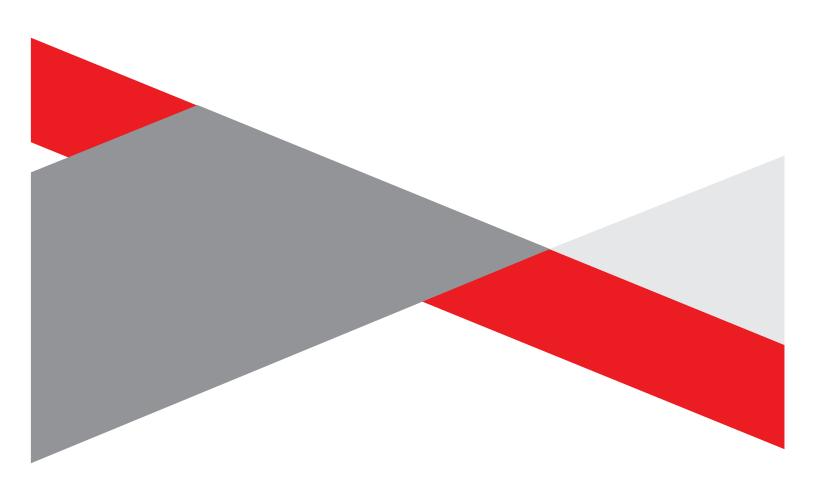
APPENDIX C8 COMMENTS AND RESPONSES REPORT



KLEINZEE SOLAR PHOTOVOLTAIC FACILITY, NORTHERN CAPE PROVINCE

(DFFE Ref. No.: 14/12/16/3/3/1/2764)

COMMENTS AND RESPONSES REPORT

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The Kleinzee (PV) Facility Public Participation process was initiated on Tuesday, 19 January 2023. The Background Information Document (BID) Letter served to invite Interested and Affected Parties (I&APs) to register their interest in the project and to submit any comments / queries regarding the proposed project. All written comments received from the initiation of the Basic Assessment (BA) Process have been included in this Comments and Responses Report (C&RR) and included in **Appendix C8** of the Basic Assessment (BA) Report.

The BA Report has been made available for a 30-day review and comment period from **03 May 2023** to **02 June 2023**, and the C&RR has been updated with all comments received and the C&RR is attached as a separate document to the revision BA Report as **Appendix C8**.

NOTE:

All comments captured in the C&RR are verbatim and have not been summarised.

NOTE:

In terms of Regulation 44(1) of the EIA Regulations 2014, as amended, please note that the comments raised, and responses provided at the various Meetings held during the initiation of the BA process and those held during the BA Report's review and comment period have been attached as **Appendix C6** of the final BA Report.

LIST OF ABBREVIATIONS / ACRONYMS

BA	Basic Assessment	NEMA	National Environmental Management Act
BAR	Basic Assessment Report	NBA	National Biodiversity Area
BID	Background Information Document	NC	Northern Cape
CBA	Critical Biodiversity Area	NNP	Namaqua National Park
C&RR	Comments and Responses Report	PV	Photovoltaic
DAERL	Department of Agriculture, Environmental Affairs, Rural	REDZ	Renewable Energy Development Zone
	Development and Land Reform		
DFFE	Department of Forestry, Fisheries and the Environment	SANParks	South African National Parks
EAP	Environmental Assessment Practitioner	SCC	Species of Conservation Concern
EIA	Environmental Impact Assessment	SEI	Site Ecological Importance
EMPr	Environmental Management Programme	SG	Surveyor General
FGM	Focus Group Meeting	WEF	Wind Energy Facility
I&AP	Interested and Affected Parties	WFA	Wilderness Foundation Africa
MW	Mega Watt	WWF	World Wildlife Fund

1. COMMENTS SUBMITTED ON THE BASIC ASSESSMENT REPORT

1.1. Organs of State

NO.	COMMENT	RAISED BY	RESPONSE
1.	This letter serves to inform you that the following information must	W Hector	All the activities that have been applied for are specific and
	be included to the final BAR:	Case Officer	relevant to the development activity as described in the project
	1. <u>Listed Activities</u>	DFFE	description. The relevant activities are included in Section 5.2 and
	(i) The EAP must ensure that all relevant listed activities are		Table 5.1 of the BA report.
	applied for, are specific and can be linked to the	Letter: 29 May 2023	
	development activity or infrastructure as described in the		
	project description. Only activities applicable to the		
	development must be applied for and assessed.		
	(ii) If the activities applied for in the application form differ		The listed activities included in Table 5.1 of the BA report correspond
	from those mentioned in the final BAR, an amended		with the listed activities in the application form.
	application form must be submitted. Please note that the		
	Department's application form template has been		
	amended and can be downloaded from the following link		
	https://www.dffe.gov.za/documents/forms.		
	(iii) It is imperative that the relevant authorities are continuously		Proof of notification to all Organs of State (OoS) and attempt to
	involved throughout the basic assessment process as the		follow-up on written comments are included in Appendix C4 :
	development property possibly falls within geographically		Organs of State Correspondence and that to key stakeholders and
	designated areas in terms of numerous GN R. 985 Activities.		I&APs are included in Appendix C5: Stakeholder Correspondence
	Written comments must be obtained from the relevant		of the revised Basic Assessment Report.
	authorities and submitted to this Department. In addition, a		
	graphical representation of the proposed development		
	within the respective geographical areas must be		
	provided.		
	(iv) Ensure that the SG codes, farm names and numbers are		Table 1.1 in the BA report provides a detailed description of the
	correct and consistent throughout the reports.		facility with the correct SG codes, farm names and numbers. The
			farm names and numbers are consistent throughout the BA report.
	2. <u>Layout & Sensitivity Maps</u>		
	Please provide a layout map which indicates the following:		

- (i) The Kleinzee Solar PV Facility and its associated infrastructure.
- (ii) All supporting onsite infrastructure e.g., roads (existing and proposed); stormwater management infrastructure, Site offices and maintenance buildings, including workshop areas for maintenance and storage, Laydown areas, Site access and internal roads, substation, and etc.
- (iii) The location of sensitive environmental features on site e.g., CBAs, heritage sites, wetlands, drainage lines, etc., that will be affected by the proposed 200MW Solar PV Project and its associated infrastructure.
- (iv) Buffer areas; and all "no-go" areas.
- (v) The above map must be overlain with a sensitivity map and a cumulative map which shows neighbouring renewable energy developments and existing grid infrastructure.
- (vi) Coordinates must be in the format as prescribed in the 2014 NEMA EIA Regulations, as amended
- (vii) Google map is not accepted.

