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Savannah Environmental (Pty) Ltd
Care of Jo-Anne Thomas

Per email: Joanne@savannahsa.com

Dear Jo-Anne

PART 1 AMENDMENT: VISUAL ASSESSMENT

Proposed Graspan PV Solar Energy Facility, Northern Cape Province

1. PROJECT TITLE

Proposed Graspan PV Solar Energy Facility (SEF) on the Remainder of the Farm Graspan No. 172, Northern Cape Province.

2. BACKGROUND AND PURPOSE OF THE AMENDMENT

Engie Solar is proposing to amend the Environmental Authorisation (EA) for the Graspan PV project (DFFE REF: 14/12/16/3/3/2/276/1 and 14/12/16/3/3/2/276/2) and the EA for its associated grid connection infrastructure by extending the EA validity by an additional two (2) years. Extension of the validity of the EA will ensure that the EA remains valid for the undertaking of the authorised activities. The project is a preferred bidder project under Round 5 of the REIPPPP and construction is planned to commence in the near future following Financial and Commercial Close.

3. ASSESSMENT OF THE PROPOSED AMENDMENT

The reviewer has assessed the proposed amendment to the extension of the validity of the EA and has drawn the following conclusions:

3.1. The Affected Environment

The description of the affected environment, as described in the original VIA report remains unchanged. There have been no change in land use for the proposed development site, no new developments have been constructed on or near the development site, and the land use zonation (agriculture) remains the same.

The above conclusion was verified through consultation with the project proponent and the current land owner(s), as well as the observation of satellite imagery of the study area taken during 2012 and 2023.



Figure 1: Google Earth satellite image September 2012 (proposed PV Facility development site indicated in yellow).



Figure 2: Google Earth satellite image July 2023 (proposed PV Facility development site indicated in yellow).

3.2. Terms of reference for the VIA

The terms of reference for the original VIA report (based on the *Guideline for Involving Visual and Aesthetic Specialists in EIA Processes (2005)*), included:

- Quantify and assess the existing scenic resources / visual characteristics on and around the proposed site.
- Evaluate and classify the landscape in terms of its sensitivity to a changing land use.
- Determine viewsheds, view corridors and important viewpoints in order to assess the visual impacts of the proposed project.

- Determine visual issues, including those identified in the public participation process.
- Review the legal framework that may have implications for visual / scenic resources.
- Assess the significance of potential visual impacts resulting from the proposed project for the construction, operational and decommissioning phases of the project.
- Identify possible mitigation measures to reduce negative visual impacts for inclusion into the project design, including input into the Environmental Management Plan (EMP).

The following methodology was undertaken during the Visual Impact Assessment (VIA):

- Photographic survey of the site and surroundings during a field trip undertaken in February 2012;
- Mapping of the proposed energy facilities, including distance circles and critical viewpoints;
- Mapping of the viewshed, using a digital terrain model (DTM) to determine the area that would be visually affected;
- Identification of landscape features and receptors in the area.
- Identification and rating of potential visual impacts using a number of quantitative and qualitative criteria.
- Determination of the significance of the potential visual impacts using the standard environmental assessment indicators.

The above activities and analyses are still relevant in light of the proposed amendment to the extension of the validity of the EA.

3.3. Impact rating assessment and impact mitigation measures

A number of dominant *view corridors and receptor sites* were identified (in the VIA report) within the region, namely:

- Graspan rail siding
- Spes Bona West farmstead
- Klein Kareelaagte farmstead
- N12 near low koppie on the western edge of the site
- N12 on the western corner of the site

The visual impact analysis of the VIA and assessment from the relevant observation points are summarised as follows:

- Intensity or magnitude of impact: Medium
- Spatial extent: Local
- Duration: Long term
- Probability: Highly probable
- Confidence: High
- Overall significance: Medium

The proposed extension of the validity of the EA by an additional two years is not expected to alter the influence of the project infrastructure on *areas of higher viewer incidence* (observers traveling along the roads within the region) or *potential sensitive visual receptors* (residents of homesteads in closer proximity to the infrastructure).

The proposed amendment to the validity of the EA is consequently not expected to

influence the anticipated visual impact, as stated in the original VIA report (i.e. the visual impact is expected to occur regardless of the amendment). This statement relates specifically to the assessment of the visual impact within a 1km (and potentially up to 3km) radius of the SEF structures (potentially *medium/moderate* significance), but also generally apply to potentially *moderate* to *low* visual impacts at distances of up to 5km from the structures.

From a visual perspective, the proposed amendment will therefore require no (zero) changes to the significance rating within the original visual impact assessment report that was used to inform the approved EIA. In addition to this, no new mitigation measures are required.

There are no new assessment guidelines which are now relevant to the authorised development which were not undertaken as part of the initial visual impact assessment. Additional to this, and as stated above, there have been no changes to the environment of the region surrounding the proposed development site, or on the farm earmarked for the PV Facility.

3.4. Cumulative visual impact

There are two authorised/approved (not yet constructed) solar energy facility developments within a 30km radius of the proposed Graspan PV SEF. These include:

- Proposed Carodex Solar Park on Portion 1 of the Farm Klein Kareelaagte 168, Herbert RD (2014/10/10)
- Proposed construction of the Ramphole1 PV energy facility near Ritchie, Northern Cape Province (2014/03/24)

Notes:

The names above are provided verbatim from the REEA_OR_2022_Q3 database.

The former proposed solar energy facility is located immediately adjacent to the proposed Graspan PV SEF, and the latter 25.5km north-east of the Graspan development site.

It is worth noting that even though none of these proposed facilities are located within the Kimberley Renewable Energy Development Zone (REDZ5, located north-east of these sites) they do fall within the Central Corridor of the Strategic Transmission Corridors.

Strategic Transmission Corridors are:

“areas where long term electricity grid infrastructure will be developed and where an integrated decision-making process for applications for environmental authorisation in terms of the National Environmental Act (1998) will be followed.”

The consolidation and concentration of renewable energy facilities (and associated grid connection infrastructure) within these zones are therefore preferred and the cumulative visual impact is deemed to be of an acceptable level i.e. the amendment is not expected to alter the potential cumulative visual impact rating (*moderate*) as stated in the original EIA report.

4. CONCLUSION AND RECOMMENDATIONS

The proposed amendment will require no changes to the impact significance ratings as stated within the original VIA report which was used to inform the approved EIA. In addition to this, no new mitigation measures are required.

It is suggested that the amendment to the validity of the EA be supported, subject to the conditions and recommendations as stipulated in the original EA, and according to the Environmental Management Programme (EMPr) and suggested mitigation measures, as provided in the original VIA report.

5. REFERENCES

Bernard Oberholzer, 2012. *Proposed Graspan Solar Photovoltaic Power Plant, Northern Cape Province.*

Chief Directorate National Geo-Spatial Information, varying dates. *1:50 000 topographical Maps and Data.*

DFFE, 2022. *South African Renewable Energy EIA Application Database (REEA_OR_2022_Q3).*

Google Earth, 2012 & 2023. *Satellite imagery.*

Oberholzer, B. (2005). *Guideline for involving visual and aesthetic specialists in EIA processes: Edition 1.*

Feel free to contact me at any time, should you have any queries.

Kind regards.

A handwritten signature in black ink, appearing to read 'L. du P.' with a flourish at the end.

Lourens du Plessis (PrGISc)