

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

PROJECT NAME:

PROPOSED PLANETS ENERGY FACILITY (PHASE 1 GILIMBERG ENERGY CLUSTER) HYBRID SOLAR PV & BESS FACILITY AND ASSOCIATED INFRASTRUCTURE (up to 200MWac / 150MW-600MWh) IN CAPRICORN DISTRICT (POLOKWANE LOCAL MUNICIPALITY) AND WATERBERG (MOGALAKWENA LOCAL MUNICIPALITY) LIMPOPO PROVINCE.

DFFE REFERENCE NO:

DWS REFERENCE NO: WU48940

REPORT TITLE: DRAFT SCOPING REPORT

DATE: 02 JULY 2026

PREPARED BY:

ABANTU ENVIRONMENTAL SERVICES



PREPARED FOR:

PLANETS ENERGY FACILITY (PTY) LTD

OFFICE	ADDRESS	CONTACT DETAILS
Gqeberha	41 Avon Place Overbaakens 6070	Contact Person: Mr Sive Mlamla (Pr. Sci.Nat, Reg. EAP) Cell: 078 207 8278 Fax: 086 685 9536 Tel: 041 582 2648 Email: info@abantuenvironmental.co.za Website: www.abantuenvironmental.co.za

DECLARATION OF INDEPENDENCE

I, **Sive Mlamla**, in my capacity as an EAP, hereby declare that I –

- Act as an independent consultant
- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed
- Have and will not have vested interest in the activity
- Have no, and will not engage in, conflicting interests in the undertaking of the activity
- Undertake to disclose any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan, or document
- Will provide the competent authority with access to all information at my disposal regarding the report, whether such information is favourable to the Client or not
- Based on information provided to me by the Client and in addition to information obtained during the course of this study, have presented the results and conclusion within the associated document to the best of my professional ability
- Reserve the right to modify aspects pertaining to the present investigation should additional information become available through on-going research and/or further work in this field
- Undertake to have my work peer reviewed on a regular basis by a competent specialist.



Sive Mlamla (Pr.Sci.Nat, Reg. EAP (EAPASA))

Environmental Assessment Practitioner (EAP)

UNDERTAKING (AFFIRMATION BY THE EAP)

Abantu Environmental Services (Pty) Ltd hereby confirms that, to the best of our knowledge, the information provided in this report was correct at the time of compilation. Information included in this report was based on the information which was provided to us by the Engineers on behalf of the Applicant and the commissioned Specialist reports. It is further confirmed that all comments to be received from Stakeholders and Interested and Affected Parties (I&APs) shall be included in the final reports to be submitted to the Competent Authorities.

ASSUMPTIONS AND GAPS IN KNOWLEDGE

The following assumptions and potential gaps in knowledge apply:

- All information provided by the Applicant to the EAP was correct and valid at the time it was provided.
- The EAP does not accept any responsibility in the event that additional information comes to light at a later stage of the process.
- All data from unpublished research is valid and accurate at the time this report was written.
- The scope of this investigation is limited to assessing the potential environmental impacts associated with the proposed development only.

It should be noted that findings, recommendations, and conclusions provided in this report are based on the author's best scientific and professional knowledge and experience. No part of this report may be amended or extended without prior written consent of the author. Any recommendations, statements or conclusions drawn from or based on this report must clearly cite or refer to this report. Whenever such recommendations, statements, or conclusions form part of the main report to current investigation, this report must be included in its entirety.

EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

Planets Energy Facility (Pty) Ltd is proposing the development of a hybrid renewable energy project consisting of a utility-scale Solar Photovoltaic (PV) plant integrated with a Battery Energy Storage System (BESS) with a Solar PV capacity of up to 200 MWac and BESS of up to 150 MW / 600 MWh over an area of approximately 305 ha, and a 132 kV transmission line to connect to the Borutho substation. The development area is located approximately 46km West of Polokwane stretching over two District Municipalities: Waterberg (Mogalakwena Local Municipality) and Capricorn (Polokwane local municipality) in the Limpopo Province. The project site is situated on communal land within two properties; Jupiter No. 717, LR, and Mars No. 718, LR under the administration of Mashashane Traditional Council. This Scoping Report (SR) includes information as required per Appendix 2 of the 2014 NEMA EIA Regulations;

PROJECT DESCRIPTION

The proposed solar facility will comprise of the following key components:

Ground-mounted mono or bifacial solar PV modules installed on single-axis tracking systems designed to generate clean electricity using photovoltaic (PV) technology

- Battery Energy Storage System (BESS)
- Inverters/Transformer Stations
- On-site Substation and Switching Substation
- Operations and maintenance (O&M) building
- Access roads
- Temporary laydown areas
- Grid connection infrastructure for a 132 kV transmission line to Eskom Borutho substation

MOTIVATION

South Africa's heavy reliance on coal-fired electricity generation contributes to ongoing energy supply challenges and undermines the country's climate commitments under the Paris Agreement. In response, government policies such as the National Development Plan (NDP) and Integrated Resource Plan (IRP) 2019 promote the expansion of renewable energy to improve energy security, reduce emissions, and support sustainable development. The proposed solar PV facility aligns with these objectives by contributing additional clean energy capacity to the national grid, supporting the transition to a lower-carbon economy, and providing socio-economic benefits through job creation and local economic development.

LEGISLATIVE REQUIREMENTS

Listed Activities (LN1, LN2 and LN3) are triggered by the proposed development and as such, an Environmental Authorisation (EA) is required prior to commencement. The EA application is subject to a Full Scoping and Environmental Impact Assessment (EIA) Process and will be adjudicated by the identified competent authority, Department of Forestry, Fisheries and the Environment (DFFE).

ALTERNATIVES

- 1. Site Alternatives-** No site/property alternatives exist as the applicant has been given consent by the landowner and is in support of the proposed development. Additionally, the proposed site is in close proximity to existing infrastructure.
- 2. Design and layout Alternatives**
 - Alternative 1- This layout alternative entails development of the solar PV facility on the entire development footprint, with no effort to protect environmentally sensitive areas.
 - Alternative 2 (preferred)- This layout alternative presents an opportunity to avoid sensitive areas within the development footprint.
- 3. Technical Alternatives**
 - Alternative 1 (Preferred)- Single-Axis trackers- Solar panels rotate along a single axis to follow the sun and improve energy generation compared to fixed systems.
 - Alternative 2- Fixed- Tilt systems- Solar panels are installed at a fixed angle, offering a simpler and lower-cost design but with lower energy output.
- 4. Operational Alternatives-** No alternatives have been considered.
- 5. No-go option-** Keeping the current status quo of no activities occurring on site, which would not result in a loss of vegetation or impact on CBA 2. However, potential positive socio-economic impacts will be lost.

An overview of the identified impacts across the development stages is presented below.

ENVIRONMENTAL IMPACTS

The environmental impacts/ aspects listed below were identified for the proposed development.

PLANNING AND DESIGN PHASE

- Legal and social compliance
- Site establishment
- Existing civil services, infrastructure and properties

CONSTRUCTION PHASE

- Legal and social compliance
- Site establishment and security
- Water consumption
- Sanitation
- Direct loss of indigenous vegetation and disturbance of habitats due to construction of PV facility and transmission line
- Direct loss of CBAs
- Disturbance of fauna and loss of habitats
- Disturbance of the surface resulting in increased risk of AIPs
- Impact on avifauna- bird mortality
- Direct and indirect disturbances to and mortalities of animal SCC
- Impact on the aquatic environment
- Visual impact
- Waste management
- Traffic impact
- Noise pollution
- Air pollution
- Paleontological and heritage resource disturbance
- Employment opportunities

OPERATIONAL PHASE

- Collision of birds with solar farm
- Electrocution of birds when perched on towers
- Disturbance of key habitats and pollution of the surrounding environment
- Landscape change from current sense of place to industrial area due to the solar PV facility
- Creation of employment
- Energy security

SPECIALIST STUDIES

To inform the Environmental Impact Assessment (EIA) phase, a number of specialist studies are recommended to assess the potential impacts of the proposed development in greater detail. These include;

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

- Terrestrial Biodiversity Impact Assessment- Inclusive of Plants species
- Aquatic Biodiversity Impact Assessment
- Paleontological Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Animal Species Impact Assessment
- Agricultural Impact Assessment
- Landscape/Visual Impact Assessment
- Avian Impact Assessment
- Socio-economic Impact Assessment
- Traffic Impact Assessment

The outcomes of these studies will provide essential baseline data, identify site sensitivities, and ensure that potential impacts are accurately predicted, evaluated, and addressed through appropriate mitigation measures.

PUBLIC PARTICIPATION PROCESS

This Draft Scoping Report (DSR) shall undergo a public participation process (PPP) to receive inputs and comments from the public. The report will be made available to interested and affected parties for a 30-day period commencing from 03 July - 04 August 2026.

All comments from stakeholders and Interested & Affected Parties (I&APs) will be incorporated into the Final Scoping Report (FSR), which will be submitted to the Competent Authority, DFFE, for acceptance. Once accepted, the project will proceed to the EIA phase, where the recommended specialist studies will be undertaken, and a Draft Environmental Impact Report (DEIR) will be prepared for further public review and comment. The Final EIR will then be submitted for decision-making. This process will ensure that environmental, social, and technical considerations are fully integrated into the final project design and authorisation.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
TABLE OF CONTENTS	8
LIST OF FIGURES.....	10
LIST OF TABLES	10
LIST OF APPENDICES	11
ACRONYMS AND ABBREVIATIONS	11
1. INTRODUCTION	12
1.1. PROJECT DESCRIPTION	12
1.2. PROPERTY INFORMATION.....	16
1.3. SITE ACCESS.....	17
1.4. THE APPLICANT/PROPONENT	17
1.5 EAP & CONTACT DETAILS.....	18
1.5. PURPOSE OF THE REPORT	20
1.6. OBJECTIVE OF THE SCOPING PROCESS	20
1.7. REPORT STRUCTURE	21
1.8. SCOPING REQUIREMENTS AS PER REGULATION 20	24
2. NEED AND DESIRABILITY	26
2.1 MOTIVATION	26
2.2 SOLAR RESOURCE AND ENERGY PRODUCTION	27
2.3 ACCESS TO GRID	28
2.4 MARKET SUITABILITY	29
2.5 COMMERCIAL CONSIDERATIONS	29
2.6 NEED AND DESIRABILITY	29
3. DESCRIPTION OF AFFECTED ENVIRONMENT	33
3.1 CLIMATE	34
3.2 TOPOGRAPHY AND HYDROLOGY	34
3.3 GEOLOGY AND SOILS	36
3.4 TERRESTRIAL AND AQUATIC BIODIVERSITY	37
3.4.1 TERRESTRIAL.....	37
3.4.2 AQUATIC BIODIVERSITY.....	40
3.5 FAUNA	41
3.6 AVIFAUNA.....	41
3.7 ARCHAEOLOGY AND HERITAGE RESOURCES	41
3.8 RENEWABLE ENERGY DEVELOPMENT ZONES.....	42

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

3.9	STRATEGIC TRANSMISSION CORRIDORS	43
3.10	SOCIO-ECONOMIC ATTRIBUTES	44
4.	LEGAL AND POLICY FRAMEWORK	46
4.1	APPLICABLE ENVIRONMENTAL LEGISLATION	46
4.2	SOUTH AFRICAN GUIDELINES	57
4.3	LISTED ACTIVITIES TRIGGERED	58
5.	PROJECT ALTERNATIVES	1
5.1.	PROCESS FOLLOWED TO REACH THE PREFERRED ALTERNATIVES	1
5.2.	PROPOERTY OR LOCATION ALTERNATIVES	2
5.3.	ACTIVITY ALTERNATIVES	3
5.4.	DESIGN AND LAYOUT ALTERNATIVES	3
5.5.	TECHNOLOGY ALTERNATIVES	4
5.6.	OPERATIONAL ALTERNATIVES	5
5.7.	OPTION OF NOT IMPLEMENTING- “NO-GO ALTERNATIVE”	5
5.8.	SUMMARY OF ALTERNATIVES	6
6.	IDENTIFIED ENVIRONMENTAL IMPACTS	7
6.1.	IMPACT ASSESSMENT METHODOLOGY	9
6.2.	IMPACT ASSESSMENT AND SIGNIFICANCE	13
6.3	PROPOSED MITIGATION MEASURES	17
6.3.	CONCLUDING STATEMENT ON THE ALTERNATIVES ASSESSMENT	22
7	PLAN OF STUDY FOR THE EIA	23
7.1.	ALTERNATIVES TO BE CONSIDERED AND ASSESSED	23
7.2.	DEVELOPMENT ASPECTS TO BE ASSESSED IN THE EIA	24
7.3.	ASPECTS TO BE ASSESSED BY SPECIALISTS	25
7.3.1.	IDENTIFIED SPECIALIST STUDIES	25
7.3.2.	SPECIALISTS TERMS OF REFERENCE	25
7.4.	PROPOSED METHOD OF ASSESSING IMPACTS	27
7.5.	EIA PUBLIC PARTICIPATION STRATEGY	28
7.6.	ENVIRONMENTAL IMPACT ASSESSMENT PROCESS	29
7.6.1.	SCOPING PHASE	30
7.6.2.	EIA PHASE	31
7.7.	COMPETENT AUTHORITIES CONSULTATION	33
7.8.	DSR SUMMARY OF COMMENTS RECEIVED	33
7.9.	APPLICABLE MITIGATION MEASURES	33
8	CONCLUSION AND RECOMMENDATIONS	39

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

8.1.	CONCLUSION.....	39
8.2.	RECOMMENDATIONS	39
8.3.	FINAL COMPOSITE MAP	40
9	UNDERTAKING	41
10	REFERENCES	42
11	APPENDICES	43

LIST OF FIGURES

Figure 1:	Locality map	12
Figure 2.	Planets Energy Facility Conceptual Design	13
Figure 3.	Access to site.....	17
Figure 4.	Solar resource characteristics for the Polokwane region (Global Solar Atlas, 2026).....	27
Figure 5.	Strategic Transmission Corridor	28
Figure 6.	Topography of the proposed development site.	34
Figure 7.	Conditions within the proposed Solar PV development area	35
Figure 8.	Conditions of the ephemeral stream	36
Figure 9.	Geological map (Mavuso, 2026).....	37
Figure 10.	Vegetation conditions at the proposed site	38
Figure 11.	Vegetation map	39
Figure 12.	Terrestrial Biodiversity map	40
Figure 13.	Aquatic Map	41
Figure 14.	SAHRIS Palaeo map.....	42
Figure 15.	Resource Development Zones	43
Figure 16.	The project area in relation to strategic transmission corridor	44
Figure 17.	Approved renewable energy developments near the proposed site.....	2
Figure 18.	Renewable energy EIA applications	3
Figure 19:	Final composite map.....	40

LIST OF TABLES

Table 1.	Summary of the key components.....	13
Table 2:	Summary of property and technical information	16
Table 3:	Applicant details	17
Table 4:	Environmental Assessment Practitioner details.....	18
Table 5:	Lead EAP Profile	18
Table 6:	Candidate Environmental Assessment Practitioner details	19
Table 7:	Scoping Report structure	21
Table 8:	Need and Desirability assessment for the development	29
Table 9:	Applicable legislations	47
Table 10:	Guidelines Considered in the EIA Process	57
Table 11:	Listed Activities Applied For	58
Table 12:	Summary of alternatives	6
Table 13:	Summary of identified impacts.....	7
Table 14.	Impact rating method.....	9

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Table 15: Impact Assessment and Significance	13
Table 16: Proposed mitigation measures	17
Table 17: Development alternatives to be assessed.....	23
Table 18: Aspects to be assessed as part of the EIA phase	24
Table 19: Summary of EIA Process	32
Table 20: Summary of stages where CA will be consulted	33
Table 21: Mitigation measures	33

LIST OF APPENDICES

APPENDIX A: CV AND DECLARATION OF INDEPENDENCE BY THE EAP	44
APPENDIX B: SITE SENSITIVITY VERIFICATION REPORT	45
APPENDIX C: SCREENING TOOL REPORT.....	46
APPENDIX D: SPECIALIST STUDIES	47
APPENDIX E: ENGINEERING FEASIBILITY REPORT	48
APPENDIX F: PUBLIC PARTICIPATION INFORMATION	49

ACRONYMS AND ABBREVIATIONS

CBA	Critical Biodiversity Area
CA	Competent Authority
DEIR	Draft Environmental Impact Report
DFFE	Department of Forestry, Fisheries and the Environment
DWS	Department of Water and Sanitation
DSR	Draft Scoping Report
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EAIR	Environmental Impact Assessment Report
EMPr	Environmental Management Programme
FEIR	Final Environmental Impact Report
FSR	Final Scoping Report
I&APs	Interested and Affected Parties
IEM	Integrated Environmental Management
IDP	Integrated Development Plan
NEMA	National Environmental Management Act
OHSA	Occupational Health and Safety Act
PoS	Plan of Study
PPP	Public Participation Process
S&EIR	Scoping and Environmental Impact Assessment Report
SACAA	South African Civil Aviation Authority
SAHRA	South African Heritage Resources Authority
SAHRIS	South African Heritage Resources Information System
SDF	Spatial Development Framework
ToR	Terms of Reference

1. INTRODUCTION

1.1.PROJECT DESCRIPTION

The Planets Energy Facility (Phase 1 – Gilimberg Energy Cluster) is a proposed hybrid renewable energy project consisting of a utility-scale Solar Photovoltaic (PV) plant integrated with a Battery Energy Storage System (BESS) over an area of approximately 305 ha (Figure 1). The facility is designed with a solar PV capacity of up to 200 MWac and a BESS of up to 150 MW / 600 MWh. The project aims to deliver dispatchable renewable energy, enhance grid reliability, and support South Africa's transition to a low-carbon energy mix. The project will be located approximately 46km West of Polokwane within the Capricorn District (Polokwane Local Municipality) and Waterberg District (Mogalakwena Local Municipality) in Limpopo Province, South Africa. The plant will connect to the Eskom Borutho substation via 132KV transmission line.

The project site is situated on communal land within two properties; Jupiter No. 717, LR, and Mars No. 718, LR under the administration of Mashashane Traditional Council.

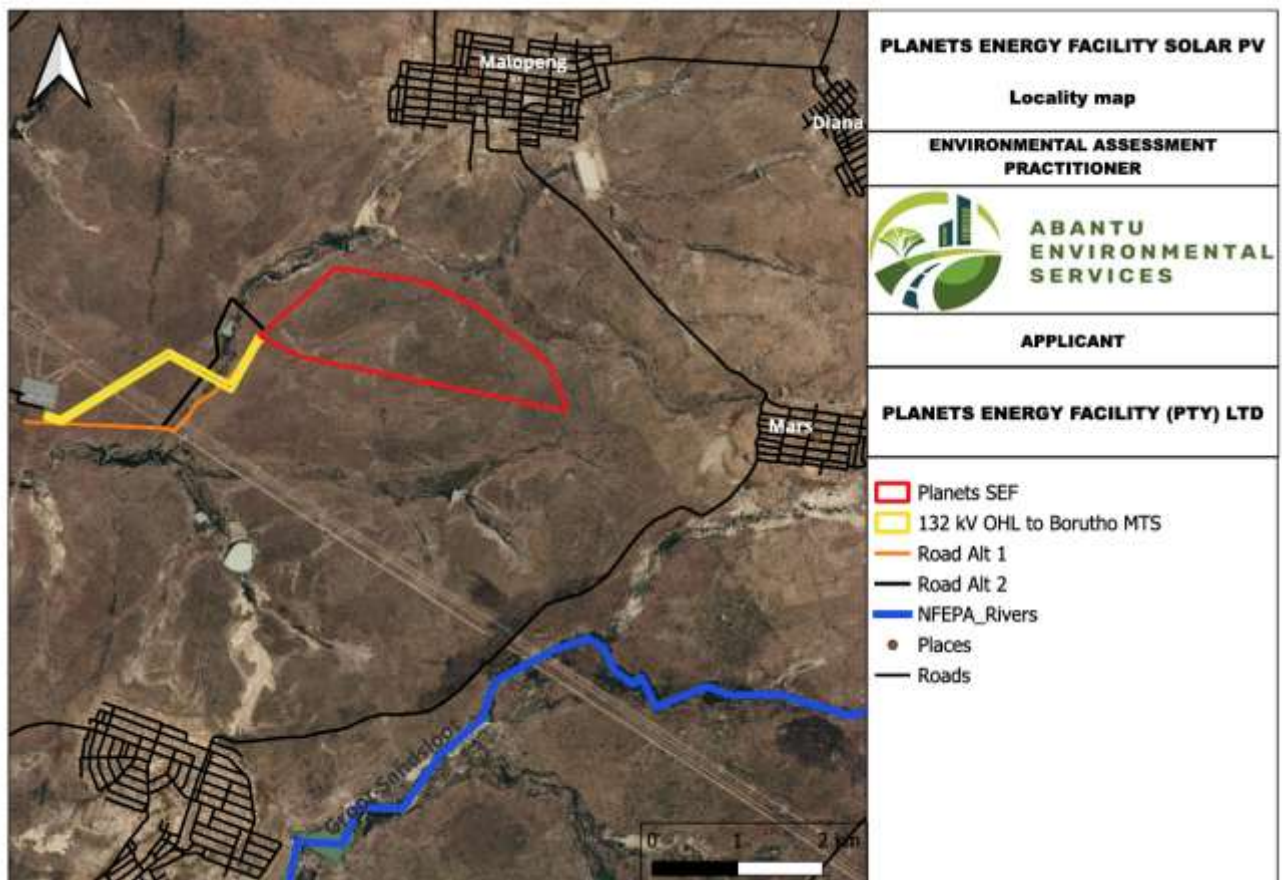
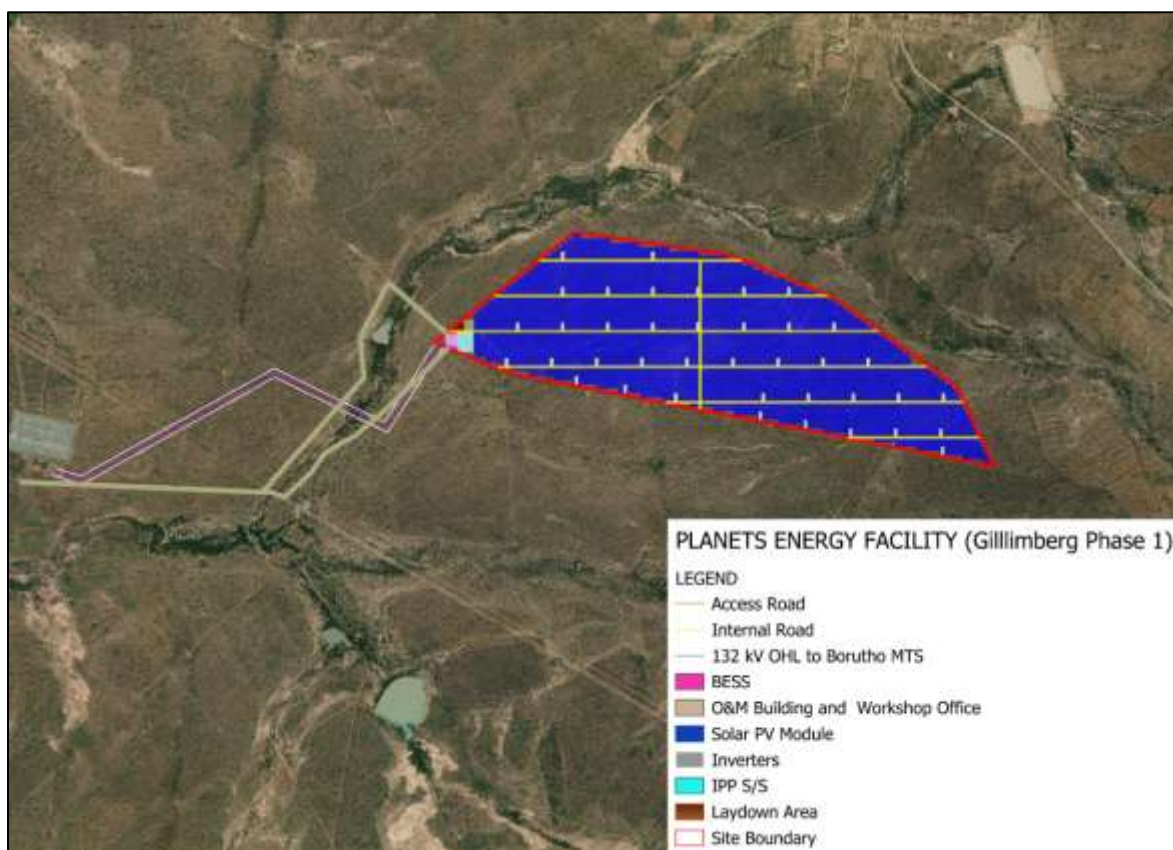


Figure 1:Locality map

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

The proposed solar facility (~305 hectares) will comprise of the following key components (**Error! Reference source not found.**):

- Ground-mounted mono or bifacial solar PV modules installed on single-axis tracking systems designed to generate clean electricity using photovoltaic (PV) technology
- Battery Energy Storage System (BESS)
- Inverters/Transformer Stations
- On-site Substation and Switching Substation
- Operations and maintenance (O&M) building
- Access roads
- Temporary laydown areas
- Grid connection infrastructure for a 132 kV transmission line to Eskom Borutho substation



• **Figure 2.** Planets Energy Facility Conceptual Design

The key components of the proposed project are summarised below:

Table 1. Summary of the key components

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Component and associated infrastructure	Description/dimensions
Solar field	• Technology: Solar Photovoltaic (PV) • Contracted Capacity: up to 200 MWac • Estimated Yearly Production: 454.88 9 GWh (P50) and 442.86 GWh (P90) • Structure: Bifacial or Monofacial single axis tracking system • Number of solar PV module: 294912 units • Height: 3.5m • Area of PV Array: 305 ha
Battery Energy Storage System (BESS)	• Technology: Lithium-Ion • Footprint: Up to 2 ha • Height: Up to 10 m • Capacity: Up to 150 MW/600 MWh • The BESS is designed for a 4-hour duration, allowing effective shifting of solar energy from midday generation periods to evening peak demand periods (typically 17:00–21:00).
On-site Substation and Switching Substation	• Footprint: Approximately 2 ha • Height of the on-site substation complex (including switching substation): Up to 10 m. However, the on-site substation will include switchgear portals up to 15 m and lightning masts up to 25 m in height. • Capacity of the on-site substation complex: 132 kV • Powerline height: 32 m • Fence: Galvanized palisade fencing to be used at the substations • Fence height: Up to 2.5 m
132 kV Overhead Transmission Power Line (OHPL)	• Point of Connection: Borutho MTS • Line capacity: 132 kV • Approximate length: 4 km • Pylon height: 32m • Tower type: Self-supporting and Angle Strain towers • Pylon type, span, working area and footprint: ○ Type: Monopole or steel lattice type pylons, or combination of both where required. ○ Span: The pylons will have a span of 200 m to 350 m for monopole pylons and up to approximately 500 m for lattice structures. ○ Footprint: The size of the final constructed pylon footprint depends on the type of structure used, which will typically range from approximately 0.5 m² to 8 m² for monopole pylons, and 36 m² to 64 m² for steel lattice pylons.
Inverter/Transformer Stations	• Number of Inverters: 64 units • Height: Approximately 2 m

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Component and associated infrastructure	Description/dimensions
Access roads (including upgrading and widening of existing roads, where relevant)	- Existing roads will be used as far as practically achievable. - Details: New Access roads will need to be established. These would either comprise farm roads (compacted dirt/gravel) or paved roads. - Length: up to 5 km - Width: Approximately 8 -15 m
Internal roads	- New internal service roads will need to be established. These would either comprise farm roads (compacted dirt/gravel) or paved roads. - Length: up to 15 km - Width: up to 10 m
On-site medium voltage internal cables	- Placement: Underground (maybe above ground pending technical constraints) - Capacity: 33 kV - Depth: Maximum depth of 1.5 m
Auxiliary Buildings	- Type: These include, but are not limited to, Operation and Maintenance (O&M) building / centre, site office, workshop, staff lockers, bathrooms/ablutions, warehouses, guard houses, etc. - Cumulative Footprint: Approximately up to 5000 m² - Height: Up to 10 m
Work area during the construction phase (i.e. laydown area)	Temporary Laydown: Up to 4 ha.
Fencing around the PV Facility Perimeter	- Type: palisade or mesh or electric fencing - Height: Up to 3 m

The project design considers both DC-coupled and AC-coupled configurations, with AC coupling recommended to enable independent battery dispatch and future grid charging capability (**Error! Reference source not found.**). Lithium-ion battery technology (likely LFP chemistry) is expected due to its maturity, cost-effectiveness, and safety profile. The plant will include modular battery containers, inverter stations, and energy management systems (EMS). Design provisions will allow scalability and future expansion of storage capacity beyond 600 MWh. PV technology options include single-axis tracking systems to maximize generation yield.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Several Listed Activities are triggered by the proposed development and as such Environmental Authorisation (EA) is required prior to commencement of the activities detailed in Section 4.3 of this report. Abantu Environmental Services has been appointed as the independent environmental assessment practitioners to facilitate the EIA process and obtain the relevant authorisations. The EA application is subject to a Full Scoping and Environmental Impact Assessment (EIA) Process and will be adjudicated by the identified competent authority, Department of Forestry, Fisheries and the Environment (DFFE). This Draft Scoping Report is prepared in accordance with the requirements of Appendix 2 of the Environmental Impact Assessment Regulations, 2014, as part of the National Environmental Management Act (NEMA- Act 107 of 1998).