3. Alternatives

Please note that you are required to provide a full description of the process followed to reach the proposed preferred alternative within the site, in terms of Appendix 1(3)(1)(h) of the 2014 NEMA EIA Regulations, as amended, including the following content:

- (i) details of all the alternatives considered for the project.
- (ii) The EAP is required to provide clear assessment for each identified location alternatives, layout alternatives, technology alternatives, (including power line route alternative if any), and further provide clear motivation and reasons as to why the chosen alternative proves to be the preferred compared to other alternatives.

The facility layout for assessment is overlain with a sensitivity map in **Appendix M** of the BA report. A cumulative map is included in **Appendix M** of the BA report.

All coordinates in the BA report are in the format as prescribed in the 2014 NEMA EIA Regulations, as amended.

Comment is acknowledged. No further action required.

Section 4.7 of the BA report is in accordance with Appendix 1(3)(1)(h) of the 2014 NEMA EIA Regulations, as amended. Details of all the alternatives considered as part of the BA process are discussed in **section 4.7.2** and **section 4.7.3** of the BA report.

Section 4.7 of the BA report is in accordance with Appendix 1(3)(1)(h) of the 2014 NEMA EIA Regulations, as amended. An assessment for each identified location alternative, layout alternative, technology alternative has been included. A clear motivation and reason is provided for the selection of the preferred alternative in the BA report.

- (iii) A concluding statement indicating the preferred alternatives, including preferred location of the activity is required.
- (iv) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such must be provided.
- (v) Written proof of an investigation and motivation if no reasonable or feasible alternatives exist in terms of Appendix 1.

4. Specialist Assessments

- All required specialist studies must be recommended and assessed.
- (ii) Specialist studies to be conducted must provide a detailed description of their methodology, as well as all other associated infrastructures that they have assessed and are recommending for the authorisation.
- (iii) The specialist studies must also provide a detailed description of all limitations to their studies. All specialist studies must be conducted in the right season and providing that as a limitation, will not be accepted.
- (iv) Should the appointed specialists specify contradicting recommendations, the EAP must clearly indicate the most reasonable recommendation and substantiate this with defendable reasons; and were necessary, include further expertise advice.
- (v) It is further brought to your attention that 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

A concluding statement indicating the preferred alternative and location is indicated in the report as part of **section 4.7.5**.

Alternatives are evaluated in **section 4.7** of the BA report. Each alternative provides a motivation or reason for considering it, and where applicable a justification for not considering the alternative.

Section 4.7 of the BA report assessed all alternatives and provided motivation and/or reason for not considering an alternative where required. The Specialist studies (**Appendix D-I**) assessed all alternatives. It is concluded from the specialist studies that the alternatives are feasible and reasonable.

The DFFE screening tool (**Appendix J**) informed the specialist studies required for the project. All specialist studies are recommended and assessed in the BA Report, refer to **Appendix D-I** and **Chapter 7** and **Chapter 8** of the BA report.

Specialist studies provided a detailed description of their methodology, locations and descriptions of PV arrays and all other associated infrastructures. These assessments are included in the BA report (**Appendix D – I**).

The specialists provided a detailed description of all limitations to their studies which is included as **Appendix D - I** of the BA report. All the studies were conducted in the right season as indicated in the specialist studies.

No contradicting recommendations were specified by the specialist (**Appendix D – I**).

Comment noted and acknowledged. The specialist studies were undertaken by suitably qualified and registered specialists in accordance with the minimum standards of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998 in

Authorisation, which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. "the Protocols"), and in Government Notice No. 1150 of 30 October 2020 (i.e. protocols for terrestrial plant and animal species), have come into effect. Please note that specialist assessments must be conducted in accordance with these protocols.

(vi) The screening tool output:

- a) The screening tool and the gazetted protocols (GN R320 of 20 March 2020 and GN R 1150 of 30 October 2020) require a site sensitivity verification to be completed to either confirm or dispute the findings and sensitivity ratings of the screening tool.
- b) The screening tool (Appendix J) identifies seventeen (13) Specialist reports. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation. The site sensitivity verification for each of the recommended studies, as per the protocols, must be compiled and attached.
- c) 'An applicant intending to undertake an activity identified in the scope of this protocol, on a site identified on the screening tool as being of "very high sensitivity" for terrestrial biodiversity, must submit a Terrestrial Biodiversity Specialist Assessment." If the findings of the site verification differed from the screening tool and was found to be of a different sensitivity level, then a compliance statement would have been accepted.

5. Cumulative Assessment

Should there be any other similar projects within a 30km radius of the proposed development site, the cumulative impact

Government Notice No. 320 of 20 March 2020 (i.e. "the Protocols"), and in Government Notice No. 1150 of 30 October 2020.

A site verification has been undertaken to either confirm or dispute the findings of the DFFE screening tool. The site verification report is included in the BA report as **Appendix K**.

The DFFE screening tool has been used as a guide to determine the required specialist studies. A motivation is included in **Section 5.2 Table 5.6** of the BA report should studies not be undertaken for a specific theme. Furthermore, a site sensitivity verification report has been included as **Appendix K** of the BA report.

The comment is noted and acknowledged. A Terrestrial Biodiversity Specialist Assessment has been compiled by an appropriate specialist for this project.

The Daisy and Kleinzee Solar PV facilities are the only solar facilities planned in the area. Other renewable energy projects include wind energy facilities, which were previously authorised. Cumulative impacts considering projects with a valid EA are clearly defined in

assessment for all identified and assessed impacts must be refined to indicate the following:

- (i) Identified cumulative impacts must be clearly defined, and where possible the size of the identified impact must be quantified and indicated, i.e., hectares of cumulatively transformed land.
- (ii) Detailed process flow and proof must be provided, to indicate how the specialist's recommendations, mitigation measures and conclusions from the various similar developments in the area were taken into consideration in the assessment of cumulative impacts and when the conclusion and mitigation measures were drafted for this project.

(iii) The cumulative impacts significance rating must also inform the need and desirability of the proposed development.

(iv) A cumulative impact environmental statement on whether the proposed development must proceed.

Chapter 8 of the BA report. Furthermore, the specialist studies (**Appendix D – I**) assessed all cumulative impacts associated with the project.

