIA phase.

Based on the outcomes of the Scoping Phase evaluation of the project and the outcomes of the Site Sensitivity Verification, the following studies were identified as being required:

- » Terrestrial Ecology Impact Assessment
- » Palaeontology (Heritage) Impact Assessment
- » Soils and Agricultural Potential Compliance Statement
- » Aquatic Impact Assessment

The specialist studies undertaken for this project are required to comply with either the above Protocols or, alternatively, with the requirements of Appendix 6 of the NEMA EIA Regulations of 2014 (as amended 2017 & 2021).