1.2.PROPERTY INFORMATION

The property details of the development are provided in **Table 2** below:

Table 2: Summary of property and technical information

PROJECT ASPECT	DESCRIPTION		
District	Waterberg and Capricorn District Municipality		
Local Municipality	Mogalakwena and Polokwane Local Municipality		
Wards	Ward 13 & 41		
Development footprint size	305 ha		
Coordinates	Latitude (S)		Longitude (E)
	SEF		
	23°53'45.98"S		29° 0'6.03"E
	23°53'20.40"S		29° 0'38.23"E
	23°53'25.61"S		29° 1'14.81"E
	23°53'34.57"S		29° 1'36.68"E
	23°53'56.39"S		29° 2'6.19"E
	23°54'14.26"S		29° 2'14.71"E
	23°53'52.86"S		29° 0'23.32"E
	Transmission line		
	23°53'49.84"S		29° 0'8.11"E
	23°54'5.52"S		28°59'54.97"E
	23°53'52.73"S		28°59'29.17"E
	23°54'17.52"S		28°58'44.56"E
	23°54'15.93"S		28°58'38.36"E
Farm Name(s) and Number (s)	Farm name	Farm number	Portion
	Jupiter	717	0
	Mars	718	1
Surveyor General 21 Digit Code	COLS00000000071700000 COLS00000000071800000		
Nearest City	Polokwane		

1.3.SITE ACCESS

The proposed site can be accessed via a gravel road branching east off the N11, then turning east towards the Borutho Main Transmission Substation (**Figure 3**).

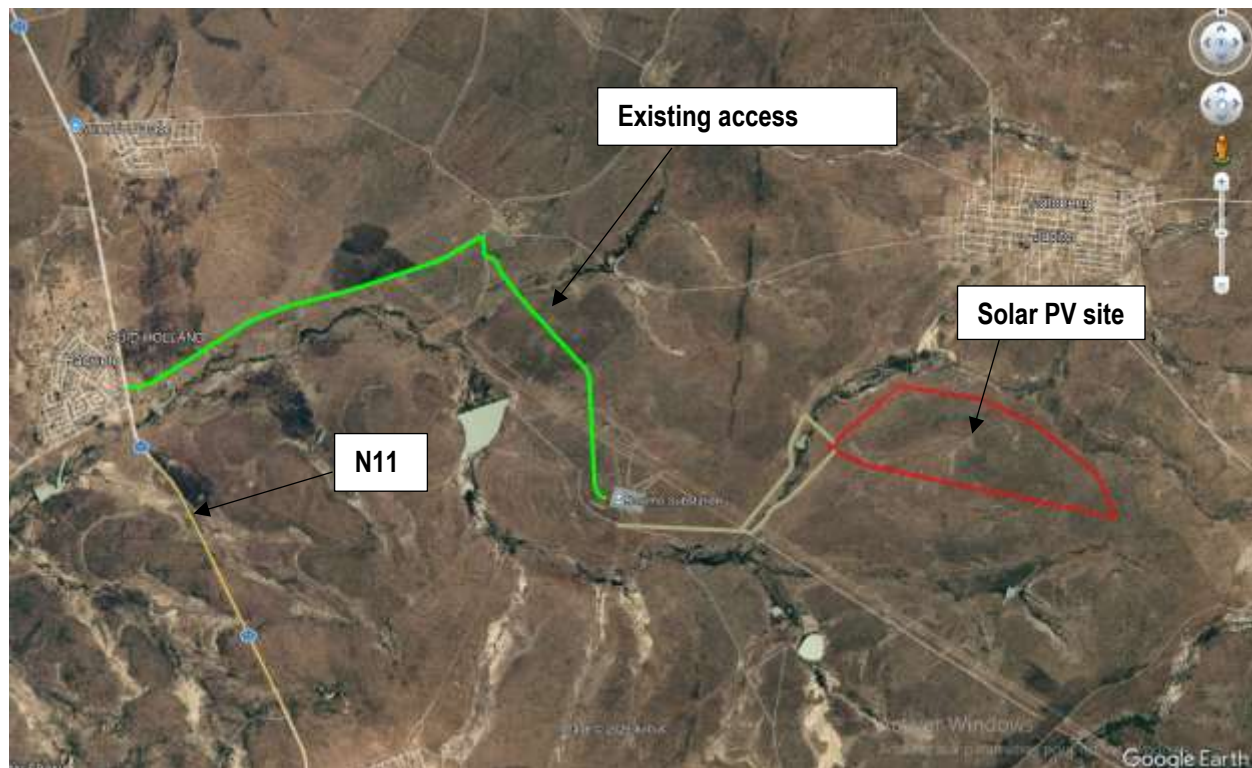


Figure 3. Access to site

1.4.THE APPLICANT/PROPONENT

Details of the applicant are presented in **Table 3** below.

Table 3: Applicant details

Applicant	Planets Energy Facility (Pty) Ltd
Contact Person on behalf of Applicant	Methuli Khangelani Mbanjwa
Physical Address	1 Bridgeway Road- SPACES, Bridgeways Precint, Century City, Cape Town, 7441
Postal Address	1 Bridgeway Road- SPACES, Bridgeways Precint, Century City, Cape Town, 7441
Telephone	021 830 5321
Email Address	EIA@forethought-africa.co.za / methuli@forethoughtafrica.co.za

1.5 EAP & CONTACT DETAILS

As per the requirements of the NEMA Regulations and in terms of Regulation 14 of Section 24H Registration Authority Regulations, 2016, as amended, the details and expertise levels of the EAP who prepared the report are provided in **Table 4** below.

Table 4: Environmental Assessment Practitioner details

Contact Details	
Consultant	Abantu Environmental Services (Pty) Ltd
EAP	Sive Mlamla
SACNASP Registration	118495 – Environmental Sciences
EAPASA Registration	2022/5204
Cell	078 207 8278
Postal Address	41 Avon Place Overbaakens Gqeberha, 6070
Fax	086 685 9536
Email	info@abantuenvironmental.co.za
Website	Website: www.abantuenvironmental.co.za

Expertise of the Lead EAP are entailed in **Table 5**.

Table 5: Lead EAP Profile

Environmental Assessment Practitioner:	Mr Sive Mlamla
Expertise:	Sive Mlamla is an environmental scientist with 11 years of experience in scientific research, lecturing and environmental consulting. His key expertise includes environmental impact assessments, environmental compliance auditing, waste planning, proposal & business development, project management, strategic planning, research design & execution, remote sensing & GIS applications for land use/cover change mapping and fluvial geomorphology. Qualifications • M.Sc. Geography (Catchment Hydrology) • B.Sc. Honours Environmental Geography • B.Sc. Environmental Sciences (Botany and Geography) Professional registrations: • Registered Professional Natural Scientist (Pr.Sci.Nat) - Reg. No. 118495 – SACNASP • Registered Environmental Assessment Practitioner (Reg. EAP (EAPASA)) - Reg. No. 2022/5204 Training: • Practical Implementation of Environmental Auditing and Monitoring (2025)

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	• WET-Health Tool & WET-EcoServices for Level 1B and Level 2 assessment (2025) • WET-Health Tool for Level 1A assessment (2025) • Environmental Impact Assessments (2025) • Introduction to Synthetic Aperture Radar and Applications (2024) • Earth Observation Data Analysis with Google Earth Engine (2023) • People Management Skills (2017) • Biodiversity spatial data management, acquisition, and analysis (2018) • Water Use Licence Applications via e-WULAAS (2020) • Remote Sensing (land use/cover classification) and SWAT hydrologic modelling (2017) Registrations and memberships: • Member of the South African Wetlands Society Reg. No. S9BPP477 • Member of the Southern African Association of Geomorphologists • Institute of Waste Management of Southern Africa (IWMSA) Reg No. 40120001
--	---

As per the requirements of the NEMA Regulations and Regulation 14(6) in the S24H Registration Authority Regulations, 2016, as amended, details of the Candidate EAP who assisted in the compilation of the report under the supervision of the EAP are provided in **Table 6** below.

Table 6: Candidate Environmental Assessment Practitioner details

Candidate Environmental Assessment Practitioner:	Ms Zimkita Dalasile
Expertise:	Junior Environmental Scientist with 4 years' experience in environmental consulting and scientific research. My expertise includes scientific report writing, data analysis, monitoring and conducting environmental compliance audits. Qualifications • MSc. Environmental Management with Ecological Water Requirements • Postgraduate Diploma Integrated Water Resource Management • BSc. Environmental and Water Science Professional registration: • Candidate Environmental Assessment Practitioner (Cand. EAP (EAPASA)) - Reg. No. 2025/20366 • Candidate Natural Scientist (Cand.Sci.Nat.) - Reg. No. 132501 – SACNASP Training: • Introduction Environmental Impact Assessments (2024)

1.5.PURPOSE OF THE REPORT

The scoping process is aimed at identifying the issues and/ or impacts that may result from the proposed activities to inform the Impact Assessment phase of the EIA process. The Final Scoping Report (FSR) will form the basis of the Terms of Reference (ToR) for specialist studies, and it is therefore important that all issues and potential impacts that may be associated with the proposed development be identified and recorded. The purpose of the Draft Scoping Report (DSR) is to identify key issues that require further assessment, and possibly refinement of the development proposal, prior to the commencement of the regulated EIA process with its prescribed timeframes.

The EIA process thus far has focused on developing a more detailed description of the development proposal, and on identifying the potential impacts. Further, the aim of the FSR will be to identify the issues and concerns of Stakeholders and Interested and Affected Parties (I&APs).

I&APs are encouraged to review the DSR to ensure that their issues and concerns with the proposed development are captured in the FSR. All comments received will be included in the FSR, which will be submitted to the Competent Authority for acceptance.

1.6.OBJECTIVE OF THE SCOPING PROCESS

The objective of the scoping process is to, through a consultative process—

- (a) identify the relevant policies and legislation relevant to the activity;
- (b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- (c) identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks;
- (d) identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- (e) identify the key issues to be addressed in the assessment phase;
- (f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and

- (g) identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

The Scoping Process is supported by a review of relevant background literature on the local area. Through this comprehensive process, the environmental assessment can identify and focus on key issues requiring further assessment during the EIA Phase.

1.7.REPORT STRUCTURE

The Scoping Report includes information as required per Appendix 2 of the 2014 NEMA EIA Regulations. The structure of the Scoping Report is presented in **Table 7**.

Table 7: Scoping Report structure

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
2 (1)	A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—	
(a)	details of— (i) the EAP who prepared the report; and (ii) the expertise of the EAP, including a curriculum vitae;	Section 0 Appendix A
(b)	the location of the activity, including— (i) the 21 digit Surveyor General code of each cadastral land parcel; (ii) where available, the physical address and farm name; (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	Section 1.2
(c)	a plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is— (i) a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken;	Section 1.1
(d)	a description of the scope of the proposed activity, including—	Section 1.1

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
	(i) all listed and specified activities triggered;	Section 4.3
	(ii) a description of the activities to be undertaken, including associated structures and infrastructure;	Section 1.1
(e)	a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;	Section 4.1 and 4.2
(f)	a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;	Section 2
(g)	a full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including—	Section 5
	(i) details of all the alternatives considered;	
	(ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	Section 7.5
	(iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	Section 7.5
	(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 3
	(v) the impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts— (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and	Section 6.2

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
	(cc) can be avoided, managed or mitigated;	
	(vi) the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	Section 6.1
	(vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 6
	(viii) the possible mitigation measures that could be applied and level of residual risk;	Section 6.3
	(ix) the outcome of the site selection matrix;	Section 6.2
	(x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and	N/A
	(xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;	Section 6.3
(h)	a plan of study for undertaking the environmental impact assessment process to be undertaken, including— (i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity; (ii) a description of the aspects to be assessed as part of the environmental impact assessment process; (iii) aspects to be assessed by specialists; (iv) a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists; (v) a description of the proposed method of assessing duration and significance; (vi) an indication of the stages at which the competent authority will be consulted; (vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and (viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process;	Section 7

APPENDIX 2	CONTENT AS REQUIRED BY NEMA	SECTION/CHAPTER
	(ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	
(i)	an undertaking under oath or affirmation by the EAP in relation to— (i) the correctness of the information provided in the report; (ii) the inclusion of comments and inputs from stakeholders and interested and affected parties; and (iii) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties;	Appendix A
(j)	an undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment;	Appendix A
(k)	where applicable, any specific information required by the competent authority; and	N/A
(l)	any other matter required in terms of section 24(4)(a) and (b) of the Act.	N/A

1.8. SCOPING REQUIREMENTS AS PER REGULATION 20

The scoping report has been guided by the requirements of the EIA Regulations set out in terms of the NEMA. The study was also guided by the requirements of the EIA Regulations, 2014, which are more specific in their focus and define the detailed approach to the Scoping and Environmental Impact Report (EIR) process, as well as relevant guidelines published by the Department of Environmental Affairs (DEA), including:

- DEA's Public Participation Guideline in terms of NEMA EIA Regulations (DEA, 2017); and
- DEA's Guideline on Need and Desirability (DEA, 2017a).

The overall aim of the Scoping Phase is to determine whether there are environmental issues and impacts that require further investigation in the detailed EIA. More specifically, the requirements of the Scoping Phase for this EIA are to:

- Identify the relevant policies and legislation relevant to the activity;
- Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

- Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
- Identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- Develop a common understanding of the proposed project with the authorities and I&APs;
- Identify stakeholders and notify them of the proposed activity and processes;
- Provide stakeholders with the opportunity to participate in the process and identify issues and concerns associated with the proposed activity;
- Develop terms of reference for any studies that will be conducted in the impact assessment phase.
- Identify the key issues to be addressed in the impact assessment phase of the EIA process;
- Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
- Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

This report presents the findings of the scoping study and offers an opportunity for key stakeholders and I&APs to review the issues identified, and to make further comments.

2. NEED AND DESIRABILITY

One of the objectives of the EIA process is to motivate for “the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred development footprint”. Consideration should be given to the need and desirability of development in determining whether this is the right time and place for the proposed land use or activity to be established. Hence, it is therefore, equated with rational land use and should be able to answer the question of what the most sustainable use of land is.

2.1 MOTIVATION

South Africa’s electricity sector is reliant on coal power which impacts its ability to progress towards the country’s climate commitments under the Paris Agreement (GreenCape, 2025). One of the challenges that South Africa is facing at social and economic levels is an ongoing energy crisis which is due to a number of factors, including constraints in the generation capacity of the country’s utility, Eskom. South Africa has therefore recognised the need to expand electricity generation capacity within the country. The National Development Plan (NDP) envisages that by 2030, South Africa will have an energy sector that provides reliable and efficient energy service at competitive rates that is socially equitable through expanded access to energy at affordable tariffs; and that is environmentally sustainable through reduced emissions and pollution (Integrated Resource Plan, 2019). South Africa is currently undergoing a significant transition in its energy sector, aiming to reduce its reliance on coal and increase the integration of renewable energy sources.

Although coal still contributes the majority of South Africa’s electricity generation, government has established ambitious renewable energy targets to facilitate a transition towards a lower-carbon economy. The country aims to raise the contribution of renewable energy to 30 % by 2030, a significant increase from the current contribution of approximately 12 %. To achieve these goals, the government has implemented various initiatives, such as the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) which promotes private sector investment in renewable energy infrastructure.

The Integrated Resource Plan (IRP) of 2019 further outlines the country’s vision for energy up to 2030, emphasizing the diversification of energy sources and a significant reduction in coal dependency. This plan makes provision for significant increases in renewable energy capacity including approximately 17,742 MW from wind energy and 8,288 MW from solar photovoltaic (PV) energy, and other renewable sources. South Africa’s transition towards renewable energy is further supported by the government’s efforts to promote clean energy and integrate renewable resources into the national power grid (Ukoba *et al.*, 2025).

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

The proposed solar PV facility therefore aligns with national energy policies and objectives by contributing additional renewable electricity generation capacity to the national grid. The development will contribute towards meeting the national energy targets as set by the Department of Energy and assist the government in achieving its proposed renewable energy target of 17 800 MW by 2030. The project would support energy security, reduce dependence on fossil fuels, and contribute towards South Africa's climate change mitigation commitments. Furthermore, the proposed development supports the objectives of Sustainable Development Goal 7 (SDG 7), which seeks to ensure access to affordable, reliable, sustainable, and clean energy for all. In addition, the development would provide socio-economic benefits through temporary employment opportunities during the construction phase, potential long-term operational employment, and indirect economic stimulation within the local and regional economy.

2.2 SOLAR RESOURCE AND ENERGY PRODUCTION

According to the data obtained from the Global Solar Atlas (2026) the Polokwane area is characterised by high solar energy potential. The Global Horizontal Irradiation (GHI) for the region is approximately 2026.2 kWh/m² per year while the estimated specific photovoltaic power output is approximately 1774.6 kWh/m² per year demonstrating favourable conditions for photovoltaic (PV) electricity generation.

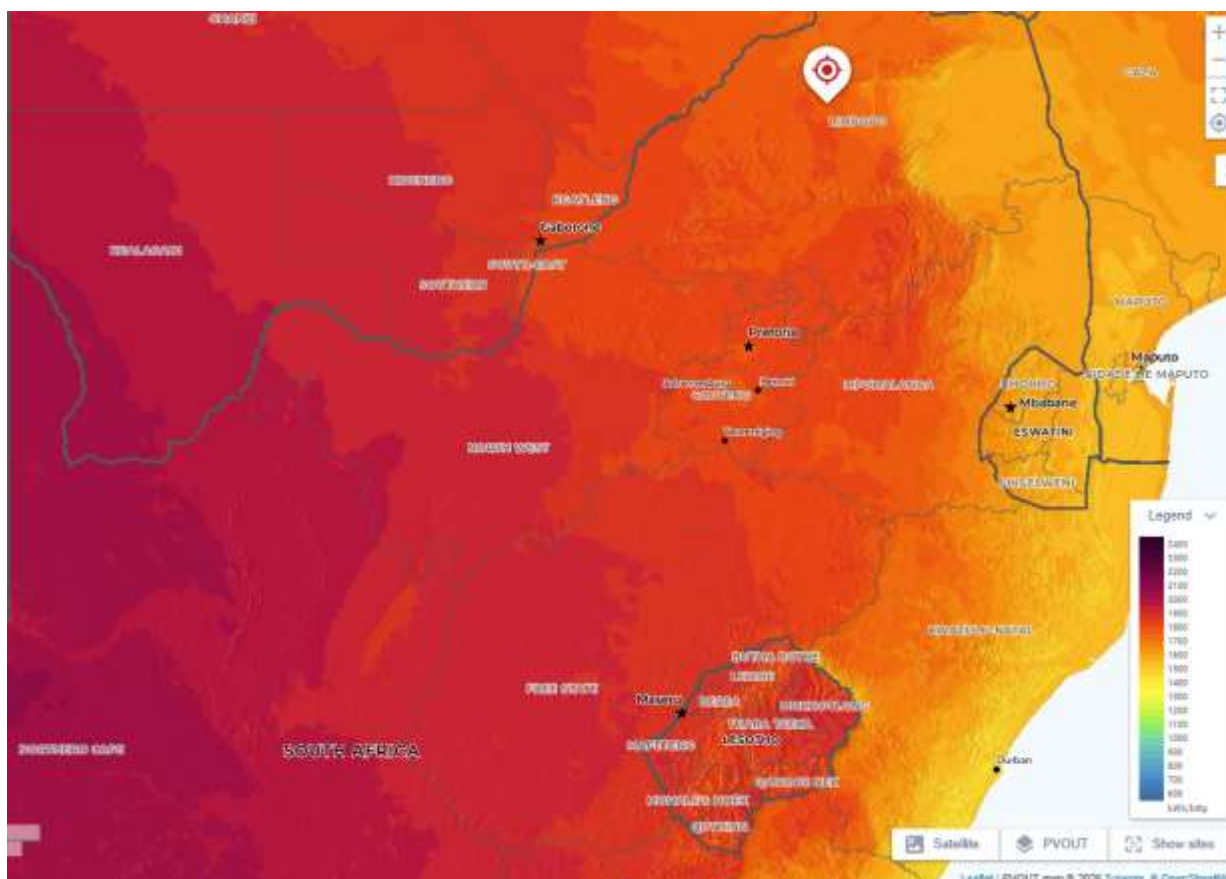


Figure 4. Solar resource characteristics for the Polokwane region (Global Solar Atlas, 2026).

2.3 ACCESS TO GRID

The existing Eskom Borutho Substation is situated approximately 2km to the west of the proposed site. There is also existing HV powerlines in close proximity to the site. Developments which are in relatively close proximity to a connection point are favourable, and reduce the losses associated with power transmission. In addition, Eskom's '2040 Transmission Network Study' has drawn on various scenarios to determine the grid's development requirements, as well as to identify critical power corridors for future strategic development. The National EGI corridors consisting of five transmission power corridors of 100 km in width have been gazetted by the DFFE following the outcome of the Strategic Environmental Assessment (SEA) which aimed to identify environmentally acceptable routes. The proposed development falls within the International Strategic Electrical Grid Corridor (see Figure 5).