The Daisy and Kleinzee Solar PV facilities are the only solar facilities planned in the area. Other renewable energy projects (within a 30km radius) include wind energy facilities, which were previously authorised. However, in this regard the wind farm applications cover a relatively large area that includes a wide variety of different vegetation types and habitats, with the result that cumulative impact has thus far been distributed quite widely across these different features.

Chapter 8 of the BA report provides the detailed process flow of how the specialist's recommendations, mitigation measures and conclusions from various similar developments have been taken into consideration in addressing the

The identified study and development area for the Kleinzee Solar PV Facility is located within the Springbok Renewable Energy Development Zone (REDZ) which is a strategic area identified by the DFFE for the development of large-scale renewable energy projects. The Kleinzee Solar PV Facility is proposed within an area where an authorised Namas Wind Farm and Zonnequa Wind Farm will be constructed. The significance of the cumulative impact has informed the need and desirability of the proposed development, refer to **Chapter 4** of the BA report.

A summary of the specialist studies cumulative impacts is included in **Chapter 8**, **Section 8.9** of the BA report. All the specialists indicated in their studies (**Appendix D -I**) that cumulative impacts are at an acceptable level, and that there is no reason to oppose the development.

Please also ensure that the final BAR includes the period for which the Environmental Authorisation is required and the date on which the activity will be concluded as per Appendix 1(3)(1)(q) of the 2014 NEMA EIA Regulations, as amended.

You are further reminded to comply with Regulation 19(1)(a) of the 2014 NEMA EIA Regulations, as amended, which states that: "Where basic assessment must be applied to an application, the applicant must, within 90 days of receipt of the application by the competent authority, submit to the competent authority – (a) a basic assessment report, inclusive of any specialist reports, an EMPr, a closure plan in the case of a closure activity and where the application is a mining application, the plans, report and calculations contemplated in the Financial Provisioning Regulations, which have been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority".

Should there be significant changes or new information that has been added to the BAR or EMPr which changes or information was not contained in the reports or plans consulted on during the initial public participation process, you are required to comply with Regulation 19(1)(b) of the 2014 NEMA EIA Regulations, as amended, which states: "the applicant must, within 90 days of receipt of the application by the competent authority, submit to the competent authority – (b) a notification in writing that the documents contemplated in subregulation 1(a) will be submitted within 140 days of receipt of the application by the competent authority, as significant changes have been made or significant new information has been added to the documents which changes or information was not contained in the original documents consulted on during the initial public participation process contemplated in

The period for which the Environmental Authorisation is required is included in **Section 9.6** of the BA Report. As detailed in **Section 2.4** of the BA Report, following selection of the project as Preferred Bidder, construction is expected to take 12 to 18 months depending on the choice of technology and the lead time for equipment. Operation of the facility is expected to be 25 years.

The timeline as stipulated in the NEMA EIA Regulations, 2014, as amended, will be complied with.

Written notification has been provided to the DFFE as significant information has been included into the Basic Assessment Report. A revised basic assessment report has been made available for review for a period of 30 days.

	subregulation (1)(a) and that the revised documents will be		
	subjected to another public participation process of at least 30		
	days."		
	Should you fail to meet any of the timeframes stipulated in		The final BA Report will be submitted within the prescribed
	Regulation 19 of the 2014 NEMA EIA Regulations, as amended, your		timeframe.
	application will lapse.		
	You are hereby reminded of Section 24F of the National		The Applicant is aware of the requirements of Section 24F of the
	Environmental Management Act, Act No. 107 of 1998, as amended,		National Environmental Management Act, Act No. 107 of 1998, as
	that no activity may commence prior to an Environmental		amended. No activity will commence prior to an Environmental
	Authorisation being granted by the Department.		Authorisation being granted by the Department.
2.	INTRODUCTION	P Cloete	The comments submitted by NC DAERL are combined comments
	Two separate basic assessments have been submitted for the	Production Scientists	which relate to both the Daisy PV as well as the Kleinzee PV project.
	proposed establishment of the Kleinzee Solar PV and Daisy Solar PV	Grade A: Botanist	
	facilities with associated grid infrastructure between Kommagas	and	During the Focus Group Meeting held on the 11 May 2023, the NC
	and Kleinzee, approximately 15km from the Northern Cape coast.	G Geldenhuys	DAERL requested that a site visit be undertaken on the Daisy and
	The applicant is Energy Team (Pty) Ltd, and the EAP is Savannah	Production Scientists	Kleinzee sites. The site visit was undertaken on the 26 May 2023 by
	Environmental.	Grade B: Botanist	Mr Conrad Geldenhuys, Mr Simon Todd, Mr. Millard Kotze, Ms.
	A terrestrial biodiversity assessment was compiled by Mr. Simon	and	Nkhensani Masondo and Ms. Nicolene Venter from Savannah
	Todd of 3 Foxes Biodiversity Solutions. A site visit was conducted on	E Swart	Environmental were also in attendance to advise that those areas
	28 May 2023 to the proposed sites by Mr. Conrad Geldenhuys of	Scientific Manager	of importance were able to be visited in the field, and the there was
	DAERL Environmental Research and Development unit, Mr. Simon	Grade B: Research	also opportunity for discussion with NC DAERL.
	Todd, Mr. Millard Kotze of EnergyTeam and Mses. Nkhensani	NC DAERL	
	Masondo and Nicolene Venter of Savannah Environmental.		
	LANDSCAPE CONTEXT	Letter: 02 June 2023	The Daisy and Kleinzee PV developments fall entirely within the
			Namaqualand Stranded vegetation type which has been
			impacted to a relatively limited extent by transformation to date
			and is classified as Least Threatened.

Vegetation units: The two proposed developments are located wholly within one vegetation unit, The Namaqualand Strandveld vegetation unit (RSA vegetation map 2018). It has a conservation target of 26% although the COP 15 agreement of parties targets 30% of ecosystems by 2030 at the broader scale. The vegetation unit is classified as poorly protected in the 2018 NBA (5-50% of the conservation target achieved). The vegetation unit is not classified as a threatened ecosystem.

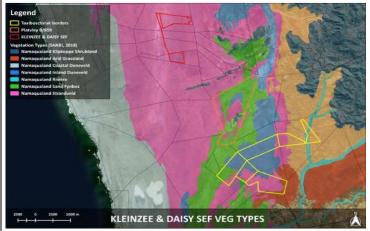


Figure 1: Vegetation type within the vicinity of the Kleinzee and Daisy PV Solar Developments

<u>Critical Biodiversity Areas:</u> The proposed Daisy PV facility is not located in a CBA area according to the 2016 Critical Biodiversity Areas map of the Northern Cape (Figure 2). The proposed Kleinzee PV facility is located mostly in a CBA 2 area. The reason behind the mapping of the CBA 2 is to protect this vegetation type and for water resource protection. In addition to the CBA, there is an ecological corridor situated between the two developments. It is unclear if this ecological corridor will be impacted (e.g., power lines, access roads).