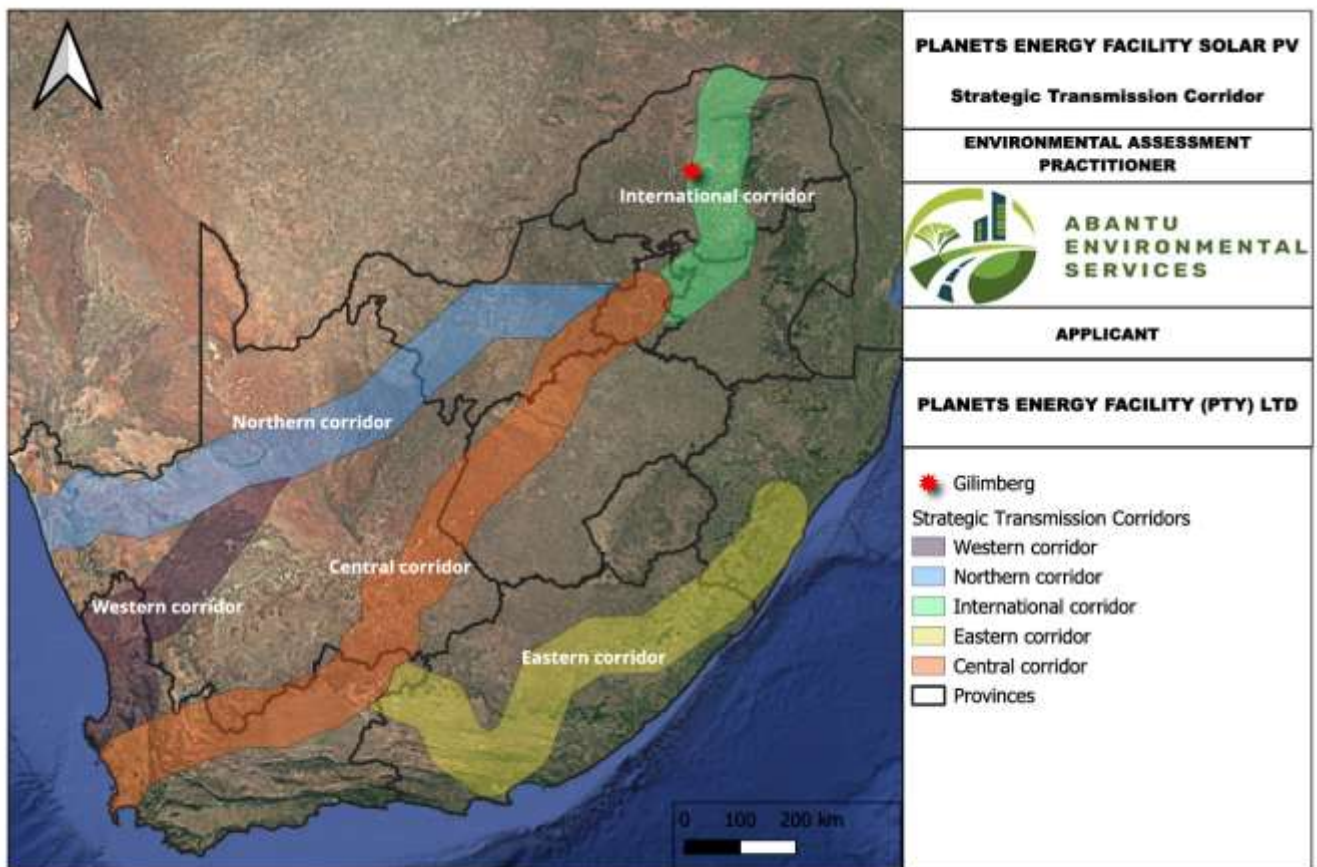


Figure 5. Strategic Transmission Corridor

2.4 MARKET SUITABILITY

South Africa’s energy market presents a strong case for hybrid PV-BESS projects due to persistent supply constraints, load shedding, and peak demand mismatches. The integration of storage allows participation in energy arbitrage by storing low-cost or surplus solar energy and dispatching during peak tariff periods. Limpopo’s proximity to industrial loads (notably mining operations in Mogalakwena) enhances the potential for private offtake agreements and wheeling arrangements. The project is well-positioned to align with national energy policies, including the Integrated Resource Plan (IRP) and increasing renewable procurement initiatives.

2.5 COMMERCIAL CONSIDERATIONS

The project’s commercial viability is influenced by Eskom tariffs, grid access constraints, and evolving market mechanisms. Revenue streams may include energy sales under Power Purchase Agreements (PPAs), peak energy arbitrage, and potential participation in future ancillary service markets. Grid charging capability enhances flexibility and revenue stacking potential. Key risks include grid connection delays, regulatory uncertainty, market price volatility, and technology cost fluctuations. However, the project’s hybrid design mitigates curtailment risks and enhances bankability. Future opportunities include expansion of battery capacity, participation in capacity markets, and integration with emerging private energy trading platforms.

2.6 NEED AND DESIRABILITY

The following **Table 8** outlines the need and desirability of the proposed housing development, addressing ecological sustainability, socio-economic considerations, and environmental justice in relation to the project's location, scale, and anticipated impacts.

Table 8: Need and Desirability assessment for the development

ASPECTS RELATED TO SECURING ECOLOGICAL SUSTAINABLE DEVELOPMENT AND USE OF NATURAL RESOURCES
1.1 How will this development (and its separate elements/aspects) impact the ecological integrity of the area, disturb or enhance ecosystems, and/or result in the loss or protection of biological diversity? The proposed Planets Energy Facility will result in impacts on ecological integrity through vegetation clearing and habitat transformation and the disturbance will be associated with the construction activities. The proposed site falls within Makhado Sweet Bushveld (VU) and Polokwane Plateau Bushveld (LC) vegetation types and is located within CBA 2. According to the terrestrial specialist assessment, the site supports moderate levels of biodiversity and ecological function and has already been influenced by historical and current land uses, including grazing, subsistence agriculture and localised sand mining. Despite these pressures the vegetation remains largely intact, and the site supports one protected species, with a high likelihood of occurrence of Species of Conservation Concern (SCC).

The development is therefore expected to result in habitat loss and fragmentation as well as disturbance on fauna. However, given that the site is not pristine and that ecological processes remain functional, impacts associated with the proposed development are expected to be localised and manageable through the implementation of appropriate mitigation measures.

Ephemeral drainage lines were observed along the boundary of the proposed site as well as a secondary drainage line within the development footprint. is characterised by a poorly developed riparian zone in comparison to the ephemeral drainage line located on the site boundary. The proposed transmission line traverses the ephemeral drainage line which may result in disturbance to the drainage line if not managed appropriately. To minimise potential impacts, the drainage lines should be protected through the implementation of appropriate buffer zones, together with stormwater and erosion control measures to prevent sedimentation and degradation of the drainage lines.

1.2 What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts?

Measures to avoid and minimise potential negative impacts have been considered and are informed by specialist findings. Environmentally sensitive areas will be avoided as far as possible. Appropriate buffer zones around the identified ephemeral drainage lines have been recommended to protect aquatic ecological functioning. Where impacts cannot be entirely avoided such as the clearing of vegetation, for the development footprint and associated infrastructure, mitigation measures have been recommended for inclusion in the Environmental Management Programme (EMPr) to ensure that impacts are minimised.

ASPECTS RELATED TO INTRA- AND INTER-GENERATIONAL EQUITY IN THE CONTEXT OF SUSTAINABILITY

2.1 Does the proposed location, type, and scale of development promote a reduced dependency on resources? For example, can the development be located more appropriately to reduce the dependency on resources needed for service infrastructure?

The proposed development promotes a reduced dependency on non-renewable energy resources. The Solar PV facility will generate electricity without the use of fossil fuels, thereby reducing reliance on conventional energy sources such as coal. The selection of the site in close proximity (approximately 2 km) to the Borutho Substation reduces the need for extensive additional transmission infrastructure. This improves infrastructure efficiency and reduces energy losses associated with long-distance transmission.

2.2 How will the ecological impacts resulting from this development impact people's environmental right?

The proposed development is not anticipated to have significant negative impacts on people's environmental rights. The ecological impacts will include vegetation clearing and habitat transformation. These impacts may indirectly affect people through reduced availability of natural resources such as grazing areas for livestock and fuelwood, as well as temporary negative impacts during the construction phase, including noise, dust, and increased traffic. In addition, the long-term benefits of the development contribute positively to the environmental right by supporting renewable energy generation, reducing reliance on fossil fuels, and lowering greenhouse gas emissions, which are linked to climate change and environmental degradation.

2.3 Describe the linkages and dependencies between human well-being, livelihoods, and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)

Human well-being and livelihoods in the area are linked to ecosystem services provided by the vegetation at the proposed site. These ecosystem services support livestock grazing, and informal resource use (such as wood), which are important livelihood activities for surrounding rural communities. The development will

result in vegetation clearing which may reduce the availability of grazing land and access to natural resources within the proposed site. The proposed development will provide positive socio-economic benefits through improved electricity supply, employment opportunities during construction, and broader support for local economic activities, which help offset the livelihood-related losses.

2.4 Based on all the above, how will this development positively or negatively impact ecological integrity objectives/targets/considerations of the area?

Negative impact

The proposed development will negatively impact the ecological integrity of the area due to the irreversible loss of natural habitat. The proposed site falls within Makhado Sweet Bushveld (VU) and Polokwane Plateau Bushveld (LC) vegetation types and is located within CBA 2. Additionally, the area has a high likelihood of SCCs.

Positive impact

The long-term benefits of the development contribute positively to ecological integrity objectives through the generation of renewable energy, reducing reliance on fossil fuels, and lowering greenhouse gas emissions associated with climate change and environmental degradation. In addition, the project provides a more controlled and managed land use alternative to existing activities such as grazing and localised sand mining, which can contribute to ongoing land degradation if not properly managed.

2.5 Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope, and nature of the project its location, and existing and other planned developments in the area.

Positive cumulative ecological/biophysical impacts:

The proposed project will ensure the create opportunities within renewable energy, reduce the reliance on fossil fuels which release greenhouse gases into the atmosphere, and ensure a balanced and cleaner energy supply.

Negative cumulative ecological/biophysical impacts:

The proposed development will contribute to incremental habitat loss and fragmentation of the vegetation types in the area. Although the site has been disturbed further development will add to the cumulative reduction of the natural habitat.

ASPECTS RELATED TO PROMOTING JUSTIFIABLE ECONOMIC AND SOCIAL DEVELOPMENT

3.1 What is the socio-economic context of the area, based on, amongst other considerations, the following considerations: The IDP and any other strategic plans, frameworks of policies applicable to the area; spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.), spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and Municipal Economic Development Strategy?

According to Mogalakwena Local Municipality IDP 2025/2026, the municipality faces challenges in the provision of electricity. The municipality experiences ongoing electricity constraints, including load shedding, system instability when power is restored, and insufficient capacity in Eskom substations supplying surrounding villages. These limitations negatively affect electrification efforts in rural communities, constraining local economic development, service delivery, and quality of life. According to Polokwane Local Municipality IDP 2025/2026, households within the municipality increased which reduced the number of households with access to electricity from 98,07% to 92% making a backlog of 19118 households without access to electricity. The proposed solar PV development aligns with the broader strategic need to improve energy availability and support regional development objectives through enhanced electricity generation capacity.

3.2 Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?

The proposed development will contribute to improved electricity generation capacity, helping to address existing challenges such as load shedding, backlog of households without access to electricity, limited substation capacity, and unreliable supply to surrounding villages. This supports the municipality's broader objective of improving energy security, enabling economic development, and enhancing service delivery. In addition, the development will provide employment opportunities during construction and operation phases. Improved electricity supply at a regional level will also support local businesses, small enterprises, and public services, thereby indirectly strengthening socio-economic resilience and development potential in the area.

3.3 How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?

According to the Archaeological and Cultural Heritage Impact Assessment conducted, there is no sign of sites of heritage potential, graves and historical structures found in within the study area and the farm at large.

3.4 How will this development address the specific physical, psychological, developmental, cultural, and social needs and interests of the relevant communities? Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?

The development will address key physical and developmental needs by improving electricity supply, which supports households, public services, and local economic activities. It will also provide short-term employment opportunities during construction and long-term operational jobs, contributing to income generation and skills development in the area. Psychologically and socially, improved energy reliability can enhance quality of life by reducing the stress associated with power interruptions and improving access to lighting.

3.5 How were a risk-averse and cautious approach applied in terms of socio-economic impacts? What are the limits of current knowledge (note: the gaps, uncertainties, and assumptions must be clearly stated)? What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability, and sustainability) associated with the limits of current knowledge? Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development (and its alternatives)?

The proposed development is inherently pro socio-economic impactful by bringing energy security, contributing to unlocking economic potential and creating employment opportunities from construction to operations both directly and indirectly.

3.6 How will the socio-economic impacts resulting from this development impact people's environmental right?

The socio-economic impacts of the development will have both positive and negative implications for people's environmental right, as provided for in Section 24 of the Constitution, which guarantees the right to an environment that is not harmful to health or well-being. The development supports this right by contributing to improved energy security and a transition toward cleaner energy through renewable solar power. By reducing reliance on fossil fuels, it helps lower greenhouse gas emissions and associated air pollution. It also supports local development through job creation and improved electricity supply which indirectly enhances living conditions. Negatively, the proposed development the development will result in localised environmental impacts such as vegetation clearing and habitat loss.

3.7 What measures were taken to pursue the selection of the “best practicable environmental option” in terms of socio-economic considerations? What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)?
The best practicable environmental option in terms of the socio-economic context has been selected by: • Ensuring consultation with interested and affected parties throughout the Scoping and EIA process. • Solar energy can offer a reliable source of power, which is crucial in reducing the frequency and impact of power outages. • In response to address the increased energy demand to meet the needs of population increase. • Strengthen regional and local economic sectors by providing energy security revising jobs and businesses
3.8 What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development’s life cycle?
Mitigation measures for environmental health and safety have been identified, this is to ensure that impacts encountered during the construction phase are addressed adequately.
3.9 What measures were taken to ensure that the interests, needs, and values of all interested and affected parties were considered and that adequate recognition was given to all forms of knowledge, including traditional and ordinary knowledge?
The public participation process shall take note of interests, needs and values of all I&APs based on all forms of knowledge, this will be done by ensuring that every comment received is addressed and considered.
3.10 Considering the interests, needs, and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?
The development supports all segments of the community by improving electricity supply through better access to essential services, business continuity, and economic activity. It also contributes to local development priorities by addressing energy shortages and supporting economic growth. Employment opportunities during construction and operational jobs will mainly benefit local skilled and semi-skilled workers, promoting more inclusive participation in project benefits.

3. DESCRIPTION OF AFFECTED ENVIRONMENT

This section of the Scoping Report provides a description of the environment that may be affected by the proposed project. Aspects of the biophysical, social and economic environment that could be directly or indirectly affected by, or could affect, the proposed project have been described. Baseline information sourced from various spatial datasets, the National Screening tool report, as well as specialist biodiversity and ecosystem mapping resources. These include the National Ecosystem freshwater Priority Areas (NEFPA) wetlands and rivers, the National Wetland Map Version 5 (NWM5), the Limpopo Conservation Plan v2 and the National Vegetation Map (Mucina & Rutherford, 2018).

3.1 CLIMATE

The Limpopo province is characterized by hot summers with an average maximum temperature of 27°C. Winters in the province are mild with an average minimum temperature of 18°C. High rainfall variability makes the region prone to drought and floods. The majority of the rainfall is accumulated during the austral summer months, ranging from 200 to 1600mm. The dominant climate type is semi-arid, followed by humid subtropical climates and arid (Moumakwe, 2024). Polokwane, the capital city of the province is situated roughly in the center of the province. Polokwane experiences an arid climate typified by a rainy season during summer and a distinct dry period in winter. The yearly average rainfall stands at 495 mm, with December or, less frequently, January being the wettest month, while July records the lowest precipitation levels (Polokwane Local Municipality SDF, 2024).

3.2 TOPOGRAPHY AND HYDROLOGY

The area is characterized by gently undulating terrain and minimal steep slopes (**Figure 6**). Elevation ranges from 1231 m to 1292 m, with an average slope of 2.4%.



Figure 6. Topography of the proposed development site.

The proposed site is situated within quaternary catchment A61G, located within the Limpopo-Olifants Water Management Area. An ephemeral watercourse (see **Figure 8**) was observed in close proximity to the project

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

area, and the proposed transmission route intersects the aquatic feature. In addition, an artificial wetland (see) was observed within the proposed project area, specifically within the solar facility footprint.



Figure 7. Conditions within the proposed Solar PV development area

Figure 8 below shows the conditions of the ephemeral conditions observed during the site visit.



Figure 8. Conditions of the ephemeral stream

3.3 GEOLOGY AND SOILS

The proposed area is underlain by the Goudplaats–Hout River Gneiss Suite, which comprises light to dark grey migmatitic tonalite, trondhjemite, granodiorite, monzodiorite, and leucogneiss. The gneisses range from massive to layered, are leucocratic to dark grey, and vary in grain size from fine-grained to pegmatoidal (Dippenaar and Rooy, 2014). The Goudplaats Gneiss is dark grey, fine-grained, and predominantly deformed by ductile processes, reflecting an older and more intensely metamorphosed component of the suite. In contrast, the Hout River Gneiss is pinkish-grey, pegmatoidal, and highly fractured and weathered, representing a younger and more brittle unit (Tshipala, 2018).

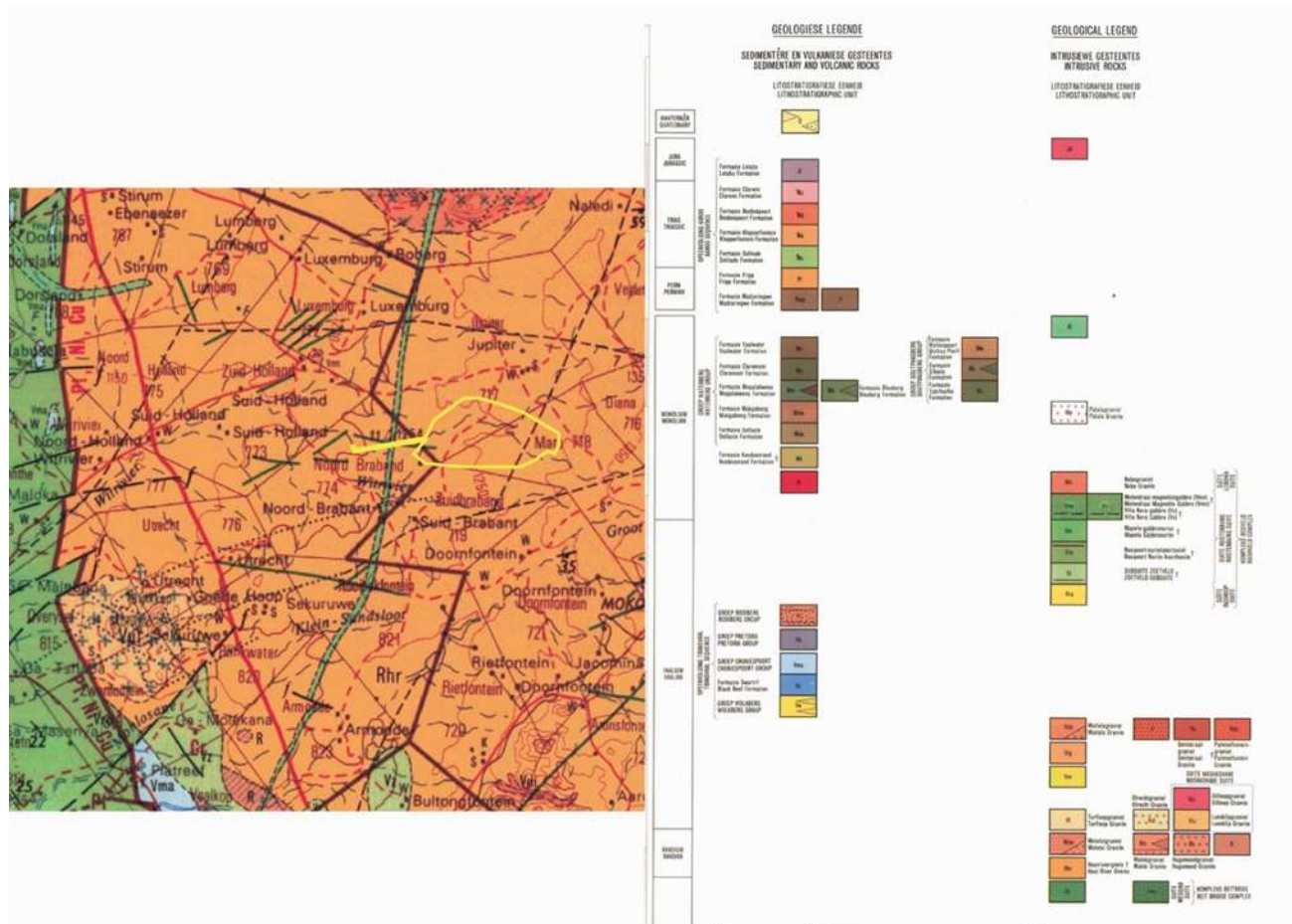


Figure 9. Geological map (Mavuso, 2026)

3.4 TERRESTRIAL AND AQUATIC BIODIVERSITY

3.4.1 TERRESTRIAL

According to the National South African Vegetation Map (2018), the study area falls within both the Central Bushveld Bioregion, within the Savanna Biome. The vegetation types that occur in this area include the Polokwane Plateau Bushveld and Makhado Sweet Bushveld. The proposed Solar PV facility site is largely located within the Polokwane Plateau Bushveld, while most of the associated transmission line passes through the Makhado Sweet Bushveld, with a small portion intersecting the Polokwane Plateau Bushveld. The vegetation types are described below:

(a) Polokwane Plateau

This vegetation type occurs on the higher plains around Polokwane, north of the Strydpoort Mountains and south of the Makhado Sweet Bushveld. Vegetation and landscape features include moderately undulating plains with short open tree layer with well-developed grass layers to grass plains with

occasional trees at higher altitudes (Mucina and Rutherford, 2006). This habitat is characterised by open savannah dominated by Red Grass (*Themeda triandra*) and scattered Umbrella Thorn (*Acacia/Vachellia tortilis*) and Silky thorn (*Acacia/Vachellia rehmanniana*) trees. Much of this habitat has been altered due to agricultural activities and the most pristine examples can be found in and around the Polokwane Nature Reserve (Limpopo Birding Routes, n.d.). The conservation status for this vegetation type is classified as **Least Concern (LC)**.

(b) Makhado Sweet Bushveld

The vegetation occurs on plains and slopes of the Soutspanberg, east of the Waterberg and surrounding the Blouberg and Lerataupje Mountains, and north of the Polokwane Plateau and west of the escarpment, extending south to Mokopane and north to Vivo in the Limpopo Province. The landscape is characterised by slightly to moderately undulating plains, with altitude ranging from 850- 1200 m. The vegetation is described as short stubby bushveld with a poorly developed grass layer (Biodiversity Africa, 2025). The conservation status for this vegetation type is classified as **Vulnerable (VU)**.

According to Limpopo Conservation Plan (2013), the proposed development footprint falls within Critical Biodiversity Areas (CBA) 2.



Figure 10. Vegetation conditions at the proposed site

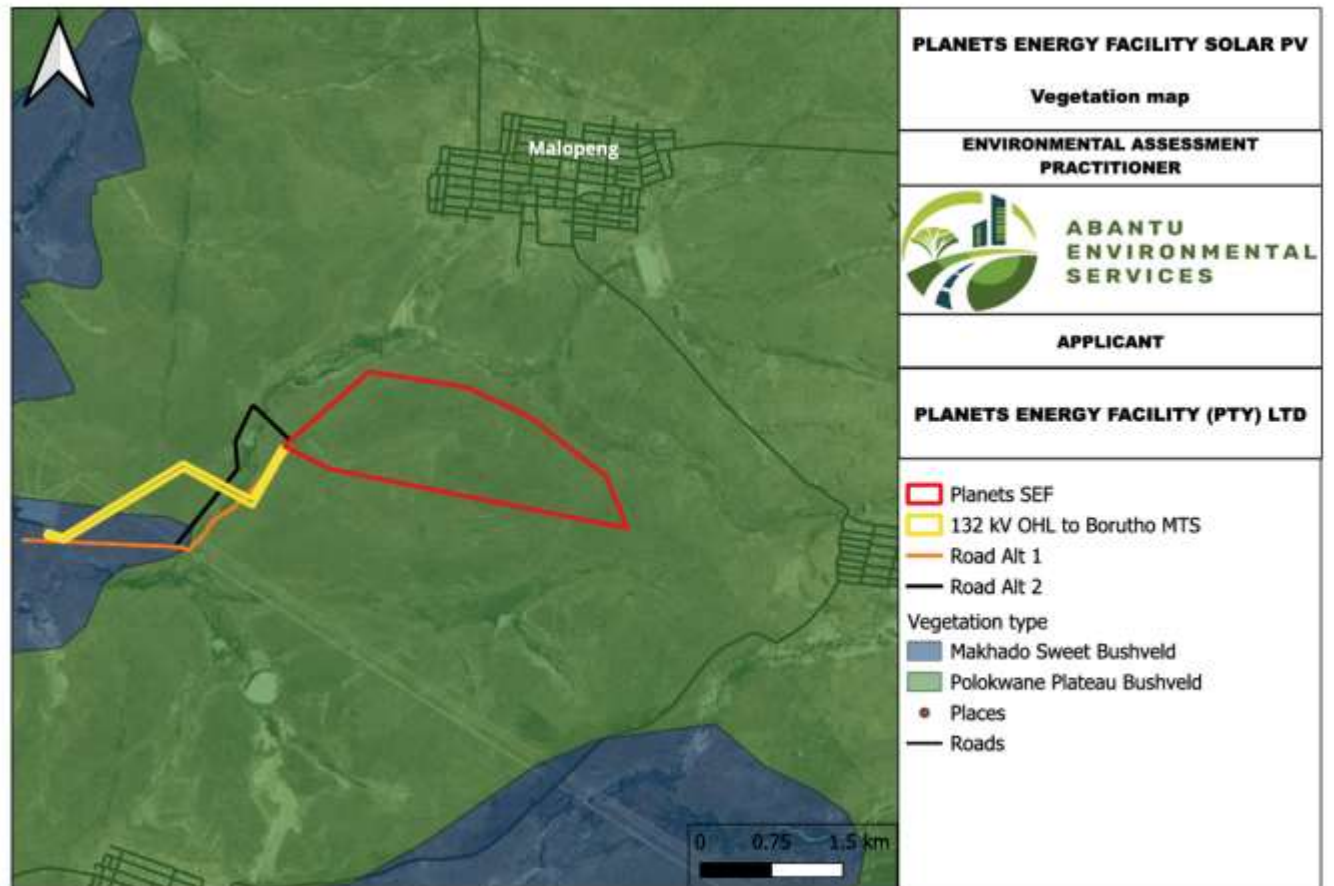


Figure 11. Vegetation map

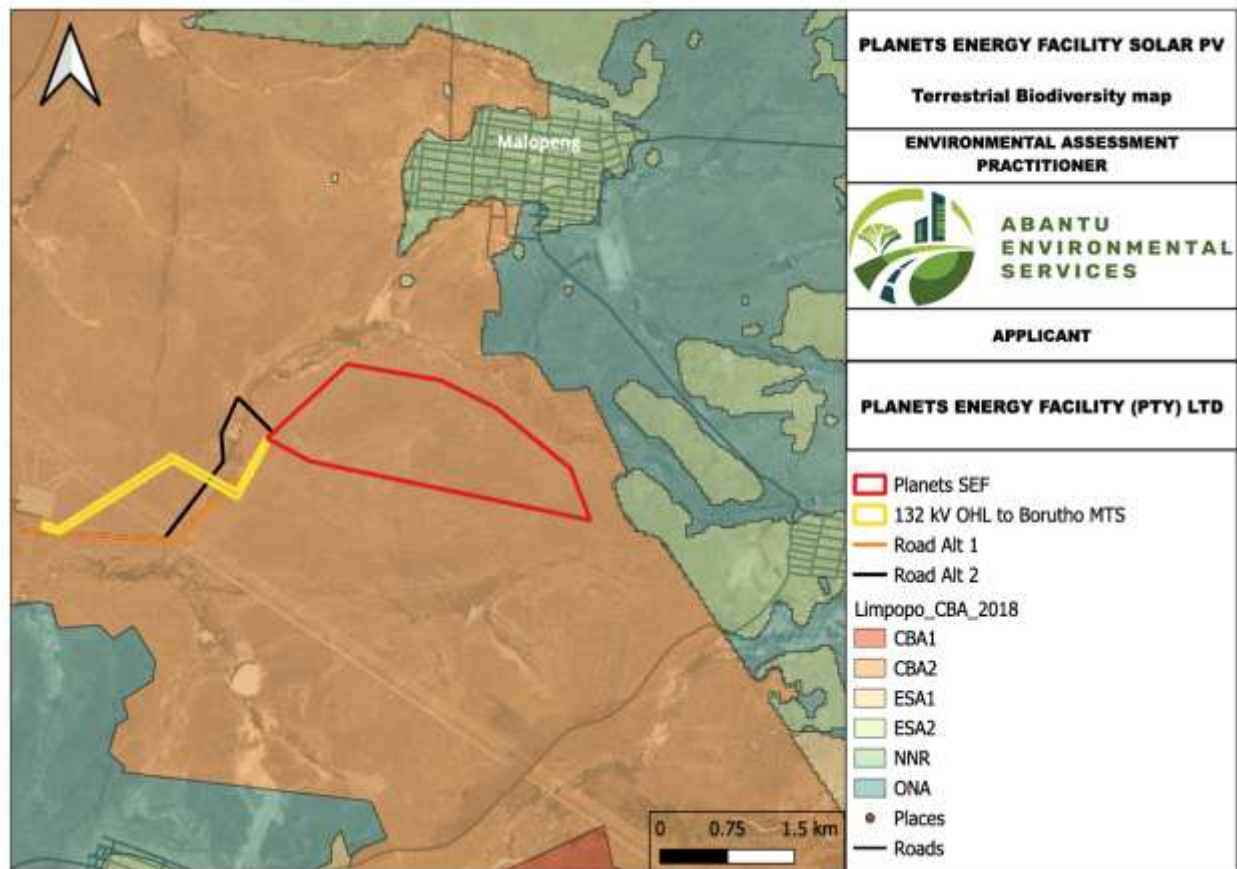


Figure 12. Terrestrial Biodiversity map

3.4.2 AQUATIC BIODIVERSITY

According to the national web-based environmental screening tool, the aquatic biodiversity sensitivity of the site is rated as Low. However, an ephemeral watercourse was observed in close proximity to the project area, and the proposed transmission route intersects this watercourse.