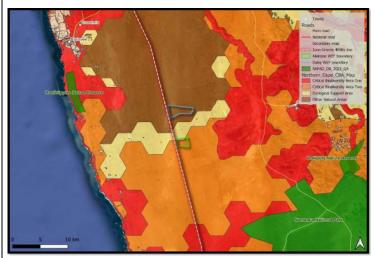


Figure 2 Critical Biodiversity Areas in the vicinity of the proposed Daisy and Kleinzee PV facilities

Protected Areas and Protected Area expansion plans: The Northern Cape Protected Area Expansion Plan (Balfour & Holness, 2017) has been incorporated into the National Protected Area Expansion Plan (2016). Only the proposed Kleinzee PV facility is located within the PAES, at the northern margin of the Namakwa NP and Coastal Primary Focus Area (Figure 3 &4). Part of this envelope is also included in the Namaqua NP expansion plan as contained in the

The Terrestrial Ecology assessment assessed the location of the site considering the 2016 Critical Biodiversity Areas map of the Northern Cape. The terrestrial biodiversity specialist stated in the assessment report (**Appendix D**) that "areas of CBA2 are not considered to be irreplaceable; the development is not considered to have a very high impact on the affected CBA2, which is considerably larger than the site. In addition, the field assessment did not identify any significant biodiversity features within the site, with the result that the development would not have a high impact on biodiversity pattern features".

The terrestrial biodiversity assessment indicated that the development would result in some impact on the CBA2 and the ESA corridor, which can be mitigated to a degree, and assessed residual impact on broad-scale ecological processes due to the presence and operation of the solar PV facility and associated infrastructure. Only associated infrastructure (including the access road and grid line) traverses the ESA corridor, and the impacts are limited to a corridor which is in line with the existing road and existing grid line in the area.

The Namaqua National Park lies approximately 25km to the south east of the site, beyond the boundary of the Springbok REDZ and is therefore well outside of the study area (refer to **Appendix H** of the BA report).

The Taaiboschvlak properties are located south east of the development area, approximately 18km from where the Kleinzee

Draft Namaqua NP Management Plan (2024 – 2033), although the proposed development falls outside of the Park's expansion footprint, buffer zone and viewshed protection (Figure 5). Kleinzee WEF is located approximately 18 km northwest of Namaqua NP and Daisy WEF 15 km east of Rooiklippies Nature Reserve. The Taaiboschvlak properties, as indicated in Figure 4, are earmarked for SANParks Biodiversity Offset Banking Pilot Project. Thus, these properties may also be included in the Namaqua National Park expansion plan as contained in the Draft Namaqua Management Plan (2024-2033).





PV facility will be located, and outside of the SANParks Biodiversity Banking Pilot Project as indicated in the Draft Namaqua National Park Management Plan (2024-2033).





Figure 1 & 4: Location of the proposed Daisy and Kleinzee PV facilities in relation to the National Protected area Expansion

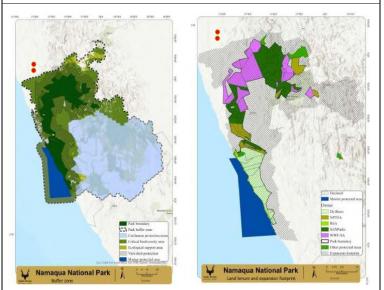


Figure 5 Namaqua NP buffer zone and expansion footprint as extracted from the Draft Namaqua NP Management Plan (2024 - 2033). The proximate locations of the proposed Daisy and Kleinzee PV facilities has been superimposed on the images (red dots).

The comment is noted and acknowledged.

As illustrated in the figure, the Kleinzee PV Solar facility falls outside the Namaqua National Park Buffer Zone, expansion footprint and viewshed protection, as extracted from the Draft Namaqua NP Management Plan (2024 - 2033).

<u>Landscape connectivity, ecosystem fragmentation and cumulative impacts:</u>

Several renewable energy applications are located within the vicinity (50km) of the proposed Daisy and Kleinzee PV facilities (Figure 6). The concentration of renewable energy applications in the region is related to its occurrence within an expansive Renewable Energy Development Zone as well as the establishment of new ESKOM electricity grid infrastructure to which the facilities can connect. It is accepted that the proposed Kleinzee and Daisy PV Facilities are located in a gazetted Renewable Energy Development Zone, i.e. in an area that Government has determined to be generally suitable for WEF development. It nevertheless remains important to make every reasonable effort to minimise impacts on other land-uses within the REDZ. Following from the above DEARL is also highly aware of the complexity of attempting to reconcile different land-uses that may not be compatible. The same applies to situations where the overall benefit of a development might be strongly positive, but significantly negative consequences for small numbers of IAPs.

The comment is acknowledged. The developments fall within the Springbok REDZ and Northern Strategic Transmission Corridors. The gazetted Renewable Energy Development Zone is considered to be an area suitable for the development of both wind energy facilities as well as PV facilities. Compatibility of other land uses were assessed. The layout indicating the development footprint will be provided to DFFE for approval before any construction commences. The Kleinzee PV is located on the Namas Wind Farm development site and Daisy PV is located on the Zonnequa Wind Farm development site. These PV facilities are located on these properties in order to ensure nodal development, and minimise the area impacted by renewable energy projects.

The cumulative map included in the BA report as **Figure 8.1** on page 216 considered the latest data (REEA quarter 4, 2022), from the Department of Forestry, Fisheries and the Environment Environmental Geographic Information Systems (E-GIS) webpage, as well as actual spatial data from projects with a valid EA. The validity of all project EAs was confirmed, and layouts considered as and where required.

The development footprint for the Kleinzee PV facility is included in **Figure 9.1** in **Section 9.6** of the BAR. This map indicated the optimised facility layout based on all identified sensitivities.