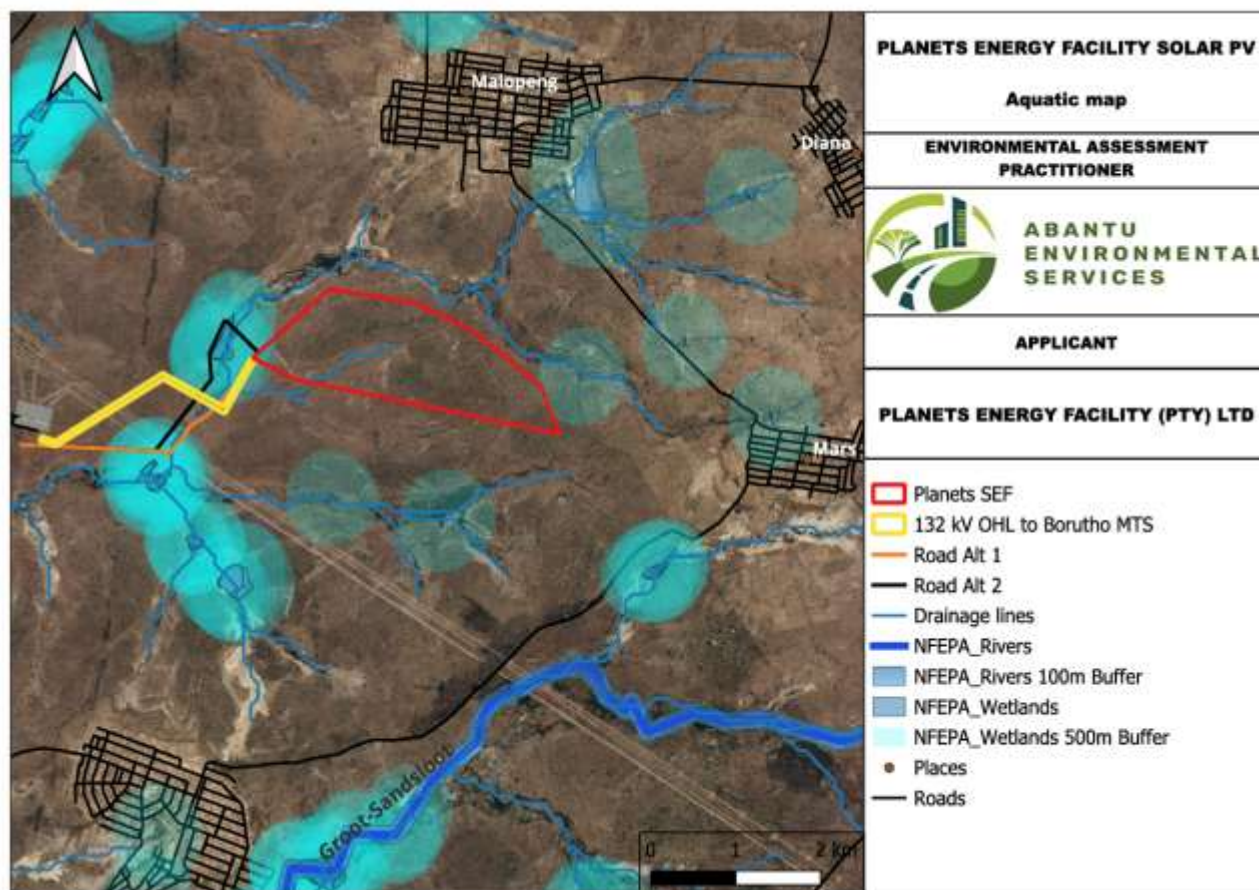


Figure 13. Aquatic Map

3.5 FAUNA

The DFFE Screening tool listed the animal species theme for the Solar PV footprint as medium with the *Mammalia-Dasymys robertsii* listed as a potential animal species that can occur on site. The transmission line route is rated as having low sensitivity.

3.6 AVIFAUNA

According to the avifaunal impact assessment report, the assessment confirmed at least 73 bird species from the proposed site, including its Project Area of Influence (PAOI), covering around a 200m buffer. Most of these species are common residents and resistant to fragmentation or land change. There is one national protected species, the White-backed Vulture (*Gyps africanus*) – Critical Endangered category. The drainage lines surrounding the project site may present suitable habitats for diverse species, but no SCC waterbird was observed.

3.7 ARCHAEOLOGY AND HERITAGE RESOURCES

According to the National Web-based Screening Tool the proposed area is rated as Low sensitivity. During the site visit no heritage resources were found within the Solar PV facility footprint and within the route of the

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

proposed transmission line. According to Tsimba Archaeological Footprints (2026), there are no signs of heritage potential, graves and historical structures found within the study area and the farm at large. According to the paleo sensitivity map as seen on **Figure 14** below the sensitivity on palaeontological resources within the proposed area is rated as 'Insignificant/Zero', as such no palaeontological studies are required. However, the screening tool rates the palaeo sensitivity as medium for the area, therefore a Palaeontological study was conducted.

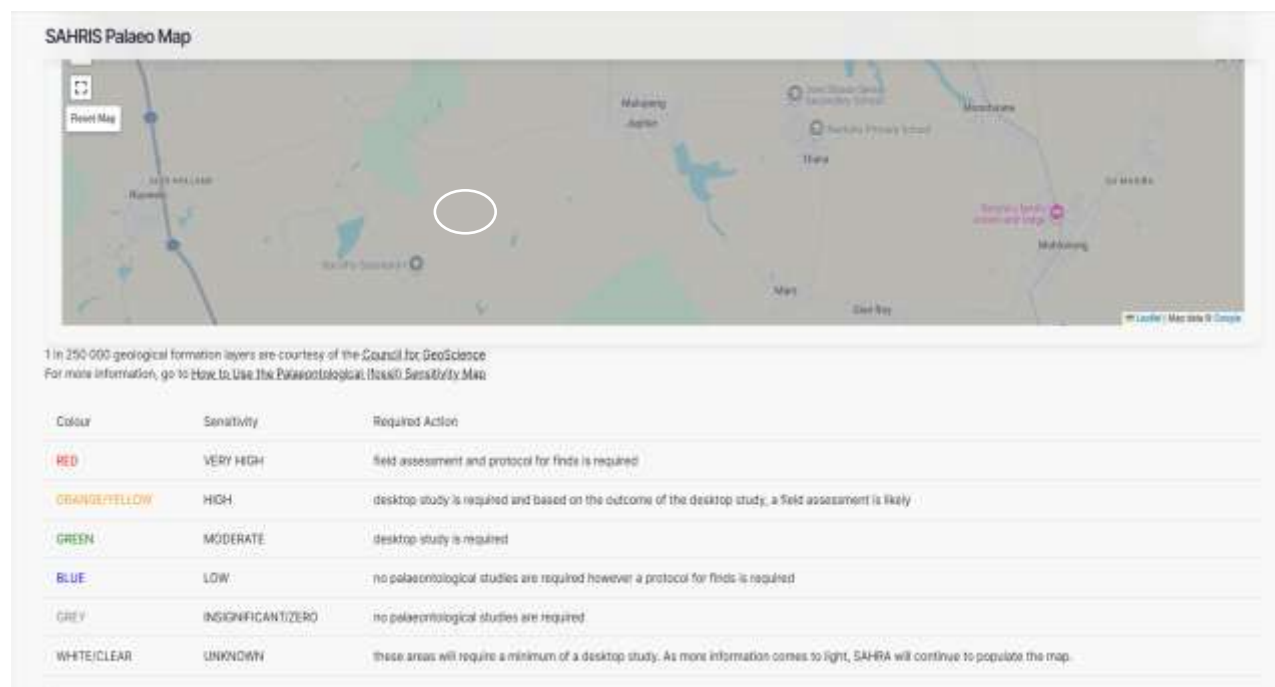


Figure 14. SAHRIS Palaeo map

3.8 RENEWABLE ENERGY DEVELOPMENT ZONES

On 16 February 2018, Minister Edna Molewa published Government Notice No. 114 in Government Gazette No. 41445 which identified 8 renewable energy development zones (REDZ) important for the development of large-scale wind and solar photovoltaic facilities. The Government Notice included procedure to be

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

followed when applying for environmental authorisation for large scale wind and solar photovoltaic energy facilities when occurring in these REDZs. On 26 February 2021, Minister Barbara Dallas Creecy, published Government Notice No. 142, 144 and 145 in Government Gazette No. 44191 which identified 3 additional REDZs for implementation as well as the procedures to be followed when applying for environmental authorisation for electricity transmission or distribution infrastructure or large-scale wind and solar photovoltaic energy facilities in these REDZs. The REDZs were identified through the undertaking of 2 Strategic Environmental Assessments, the first being finalised in 2015 and the second being finalised in 2019.

According to the available dataset, the project area does not overlap with a REDZ.

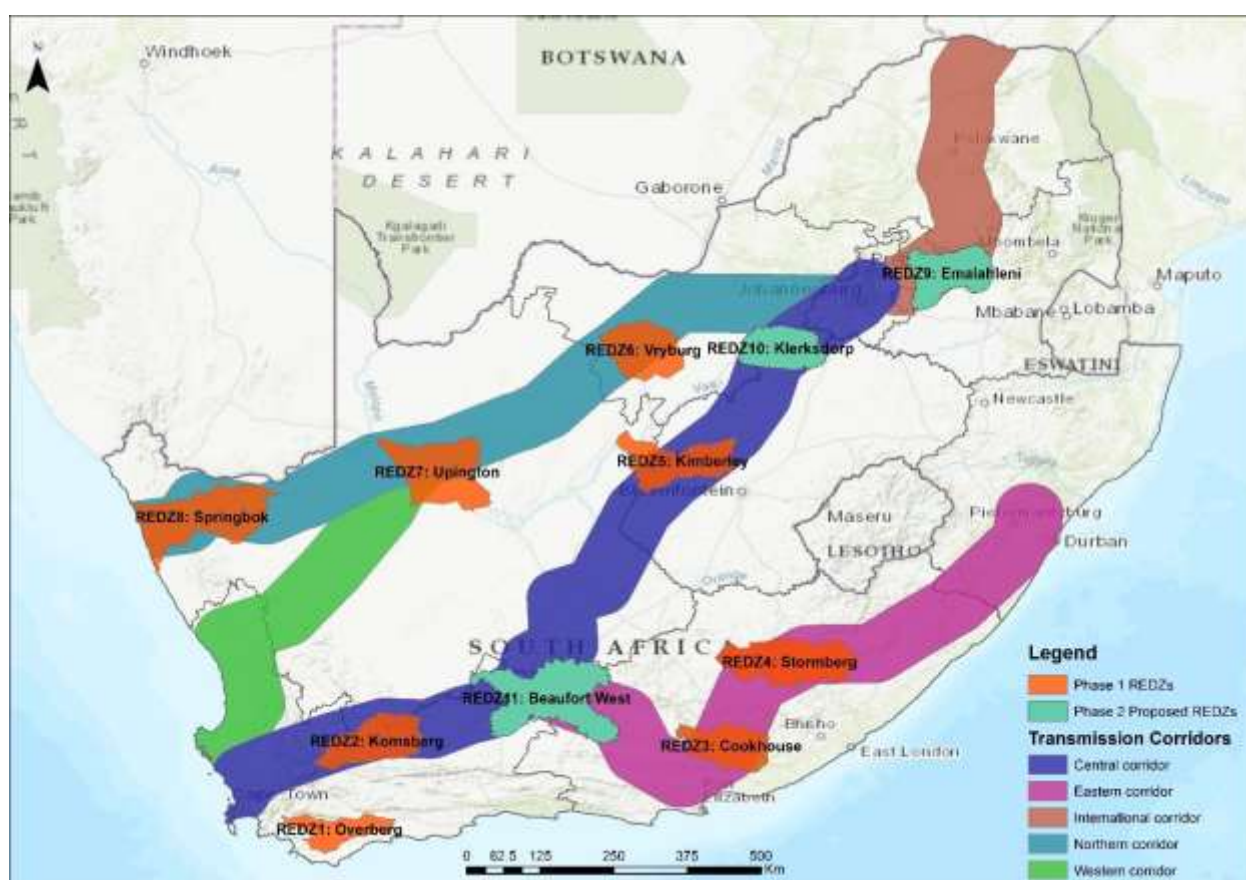


Figure 15. Resource Development Zones

3.9 STRATEGIC TRANSMISSION CORRIDORS

On the 16 February 2018 minister Edna Molewa published Government Notice No. 113 in Government Gazette No. 41445 which identified 5 strategic transmission corridors important for the planning of electricity transmission and distribution infrastructure as well as procedure to be followed when applying for environmental authorisation for electricity transmission and distribution expansion when occurring in these

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

corridors. On 29 April 2021, Minister Barbara Dallas Creecy published Government Notice No. 383 in Government Gazette No. 44504, which expanded the eastern and western transmission corridors and gave notice of the applicability of the application procedures identified in Government Notice No. 113, to these expanded corridors.

The project area falls within the International Strategic Transmission Corridor (see **Figure 16**).

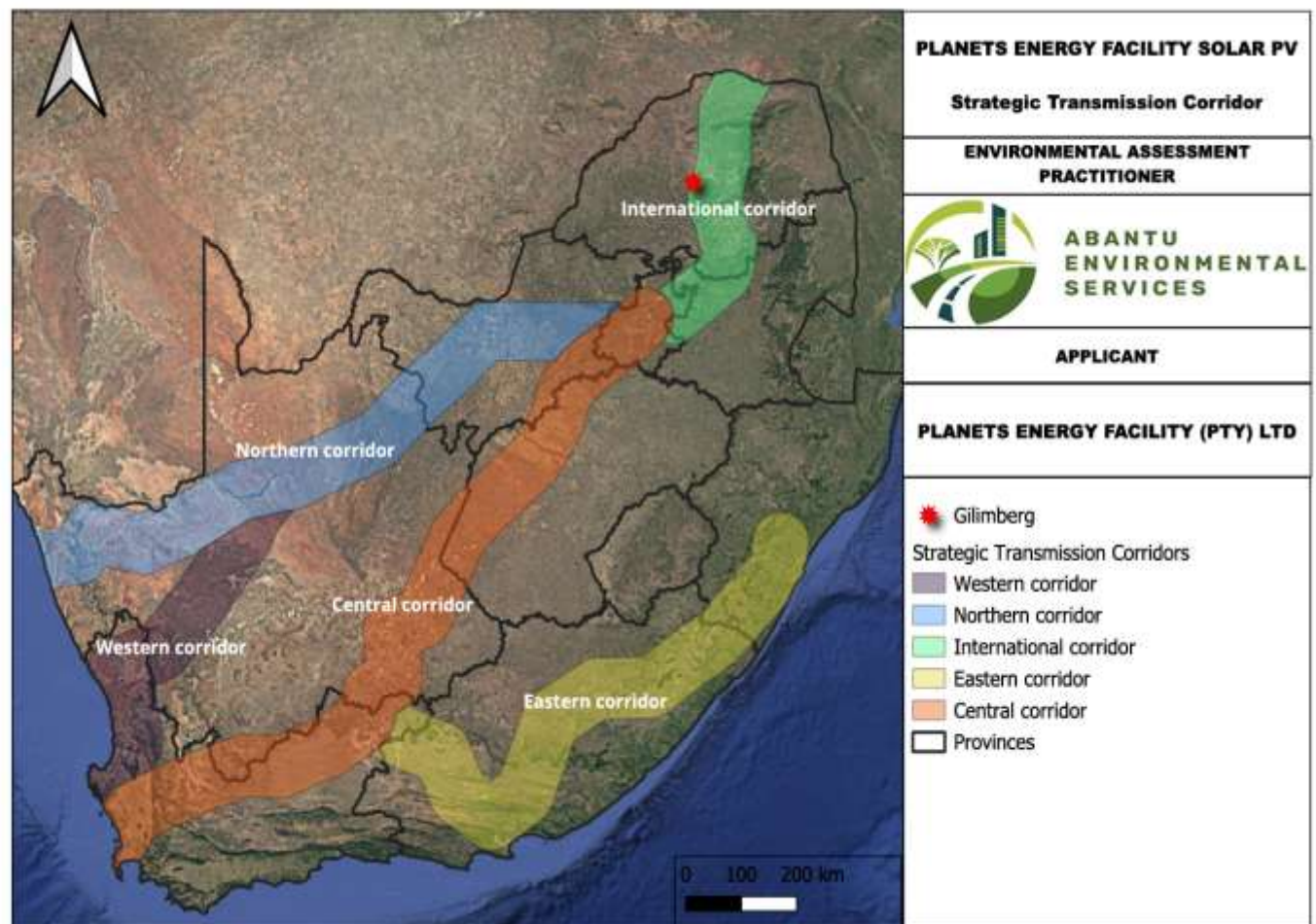


Figure 16. The project area in relation to strategic transmission corridor

3.10 SOCIO-ECONOMIC ATTRIBUTES

3.10.1 District municipalities within the study area

The proposed project stretches over two District Municipalities: Waterberg (Mogalakwena Local Municipality) and Capricorn (Polokwane Local Municipality) in the Limpopo Province.

(a) Waterberg District Municipality

The Waterberg District Municipality is a Category C municipality located in the southwestern part of the Province. The district is strategically located in sharing its borders with Capricorn District Municipality in the north and Sekhukhune District Municipality in the east. The municipality is the biggest district in the province, making up just more than a third of its geographical area. The largely rural district is made-up of five local municipalities, namely; Bela-Bela, Lephalale, Modimolle-Mookgopong, Mogalakwena, and Thabazimbi.

(b) Capricorn District Municipality

Capricorn District Municipality is situated in the centre of the Limpopo Province, sharing its borders with four district municipalities namely; Vhembe to the north-east, Mopani to the east, Sekhukhune to the south and Waterberg to the west. The district is situated at the core of economic development in the Limpopo Province and includes the capital of the province, the City of Polokwane. The district is made up of four local municipalities, namely; Blouberg, Lepelle-Nkumpi, Molemole and Polokwane.

3.10.2 Local municipalities within the study area

The proposed project stretches over two local Municipalities: Mogalakwena Local Municipality and Polokwane Local Municipality.

(a) Mogalakwena Local Municipality

The Mogalakwena Local Municipality covers an area of approximately 6,166 square kilometers, which is equivalent to 616,600 hectares. and constitutes 12% of the total Waterberg District area (Mogalakwena Local Municipality IDP, 2025). According to Census (2022), the municipality has a total population of 378 198 and 109 294 households with an estimated population growth rate of 2.1% in 2022. In terms of educational attainment, 11.2% have no formal schooling, 8.4% completed/have some primary education, 35,8% have some form of secondary education, 31.7% have completed matric, 8.7% have some form of higher education, and 8.7% have no form of schooling. The total number of economically active people in the municipality is 78 647 with an unemployment rate of 40.2%. The unemployment rate of Mogalakwena is almost double that of the other municipalities in the district.

The economy of Mogalakwena municipality is primarily driven by general government services (20,01%), wholesale and retail trade (18,71%), and business services (16,17%). The primary economic sector contributes 12,36% of the municipal economy of which 2.82% is attributed to agriculture and 9.54% to mining (Mogalakwena Local Municipality IDP, 2025).

(b) Polokwane Local Municipality

In 2016, a portion of the former Aganang local municipal area was incorporated into the City of Polokwane. The land area of Polokwane expanded from around 374 000 hectares to approximately 505 000 hectares. City of Polokwane is the economic hub of Limpopo Province and is strategically located to be the administrative and economic capital of the province.

According to Census (2022), the municipality has a total population of 843 459 and 249 443 households. Between 2013 and 2023, the average annual population growth rate was approximately 1.44%. Educational attainment levels have improved over time, with the proportion of residents without formal schooling decreasing from 7.7% in 2011 to 6.6% in 2022. The number of individuals with matric qualifications increased significantly over the same period.

The municipality is made up of various industries and includes agriculture, mining, manufacturing, electricity, construction, trade, transport, finance and community services. The sector that contributed the largest in the municipality in 2023 is the community services accounting for 42.55% of the total gross value added, with the electricity sector contributing the least with a contribution of 0.87% of the total GVA.

4. LEGAL AND POLICY FRAMEWORK

4.1 APPLICABLE ENVIRONMENTAL LEGISLATION

This section of the report presents an overview of the governing legislation identified which may relate to the proposed project. A summary of the applicable legislation is provided in **Table 9** below. The legal compliance obligation for this project stems from the need for an EA to be granted by the competent authority, DFFE, in accordance with the requirements of the NEMA. In addition, there are numerous other pieces of legislation governed by many acts, regulations, standards, guidelines on a national, provincial, and local level, which should be considered in order to assess the potential applicability of these for the proposed project. More detail on the legislative framework is presented below.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Table 9: Applicable legislations

Legislation/ guidelines	Summary	Legal requirement for this project
NATIONAL		
The Constitution of South Africa, 1996 (Act No.108 of 1996)	The Constitution is the highest and the supreme law in South Africa. The Bill of Rights in chapter 2 section 24 of the Constitution of South Africa Act (Act 108 of 1996) makes provisions for environmental issues and declares that: “Everyone has the right – a) to an environment that is not harmful to their health or well-being; and b) to have the environment protected, for the benefit of present and future c) generations, through reasonable legislative and other measures that: i. prevent pollution and ecological degradation; ii. promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development”.	The applicant has an obligation to ensure that the project is undertaken in a manner that respects and protects the constitutional rights of all interested and affected parties. The applicant must ensure that the project environment is not harmful and that measures are implemented to prevent pollution so that future generations can enjoy the social and ecological benefits.
National Environmental Management Act, 1998 (Act No.107 of 1998) as amended	The National Environmental Management Act, 1998 (Act No.107 of 1998) (NEMA) is a ‘principles based Act’ and is an overarching statute regulating various aspects of natural resources use, integrated environmental management and pollution control. The Act provides for the right to an environment that is not harmful to the health and wellbeing of the South African people; sustainable development, environmental protection, equitable distribution of natural resources; and the formulation of environmental management frameworks. Its definition of the environment includes the land and water of the earth, microorganisms, plant and animal life or a combination of those things, and the inter relationships among them. The Act aims to provide for cooperative environmental governance by establishing principles for decision making on matters affecting the environment, institutions that will promote co-operative governance, and procedures for coordinating	The applicant must ensure that construction and operation of activities must be conducted according to the generally accepted principles of sustainable development, integrating social, economic, and environmental factors. An application for Environmental Authorisation is being submitted on behalf of the client in line with the requirements of NEMA since the proposed project will trigger listed activities which require authorization prior to commencement.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	environmental functions exercised by organs of state. Section 24 Provides for the prohibition, restriction and control of activities which are likely to have a detrimental effect on the environment.	As part of the EIA process, mitigation measures will be proposed to ensure that the significance of the predicted impacts is reduced thus protecting the environment from degradation.
Environmental Impact Assessment Regulation, 2014 as Amended	The Environmental Impact Assessment (EIA) Regulations promulgated under NEMA in 2014 provide a list of activities which are subject to an Environmental Authorisation (EA) process prior to construction or implementation. In accordance with the 2014 EIA Regulations, (as amended) an EIA process is required owing to the applicability of the activities listed in Table 11 . According to the NEMA Regulations these activities may not commence without environmental authorization from the competent authority which requires the investigation, assessment and statement of potential impact of activities and must follow the procedure as described in the EIA Regulations. A Basic Assessment (BA) process must be applied to an application if the authorisation applied for is in respect of an activity or activities listed in Listing Notices 1 and/or 3 and a Scoping and Environmental Impact Assessment (S&EIA) process must be applied to an application if the authorisation applied for is in respect of an activity or activities listed in Listing Notice 2. As the Proposed Project includes activities listed in Listing Notice 2 it is necessary that a S&EIA process is undertaken in order for the Department of Forestry, Fisheries and the Environment (DFFE) to consider the application in terms of NEMA.	An application for Environmental Authorisation is being submitted on behalf of the client in line with the requirements of NEMA EIA Regulations since the proposed project will trigger listed activities which require authorization prior to commencement
National Environmental Management Biodiversity Act (Act No. 10 of 2004)	The National Environmental Management: Biodiversity Act (NEM:BA) makes provisions for achieving the objectives of the United Nations Convention on Biological Diversity, to which South Africa is a signatory. The Bill promotes management, conservation and sustainable use of indigenous biological resources, and provides for: - the management and conservation of biological diversity; - the use of indigenous biological resources in a sustainable manner; and	According to Limpopo Conservation Plan (2013), the proposed development footprint falls within Critical Biodiversity Areas (CBA) 2.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	the fair and equitable sharing of benefits arising from the commercialization through bio-prospecting of traditional uses and knowledge of generic resources. The Bill gives effect to international agreements relating to biodiversity which are binding on the Republic and provides for co-operative governance in biodiversity management and conservation and provides for a National Biodiversity Institute to assist in achieving the above objectives. The Act gives wide powers to the National Biodiversity Institute to inter alia protect flora and fauna in appropriate enclosures, the collection of information, undertaking and promotion of research on indigenous biodiversity and the sustainable use of indigenous biological resources, the prevention, control or eradication of listed invasive species, biodiversity planning and other functions. This act lists all critically endangered, vulnerable and protected species. The potential occurrence of any such species will be investigated in the BA process.	
National Water Act, 1998 (Act No.36 of 1998)	In terms of chapter 3 section 12-20, water resources are to be protected, used, developed, conserved, managed and controlled. This Act recognizes that water is a scarce resource; it is a natural resource that belongs to all of South Africa's people. The National Department of Water and Sanitation is responsible for the nation's water resource and also the Minister of Department of Water and Sanitation ensures that the water resource is "protected, used, developed, conserved, managed and controlled" through the implementation of this Act (National Water Act 36 of 1998). This Act makes provisions for the protection of surface water and groundwater resources and their sustainable management for the prevention and remediation of the effects of pollution, and for the control of emergency occurrences. Section 21 of the National Water Act (NWA) lists water uses for which a Water Use Licence will be required.	The proposed project is located within 100m of an ephemeral stream therefore, Section 21 c and i of the National Water Act will be triggered. A WULA has been lodged with DWS.
National Environmental Management: Air Quality	The objective of the Act is to protect the environment by providing reasonable measures for the protection and enhancement of air quality and to prevent air pollution. The Act makes provision for measures to control dust, and offensive	The EMPr which will be compiled during the EIA phase must include measures for control of dust during the construction phase, If there are any

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
Act, 2004 (Act No.39 of 2004)	odours. Section 32 of The National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004) deals with dust control measures regarding dust control. The Minister or MEC may prescribe measures for the control of dust in specified places or areas, either in general or by specified machinery or in specified instances, the steps to be taken to prevent nuisance or other measures aimed at controlling dust. The National Dust Control Regulations (2013) provides for the management and monitoring of dust.	exceedances observed in terms of the National Dust Regulations then a dust monitoring programme must be submitted to the Competent Authority.
Conservation of Agricultural Resources Act, 1983 (No. 43 of 1983)	This Act provides for the control over the utilisation of the natural agricultural resources of the country in order to promote the conservation of the soil, the water sources and the vegetation and the combating of weeds and invader plants. Section 5 of the Act prohibits the spread of weeds through the prohibition of their sale. GN R1084 (published under CARA) provides categories for the classification of the various weeds and invader plants, and restrictions where these species may occur. Regulation 15E of GN R1084 provides methods to be implemented for the control of weeds and invader species.	CARA finds application throughout the project lifecycle of the Proposed Project. As a result, soil conservation and erosion prevention management and mitigation measures need to be implemented. Furthermore, an Alien Invasives Species Control and Management Plan must be developed and implemented for the duration of the project life cycle of the Proposed Project
Subdivision of Agricultural Land Act, 1970 (Act No. 70 of 1970), as amended	The Subdivision of Agricultural Land Act, 1970 (Act No. 70 of 1970), as amended provides for the subdivision of all agricultural land within the Republic thereby prohibiting certain activities from being undertaken without consent from relevant authority, the Minister of the Department of Agriculture, Land Reform and Rural Development.	This Act could be relevant to the Proposed Project if any portion of land is zoned for agriculture and will need to be leased for a period exceeding 10 years is regulated by the Act
National Forests Act, 1998 (No. 84 of 1998)	The National Forest Act (NFA) empowers the Minister of DFFE to declare and list a tree, group of trees, woodland, or a species of trees as protected. A list of protected tree species is included in GN R908, published in November 2014. Section 7 of the Act prohibits the cutting and disturbance of NFA-listed trees.	The Terrestrial Biodiversity specialist has not identified any species protected in terms of the National Forest Act on site.
Occupational Health and Safety Act, 1993 (Act No.85 of 1993)	The Occupational Health and Safety Act makes provisions in regulations Section 8 for the general duties of employers to their employees. The act provides for the health and safety of people at work utilising machinery and	The applicant must ensure that a safe working environment is provided for its employees during construction and operational phases of the project. This includes obtaining the relevant work permits, providing PPE and ensuring all required facilities

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	the protection of others against health and safety risks associated with activities on site/work. General Administrative Regulations (2003) describe the administration of the various OHS Regulations, including the designation of health and safety committees, the reporting and recording of incidents and occupational diseases. This Act is applicable to all contractors during the planning, construction and operational phases of the project. To provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work.	are available for a working environment that is conducive. All stalls must have adequate training for their various duties and the applicant must ensure that compliance with the OHSA and Construction Regulations is monitored on a regular basis.
Hazardous Substance Act (No 15 of 1973)	This Act regulates the control of substances that may cause injury, or ill health, or death due to their toxic, corrosive, irritant, strongly sensitizing or inflammable nature of the generation of pressure thereby in certain instances and for the control of certain electronic products. To provide for the rating of such substances or products about the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, modification, disposal or dumping of such substances and products. • Group I and II: Any substance or mixture of a substance that might by reason of its toxic, corrosive, etc., nature or because it generates pressure through decomposition, heat, or other means, cause extreme risk of injury etc., can be declared as Group I or Group II substance • Group IV: any electronic product; and • Group V: any radioactive material. The use, conveyance, or storage of any hazardous substance (such as distillate fuel) is prohibited without an appropriate license being in force. It is necessary to identify and list all the Group I, II, III, and IV hazardous substances that may be on the site and in what operational context they are used, stored, or handled. If applicable, a license is required to be obtained from the	Relevant permits must be obtained for the storage of hazardous substances if any will be stored on site during construction. The contractor must ensure that hazardous substances are stored in a safe manner and MSDS are retained on file for all hazardous substances on site.
National Environmental Management: Waste Act, 2008 (Act No.59 of 2008)	During construction waste will be produced, in either liquid, solid and/or hazardous state, and this waste will be required to be adequately and appropriately disposed of. There are several Regulations or Acts that are applicable to the proposed development in terms of waste management. To	No authorization is required in terms of NEMWA, however, the applicant must make sure that waste is managed appropriately on site. This includes separation of waste, routine cleanup of the site and spillages as well as disposal at appropriately licensed waste landfills. Where possible, waste

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith.	should be recycled to minimizes volumes of waste disposed to landfills
National Heritage Resources Act (Act No. 25 of 1999)	The protection of archaeological and paleontological resources is the responsibility of a provincial heritage resources authority and all archaeological objects, paleontological material and meteorites are the property of the State. “Any person who discovers archaeological or paleontological objects or material or a meteorite in the course of development must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority”. According to Section 34 of NHRA, No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority. Section 38 Listed Activities: (a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length; (b) the construction of a bridge or similar structure exceeding 50 m in length;	According to the heritage specialist there is no sign of sites of heritage potential, graves and historical structures found in within the study area. The SAHRA has been identified as a stakeholder in this project and will be provided an opportunity to comment of the findings of the specialist studies.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	(c) any development or other activity which will change the character of a site— (i) exceeding 5 000 m² in extent; or (ii) involving three or more existing erven or subdivisions thereof; or (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority; (d) the re-zoning of a site exceeding 10 000 m² in extent; or (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority;	
National Energy Act (No. 34 of 2008)	The purpose of the National Energy Act (No. 34 of 2008) is to ensure that diverse energy resources are available, in sustainable quantities and at affordable prices, to the South African economy in support of economic growth and poverty alleviation; while taking environmental management requirements into account. In addition, the Act also provides for energy planning, and increased generation and consumption of Renewable Energies. The objectives of the Act, are to amongst other things, to: • Ensure uninterrupted supply of energy to the Republic. • Promote diversity of supply of energy and its sources. • Facilitate energy access for improvement of the quality of life of the people of the Republic. • Contribute to the sustainable development of South Africa's economy.	As the proposed Planets Energy Facility is aimed at generating electricity via renewable energy sources, the proposed development is aligned with the objectives of this Act.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	The National Energy Act therefore recognises the significant role which electricity plays growing the economy while improving citizens' quality of life. The Act provides the legal framework which supports the development of Renewable Energy facilities for the greater environmental and social good and provides the backdrop against which South Africa's strategic planning regarding future electricity provision and supply takes place.	
The Spatial Planning and Land Use Management Act, 2013 (No. 6 of 2013) (SPLUMA)	The Spatial Planning and Land Use Management Act, 2013 (Act No. 6 of 2013) aims to confirm and regulate the role of municipalities in land use planning and management.	Objectives of the Act relevant to the Proposed Project ensure that the system of spatial planning and land use management promotes social and economic inclusion and to provide for the sustainable and efficient use of land.
Integrated Environmental Management Information Guidelines Series:	This series of guidelines was published by the Department of Environmental Affairs (DEA) and refers to various environmental aspects. Applicable guidelines in the series for the proposed project include: ● Guideline 5: Companion to NEMA EIA Regulations, 2010; ● Guideline 7: Public participation; and ● Guideline 9: Need and desirability. Additional guidelines published in terms of the NEMA EIA Regulations, 2014 (as amended), in particular: ● Guideline 3: General Guide to EIA Regulations, 2006; ● Guideline 4: Public Participation in support of the EIA Regulations, 2006; and Guideline 5: Assessment of alternatives and impacts in support of the EIA Regulations, 2006.	These guidelines have been consulted in the compilation of this report as well as the public participation process that will be undertaken.
Municipal Systems Act (Act 32 of 2000)	The Municipal Systems Act provides for the core principles, mechanisms and processes that are necessary to enable municipalities to provide for community participation and for the integration of all activities for the overall	The Polokwane and Mogalakwena municipalities has been included as I&AP for this project and the municipal IDP has been consulted in compilation of this report.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	social and economic upliftment of communities in harmony with their local natural environment. It also states that a fundamental aspect of the new local government system is the active engagement of communities in the affairs of municipalities of which they are an integral part. The Act requires the implementation and monitoring of Integrated Development Plans, the setting of targets and key performance indicators, including environmental targets, as well as the preparation of by-laws and policies that deal with environmental issues.	
PROVINCIAL LEGISLATION AND POLICY FRAMEWORK		
Limpopo Province Green Economy Strategy (2014)	The Green Economy Strategy for the Limpopo province (2014) was developed in alignment with the national green economy strategy elaborated in the National Green Economy Framework and Green Economy Accord, as well the Free State Provincial Growth and Development Strategy. The development process was spearheaded by the Department of Economic Development, Tourism and Environmental Affairs (DETEA). The objective was to develop a green economy strategy to assist the province to: • Improve environmental quality and economic growth • Develop green industries and energy efficiency • Expand productive capacity and service delivery • Adopt sustainable consumption and production processes • Improve policy making, permitting, monitoring and enforcement on Green Economy Initiatives/Programmes; and • Create decent green jobs and build capacity of relevant personnel from DETEA, municipalities and other relevant stakeholders.	The proposed Planets Energy Facility will contribute to the objective of energy efficiency and the development of green industries while consequently promoting economic growth and is therefore consistent with the Limpopo Green Economy Strategy of 2014.
Limpopo Renewable Energy Strategy and Action Plan (2024)	This strategy recognises the need to balance economic development with environmental and social considerations. It outlines a path for harnessing Limpopo's renewable energy potential while mitigating challenges associated with the energy transition. This proactive approach aims to secure a resilient, equitable, and prosperous future for the province.	The proposed Planets Energy Facility aligns with the vision of the Limpopo Province.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	The vision is to achieve energy security for robust economic growth within the province whilst ensuring a just transition. This is accompanied by complex challenges including high unemployment, grid constraints and underdeveloped industrial bases. To overcome these challenges, there is a need to bridge the gap between supply and demand by focusing on sustainable supply. This will involve several initiatives, including enhancing the role of municipalities and promoting community involvement in solar power.	
Limpopo Conservation Plan (2013)	The purpose of the LCPv2 is to develop the spatial component of a bioregional plan (i.e. map of Critical Biodiversity Areas and associated land-use guidelines). Bioregional plans are one of a range of tools provided for in the Biodiversity Act¹ that can be used to facilitate biodiversity conservation in priority areas outside the protected area network. The purpose of a bioregional plan is to inform land-use planning, environmental assessment and authorisations, and natural resource management, by a range of sectors whose policies and decisions impact on biodiversity.	The plan was used to screen the development against CBAs. The proposed Planets Energy Facility falls within CBA 2.
MUNICIPAL		
Polokwane Municipality Development Framework (2024)	Local Spatial The Spatial Development Framework (SDF) is an integral part of the Integrated Development Plan (IDP) of the Polokwane Local Municipality, as required in terms of Section 26 of the Municipal Systems Act of 2000 (Act 32 of 2000). The purpose and status of the SDF are derived from the provisions of Section 21 of the Spatial Planning and Land Use Management Act, 2013 (SPLUMA). The National Spatial Development Perspective states, “the challenges and opportunities posed by and in urban settlements, whether they are declining or expanding, necessitates a targeted response by government to achieve better urban management. Managed urbanisation and improved urban management are crucial supporting components of government’s drive for accelerated shared growth, not least because of the crucial role cities, towns and urbanising agglomerations play in fostering resilient and inclusive economic growth and the sustainable development of countries and regions.”	The municipal SDF was consulted to ensure that the proposed development aligns with the spatial development objectives, land use guidelines and development vision of the municipality.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Legislation/ guidelines	Summary	Legal requirement for this project
	The extent and the urban-rural duality of the Polokwane municipal area requires a dual approach. In the first instance, the focus is on the total municipal area. At this level, the emphasis is on determining and assessing the wider municipal trends and tendencies with the aim to: • Improving spatial functionality across the municipal area; • Integrating the municipal SDF with district and provincial SDFs; and • Identifying and developing a settlement typology for more detailed spatial planning.	

4.2 SOUTH AFRICAN GUIDELINES

The guidelines listed in the table below have been or will be considered during the EIA process. See **Table 10** below.

Table 10: Guidelines Considered in the EIA Process

Guideline	Governing Body	Relevance
Procedures for the Assessment and Minimum Criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation	DFFE	Provides procedures for ground-truthing environmental themes identified by the web-based Screening Tool. The baselines studies used in the Scoping Report have been undertaken in accordance with the requirements of this Notice, where relevant.
Public Participation in terms of NEMA, EIA Regulations (2017)	DFFE	The purpose of this guideline is to ensure that an adequate public participation process is undertaken during the S&EIA process.
Guideline on need and desirability in terms of the EIA Regulations (2014)	DFFE	These guidelines inform the consideration of the need and desirability aspects of the Proposed Project.
National Biodiversity Offset Guidelines (2023)	DFFE	These guidelines have been published to inform the determination of the measurable outcome of compliance with a formal requirement contained in an environmental authorisation to implement an intervention that has the purpose of counterbalancing the residual negative impacts of an activity, or activities, on biodiversity, through increased protection and appropriate management, after every effort has been made to avoid and minimise impacts, and rehabilitate affected areas;

4.3 LISTED ACTIVITIES TRIGGERED

Table 11 below provides listed activities from the EIA Regulations, 2014 as amended, that are triggered by the proposed Solar PV facility.

Table 11: Listed Activities Applied For

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
Listed activity as described in GN R. 327	
GNR 327 11 (i) The development of facilities or infrastructure for the transmission and distribution of electricity— (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more. excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is — (a) temporarily required to allow for maintenance of existing infrastructure; (b) 2 kilometres or shorter in length; (c) within an existing transmission line servitude; and (d) will be removed within 18 months of the commencement of development.	The proposed development will occur outside urban areas nor industrial complexes, it will include a transmission line (132 kV) to connect the solar PV facility to Borutho substation and an onsite substation with a capacity of 132kV. The exclusions are not applicable.
GNR 327 12 (ii)(a)(c) The development of— (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more;	The proposed development will include a transmission line and associated foundation structures that will occur within 32 meters of a watercourse. The size of the final constructed pylon footprint depends on the type of structure used, which will typically range from approximately 0.5 m ² to 8 m ² for monopole pylons, and 36 m ² to 64 m ² for steel lattice pylons, therefore, the powerline activities are unlikely to trigger this activity.

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; — excluding— (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; (ee) where such development occurs within existing roads, road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.	The development of a crossing structure/culvert as part of the access road to the site triggers this activity as its footprint shall exceed 100 sq. m threshold. The exclusions are not applicable because the development is inland, outside urban areas, does not occur within existing reserves nor temporary in nature.
GNR 327 14 The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	The proposed BESS will include the storage of dangerous goods. The battery cell technology chemical composition used will be Lithium Iron Phosphate (LiFePO₄).

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
GNR 327 (19) The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from [(i)] a watercourse; [(ii)] the seashore; or [(iii)] the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or estuary, whichever distance is the greater— but excluding where such infilling, depositing, dredging, excavation, removal or moving— (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; [or] (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.	The transmission line and the access road crossing traverses a watercourse and will entail the movement of more than 10 cubic metres of soil within a watercourse. The exclusions are not applicable because the development is inland, outside the maintenance ambient, nor occurring behind a development setback
GNR 327 24 (ii) The development of a road— (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;	The proposed development will entail the development of external (8-15m) and internal (10m) access roads wider than 8 meters.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
but excluding a road— (a) which is identified and included in activity 27 in Listing Notice 2 of 2014; (b) where the entire road falls within an urban area; or (c) which is 1 kilometre or shorter.	
GNR 327 28 Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	The proposed solar PV facility development constitutes industrial use and will occur on a property currently used for agricultural purposes i.e. communal grazing.
Listed activity as described in GN R. 325	
GNR 325 1 The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more, excluding where such development of facilities or infrastructure is for photovoltaic installations and occurs (a) within an urban area; or (b) on existing infrastructure.	The proposed development will entail construction of a Solar PV facility with an electricity output of 200MW which exceed the 20MW threshold. The proposed development is outside an urban area and the site has no existing infrastructure.

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
GNR 325 15 The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The proposed development will entail clearance of indigenous vegetation of more than 20 hectares for the construction of the Solar PV facility.
Listed activity as described in GN R. 324 GNR 324 4 (e)(i)(ee) The development of a road wider than 4 metres with a reserve less than 13,5 metres. e. Limpopo i. Outside urban areas (aa) A protected area identified in terms of NEMPAA, excluding disturbed areas; (bb) National Protected Area Expansion Strategy Focus areas; (cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (dd) Sites or areas identified in terms of an international convention; (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (ff) Core areas in biosphere reserves; or (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas; or	The proposed development will entail the development of external (8-15m) and internal (10m) access roads wider than 4 metres with a reserve less than 13.5 metres, within a Critical Biodiversity Area 2 (CBA 2) as identified in the Limpopo Conservation Plan.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
ii. Inside urban areas: (aa) Areas zoned for use as public open space; (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose; or (cc) Areas within urban protected areas.	
GNR 324 10 The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres. e. Limpopo i. All areas.	The proposed BESS will include the storage of dangerous goods. The battery cell technology chemical composition used will be Lithium Iron Phosphate (LiFePO₄).
GNR 324 12 (e)(ii) The clearance of an area of 300m² or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. e. Limpopo i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; or	The proposed development will entail the clearance of more than 300m² of indigenous vegetation for the construction of Solar PV facility. The proposed site falls within CBA 2 as identified in the Limpopo Conservation Plan with a zoning potentially equivalent to open space.

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
iii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.	
GNR 324 14 (a)(c)(e)(i)(ff) The development of – (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs – (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour. e. Limpopo i. Outside urban areas: (aa) A protected area identified in terms of NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Strategy Focus areas; (cc) World Heritage Sites; (dd) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (ee) Sites or areas identified in terms of an international convention;	The proposed development will entail a transmission line with a physical footprint of more than 10m². As the site consists of an ephemeral watercourse the transmission line will traverse this watercourse or be within 32m. The proposed site falls within CBA 2 as identified in the Limpopo Conservation Plan.

Listed activity as described in GN R.324, 325, and 327	Description of project activity that triggers listed activity – if activities in GN R. 324 are triggered, indicate the triggering criteria as described in the second column of GN R. 324
(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (gg) Core areas in biosphere reserves; or (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;	

5. PROJECT ALTERNATIVES

The identification of alternatives is a key aspect of the success of the environmental scoping phase. All reasonable and feasible alternatives must be identified and screened to determine the most suitable alternatives to consider and assess in the EIA phase. There are, however, some significant constraints that have to be considered when identifying alternatives for a project with this scope. Such constraints include social, financial and environmental issues, which will be discussed as part of the evaluation of the alternatives for this project.

“Alternatives”, in relation to a proposed activity, is defined as different means of meeting the general purpose and requirements of the activity, which may include alternatives to; -

- a) the property on which or location where it is proposed to undertake the activity;
- b) the type of activity to be undertaken;
- c) the design or layout of the activity;
- d) the technology to be used in the activity;
- e) the operational aspects of the activity; and

5.1. PROCESS FOLLOWED TO REACH THE PREFERRED ALTERNATIVES

The process followed to reach the preferred alternative may be described as follows:

- Developer provides description of project and proposed site area;
- The preliminary sensitivity of the site area is determined using the National Web Based Screening Tool;
- Verification of site sensitivity is done through visual site assessment;
- Options of how the desired project can be implemented with least disturbance of sensitive areas are considered (i.e. alternatives);
- The feasibility of the options/alternatives presented is assessed, only feasible and reasonable alternatives are considered for impact assessment;
- The potential Impacts that may be caused by the feasible alternatives are identified, inputs from specialist reports and I&APs are taken into consideration in this process;
- The technical justification for the alternatives are also considered;
- An assessment of the significance of the impacts is done using the methodology described in Section 6.1;
- The alternative with the lowest (negative) overall combined impact significance score is selected as the preferred alternative.

5.2. PROPOERTY OR LOCATION ALTERNATIVES

The proposed Planets Energy Facility will include the development of the solar field, buildings, and associated infrastructure on farm Gillimberg 861 LR. Existing access roads will be used although there will be a need for the development of new access roads within the PV application area and parallel to the transmission lines. The transmission of electricity will be to the existing Borutho Substation.

Factors that were considered in selected of the proposed site include the following:

- Access to required land: The selected site is owned by the Mashashane Traditional Council. The traditional leader is in support of the proposed development. The leader has provided a written consent for the proposed Planets Energy Facility.
- Infrastructure proximity: The selected site is located close to N12, which makes it easily accessible for delivery of materials during all phases of the project. The site is also close to the Borutho Substation as well as existing HV powerlines which makes the cost of grid connection more viable.
- Authorised renewable projects in the surrounding area: According to the National Web based Screening Tool, there are 5 Solar PV developments within a 30km radius of the proposed site. This means that in future, the surrounding area may be a strategic zone for renewable energy development as indicated in **Figure 17** and **Figure 18**.