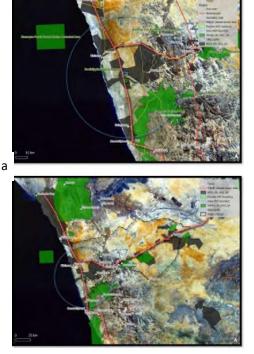


Figure6: (a) Renewable energy applications within 50km from the proposed Daisy and Kleinzee PV facilities and (b) extent of the Phase 1 Renewable Energy Development Zone

Various wind farm projects have been proposed and submitted to DFFE for environmental authorisation to date in the vicinity of the proposed Daisy and Kleinzee PV facilities. (Figure 7). Some land parcels shown are much larger than the actual footprint of the proposed development (e.g. Kap Vley WEF which only constitutes a small portion of the Kommagas commonage land), whereas others covers the majority of the land parcels (Figure 8).

The exact footprint of the proposed Kleinzee and Daisy PV facilities are unknown, with the BAR indicating that all of the two projects' land parcels are development area, except for some excluded dunes in the Daisy land parcel based on recommendations from the ecological specialist. The ecological specialist indicated during the site visit that only the western flat terrain of the Daisy land parcel is of interest for development. The proposed Kleinzee and Daisy PV facilities are the only non-wind applications to date in this area. They are located on the same land parcels as other existing renewable energy applications (i.e. Daisy PV is located on the Zonnequa WEF site and Kleinzee PV is located on the Namas WEF site).



Figure 7: Renewable Energy applications in the region according to the DFFE Renewable Energy

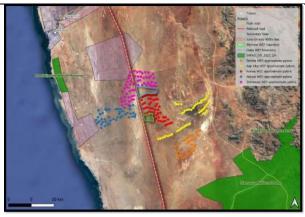


Figure 8: Renewable energy applications refined, showing wind farm turbine footprints for proposed projects (electricity grid infrastructure not shown). The footprint for the proposed ESKOM 300MW wind farm south and east of Rooiklippies Nature Reserve is not indicated.

The status of the array of renewable energy applications in the region is unknown, with uncertainty over whether projects will go ahead, although all projects have received environmental authorisation. It is, therefore, difficult to make assumptions and recommendations on potential cumulative and landscape-level impacts.

The 28 May site visit reaffirmed the ecological specialist's conclusion that the Daisy and Kleinzee sites are fairly homogenous and devoid of any obvious sensitive habitats, except for the dune habitats at the Daisy site, which has been excluded (Figure 9). The most likely impact from the proposed development will therefore be at the landscape level.



Α



Figure 9: (a) Homogenous sandy flats in Stransveld

The sandy coastal habitats and vegetation structure that occur between Kleinsee and Kommagas towns (Figure 10 and Figure 11) are derived from specific environmental conditions that include a combination of low total annual rainfall, winter-dominated rainfall (Mediterranean climate), rainfall variability, high

The Department's observations of the site and the larger development area on the May 2023 site visit are noted to be consistent with the findings of the terrestrial ecology specialist. It is also noted that the broad-scale delineation of vegetation types in the National Vegetation Map does not capture local scale environmental and habitat nuances, and that the local habitat and on-site conditions have been thoroughly investigated in the field by the ecologist. Field work was undertaken in the correct seasons and the conditions on the site are well understood.

The site visit in May 2023 provided an opportunity for both the Department as well as the ecology specialist to engage in the field and discuss any points where clarity was required regarding local habitats, vegetation structure, sensitive environments, landscapelevel disturbance and barrier creation.

Figure 8.1 of the BA report only the authorised renewable energy facilities are illustrated. **Chapter 8** of the BA report provides an assessment of the cumulative impacts, where significance ratings have considered the project/s in isolation, and with other projects with mitigation (refer to **Table 8.2** for a summary of the cumulative impact significance). It is noted that only those projects with a valid EA have been considered. No application for authorisation has been made for the Komas and Gromis wind farm projects, and as such are not considered in the cumulative assessment.

In order to address concerns about the potential impact of the Kleinzee PV Cluster on the future potential of the Namakwa National Park to expand into this area as well as general cumulative impacts likely to be associated with the current PV developments and already authorized wind energy facilities present in the immediate area, a biodiversity offset analysis report was drafted and included as **Appendix P** to the BA report. The findings of this report indicate that that an offset for the Kleinzee PV Cluster is not considered

evapotranspiration and water balance deficit levels, a sharp moisture and temperature gradient from near the coast (cool temperatures, regular mist) to the inland (increasing temperature, reducing mist frequency), prevailing wind direction (south to southwesterly) as well as changes in sandy substrate character, topography and mobility. The broad-scale delineation of vegetation types in the National Vegetation Map does not capture all such environmental and habitat nuances.

If all proposed renewable energy developments are to materialise as indicated, there is a high likelihood that some degree of landscape-level disturbance and barrier creation could manifest from cumulative impacts. These impacts could manifest in both the north-south axis and the east-west axis around the area in question along various environmental gradients and ecological processes. If most of the proposed developments do not materialise and the proposed Kleinzee and Daisy PV facilities are seen in isolation, then landscape-level impacts would be low. It is worth considering that both the proposed Komas/Gromis and Kap Vley wind energy facilities had triagered biodiversity offset investigations in their own specific contexts. Mitigation measures for proposed projects are normally restricted to the direct environmental impacts on the sites of those activities, such as the placement of infrastructure to avoid sensitive habitats and specific operational rules. It would however be difficult to have on site mitigation strategies that can compensate for landscape level disturbances. The challenge here is the practicality of implementing the mitigatory measures that are being proposed in a case where it turns out that it would be necessary to do so. If the economic model does not consider this, then it is meaningless to even have these mitigatory measures. Put differently, the economic implications of implementing these mitigatory measures should be factored into the business case or economic model at the outset. These need to be addressed up front prior the facility being constructed.

necessary or appropriate when the facilities are considered each on their own or when considered together for cumulative impact.

The specialist has clarified that there is a distinction between the nature of impacts associated with wind energy developments and solar energy developments. The footprint of wind energy facilities is dispersed across the landscape and there are additional edge effects particularly for fauna associated with turbine noise and other associated types of disturbance. Solar energy development has a more intense, localised disturbance and significantly impacts biodiversity within the development footprint, but edge effects can be reduced to a low level. As such, the footprint of PV facilities is more clearly defined and locally concentrated and provided that the location of the PV footprint is suitably chosen, then impacts tend to be relatively low when assessed at the landscape level.



Figure 10: Coastal vegetation units near the proposed Daisy and Kleinzee PV facilities (RSA vegetation map 2018).

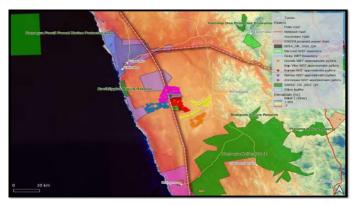


Figure 11: Elevation change from the sandy coastal flats to rocky uplands.