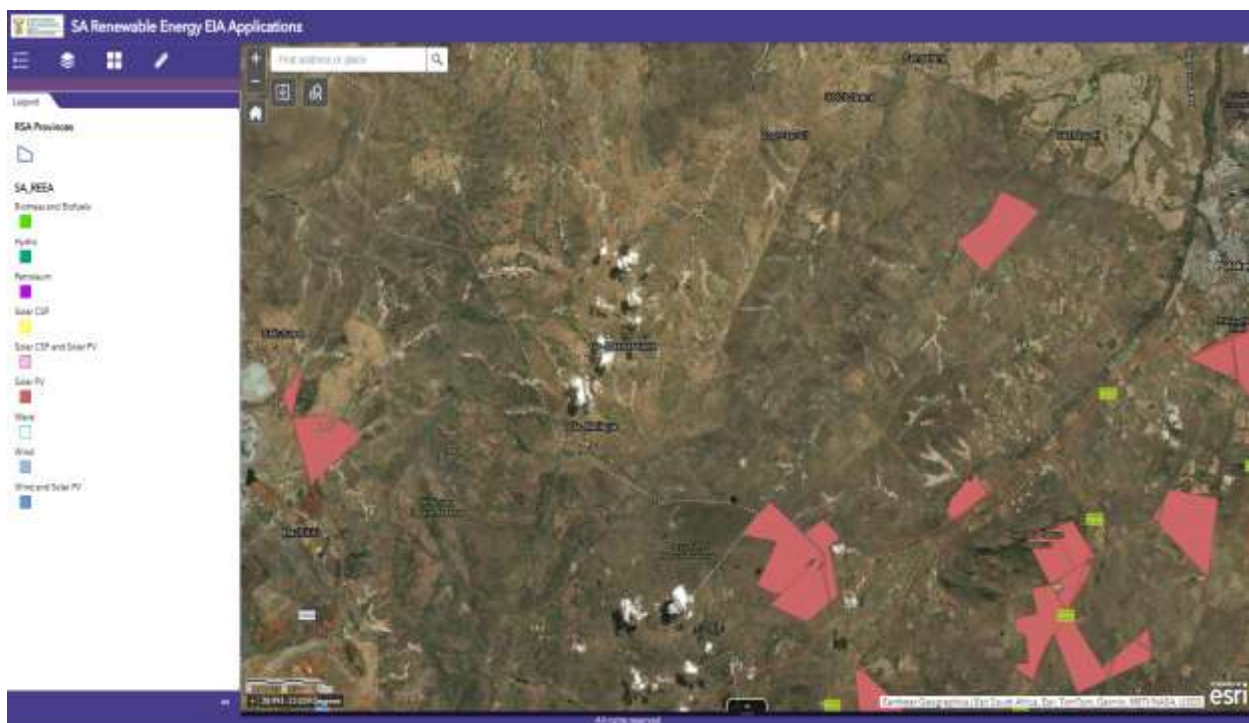


Figure 17. Approved renewable energy developments near the proposed site

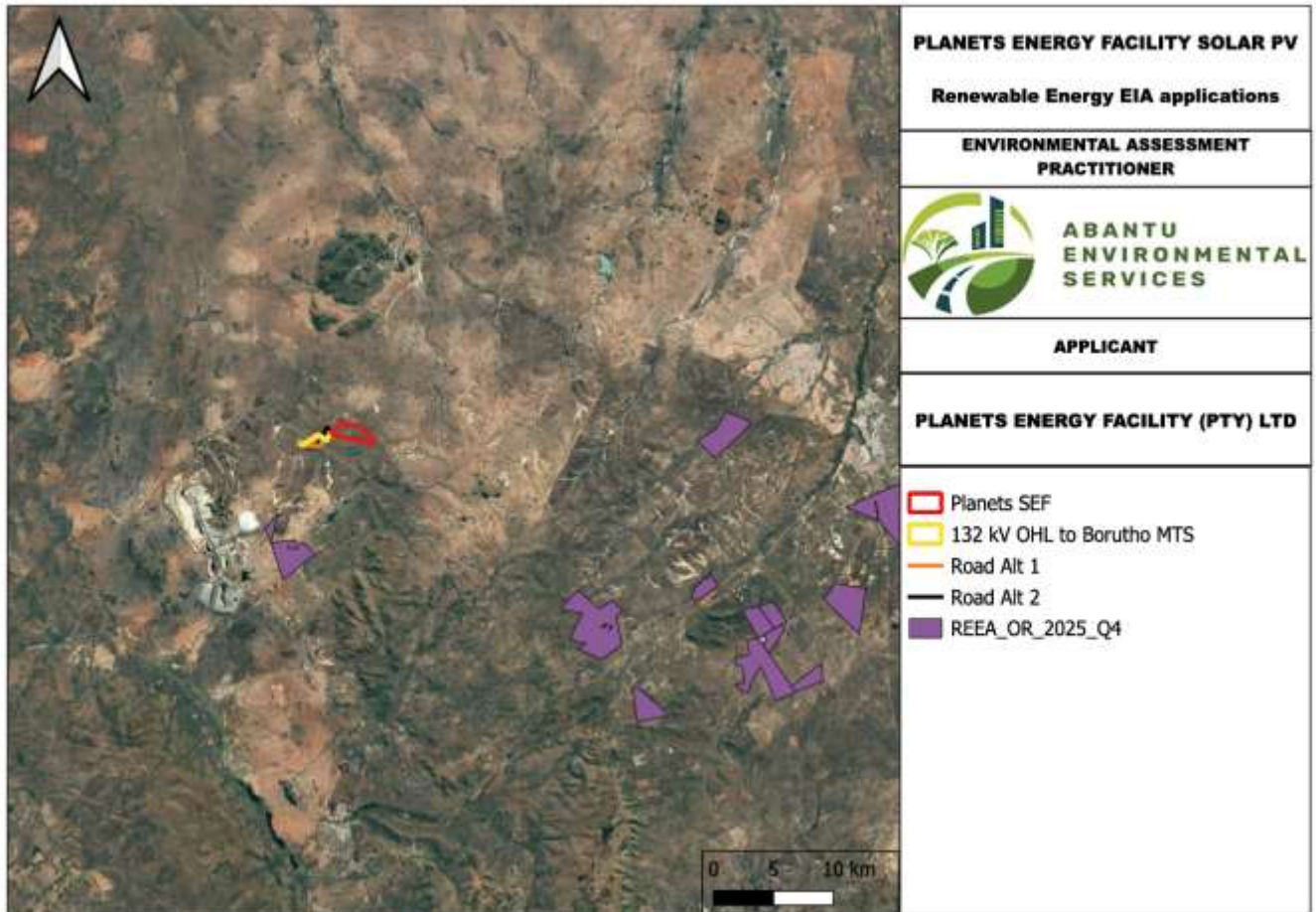


Figure 18. Renewable energy EIA applications

Thus, no further location alternatives were considered for the Solar PV area as the applicant has secured landowner consent for the selected property.

5.3. ACTIVITY ALTERNATIVES

The activity involves the construction of a Planets Energy Facility will include the development of the solar field, buildings, and associated infrastructure. Thus, no other activity alternatives are assessed.

5.4. DESIGN AND LAYOUT ALTERNATIVES

The following layout alternatives have been considered thus far in this environmental process.

(a) Development site

- **Alternative 1-** Development of the entire site

This alternative entails the development of the solar PV facility within the entire proposed development footprint, without avoiding environmentally sensitive areas. This alternative would result in potentially high environmental impacts, as it would affect important ecological features and functions within the site. These

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

include drainage lines, Species of Conservation Concern (SCCs), protected tree species, and areas of ecological importance. The implementation of this alternative would therefore lead to increased habitat disturbance and degradation of sensitive environmental features.

- **Alternative 2 (Preferred) - Avoidance of sensitive areas**

This layout alternative incorporates environmental considerations into the project design and limits development within environmentally sensitive areas. The design avoids key ecological features identified on the site, including drainage lines, areas of High Sensitivity Ecological Importance (SEI), protected tree species, and relatively undisturbed habitat areas. By reducing the development footprint and avoiding sensitive areas, this alternative minimises potential environmental impacts.

(b) Access roads

- **Alternative 1**

This route is located close and runs parallel to a drainage feature and may therefore result in significant impacts. Potential impacts include disturbance to aquatic features and edge impacts on riparian vegetation.

- **Alternative 2**

This alternative also occurs close and runs parallel to a drainage feature. As a result, this option may result in similar impacts to Alternative 1.

- **Alternative 3 (preferred)**

Although this option was not proposed by the client, it is considered the preferred alternative, as Alternatives 1 and 2 are associated with potential negative impacts on the drainage feature. Alternative 3 avoids running parallel to the drainage line and avoids no-go areas as far as possible.

5.5. TECHNOLOGY ALTERNATIVES

The following technology alternatives have been considered:

- **Concentrated Solar Power (CSP)**- A CSP produce electric power by converting the sun's energy into high-temperature heat using various mirror configurations. The way this particular technology works is that the sun's energy is concentrated by various reflectors, and this concentrated energy is then used to drive a heat engine and drive an electric generator. The plants that utilize this system consists of two parts: one that collects solar energy and converts it to heat, and the other that converts the heat energy to electricity. CSP is an indirect method that generates alternating current (AC), which will then be easy to distribute on the power network.

However, a CSP has a high visual impact and requires large volumes of water which is a major constraint for this type of technology considering the water challenges and limitation experienced in South Africa. In addition, the IRP no longer includes the use of CSP as part of the energy mix of the country.

- **Solar PV facility (Preferred)-** Solar PVs are different from CSP. Unlike CSP which uses the sun's energy, PV solar panels make use of the sun's light instead. In other words, photovoltaics is the direct conversion of light into electricity. The way this works is that the solar PV cells absorb light, which will then knock electrons loose. Then once the loose electrons flow, a current is created, and this current is then captured and transferred into wires, thus generating a direct electric current (DC). After the direct electric current is generated, it is then converted into AC, usually using inverters, so that it will be distributed on the power network.

For the preferred main technology i.e. PV solar, the further evaluated alternatives include single-axis tracking and fixed-tilt systems.

- **Single-axis trackers-** This system involves a single axis about which the rotation is possible in order to align the panel perpendicular to the sun's radiations. The single-axis tracking systems are classified into three categories. These include a single-axis horizontal system (HSAT), a single-axis vertical system (VSAT), and a tilted single-axis system for tracking (TSAT). Compared with fixed-tilt systems, single-axis trackers can typically produce about 20–35% more energy under favorable conditions. When combined with bifacial solar panels, energy yield can increase by up to 35%, while also reducing the Levelized Cost of Electricity (LCOE).
- **Fixed-tilt system-** Panels are mounted at a set angle, usually chosen based on the site's latitude. This design is simpler, more durable, and less expensive to install and maintain than tracking systems. However, because the panels cannot follow the sun's movement, the overall energy output is lower compared with tracking-based systems.

5.6. OPERATIONAL ALTERNATIVES

No operational alternatives have been considered in this assessment.

5.7. OPTION OF NOT IMPLEMENTING- “NO-GO ALTERNATIVE”

The no-go alternative means doing nothing, which would eventually result in the abandoning of the project and no Solar PV Facility. This will result in continued blackouts in the country. As such, the 'do nothing' alternative or keeping the current status quo of no activities occurring on-site. Although the no-go alternative would maintain the current environmental status with no negative impacts on the receiving environment. However, South Africa has been facing significant energy challenges, including frequent load shedding due to insufficient power supply.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

The proposed project can help address these challenges by contributing to regional and local energy independence. This project would provide a consistent and renewable source of power, reducing reliance on external supply of energy sources. The option of not implementing the development will mean perpetual energy security crisis, job losses and eroding livelihoods as energy availability underpins the economy and socio-economic wellness of the people. Therefore, to contribute towards alleviation of the energy and socio-economic issues linked to the development, the No-Go option is discredited.

5.8. SUMMARY OF ALTERNATIVES

Table 12 below provides a summary of alternatives that have been considered and recommended for further assessment in the EIA phase.

Table 12: Summary of alternatives

CATEGORY	ALTERNATIVE	DESCRIPTION	PREFERRED ALTERNATIVE
NO-GO Alternative	Status Quo	Keeping the current status quo of no activities occurring on site, which would not result in a loss of vegetation or impact on CBA 2. However, potential positive socio-economic impacts will be lost.	No
Site Alternatives	Alternative 1	No site/property alternatives exist as the applicant has been given consent by the landowner and is in support of the proposed development. Additionally, the proposed site is in close proximity with infrastructure.	Yes
Design and layout Alternatives	Alternative 1	This layout alternative entails development of the solar PV facility on the entire development footprint, with no effort to protect environmentally sensitive areas.	No
	Alternative 2 (Preferred)	This layout alternative presents an opportunity to avoid sensitive areas within the development footprint.	Yes
Technical Alternatives	Alternative 1 (Preferred)- Single-Axis trackers	Solar panels rotate along a single axis to follow the sun and improve energy generation compared to fixed systems.	Yes
	Alternative 2- Fixed-Tilt systems	Solar panels are installed at a fixed angle, offering a simpler and lower-cost design but with lower energy output.	No
Operational Alternatives	No feasible and reasonable alternatives evaluated and assessed	No feasible alternatives exist.	N/A

6. IDENTIFIED ENVIRONMENTAL IMPACTS

It is expected that proposed development will have environmental and social impacts during the construction and operational phases. Although additional impacts will be identified during the specialist studies and public participation process, below is a preliminary list of impacts which will be addressed as part of the EIA process:

A summary of the positive and negative impacts of the proposed activity are provided in **Table 13**.

Table 13: Summary of identified impacts

Impacts/ Aspects	Description
PLANNING AND DESIGN PHASE	
Legal and social compliance	Commencement of project construction and activities without lodging and obtaining relevant authorisation applications and being approved will result in authorities halting the projects, issuing fines, implying no development commencement.
Site establishment	The establishment of a construction site requires appropriate planning to achieve a holistic balance between efficacy and cost-efficiency of construction activities as well as minimised environmental damage.
Existing civil services, infrastructure and properties	Disruption and damage of water supply, powerlines, infrastructure and other properties in close proximity to the proposed site.
CONSTRUCTION PHASE	
Legal and social compliance	Failure to fulfil legal environmental compliance may lead to overall disapproval and failure of the project.
Site establishment and security	The establishment of a construction site requires appropriate planning to achieve a holistic balance between efficacy and cost-efficiency of construction activities as well as minimised environmental damage.
Water consumption	Increased freshwater use for construction and drinking purposes.
Sanitation	Lack of supply of ablution facilities for construction workers may result in the pollution of the immediate and surrounding receiving environment of the facility and may pose a health hazard to users.
Direct loss of indigenous vegetation and disturbance of habitats due to construction of PV facility and transmission line	The solar PV facility and associated infrastructure will require the clearance of vegetation which is likely to result in the loss of vegetation and disturbance of habitats, which can consequently result in the alteration and/or fragmentation of ecosystems on the site.
Direct loss of CBAs	The proposed development will result in the disturbance of CBA 2 as identified in the Limpopo Conservation Plan.
Disturbance of fauna and loss of habitats	Clearing of vegetation and construction activities may lead to the displacement of fauna and alteration of habitats, potentially resulting in loss of biodiversity and ecosystem fragmentation.
Disturbance of the surface resulting in increased risk of AIPs	Disturbance of the surface resulting in increased risk of AIPs.
Impact on avifauna- bird mortality	The clearing of vegetation within the proposed development footprints would result in the loss of avifaunal habitat.
Impact on the aquatic environment	The proposed development could have an impact on the ephemeral drainage lines found in close proximity to the site either through direct disturbance or indirectly through contamination from spills.
Visual impact	The proposed project would potentially alter the landscape character of the site. This could have some visual implications for the immediate surrounding area.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Waste management	Lack of adequate waste management during construction could result in spread of litter which may pollute or affect the surrounding environment.
Traffic impact	The proposed project would result in an increase in traffic volumes generated during the construction and operational phases of the proposed project, which may affect the standard on the existing road network due to increased vehicle trips.
Noise pollution	During construction noise from machinery and vehicles may potentially cause nuisance to community members close to the proposed area.
Air pollution	During construction dust generated from vegetation clearing and the movement of vehicles on unsurfaced roads may contribute to elevated particulate matter levels in the air on a local scale.
Paleontological and heritage resource disturbance	Damage to cultural, heritage, archaeological and paleontological resources during construction activities such as excavations and plant movement.
Employment opportunities	During the construction phase the development will create temporary job opportunities both direct and indirect in return stimulating the local economy.
OPERATIONAL PHASE	
Collision of birds with solar farm	Collision risk may arise when birds in flight strike solar farm infrastructure, particularly associated transmission lines that connect the facility to the grid.
Electrocution of birds when perched on towers	Electrocution risk within a solar farm development is generally limited to supporting infrastructure such as substations, transformers, and overhead conductors within the facility boundary. While the photovoltaic panels and ground-mounted arrays themselves do not present a hazard, certain structures can attract large raptors and scavenging birds that may perch or attempt to roost.
Disturbance of key habitats and pollution of the surrounding environment	Land pollution may occur through improper management of solid waste, oil leaks, chemical spills, and construction debris, which can degrade habitats and reduce the ecological integrity of the site.
Landscape change from current sense of place to industrial area due to the solar PV facility	During the operation phase the solar panels will change the landscape at the proposed site and may be visible to surrounding rural settlements.
Creation of employment	The proposed development would stimulate both direct and indirect employment opportunities during the construction and operation phases.
Energy security	The proposed development will provide the needed enhancement to the local supply of electricity.

6.1. IMPACT ASSESSMENT METHODOLOGY

This section provides the methodology for assessing the significance of impacts associated with the activity. The criterion for determining impact significance has been defined in accordance with the criteria drawn from Appendix 3 of the Environmental Impact Assessment Regulations, 2014. The levels of detail described in the EIA regulations were fine-tuned by assigning specific values to each impact identified. The impact ratings will be informed by the findings of specialist assessments conducted, fieldwork, and desk-top analysis. The significance of potential impacts that may result from the proposed development will be determined in order to assist the competent authority in making a decision.

To establish a coherent framework within which all impacts could be objectively assessed, it is necessary to establish a rating system, to be applied consistently to all the criteria. For such purposes each aspect is assigned a value ranging from one (1) to five (5) depending on its definition. **Table 14** provides a summary of the criteria and the rating scales, which will be used in the assessment of the impacts.

Table 14. Impact rating method

EXTENT OF THE IMPACT		
This addresses the physical and spatial scale of the impact.	Site – The impact area extends only as far as the activity – i.e. within the boundaries of the development site.	1
	Local - The impacted area extends slightly further than the actual physical disturbance footprint and could affect the whole, or a measurable portion of adjacent areas (within approx. 5 km of the development site).	2
	Landscape - The impact could affect all areas generally visible to the naked eye, as well as those areas essentially linked to the site in terms of ecosystem functioning	3
	Regional - The impact could affect the site including the neighbouring areas, transport routes and surrounding towns etc.	4
	Ecosystem - The impact could affect areas essentially linked to the site in terms of significantly impacting ecosystem functioning.	5
	National - The impacted area extends beyond provincial boundaries.	6
	International - The impacted area extends beyond national boundaries.	7
DURATION OF IMPACT		
This describes the predicted lifetime / temporal scale of the predicted impact.	Short term - Quickly reversible. Less than the project lifespan. The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than any of the project phases or within 0 -5 years.	1

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	Medium term – Some mitigation will be required to reduce the duration of the impact – 6-15 years.	3
	Long term - the impact will cease when the operation stops.	5
	Permanent - no mitigation measure will reduce the impact after construction.	7

MAGNITUDE OF THE IMPACT

This provides a qualitative assessment of the severity of a predicted impact / effect.	None - where the aspect will have no impact on the environment	0
	Minor - The affected environment is altered, but natural function and process continue.	1
	Low - where the impact affects the environment in such a way that the natural, cultural and social functions / processes are slightly affected.	2
	Moderate - where the affected environment is altered but natural, cultural and social functions / processes continue, albeit in a modified way	3
	High - natural, cultural or social functions / processes are altered to the extent that they will temporarily cease.	4
	Very High - natural, cultural or social functions / processes are altered to the extent that they will permanently cease.	5

IRREPLACEABLE LOSS OF RESOURCES

Environmental resources cannot always be replaced; once destroyed, some may be lost forever. It may be possible to replace, compensate for or reconstruct a lost resource in some cases, but substitutions are rarely ideal. The loss of a resource may become more serious later, and the assessment must take this into account.	Short-term – Quickly recoverable. Less than the project lifespan. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span shorter than any of the project phases, or in a time span of 0 to 5 years.	1
	Loss of an ‘expendable’ resource - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria.	2
	Medium term – The resource can be recovered within the lifespan of the project. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span between 5 and 15 years.	3
	Loss of an ‘at risk’ resource - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria, but cumulative effects may render such loss as significant.	4
	Long term – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, but can be mitigated by other means.	5

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	Permanent – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, or by artificial means.	7
--	---	---

REVERSIBILITY / POTENTIAL FOR REHABILITATION

The distinction between reversible and irreversible impacts is a very important one and the irreversible impacts not susceptible to mitigation can constitute significant impacts in an EIA (Glasson et al, 1999). The potential for rehabilitation is the major determinant factor when considering the temporal scale of most predicted impacts.	Short term – The impact / effect will be returned to its benchmark state through mitigation or natural processes in a span shorter than any of the phases of the project, or in a time span of 0 to 5 years.	1
	Medium term – The impact / effect will be returned to its benchmark state through mitigation or natural processes in a span shorter than the lifetime of the project, or in a time span between 5 and 15 years.	3
	Long term – The impact / effect will be returned to its benchmark state through extensive mitigation or natural processes in a time span between 15 and 25 years.	5
	Permanent – The impact/ effect is permanent and will never be returned to its benchmark state	7

PROBABILITY OF OCCURRENCE

The likelihood of the impact actually occurring.	Remote possibility / unlikely	0
	Possibility	1
	Low probability / anticipated	2
	Medium probability / strongly anticipated	3
	High probability / to be expected	4
	Absolute certainty / will occur	5

IMPACT SIGNIFICANCE

The overall significance of an impact / effect has been ascertained by attributing numerical ratings to each identified impact. The numerical scores obtained for each identified impact have been multiplied by the probability of the impact occurring before and after mitigation. High values suggest that a predicted impact / effect is more significant, whilst low values suggest that a predicted impact / effect is less significant.

$((Spatial\ Extent + Severity + Duration + Resource\ Lost + Reversibility) * Probability) = Significance.$

	Overall Score
Insignificant – the impact is meaningless has no influence on the decision to develop	< 15
Low – the impact would not have a direct influence on the decision to develop in the area;	16 - 35
Medium – the impact could influence the decision to develop in the area unless it is effectively managed / mitigated; and	36 - 65

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

High - the impact must have an influence on the decision-making process for development in the area.	> 65
MITIGATION	
In terms of the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact and mitigation objectives that would result in a measurable reduction or enhancement of the impact are considered. The significance of environmental impacts has therefore been assessed considering any proposed mitigation measures. The significance of the impact “without mitigation” is therefore the prime determinant of the nature and degree of mitigation required.	

Status of impact <i>The environmental impacts of an activity are those resultant changes in environmental parameters, in space and time, compared with what would have happened had the activity not been undertaken. It is an appraisal of the type of effect the activity would have on the affected environmental parameter. Its description includes what is being affected, and how</i>	
Indication whether the impact is adverse (negative) or beneficial (positive).	+ ve (positive – a ‘benefit’)
	– ve (negative – a ‘cost’)

Confidence of assessment	
The degree of confidence in predictions based on available information, EAP’s judgment and/or specialist knowledge.	Low
	Medium
	High

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

6.2. IMPACT ASSESSMENT AND SIGNIFICANCE

A summary of all the identified preliminary impacts, their associated phase, as well as their impact calculations and significance are presented in **Table 15** below.

Table 15: Impact Assessment and Significance

	Pre-Mitigation Scoring and Significance							Post-Mitigation Scoring and Significance						
PLANNING AND DESIGN PHASE														
Impacts	Alternative s	Natur e	Severit y	Spatia l scale	Duratio n	Probabilit y	Significanc e	Alternative s	Natur e	Severit y	Spatia l scale	Duratio n	Probabilit y	Significanc e
Legal and social compliance	Alt 1	-1	4	3	5	5	-60	Alt 1	-1	2	1	1	3	-12
	Alt 2	-1	4	3	5	5	-60	Alt 2	-1	2	1	1	3	-12
Site establishment	Alt 1	-1	4	1	5	4	-40	Alt 1	-1	2	1	1	3	-12
	Alt 2	-1	3	1	4	4	-32	Alt 2	-1	2	1	1	3	-12
Existing civil services, infrastructure and properties	Alt 1	-1	4	1	4	4	-36	Alt 1	-1	2	1	1	3	-12
	Alt 2	-1	4	1	4	4	-36	Alt 2	-1	2	1	1	3	-12
CONSTRUCTION PHASE														
DIRECT IMPACTS														
Legal and social compliance	Alt 1	-1	4	3	5	5	-60	Alt 1	-1	2	1	1	3	-12
	Alt 2	-1	4	3	5	5	-60	Alt 2	-1	2	1	1	3	-12
Site establishment and security	Alt 1	-1	4	1	5	4	-40	Alt 1	-1	2	1	1	3	-12
	Alt 2	-1	4	1	5	4	-40	Alt 2	-1	2	1	1	3	-12
Water consumption	Alt 1	-1	2	1	2	3	-15	Alt 1	-1	1	1	1	3	-9
	Alt 2	-1	2	1	2	3	-15	Alt 2	-1	1	1	1	3	-9
Sanitation	Alt 1	-1	3	1	2	3	-18	Alt 1	-1	1	1	1	3	-9
	Alt 2	-1	3	1	2	3	-18	Alt 2	-1	1	1	1	3	-9

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	Pre-Mitigation Scoring and Significance							Post-Mitigation Scoring and Significance						
Direct loss of indigenous vegetation and disturbance of habitats due to construction of PV facility and transmission line														
	Alt 1	-1	5	3	5	5	-65	Alt 1	-1	4	2	4	4	-40
	Alt 2	-1	5	3	4	5	-60	Alt 2	-1	4	2	3	3	-27
Direct loss of CBAs														
	Alt 1	-1	5	3	4	5	-60	Alt 1	-1	4	2	3	3	-27
	Alt 2	-1	5	3	4	5	-60	Alt 2	-1	4	1	3	3	-24
Loss of SCC														
	Alt 1	-1	4	2	4	5	-50	Alt 1	-1	4	1	3	3	-24
	Alt 2	-1	4	2	4	5	-50	Alt 2	-1	3	1	3	3	-21
Disturbance of fauna and loss of habitats														
	Alt 1	-1	4	2	4	5	-50	Alt 1	-1	4	1	3	3	-24
	Alt 2	-1	4	2	4	5	-50	Alt 2	-1	3	1	3	3	-21
Disturbance of the surface resulting in increased risk of AIPs														
	Alt 1	-1	3	1	4	4	-32	Alt 1	-1	2	1	1	3	-12
	Alt 2	-1	3	1	4	4	-32	Alt 2	-1	2	1	1	3	-12
Impact on avifauna-bird mortality														
	Alt 1	-1	2	2	2	4	-24	Alt 1	-1	1	1	1	4	-12
	Alt 2	-1	2	2	2	4	-24	Alt 2	-1	1	1	1	4	-12
Impact on the aquatic environment														
	Alt 1	-1	2	2	4	4	-32	Alt 1	-1	1	1	2	4	-16
	Alt 2	-1	2	2	4	4	-32	Alt 2	-1	1	1	2	4	-16
Visual impact														
	Alt 1	-1	2	1	3	3	-18	Alt 1	-1	1	1	1	3	-9
	Alt 2	-1	2	1	3	3	-18	Alt 2	-1	1	1	1	3	-9
Waste management														
	Alt 1	-1	1	1	3	3	-15	Alt 1	-1	1	1	1	3	-9
	Alt 2	-1	1	1	3	3	-15	Alt 2	-1	1	1	1	3	-9

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	Pre-Mitigation Scoring and Significance							Post-Mitigation Scoring and Significance						
Traffic impact	Alt 1	-1	3	2	3	4	-32	Alt 1	-1	2	2	1	3	-15
	Alt 2	-1	3	2	3	4	-32	Alt 2	-1	2	2	1	3	-15
Noise pollution	Alt 1	-1	1	1	3	3	-15	Alt 1	-1	1	1	1	3	-9
	Alt 2	-1	1	1	3	3	-15	Alt 2	-1	1	1	1	3	-9
Air pollution	Alt 1	-1	1	1	3	3	-15	Alt 1	-1	1	1	1	3	-9
	Alt 2	-1	1	1	3	3	-15	Alt 2	-1	1	1	1	3	-9
Paleontological and heritage resource disturbance	Alt 1	-1	3	1	2	3	-18	Alt 1	-1	2	1	1	3	-12
	Alt 2	-1	3	1	2	3	-18	Alt 2	-1	2	1	1	3	-12
Employment opportunities	Alt 1	1	4	3	3	4	40	Alt 1	1	4	3	3	4	40
	Alt 2	1	4	3	3	4	40	Alt 2	1	4	3	3	4	40
CUMULATIVE IMPACTS														
Cumulative loss of indigenous vegetation and SCCs due clearing of vegetation	Alt 1	-1	5	3	5	5	-65	Alt 1	-1	4	2	4	4	-40
	Alt 2	-1	5	3	4	5	-60	Alt 2	-1	4	2	3	3	-27
OPERATION PHASE														
DIRECT IMPACTS														
Collision of birds with solar farm	Alt 1	-1	3	3	4	4	-40	Alt 1	-1	3	2	3	2	-16
	Alt 2	-1	3	3	4	4	-40	Alt 2	-1	3	2	3	2	-16
Electrocution of birds when perched on towers	Alt 1	-1	5	4	4	5	-65	Alt 1	-1	3	2	3	2	-16
	Alt 2	-1	5	4	4	5	-65	Alt 2	-1	3	2	3	2	-16
Disturbance of key habitats and pollution of the surrounding environment	Alt 1	-1	2	1	2	3	-15	Alt 1	-1	1	1	1	3	-9

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	Pre-Mitigation Scoring and Significance							Post-Mitigation Scoring and Significance						
	Alt 2	-1	2	1	2	3	-15	Alt 2	-1	1	1	1	3	-9
Landscape change from current sense of place to industrial area due to the solar PV facility														
	Alt 1	-1	3	1	4	4	-32	Alt 1	-1	2	1	4	3	-21
	Alt 2	-1	3	1	4	4	-32	Alt 2	-1	2	1	4	3	-21
Creation of employment														
	Alt 1	1	4	3	4	5	55	Alt 1	1	3	3	4	5	50
	Alt 2	1	4	3	4	5	55	Alt 2	1	3	3	4	5	50
Energy security														
	Alt 1	1	4	4	4	5	60	Alt 1	1	4	4	4	5	60
	Alt 2	1	4	4	4	5	60	Alt 2	1	4	4	4	5	60

6.3 PROPOSED MITIGATION MEASURES

Appendix 2 of the EIA Regulations, 2014 requires that possible mitigation measures that could be applied to avoid or mitigate negative impacts and optimise positive impacts must be identified in the Scoping Report. Many of the impacts can be readily mitigated and it is not foreseen that they are likely to pose a significant risk. Where necessary, the EMPr will identify and recommend specific mitigation measures applicable to the project (Table 16).

Table 16: Proposed mitigation measures

Impacts/ Aspects	Mitigation measures
PLANNING AND DESIGN PHASE	
Legal and social compliance	• Ensure environmental authorisations namely EA is obtained for the development. • Environmental Control Officer (ECO) to be appointed to monitor compliance with permits conditions. • All health and safety permits and certification to be in place. • Appointment of a Community Liaison Officer (CLO). • Appointment of a Social Facilitator (SF) to manage social-economic aspects of the project relating to community and local business interest, particularly small, medium and micro-enterprise (SMMEs). • A health and safety plan in terms of the Occupational Health and Safety Act (Act No 85 of 1993) must be drawn up by the HSE officer prior to construction to ensure workers safety. • Environmental files to be compiled prior to commencement of construction activities. • Methods statement to be compiled for all works with environmental aspects and impacts, for approval of the ECO. • Employment and sub-contracting of locals.
Site establishment	• Develop a site establishment method statement • The Contractor must prepare a Construction Site Plan prior to establishing on-site. This plan must indicate: • The boundaries of the site that encompass all construction-related activities. • Vehicle and pedestrian access points and routes (safe diversions of routes when necessary). • Laydown area/s, offices, stockpile areas, storage areas, etc. • Construction site to be selected by the contractor in conjunction with the developer, consulting engineer and the ECO.
Existing civil services, infrastructure and properties	• Ensure that all existing services and infrastructure are known, mapped and marked to prevent potential damage. • Development of a plan to manage existing services to avoid damages • Wayleaves to be obtained from the relevant custodians for affected servitudes as applicable. • Property owners such as the local residents should be engaged throughout the project lifespan and engaged as necessary to promote conflict free development implementation. • Where relevant, the directly affected property owners should be informed in writing and engaged to reach a consensus and those proceedings and relevant agreements to be documented.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

CONSTRUCTION PHASE	
Legal and social compliance	• ECO to be appointed to audit environmental compliance with conditions in the EMPr and other permits and authorisations. • ECO responsibilities must include: ○ Monitoring buffer compliance ○ Verification of search and rescue activities ○ Erosion and stormwater inspections ○ Alien plant control monitoring ○ Rehabilitation progress • Regular compliance reports must be submitted to the Competent Authority. • CLO and Social Facilitator to be retained throughout the construction tenure to represent the surrounding communities and local business, particularly SMMEs.
Site establishment and security	• Fulltime security officers to be appointed to safeguard the site, its personnel, plant and equipment • Necessary health and safety as well as road construction signage to be installed. • Construction areas are to be clearly demarcated, and all construction activities are to be restricted to within these demarcated areas.
Water consumption	• A sustainable and lawful water supply should be utilised. • Consistent water supply for construction staff and activities. • If water is stored on-site, drinking water and multi-purposed water storage facilities shall be clearly distinguished and demarcated. • Implement rainwater harvesting techniques, where possible. • Re-use wash water for selected activities such as concrete batching.
Sanitation	• Ensure availability of ablutions for males and females. One ablution facility for every 10 workers during construction phase. • Ensure regular servicing of the ablution toilets by a service provider. • Ablution facilities to be located outside the regulated water area by all means practically possible.
Hazardous material storage and handling	• A Hazardous Material Spill Response and Contingency Plan must be developed by the Contractor/s • Hazardous materials must be stored and handled in accordance with appropriate legislation and standards, including the Hazardous Substances Act (Act No. 15 of 1973) and Occupational Health and Safety Act (No. 85 of 1993). • Avoid hydrocarbon pollution to soil and watercourses. • During the construction phase all oils, fuel and other maintenance equipment and supplies must be stored in a secure area with an impermeable and bound area. • All stationary plant on site must have drip trays including tools such as generators and equivalent • All maintenance must take place off site. • Spill kits must be kept on-site and maintained. • Cement and concrete must only be mixed in designated areas and on an impermeable surface
Direct loss of indigenous vegetation and disturbance of habitats due to construction of PV facility and transmission line	• Minimise vegetation clearance and confine to the proposed infrastructural footprint. • An Environmental Awareness Programme should be implemented to ensure basic environmental principles are adhered to.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	• Use existing access roads as opposed to initiating new route, the latter should be authorised first prior to initiating. • Construction should not take place outside the authorised site footprint • Minimise vegetation clearance as practically possible to do so. • Disturbance of semi-natural vegetation must be minimised, especially in less impacted areas. • Topsoil must be: ○ Stripped ($\pm 150\text{--}200$ mm) ○ Stockpiled separately ○ Protected from erosion and contamination • Topsoil must be reused during rehabilitation to preserve seed banks. • Rehabilitation must: ○ Be implemented progressively where possible ○ Use locally indigenous species ○ Prioritise rapid ground cover establishment • No collection of firewood or harvesting of indigenous vegetation by workers is permitted.
Disturbance of fauna and loss of habitats	• Temporary laydown and site office areas to be established in disturbed or low sensitivity areas. • Vegetation clearance must be limited to the footprint of the site and only areas to be used for construction should be cleared. • A pre-construction survey must identify: ○ Burrows ○ Nests ○ Microhabitats • Construction activities should be limited to daylight hours where possible. • Trenches and excavations must: ○ Be inspected daily and include escape ramps where necessary • Speed limits must be enforced to reduce collisions with fauna. • No hunting, trapping, or disturbance of fauna by workers is permitted. • Where individuals are encountered, implement relocation to a suitable habitat outside the development footprint, under specialist supervision. • Vegetation clearing should be undertaken in a phased manner to allow fauna and invertebrates to disperse naturally.
Disturbance of the surface resulting in increased risk of AIPs	• Develop and implement an Alien Vegetation Management Plan to mitigate the establishment and spread of undesirable alien plant species during construction and operations. • Site must be continuously monitored and managed for alien vegetation growth. • Removal must occur through appropriate methods such as hand pulling, application of chemicals, cutting, etc. in accordance with the NEMBA: Alien Invasive Species Regulations.
Impact on avifauna- bird mortality	• Limit vegetation clearance to the smallest footprint necessary. • Avoid drainage lines that are around the project site and some inside the site. • Maintain ecological corridors and establish a minimum of 50m buffer zones around sensitive habitats (drainage lines) to reduce disturbance.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	Schedule noisy activities outside critical breeding seasons (summer period Oct – Feb); confine movement of machinery and personnel to designated routes and work areas.
Impact on the aquatic environment	- Drainage line areas must be demarcated and avoided. - All construction camps, lay down areas, wash bays, batching plants and any storage areas should be located away from any demarcated water courses. - No stockpiling should take place within or near a water course. - Fuel storage, refuelling, and maintenance of construction vehicles and equipment must take place in designated areas away from watercourses.
Visual impact	- The site camp must be clearly demarcated and screened in order to block any unappealing aesthetics within the site camp such material storage areas. - The construction footprint must be kept as small as possible, to avoid unnecessary disruption to the surrounding environment. - Disturbed areas to be rehabilitated / revegetated as soon as possible during the construction phase. - Areas utilised for construction at the site must be kept clean and tidy at all times.
Waste management	- Provide clearly labelled waste bins with lids - Waste manifest to be filed on site as proof of safe disposal. - Littering is strictly prohibited. - All waste generated on site shall be collected and appropriately disposed of at a registered municipal landfill site. - Minimise accidental hazardous substance spills such as cement by mixing in a container and covering the ground with protective material.
Traffic impact	- Ensure construction vehicles are visible and make use of Victoria Drive to gain access to site. - Pedestrians and motorists should be accommodated through appropriate traffic warning signs and measures. - Speed should be kept at a minimum next to the construction site.
Noise pollution	- Ensure that construction vehicles and working machinery are serviced and are in good condition to reduce their noise levels. - Construction activities should be maintained during the normal working hours (08h00-17h00). - Where works are to be carried outside the normal working hours, the affected adjacent residents must be informed and such be undertaken within the shortest time possible. - Vehicles and plant to be inspected daily for defects which may cause elevated noise generation. - Vehicles and plant to be adequately serviced and maintained in good condition.
Air pollution	- Implement dust suppression measures as required. - Vehicle speed should be kept at a minimal reduce dust pollution. - Construction plant, equipment, machinery and vehicles should be well maintained and serviced regularly to minimise exhausted fumes air pollution. - Exposed areas should be re-vegetated as soon as all installations are completed.
Paleontological disturbance resource	The Environmental Compliance Officer responsible for overseeing the project should be informed of the geological context of the site and the extremely low likelihood of encountering palaeontological material.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	- Construction managers and supervisory personnel should be made aware of the procedures to follow in the unlikely event that fossil material is encountered. - Any new geological exposures created during excavation for foundations, cable trenches, substations, or access roads should be visually inspected as part of routine environmental monitoring. - In the unlikely event that fossil material is discovered, work in the immediate vicinity must cease and a qualified palaeontologist or the relevant heritage authority must be contacted for further guidance. - Any palaeontological material identified as scientifically significant must be recorded and sampled by a qualified specialist. The costs associated with this activity shall be borne by the developer as part of responsible heritage management.
Archaeological and Cultural resource disturbance	- Ensure all known sites of cultural, archaeological, and historical significance are demarcated on the site layout plan and marked as no-go areas. - Should any archaeological, cultural property heritage resources be exposed during excavation or be found on development site, a registered heritage specialist or Amafa research and Institute official must be called to site for inspection. - Under no circumstances may any archaeological, historical or any physical cultural property heritage material be destroyed or removed from site. - Should remains and/or artefacts be discovered on the development site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager who in turn will inform Amafa Research and Institute. - Should any remains be found on site that is potentially human remains, Amafa research and Institute and South African Police Service should be contacted.
Employment opportunities	Employment of local labour and contracting of SMMEs.
REHABILITATION PHASE	
Legal and environmental compliance	A rehabilitation plan should be developed and implemented.
Site de-establishment	- All structures should be removed and the site should be clean with no waste, rubble or construction material. - Infrastructure must be removed with minimal additional disturbance.
Revegetation	- Rehabilitation of vegetation on the site must be done as described in the Rehabilitation Plan. - Compacted soils must be: - Ripped - Rehabilitated - Disturbed areas must be: - Recontoured - Topsoil replaced - Re-vegetated with indigenous species - Post-decommissioning monitoring must ensure: - Vegetation recovery

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	○ Stability of soils ○ Absence of invasive species
OPERATIONAL PHASE	
Collision of birds with solar farm	● Mark any overhead spans with flight diverters. ● Avoid routing near known flyways ● Reduce night lighting; implement carcass-search monitoring with adaptive triggers.
Electrocution of birds when perched on towers	● Electrocution is likely if perching areas are not insulated. ● Fit Bird Guards on pylons/wires near sensitive areas (e.g., water bodies). ● Insulate pylons, wires, and substation structures. ● Follow Eskom Guidelines for installation.
Disturbance of key habitats and pollution of the surrounding environment	● Keep all activities within the approved footprint. ● Provide designated waste areas with appropriate bins/skips. ● Dispose of chemicals/metal offcuts per the Waste Act. ● Manage noise and littering to avoid disrupting breeding periods.
Employment opportunities	● N/A
Energy security	● N/A

6.3. CONCLUDING STATEMENT ON THE ALTERNATIVES ASSESSMENT

A concluding statement indicating the preferred alternatives, including preferred location of the activity; After consideration on the types of alternatives that exist (i.e. property, type, design, technology, operational and the no-go options) and a comprehensive assessment of potential environmental, social and technical considerations as discussed in Section 5, the following preferred alternatives for the proposed development has been identified and shall be carried forward to the EIA phase.

Site Alternatives

No site/property alternatives exist as the applicant has been given consent by the landowner and is in support of the proposed development. Additionally, the proposed site is in close proximity to existing infrastructure.

Design and layout Alternatives

Alternative 2 (preferred)- This layout alternative presents an opportunity to avoid sensitive areas within the development footprint.

Technical Alternatives

Alternative 1 (Single-Axis trackers)- Solar panels rotate along a single axis to follow the sun and improve energy generation compared to fixed systems.

Operational Alternatives- No alternatives have been considered.

No-go option- Keeping the current status quo of no activities occurring on site, which would not result in a loss of vegetation or impact on CBA 2. However, potential positive socio-economic impacts will be lost.

7 PLAN OF STUDY FOR THE EIA

A Plan of Study for the EIA has been prepared according to the process as described in Appendix 2 of the EIA Regulations (2014, as amended) promulgated in terms of Section 24(5) of the NEMA, to provide the Competent Authority with adequate information in order to obtain authorization and proceed with the proposed activity. The section below outlines the proposed plan of study which will be conducted for the various environmental aspects during the EIA phase. It is also important to note that the plan of study will also be guided by comments obtained from I&APs and other stakeholders during the Scoping Report public review period.

7.1. ALTERNATIVES TO BE CONSIDERED AND ASSESSED

As stated above on Section 0 the following alternatives will be assessed during the EIA Phase, namely:

Table 17: Development alternatives to be assessed

CATEGORY	ALTERNATIVE	DESCRIPTION
NO-GO Alternative	Status Quo	Keeping the current status quo of no activities occurring on site, which would not result in a loss of vegetation or impact on CBA 2. However, potential positive socio-economic impacts will be lost.
Site Alternatives	Alternative 1	No site/property alternatives exist as the applicant has been given consent by the landowner and is in support of the proposed development. Additionally, the proposed site is in close proximity to existing infrastructure.
Design and layout Alternatives	Alternative 1	This layout alternative entails development of the solar PV facility on the entire development footprint, with no effort to protect environmentally sensitive areas.
	Alternative 2 (Preferred)	This layout alternative presents an opportunity to avoid sensitive areas within the development footprint.
Technical Alternatives	Alternative 1 (Preferred)- Single-Axis trackers	Solar panels rotate along a single axis to follow the sun and improve energy generation compared to fixed systems.
	Alternative 2- Fixed-systems Tilt	Solar panels are installed at a fixed angle, offering a simpler and lower-cost design but with lower energy output.

CATEGORY	ALTERNATIVE	DESCRIPTION
Operational Alternatives	No feasible and reasonable alternatives evaluated and assessed	No feasible alternatives exist.

Only incremental alternatives will be considered further going into the EIA phase. Incremental alternatives typically arise during the EIA process and are usually suggested as a means of addressing identified impacts. These alternatives are closely linked to the identification of mitigation and management measures and are not specifically identified as distinct alternatives. Incremental alternatives to be considered by the applicant and which will be explored further during the EIA phase include the use of already disturbed areas within the areas. These will be investigated further during the EIA phase and will form part of the EMPr.

7.2. DEVELOPMENT ASPECTS TO BE ASSESSED IN THE EIA

Table 18 outlines the key aspects that were identified in the scoping phase. These aspects will be assessed in the EIA phase identified from construction to operations.

Table 18: Aspects to be assessed as part of the EIA phase

Aspect	Phase
Terrestrial Biodiversity	Construction phase
Aquatic Biodiversity	Construction phase
Fauna	Construction phase
Avifauna	Construction phase and operational phase
Air Quality	Construction phase
Noise	Construction phase
Visual	Construction phase
Agriculture	Construction phase
Heritage and Palaeontological resources	Construction phase
Traffic	Construction phase and operational phase
Socio-economic	Construction phase and operational phase

7.3. ASPECTS TO BE ASSESSED BY SPECIALISTS

7.3.1. IDENTIFIED SPECIALIST STUDIES

As identified by the DFFE screening tool and site verification informed and recommended studies as listed below with indications on the key areas of focus for the assessment;

- Terrestrial Biodiversity Impact Assessment- Inclusive of Plants species
- Aquatic Biodiversity Impact Assessment
- Paleontological Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Animal Species Impact Assessment
- Agricultural Impact Assessment
- Landscape/Visual Impact Assessment
- Avian Impact Assessment
- Socio-economic Impact Assessment
- Traffic Impact Assessment

Detailed process followed to reach the above determinations is documented in **Appendix B** of this report.

7.3.2. SPECIALISTS TERMS OF REFERENCE

All specialist studies will be prepared in line with Appendix 6 of the EIA Regulations of 2014 as amended and will be undertaken by qualified, experienced, and registered specialists.

The specialist studies will take into consideration the Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Section 24(5) (a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation (“the Protocols”) promulgated in Government Notice (“GN”) No. 320 on 20 March 2020, which came into effect on 09 May 2020. All the recommended specialist studies will be initiated after 09 May 2020; therefore, the requirements apply.

The following outlines the general list of requirements to be fulfilled by the respective specialists as part of the EIR Phase of the development:

- Address all triggers for the specialist studies contained in the subsequent specific ToR;
- Address issues and concerns raised by IAPs, as contained in the Comments and Response Report, and conduct an assessment of all potentially significant impacts. Additional issues and concerns that

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

have not been identified during Scoping Phase should also be highlighted to the EAP for further investigation;

- Ensure that the requirements of the environmental authorities that have specific jurisdiction over the various disciplines and environmental features, are satisfied;
- Approach to include desktop study and site visits, as deemed necessary, to understand the affected environment and to adequately investigate and evaluate salient issues. Indigenous knowledge (i.e. targeted consultation) should also be regarded as a potential information resource;
- Assess potential impacts (direct, indirect and cumulative) in terms of their significance (using suitable evaluation criteria) and suggest suitable mitigation measures for informed decision-making. In accordance with the mitigation hierarchy, negative impacts should be avoided, minimised, rehabilitated (or reinstated) or compensated for (i.e. offsets), whereas positive impacts should be enhanced. A risk-averse and cautious approach should be adopted under conditions of uncertainty;
- Consider time boundaries, including short to long-term implications of impacts for the project lifecycle (i.e. pre-construction, construction, operation and decommissioning);
- Consider spatial boundaries, including:
 - Broad context of the proposed project (i.e. beyond the boundaries of the specific site);
 - Off-site impacts; and
 - Local, regional, national or global context.
- The provision of a statement of impact significance for each issue, which specifies whether or not a pre-determined threshold of significance (i.e. changes in effects to the environment which would change a significance rating) has been exceeded, and whether or not the impact presents a potential fatal flaw or not. This statement of significance should be provided for anticipated project impacts both before and after application of impact management actions;
- Recommend a monitoring programme to implement mitigation measures and measure performance. List indicators to be used during monitoring;
- Appraisal of alternatives (including the No-Go option) by identifying the best implementable option (if any) with suitable justification;

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

- Advise on the need for additional specialists to investigate specific components and the scope and extent of the information required from such studies;
- Engage with other specialists whose studies may have bearing on your specific investigation;
- Present findings and participate at public meetings, as necessary;
- Information provided to the EAP needs to be signed off;
- Review and sign off on EIA Report prior to submission to DFFE to ensure that specialist information has been interpreted and integrated correctly into the report;
- Sign a declaration stating independence;
- The appointed specialists must take into account the policy framework and legislation relevant to their particular studies; and
- All specialist reports must adhere to Appendix 6 of GN No. 326 (7 April 2017) as well as the Specialist Reporting Protocols, March 2020.

Specific terms of reference are included in the specialist reports attached in **Appendix D**.

7.4. PROPOSED METHOD OF ASSESSING IMPACTS

The criterion for determining impact significance has been defined in accordance with the criteria drawn from Appendix 3 of the Environmental Impact Assessment Regulations, 2014. In order to establish a coherent framework within which all impacts could be objectively assessed, it is necessary to establish a rating system, to be applied consistently to all the criteria. **Table 14** provides a summary of the criteria and the rating scales, which will be used in the assessment of the impacts.

Impacts identified were assessed according to the criteria outlined below. Each impact was ranked according to the nature, extent, duration, magnitude, probability, irreplaceable loss of resources and reversibility. These criteria are based on the Department of Environmental Affairs and Tourism (DEAT) Guideline Document to the EIA Regulations (1998). A significance rating was calculated as per the methodology outlined below.

The significance rating of each identified impact / effect was further reviewed by the EAP and/or specialist by applying professional judgement. Where possible, mitigatory measures were recommended for the impacts identified.

The methodology is described in detail under **Section 6.1**

7.5. EIA PUBLIC PARTICIPATION STRATEGY

Public participation process proposed for the application as required by Regulation 41 of GN R.326, dated 07 April 2017 as amended. The principles of NEMA govern many aspects of the EIA process, including consultation with Interested and Affected Parties (I&APs). These principles include the provision of sufficient and transparent information flow to I&APs on an ongoing basis, to allow them to comment; and ensuring the participation of historically disadvantaged individuals, including women, the disabled and the youth throughout the process.

The primary objectives of the public participation process are to:

- Inform and notify potentially Interested and Affected Parties (I&APs) of the proposed application (explain steps that were taken to achieve this);
- Initiate or promote meaningful and timeous participation of I&APs by providing proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the proposed application have been displayed, placed, or given;
- Maintain a list of all persons, organization and organs of state that were registered as interested and affected parties in relation to the application;
- Identify issues and concerns of key stakeholders and I&APs with regards to the application for the proposed project;
- Provide a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues; and
- Provide responses to I &AP's queries.
- Identification of Interested and Affected Parties and Database management I&APs representing the following sectors of society will be identified:
 - Provincial Authorities;
 - Local Authorities;
 - Ward Councillors; and
 - Adjacent Landowners.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

The I&AP database will be updated throughout the EIA process and new participants register on the project. All I&APs who register will be included within this database and included in project related correspondence going forward.

Public Announcement of the EIR

The following means of public engagement will also be made:

- Electronic notification of stakeholders via email
- Publication of media advertisement
- On-site notices will be placed, detailing the proposed development, the EIA process, and an invitation to register and comment.
- Notices will be placed at strategic places on site and in the vicinity of the site (along the road, at intersections, etc.) as well as at high frequented places within the area; and
- Distribution of letters by means of knock-and-drops

Final Environmental Impact Report (FEIR)

All comments made on the DEIR during public review will be captured and adequately responded to in the Comments and Response Report. Once the FEIR has been finalised, it will be submitted to the DFFE for decision making. When a decision is received from the department, I&APs will also be notified accordingly as per requirements.