The Basic Assessment Report on cumulative impacts indicates findings for selected themes (Table 1).

The cumulative impacts of both the terrestrial ecology and visual impact have been considered by suitably qualified specialists. Refer to **Appendix D** for the Ecological Assessment and **Appendix H** for the Visual Impact Assessment.

The project area has been the focus of numerous renewable energy development applications and there are several approved WEFs in the area, raising the potential for cumulative impacts on fauna and flora. However, in this regard the wind farm applications cover a relatively large area that includes a wide variety of different vegetation types and habitats, with the result that cumulative impact has thus far been distributed quite widely across these different features. Furthermore, the areas targeted by the wind farms represent somewhat different habitats from the areas likely to be affected by the Kleinzee Solar PV Cluster as the wind energy facilities tend to favour the areas of higher-lying ground, while the PV facilities are located in relatively low-lying areas that are avoided by wind energy facilities. As there do not appear to be any species of fauna and flora that would be specifically vulnerable to cumulative impact on the current affected area, and there are no specific ecological processes that are likely to be significantly

Table 1 Cumulative and project specific impacts as indicated in the BAR for selected themes.

	Kleinzee-and-Daisy-PV-in- isolation¤	Cumulative-including-all- local-renewable-(wind)- developments¤
Terrestrial·ecology¤	Low¤	Low¤
Avifauna¤	Low¤	Medium-to-High¤
Land-use,-soil-and-agri-potential¤	Low-to-Medium¤	Low-to-Medium¤
Visual-impact¤	Medium¤	Medium¤

It is an imprecise exercise to gauge the possible impact of the cluster of renewable energy facilities in a landscape due to the uncertainty around implementation, the nature of the infrastructure (RE technology used, grid infrastructure, roads constructed, fencing type erected etc.), and the impact on the variety of resident and roaming fauna and flora species as well as ecosystem function. Nonetheless it is unlikely that the cumulative impact off all local renewable energy projects (Wind plus PV) will be the same as for Daisy/Kleinzee (PV) in isolation for the terrestrial ecology and visual impact.

disrupted, cumulative impacts associated with the Kleinzee Solar PV Cluster are considered acceptable.

According to the Visual Impact Assessment, the PV Facility, although in line with current development and land use trends in the region and located within the Springbok REDZ, will contribute to the increased cumulative visual impact of renewable energy facilities in the region. The site falls within the Namakwa National Park Buffer Area and within a priority area for future park expansion. The impact of the Kleinzee Solar PV Facility on the potential future expansion of the Namakwa National Park or other protected area expansion is considered to be relatively low and is considered acceptable. The Namaqua National Park lies approximately 25km to the south east, just beyond the boundary of the Springbok REDZ. The park is not expected to be visually influenced by the proposed PV Cluster (Kleinzee and Daisy Solar PV).

The cumulative visual impact of the proposed PV Facilities is ultimately expected to be of moderate to low significance due to their remote location and the general low occurrence of potential sensitive visual receptors. The potential cumulative visual impact is therefore expected to be within acceptable limits, considering the REDZ planning criteria, the approved Wind Energy Facilities in the area and the existing mining disturbance within the region.

RECOMMENDATIONS

The proposed Daisy and Kleinzee PV facilities are located in a vegetation type that is not threatened, but poorly protected. Few species of conservation concern were documented, although this must be seen in the context of a prevailing seven year drought which places restrictions on biodiversity observations. The stressed vegetation is clearly visible from the report photographs and site visit. Due to the concentrated location of RE applications in the area it is recommended that a biodiversity offset report be generated with a focus on the potential cumulative impact of the proposed developments on the coastal ecosystem.

The potential impact of this development in addition to other proposed facilities on the Namakwa National Park and Coast Protected Area Expansion Focus Area must be reviewed in the biodiversity offset report and the assessments and findings must be communicated with SANParks as key stakeholder.

At the time of the site visit the exact nature of the PV construction was not available. For example will panels be placed on elevated poles above vegetation without extensive vegetation clearing or will the area need to be cleared and flattened? More details is needed on the construction risks to the environment. The sandy substrate of the strandveld does not seem ideal for the construction of large PV facilities from an engineering and environmental point of view. How will sand blast and fog affect the management of PV panels for optimal performance? How will the clearing of the area for construction affect mobilisation of sand and what is the potential of off-site dust pollution? The effect of sand mobilisation

In order to address concerns about the potential impact of the Kleinzee PV Cluster (which includes both the Daisy and the Kleinzee PV projects) on the future potential of the Namakwa National Park to expand into the area, as well as general cumulative impacts likely to be associated with the current PV developments and already authorised wind energy facilities present in the immediate area, a biodiversity offset analysis report was drafted by an appropriate specialist, and has been included as **Appendix P** to the revised BA report (which is available for review). The biodiversity offset analysis report has focussed on the potential cumulative impact of the proposed developments on the local ecosystem. The findings of the report indicate that an offset for the Kleinzee PV Cluster is not considered necessary or appropriate when the facilities are considered each on their own or when considered together for cumulative impact.

A construction method strategy has been prepared by IX Engineers to indicate construction strategies to be considered with the construction of the Solar PV facility within the sandy substrate of the Strandveld. The construction method strategy has been included as part of the EMPr (Appendix L).