Notice of EA decision

- I&APs will be notified of the decision within 14 days from receipt of such
- A 20-day period will be allowed for appeals

7.6. ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The EIA process is a planning and decision-making tool that identifies the potential negative and positive impacts of a proposed development. It also recommends ways to enhance the positive impacts and to minimize the negative ones. The environmental studies that will be undertaken, will address the impacts associated with the proposed development, and provide an assessment in terms of the biophysical, social, cultural-historic and economic environments. This will assist both the competent authority and the applicant in making decisions regarding implementation of the proposed project. The environmental assessment will be undertaken in compliance with the NEMA, specifically EIA Regulations 2014 (as amended). Cognisance will also be taken of related guideline documents and other relevant legislation.

7.6.1. SCOPING PHASE

The scoping phase process can be categorized into two main activities as described in the sections below.

(a) DESKTOP REVIEW AND FIELD INVESTIGATIONS

A desktop study which included the review of existing information such as specialist studies that were conducted for the development, literature review of various related to reports and consultation of a variety of databases was undertaken. A screening tool report was generated using the National Web Based Environmental Screening Tool, the report presents the sensitivities of the site which have been incorporated into this report. Copies of the screening tool reports are attached as Appendix D of this report. This Scoping Report (SR) including information as required per Appendix 2 of the 2014 NEMA EIA Regulations is then compiled.

(b) PUBLIC PARTICIPATION

During the Scoping phase of this project, the key objective of public participation is to provide I&APs with an opportunity to provide comment and input in the planning phase of the project. Issues of concern and suggestions raised by I&APs will be addressed and responded to as required in the Scoping Report, and I&APs will also be given the opportunity to comment on the findings of both the Scoping and EIA Reports and findings of the Specialist studies during the specified comment periods.

This Draft Scoping Report (DSR) will be subjected to a public participation process (PPP) mainly as follows:

Public comment (30-days): **03 July – 04 August 2026.**

A public meeting will be arranged with stakeholders and community members to ensure that the report is provided to interested and affected parties.

Registered I&APS will be kept abreast of the application and Scoping process and receive notification when there is opportunity to provide comment. Please refer to **Appendix F** for a full list of Interested and Affected Parties.

(c) FINAL SCOPING REPORT AND CA EVALUATION

All comments from stakeholders and Interested & Affected Parties (I&APs) will be incorporated into the Final Scoping Report (FSR), which will be submitted to the Competent Authority, DFFE. The Department has 43 days to make decision. Once accepted, the project will proceed to the EIA phase, where the recommended specialist studies will be undertaken, and a Draft Environmental Impact Report (DEIR) will be prepared for further public review and comment.

7.6.2. EIA PHASE

This phase has the following major stages;

- Impact assessment for the preferred alternatives
- Specialists assessments
- Public comment period and
- CA decision and notification of I&APs

(a) TIMEFRAMES

- An Environmental Impact Report (EIR) will be arranged shortly after the approval of the Final Scoping by the Competent Authority.
- The EIR will have the information specified in Appendix 3 of GN No R. 326.
- The EIR will be supported by Specialist studies
- According to Regulation 3 (8) and 41 to 44 of the GN No R. 326, the EIA report will be issued for PPP no less than 30 days.
- An Environmental Management Programme (EMPr) must be linked with an EIA report and must contain the necessary documentation that is required by Appendix 4 of GN. No. R. 326.
- This process would take 300 days, but if the report needs to be corrected and re-distributed, 50 days will be provided additionally to do so, making the duration of the process 350 days.

(b) IMPACT ASSESSMENT AND SPECIALIST STUDIES

During the scoping phase, specialists will be appointed and provided with available information relating to the project as to familiarise themselves with the project. If possible and where relevant, they may provide specialist desktop input at this stage. Detailed specialist assessment are undertaken to inform the EIR.

(c) PUBLIC PARTICIPATION

The Draft Environmental Impact Report (DEIR) and draft EMPr will be subjected to a PPP similar to the Scoping Phase;

Public comment (30-days)

Public meetings will be held at the same venues as the scoping phase.

(d) CA DECISION AND I&APS NOTICE

The Final EIR and EMPr will be submitted to the competent authority for its consideration and approval. The Competent Authority will make a decision on its evaluation within 107 days from the date of the final submission of the reports.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Subsequent to the issue of an Environmental Authorization (EA) decision, all registered I&APs will be informed by email, or post of the decision and availability of the EA, upon request. In addition, the registered I&APs will be informed of the procedure to lodge an appeal of the environmental authorization, should they wish to do so.

Table 19 below provides a summary of the EIA process.

Table 19: Summary of EIA Process

PHASE	ACTIVITY	TIMEFRAME
INITIAL NOTIFICATION PHASE	identification of key stakeholders and I&APs	No timeframes
	Distribution of PPP documents (BID, Notification letters, emails etc)	
SCOPING PHASE	Submission of Application	Authority Acknowledgement = 10 days
	Public & Authority review of the Draft Scoping Report	30 days
	Submission of Final Scoping report	44 Days from receipt of Acknowledgement of Application
	Consideration by Competent Authority	43 days from receipt of Scoping report
SPECIALIST PHASE	Specialists conduct site assessments and prepare reports for inclusion in the Draft Environmental Impact Report (DEIR) and WULA Technical Report (WULA report)	No timeframes
EIA PHASE	Public Participation on the DEIR and WULA report	30 days
	Submission of the Final EIR and WULA report to Authorities	106 days from Acceptance of Scoping Report
	Notice of extension	Must be lodged within 106 days from Acceptance of Scoping Report. Extension period allows for an additional 50 days to submit the EIR, i.e. within 156 days
	Environmental Authorisation	107 Days from receipt of FEIR
	Water Use Licence	90 Days from receipt of the Final WULA report
	EA notification	Authority to notify Applicant within 5 Days, 14 Days to notify I&APs 20 day allowance for appeals

7.7. COMPETENT AUTHORITIES CONSULTATION

An indication of stages at which competent authority will be consulted is as follows (*Table 20*);

Table 20: Summary of stages where CA will be consulted

EIA Stage	Engagement
Pre-application	Project announcements to all I&APs for registrations and pre-application comments.
Scoping Phase	- Notice of DSR availability for review and comment over the regulatory 30-days period - Engagements in writing and or virtual meeting
EIA Phase	- Notice of DEIR availability for review and comment over the regulatory 30-days period - Engagements in writing and or virtual meeting

All comments from the CA will be incorporated into the respective reports throughout the various project stages.

7.8. DSR SUMMARY OF COMMENTS RECEIVED

Please refer to the Comments and Responses Report in Appendix E for a full account of comments and responses as well as copies of all correspondences between the EAP and I&APs. The key issues that have been raised during the public review period of the Draft Scoping Report will be summarised in this section.

7.9. APPLICABLE MITIGATION MEASURES

Table 21 identifies the applicable mitigation measures that are likely to apply to this project. Additional and more detailed management and mitigation measures will be identified during the impact assessment phase and reported in the EIR and EMP.

Table 21. Mitigation measures

Impacts/ Aspects	Mitigation measures
PLANNING AND DESIGN PHASE	
Legal and social compliance	- Ensure environmental authorisations namely EA is obtained for the development. - Environmental Control Officer (ECO) to be appointed to monitor compliance with permits conditions. - All health and safety permits and certification to be in place. - Appointment of a Community Liaison Officer (CLO). - Appointment of a Social Facilitator (SF) to manage social-economic aspects of the project relating to community and local business interest, particularly small, medium and micro-enterprise (SMMEs). - A health and safety plan in terms of the Occupational Health and Safety Act (Act No 85 of 1993) must be drawn up by the HSE officer prior to construction to ensure workers safety.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	• Environmental files to be compiled prior to commencement of construction activities. • Methods statement to be compiled for all works with environmental aspects and impacts, for approval of the ECO. • Employment and sub-contracting of locals.
Site establishment	• Develop a site establishment method statement • The Contractor must prepare a Construction Site Plan prior to establishing on-site. This plan must indicate: • The boundaries of the site that encompass all construction-related activities. • Vehicle and pedestrian access points and routes (safe diversions of routes when necessary). • Laydown area/s, offices, stockpile areas, storage areas, etc. • Construction site to be selected by the contractor in conjunction with the developer, consulting engineer and the ECO.
Existing civil services, infrastructure and properties	• Ensure that all existing services and infrastructure are known, mapped and marked to prevent potential damage. • Development of a plan to manage existing services to avoid damages • Wayleaves to be obtained from the relevant custodians for affected servitudes as applicable. • Property owners such as the local residents should be engaged throughout the project lifespan and engaged as necessary to promote conflict free development implementation. • Where relevant, the directly affected property owners should be informed in writing and engaged to reach a consensus and those proceedings and relevant agreements to be documented.
CONSTRUCTION PHASE	
Legal and social compliance	• ECO to be appointed to audit environmental compliance with conditions in the EMPr and other permits and authorisations. • ECO responsibilities must include: ○ Monitoring buffer compliance ○ Verification of search and rescue activities ○ Erosion and stormwater inspections ○ Alien plant control monitoring ○ Rehabilitation progress • Regular compliance reports must be submitted to the Competent Authority. • CLO and Social Facilitator to be retained throughout the construction tenure to represent the surrounding communities and local business, particularly SMMEs.
Site establishment and security	• Fulltime security officers to be appointed to safeguard the site, its personnel, plant and equipment • Necessary health and safety as well as road construction signage to be installed. • Construction areas are to be clearly demarcated, and all construction activities are to be restricted to within these demarcated areas.
Water consumption	• A sustainable and lawful water supply should be utilised. • Consistent water supply for construction staff and activities. • If water is stored on-site, drinking water and multi-purposed water storage facilities shall be clearly distinguished and demarcated. • Implement rainwater harvesting techniques, where possible. • Re-use wash water for selected activities such as concrete batching.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Sanitation	• Ensure availability of ablutions for males and females. One ablution facility for every 10 workers during construction phase. • Ensure regular servicing of the ablution toilets by a service provider. • Ablution facilities to be located outside the regulated water area by all means practically possible.
Hazardous material storage and handling	• A Hazardous Material Spill Response and Contingency Plan must be developed by the Contractor/s • Hazardous materials must be stored and handled in accordance with appropriate legislation and standards, including the Hazardous Substances Act (Act No. 15 of 1973) and Occupational Health and Safety Act (No. 85 of 1993). • Avoid hydrocarbon pollution to soil and watercourses. • During the construction phase all oils, fuel and other maintenance equipment and supplies must be stored in a secure area with an impermeable and bound area. • All stationary plant on site must have drip trays including tools such as generators and equivalent • All maintenance must take place off site. • Spill kits must be kept on-site and maintained. • Cement and concrete must only be mixed in designated areas and on an impermeable surface
Direct loss of indigenous vegetation and disturbance of habitats due to construction of PV facility and transmission line	• Minimise vegetation clearance and confine to the proposed infrastructural footprint. • An Environmental Awareness Programme should be implemented to ensure basic environmental principles are adhered to. • Use existing access roads as opposed to initiating new route, the latter should be authorised first prior to initiating. • Construction should not take place outside the authorised site footprint • Minimise vegetation clearance as practically possible to do so. • Disturbance of semi-natural vegetation must be minimised, especially in less impacted areas. • Topsoil must be: ○ Stripped ($\pm 150\text{--}200$ mm) ○ Stockpiled separately ○ Protected from erosion and contamination • Topsoil must be reused during rehabilitation to preserve seed banks. • Rehabilitation must: ○ Be implemented progressively where possible ○ Use locally indigenous species ○ Prioritise rapid ground cover establishment • No collection of firewood or harvesting of indigenous vegetation by workers is permitted.
Disturbance of fauna and loss of habitats	• Temporary laydown and site office areas to be established in disturbed or low sensitivity areas. • Vegetation clearance must be limited to the footprint of the site and only areas to be used for construction should be cleared. • A pre-construction survey must identify: ○ Burrows

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	○ Nests ○ Microhabitats • Construction activities should be limited to daylight hours where possible. • Trenches and excavations must: ○ Be inspected daily and include escape ramps where necessary • Speed limits must be enforced to reduce collisions with fauna. • No hunting, trapping, or disturbance of fauna by workers is permitted. • Where individuals are encountered, implement relocation to a suitable habitat outside the development footprint, under specialist supervision. • Vegetation clearing should be undertaken in a phased manner to allow fauna and invertebrates to disperse naturally.
Disturbance of the surface resulting in increased risk of AIPs	• Develop and implement an Alien Vegetation Management Plan to mitigate the establishment and spread of undesirable alien plant species during construction and operations. • Site must be continuously monitored and managed for alien vegetation growth. • Removal must occur through appropriate methods such as hand pulling, application of chemicals, cutting, etc. in accordance with the NEMBA: Alien Invasive Species Regulations.
Impact on avifauna- bird mortality	• Limit vegetation clearance to the smallest footprint necessary. • Avoid drainage lines that are around the project site and some inside the site. • Maintain ecological corridors and establish a minimum of 50m buffer zones around sensitive habitats (drainage lines) to reduce disturbance. • Schedule noisy activities outside critical breeding seasons (summer period Oct – Feb); confine movement of machinery and personnel to designated routes and work areas.
Impact on the aquatic environment	• Drainage line areas must be demarcated and avoided. • All construction camps, lay down areas, wash bays, batching plants and any storage areas should be located away from any demarcated water courses. • No stockpiling should take place within or near a water course. • Fuel storage, refuelling, and maintenance of construction vehicles and equipment must take place in designated areas away from watercourses.
Visual impact	• The site camp must be clearly demarcated and screened in order to block any unappealing aesthetics within the site camp such material storage areas. • The construction footprint must be kept as small as possible, to avoid unnecessary disruption to the surrounding environment. • Disturbed areas to be rehabilitated / revegetated as soon as possible during the construction phase. • Areas utilised for construction at the site must be kept clean and tidy at all times.
Waste management	• Provide clearly labelled waste bins with lids • Waste manifest to be filed on site as proof of safe disposal. • Littering is strictly prohibited. • All waste generated on site shall be collected and appropriately disposed of at a registered municipal landfill site. • Minimise accidental hazardous substance spills such as cement by mixing in a container and covering the ground with protective material.

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

Traffic impact	• Ensure construction vehicles are visible and make use of Victoria Drive to gain access to site. • Pedestrians and motorists should be accommodated through appropriate traffic warning signs and measures. • Speed should be kept at a minimum next to the construction site.
Noise pollution	• Ensure that construction vehicles and working machinery are serviced and are in good condition to reduce their noise levels. • Construction activities should be maintained during the normal working hours (08h00-17h00). • Where works are to be carried outside the normal working hours, the affected adjacent residents must be informed and such be undertaken within the shortest time possible. • Vehicles and plant to be inspected daily for defects which may cause elevated noise generation. • Vehicles and plant to be adequately services and maintained in good condition.
Air pollution	• Implement dust suppression measures as required. • Vehicle speed should be kept at a minimal reduce dust pollution. • Construction plant, equipment, machinery and vehicles should be well maintained and services regularly to minimise exhausted fumes air pollution. • Exposed areas should be re-vegetated as soon as all installations are completed.
Paleontological disturbance resource	• The Environmental Compliance Officer responsible for overseeing the project should be informed of the geological context of the site and the extremely low likelihood of encountering palaeontological material. • Construction managers and supervisory personnel should be made aware of the procedures to follow in the unlikely event that fossil material is encountered. • Any new geological exposures created during excavation for foundations, cable trenches, substations, or access roads should be visually inspected as part of routine environmental monitoring. • In the unlikely event that fossil material is discovered, work in the immediate vicinity must cease and a qualified palaeontologist or the relevant heritage authority must be contacted for further guidance. • Any palaeontological material identified as scientifically significant must be recorded and sampled by a qualified specialist. The costs associated with this activity shall be borne by the developer as part of responsible heritage management.
Archaeological and Cultural resource disturbance	• Ensure all known sites of cultural, archaeological, and historical significance are demarcated on the site layout plan and marked as no-go areas. • Should any archaeological, cultural property heritage resources be exposed during excavation or be found on development site, a registered heritage specialist or Amafa research and Institute official must be called to site for inspection. • Under no circumstances may any archaeological, historical or any physical cultural property heritage material be destroyed or removed form site. • Should remains and/or artefacts be discovered on the development site during earthworks, all work will cease in the area affected and the Contractor

DRAFT SCOPING REPORT: PLANETS ENERGY FACILITY (PHASE 1 – GILIMBERG ENERGY CLUSTER)

	will immediately inform the Construction Manager who in turn will inform Amafa Research and Institute. Should any remains be found on site that is potentially human remains, Amafa research and Institute and South African Police Service should be contacted.
Employment opportunities	Employment of local labour and contracting of SMMEs.
REHABILITATION PHASE	
Legal and environmental compliance	A rehabilitation plan should be developed and implemented.
Site de-establishment	- All structures should be removed and the site should be clean with no waste, rubble or construction material. - Infrastructure must be removed with minimal additional disturbance.
Revegetation	- Rehabilitation of vegetation on the site must be done as described in the Rehabilitation Plan. - Compacted soils must be: - Ripped - Rehabilitated - Disturbed areas must be: - Recontoured - Topsoil replaced - Re-vegetated with indigenous species - Post-decommissioning monitoring must ensure: - Vegetation recovery - Stability of soils - Absence of invasive species
OPERATIONAL PHASE	
Collision of birds with solar farm	- Mark any overhead spans with flight diverters. - Avoid routing near known flyways - Reduce night lighting; implement carcass-search monitoring with adaptive triggers.
Electrocution of birds when perched on towers	- Electrocution is likely if perching areas are not insulated. - Fit Bird Guards on pylons/wires near sensitive areas (e.g., water bodies). - Insulate pylons, wires, and substation structures. - Follow Eskom Guidelines for installation.
Disturbance of key habitats and pollution of the surrounding environment	- Keep all activities within the approved footprint. - Provide designated waste areas with appropriate bins/skips. - Dispose of chemicals/metal offcuts per the Waste Act. - Manage noise and littering to avoid disrupting breeding periods.
Employment opportunities	N/A
Energy security	N/A

8 CONCLUSION AND RECOMMENDATIONS

8.1. CONCLUSION

The Scoping Report was undertaken according to the requirements of the NEMA, the amended EIA Regulations, and associated legislation. The scoping phase report was undertaken to present the proposed development to the Competent Authority and potential Interested & Affected Parties (I&APs) and to identify potential environmental issues. The potential impacts that have been identified during the Scoping Phase will be investigated during the EIA Phase of the project, with appropriate mitigation measures included in the EMPr.

The Draft Scoping Report is subjected to a 30-day comment period to allow comments and inputs from I&APs. The comments on the DSR will be comprehensively addressed and included in the report.

8.2. RECOMMENDATIONS

A number of potentially significant issues have been highlighted for further investigation in order to assess their significance, and to determine the need for the implementation of mitigation measures in order for the overall project to be environmentally sustainable. It is, therefore, recommended that comprehensive studies be conducted for the proposed project in the EIA Phase, as described in the Plan of Study for EIA.

The EAP recommends that the Scoping Report be approved by the Competent Authority, and that permission be granted to continue with the EIA Phase of the process.

8.3. FINAL COMPOSITE MAP

The environmental sensitivities/constraints of the site are illustrated in Figure 19 below.

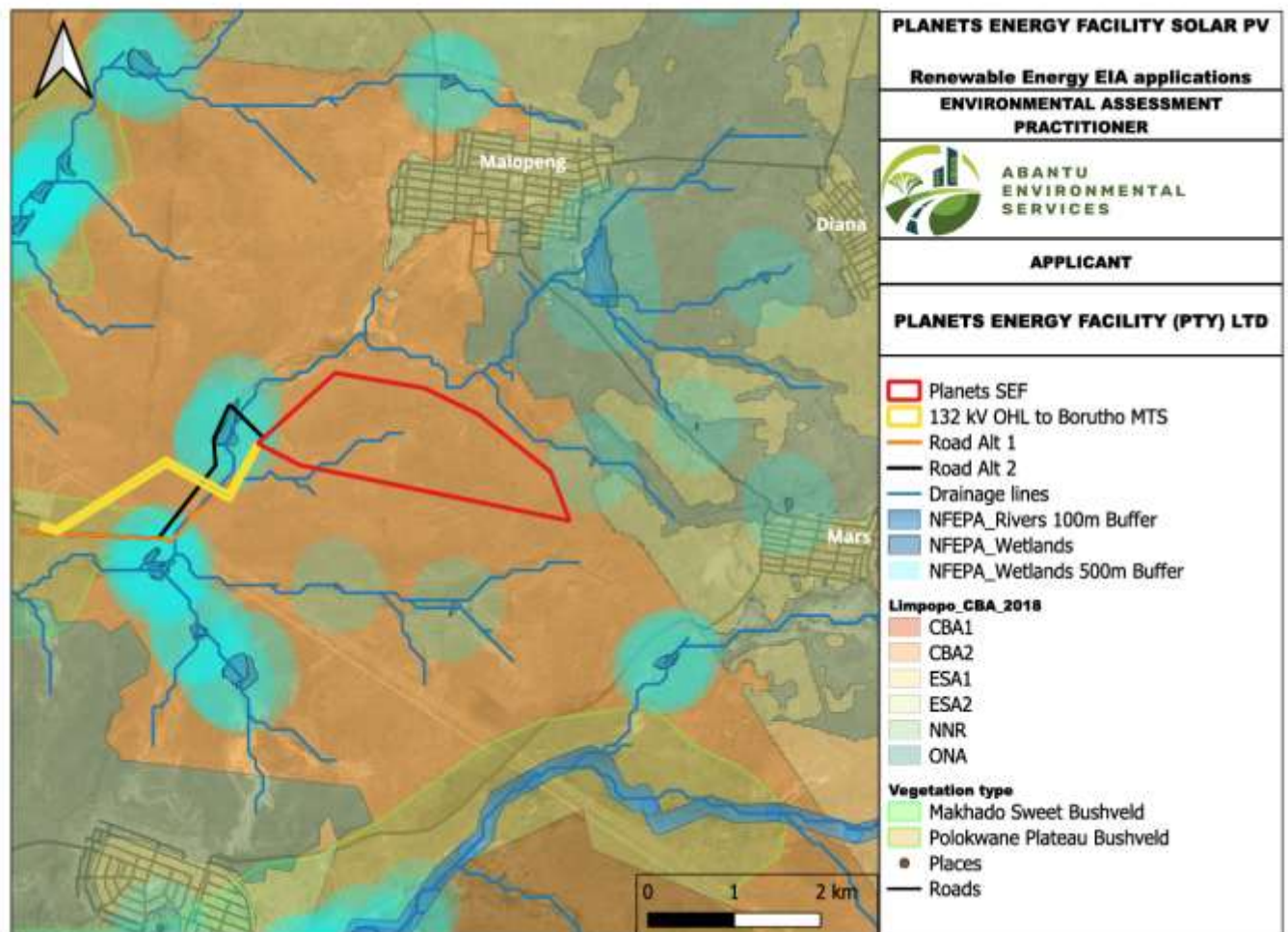


Figure 19: Final composite map

9 UNDERTAKING

The EAP herewith confirms:

- (a) The correctness of the information provided in the reports;
- (b) The inclusion of comments and inputs from stakeholders and I&AP's;
- (c) The inclusion of inputs and recommendations from the specialist reports where relevant;
and
- (d) That the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties are correctly reflected herein.



Signature of the environmental assessment practitioner:

ABANTU ENVIRONMENTAL SERVICES (PTY) LTD

Name of company:

Date: 02 JULY 2026

10 REFERENCES

Capricorn District Municipality. (2025). Integrated Development Plan 2026-2027. Available at: <https://www.cdm.org.za/2026-27-idp-status-quo-report/>

Dippenaar, M.A. and van Rooy, J.L., 2014. Review of engineering, hydrogeological and vadose zone hydrological aspects of the Lanseria gneiss, Goudplaats-Hout river gneiss and Nelspruit suite granite (South Africa). *Journal of African Earth Sciences*, 91, pp.12-31.

GreenCape (2025). Large-scale Renewable Energy: Market Intelligence Report.

Limpopo Birding Routes. (n.d.). Essential information. Available at: <https://www.limpopobirding.com/essential-information?m=35>

Mogalakwena Local Municipality. (2025). Integrated Development Plan 2025-2026.

Moumakwe, P.L., 2024. *Characterization of rainfall over the Limpopo province, South Africa, for the period 1990 to 2020*. University of KwaZulu-Natal

Polokwane Local Municipality. (2025). Integrated Development Plan 2025-2026. Available at: <https://www.polokwane.gov.za/idp/>

Polokwane Local Municipality. (2024). Spatial Development Framework

South African National Biodiversity Institute (bgis.sanbi.org).

Stats SA. (2022). Census 2022. Accessed 27 February 2026.

Tshipala, D., 2018. *Conceptualisation of hydrogeological system in the crystalline aquifer of the Hout River Catchment, Limpopo Province*. University of the Witwatersrand, Johannesburg (South Africa).

Ukoba, K., Jen, T.C. and Yusuf, A.A., 2025. Transformation of South Africa's energy landscape: Policy implications, opportunities, and technological innovations in the Fourth Industrial Revolution. *Energy Strategy Reviews*, 59, p.101752.

Waterberg District Municipality. (2025). Integrated Development Plan 2025-2026. Available at: <https://www.waterberg.gov.za/idp/>

11 APPENDICES

APPENDIX A: CV AND DECLARATION OF INDEPENDENCE BY THE EAP

APPENDIX B: SITE SENSITIVITY VERIFICATION REPORT

APPENDIX C: SCREENING TOOL REPORT

APPENDIX D: SPECIALIST STUDIES

APPENDIX E: ENGINEERING FEASIBILITY REPORT

APPENDIX F: PUBLIC PARTICIPATION INFORMATION