	-		
	and dust plumes is visible at many sites along the coast, especially		
	mining areas such as the Buchuberg twins near Alexander Bay and elsewhere.		
	Final layout requires scale identification and mapping of sensitive		An optimised facility layout map is overlain with sensitive habitats
	habitats. Although the botanical specialist has created a		and included in section 9.6 (refer to Appendix M). As can be seen
	vegetation sensitivities map, this has been done at quite a large		,
	1		in the final layout and sensitivity map (Figure 9.1) in the BA report) all
	scale. It must be proven that all sensitivities areas can be avoided entirely or spanned (they also should not be driven over during		sensitive areas has been avoided by the development footprint. The
			specialist studies attached to the BA report as Appendix D - I
	construction or maintenance). It is evident that specialist input has		assessed and referred to all alternatives assessed.
	already gone into the screening study of the various alternatives.		
	The specialist studies must refer to all of the alternatives assessed		
	prior to screening in order to provide the necessary information and		
	motivation for screening these alternatives out, particularly where		
	the motivation for screening these alternatives was biodiversity-		
	related impacts.		
3.	Based on the information provided in the report, two plant species	M Rabothata *	Although the density of W.asparagoides within the site is considered
	of concern were confirmed present within the site, namely	K Mathetja	to be relatively low, a Botanical search and rescue will be
	Wahlenbergia asparagoides (VU) which is common across most of	Case Officers	undertaken by a suitable qualified specialist, furthermore, permits to
	the site and Helichrysum tricostatum (NT), which was uncommon	DFFE: BC	remove or relocate the species will be obtained prior to the
	and occasional within the site. Botanical search and rescue must		commencement of construction.
	be undertaken by competent and experienced specialized teams	Letter: 05 June 2023	
	with proven track records within medium SEI areas. Relevant permits		Although the project lies largely within an area of CBA 2 and
	from respective competent authorities must be obtained before		Namakwa National Park expansion mosaic, the area that would be
	any removal or relocation of any SCC. However, the majority of the		occupied by the PV facility represents 0.2% of the overall extent of
	Kleinzee PV facility site falls within the CBA2, with the remainder of		Namaqualand Strandveld and would decrease the availability of
	the site falling within an ESA. In addition, the Kleinzee PV site falls		Namaqualand Strandveld within the park expansion area by 0.4%
	within the Namakwa National Park Buffer Area and within a priority		which is not considered to represent a high significant impact.
	area for future park expansion.		
			According to the Namaqua National Park draft management Plan
			2024 – 2033, which is of more relevance to the long-term planning
			for new developments, the Kleinzee Solar PV facility is located
			outside the Park's buffer zone.

Furthermore, the SEI for the Kleinzee site is considered to be High in the east and Medium in the west of the site. The High SEI areas on the east must be avoided or designated as a no-go area, thus development must be prioritized within areas of medium sensitivity.

According to the Ecological Specialist, the walk-through of the Kleinsee site found a total of 30 individuals of Wahlenbergia asparagoides within the search track, which, when extrapolated to the whole of the site, translates to an estimated population of 600-700 Wahlenbergia asparagoides plants within the site. Based on knowledge of the area and previous projects that have been worked on, this is not considered to represent a very large number of affected individuals. The habitat on-site is typical for the area and the density of Wahlenbergia asparagoides on other nearby projects indicates that the density of this species within the site is not exceptional and that this species is common in the area. The project would not impact the viability of the local or regional population of this species. The overall population extent of this species on the West Coast is not known, but based on density estimated obtained from other nearby projects where this species is present is likely to number more than 1 million individuals. The loss of 600-700 plants from this overall population is not considered to represent a significant threat to this species.

In terms of the species assessment guidelines, the implications for the High SEI rating for the site indicates that the following general measures are considered appropriate for areas of Sensitive Species Habitat - "Avoidance mitigation wherever possible. Minimisation mitigation – changes to project infrastructure design to limit the amount of habitat impacted; limited development activities of low impact acceptable. Offset mitigation may be required for high impact activities."

With regards to the above, avoidance of the areas mapped as high SEI are not considered appropriate or necessary in the current situation. The high SEI is the result of the manner in which the SEI is calculated rather then the true SEI of the site. The SEI is a function of the Conservation Importance of the site, which is considered to be Medium, the Functional Integrity of the site which is considered to

	be High as it is still largely intact, resulting in a Medium Biodive
	Importance for the site. The resilience of the site is how
	considered to be low on account of the difficulty in rehabilita
	disturbed areas, rather than being an expression of the sensitivi
	the overall receiving environment. However, despite the med
	Biodiversity Importance of the site, the low Receptor Resilie
	means that the SEI calculates to High, which does not provide
	representative reflection of the overall sensitivity of the site
	regards to Wahlenbergia asparagoides, which the consu
	considers to be Medium in line with the Biodiversity Importance
	hence does not consider avoiding the parts of the site mappe
	high SEI to be necessary or warranted. Development within
	areas mapped as High SEI would not have a significant impac
	the local or regional population of Wahlenbergia asparago
	and the assessment considers that the impact of the develop
	on the local population of Wahlenbergia asparagoides woul
	acceptable.
All Public Participation Process documents related to Biodiversity EIA	It is confirmed that all Public Participation Process documents
review and any other Biodiversity EIA queries must be submitted to	been submitted to the Directorate: Biodiversity Conservation of
the Directorate: Biodiversity Conservation at Email:	e-mail address provided.
BCAdminenvironment.gov.za for attention of Mr Seoka Lekota.	

1.2. Interested and Affected Parties

NO.	COMMENT	RAISED BY	RESPONSE
1.	No objections from a radio perspective.	Carlo Herselman	It is acknowledged that there are no objections from a radio
		Team Leader: Radio	interference perspective and no further action is required.
	@Mone Van Der Westhuizen (MTN South Africa)	Planning and Quality	
	Any concerns from a TX point of view?	MTN South Africa	
		E-mail: 04 May 2023	

2.	No objection from TXM either.	Morne Van der	It is acknowledged that there are no objections from a transmission
		Westhuizen	interference perspective, and no further action required.
		Specialist: Transmission	
		Planning	
		MTN South Africa	
		E-mail: 04 May 2023	

3. WFA as an Interested and Affected Party (I&AP) hereby formally raises its concerns with the proposed development and application for Environmental Authorisation (EA) for the Kleinzee Solar PV Facility and accompanying Grid Line Connection.

The above request is informed and supported by the following key pieces of legislation:

- Constitution of the Republic of South Africa Act, 1996 (Act No. 108 of 1996).
- National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended).
- NEMA Environmental Impact Assessment Regulations, 2014 (as amended)
- The Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (as amended).
- Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000)
- Promotion of Access to Information Act, 2000 (Act No. 2 Of 2000)

Wilderness Foundation Africa hereby wishes, as a registered Interested and Affected Party (IAP), to object to the Environmental Authorisation (EA) application by Energy Team (PTY) (Ltd) for the Kleinzee Solar PV facility and associated infrastructure based on (but not limited to) the following:

The proposed development is situated within the Namaqua National Park Protected Area Expansion Footprint and will impact on National biodiversity targets.

The proposed development footprint of the Kleinzee solar PV facility falls within the SANParks, Namaqua National Park Protected Area Expansion Footprint as well as a primary focus area of the Northern Cape Protected Area Expansion Strategy (NCPAES), which feeds into the National Protected Area Expansion Strategy (PAES). The

Kerry Prunell
Project Manager:
Northern Cape Land
Project
Wilderness Foundation
Africa

Letter: 31 May 2023

The objection is acknowledged.

The findings of the specialist assessments indicated that the Kleinzee Solar PV Facility is located within the current Namaqua National Park Protected Area Expansion Footprint as well as the Northern Cape Protected Area Expansion Strategy (NCPAES), which feeds into the National Protected Area Expansion Strategy (PAES). The site is, in terms of the draft Namaqua National Park Namaqua National Park (2024 – 2033) no longer located within the Namaqua NP buffer zone and expansion footprint. It is also noted that the project is located within the gazetted Renewable Energy Development Zone, i.e., in an area that Government has determined to be generally suitable for solar and wind developments.

From the findings of the specialist assessment, the Kleinzee PV Facility footprint, in majority, is located within an area demarcated as a CBA 2. According to a biodiversity offset analysis report conducted for the project, which considers current information and planning criteria (Appendix P of the BA report) "the overall footprint of the development represents a very small proportion of the affected CBA and PAES Focus Area and given the location of the site on the very edge of the PAES and CBA, it would not significantly constrain the future expansion of the Park into this area and since the site is relatively homogenous with no significant features of concern, it can reasonably and easily be substituted with another area of Namagualand Strandveld if necessary. The Development of the site would place some limitations on the future expansion of traditional formalised conservation into the affected area. The extent of this limitation is however considered to be insignificant. The Namakwa National Park currently protects 14% of the total extent of the Namagualand Strandveld vegetation type. The expansion mosaic area includes an additional 36% of the overall extent this vegetation

area within which the proposed development is located is thus a National priority for protected area expansion based on numerous biodiversity and ecological features identified through systematic biodiversity planning.

Namaqua National Park (NNP), through its expansion strategy, seeks to contribute towards national and international biodiversity conservation targets as set out and adopted by South Africa including:

- Objective SO 1.1 of the South African National Biodiversity Strategy and Action Plan which aims to secure an ecologically representative sample of species and ecosystems within South Africa's Protected Area Estate.
- COP 15 Target 3 which calls for 30 percent of terrestrial and marine areas to be conserved by 2030.

To this end SANParks has the objective to contribute towards the national conservation targets set for various ecosystem types and in so doing further strengthening the ecological integrity of Namaqua National Park. The proposed development will significantly impact on the short term, northern consolidation priority, of NNP, which focusses on the inclusion of the Namaqualand Sand Fynbos, Namaqualand Strandveld, Namaqualand Heuweltjieveld and Namaqualand Inland Duneveld vegetation types, all of which are underrepresented in statutory protected areas (all listed as Poorly Protected in the 2018 National Biodiversity Assessment).

While the Draft Basic Assessment Report (DBAR) does seek to address concerns around the potential impacts of the proposed development on the NNP expansion footprint and more specifically NCPAES Primary Focus area, WFA strongly disagrees with the narrative that the development's impacts are deemed insignificant primarily due to its geographic extent. A case in point is the following statement on page 215 of the DBAR:

type of which the Kleinzee PV Facility would comprise less than 0.6%. Taken as a whole, the presence of the Kleinzee PV Facility would reduce the available combined extent of Namaqualand Strandveld within the Park and the expansion area by 0.4%. Since the affected area is on the margin of the expansion area and does not include any high-value habitats, the area affected by the PV plant could easily be substituted by another nearby areas of Namaqualand Strandveld, with little impact on the overall integrity and efficiency of design of the park expansion area. The impact of the Kleinzee PV Facility on potential future expansion of the Namaqua National Park is therefore considered minimal."

The Draft Namaqua National Park Management Plan 2024 – 2033 has been considered as this is important to the long-term planning strategy for this area. The Kleinzee Solar PV facility is located outside the Namaqua NP buffer zone and expansion footprint.

It is understood that the Park and expansion area is aiming to achieve protected area targets, and the expansion of the park is critical for the conservation of under-represented ecosystems that characterise the area (SANBI, 2019).

It is also noted that the Namaqua NP buffer zone and expansion footprint boundary has been changed from the current Management Plan, and that the Kleinzee PV footprint is outside of any buffer zone or expansion area.

The footprint for the park expansion desired state (465,816 ha inclusive of the current park) encompasses an area stretching from the low-lying coastal areas to the mountainous areas just outside of Kamieskroon. The expansion footprint strongly focusses on the opportunities for securing Critical Biodiversity Areas (CBAs) adjacent to the park. The Northern Cape Critical Biodiversity Area map is

"The total area of the affected Focus Area is 377 266ha and the loss of 300 ha of this represents less than 0.01% of the Focus Area. As a result, this loss is, on its own is not considered to represent a significant loss. The impact of the Kleinzee Solar PV Facility on the potential future expansion of the Namakwa National Park or other protected area expansion is considered to be relatively low and is considered acceptable."

WFA considers such an argument to be flawed and not justifiable to determine and influence the impact significance of the proposed development. The entire 'Namaqua National Park Primary Focus Area' as contained in the NCPAES can not be used as a baseline for quantifying the impacts of the proposed development. Different geographic priorities exist within both the NCPAES and NNP expansion footprint based on numerous ecological features as well as protected area management considerations.

One of the primary objectives of the specific priority expansion node in which the proposed Kleinzee SEF is situated would be to establish an ecologically representative sample of the Namaqualand Strandveld vegetation type within Namaqua National Park. This vegetation type, listed as Poorly Protected in the 2018 National Biodiversity Assessment, is subject to increased pressure due to similar developments in the area, including the proposed Daisy Solar PV facility by the same proponent.

Furthermore, impacts should not be considered in isolation but within context of greater ecosystem functioning, biodiversity patterns and processes, visual influences, as well as the mandates and objectives of affected parties and other relevant stakeholders.

divided into CBA 1 and CBA 2 (Holness & Oosthuysen, 2016). CBA1 areas represent natural landscapes, with high irreplaceability or no flexibility for meeting biodiversity targets elsewhere. If these areas are lost, then targets will not be met. CBA2 are near-natural landscapes with intermediate irreplaceability or some flexibility in terms of area required to meet biodiversity targets. This means that there are options for biodiversity loss without compromising target achievements. As per the Park management Plan, the expansion footprint for the park strongly focuses on the opportunities for securing CBAs adjacent to the park, expanding largely southward with smaller northern consolidations and eastern expansions. The expansion area is almost entirely CBA (99%), with limited amount of ecological support area (1%) in the expansion footprint.

The expansion is not inclusive of the Kleinzee PV development footprint.

The Draft Namaqua National Park Management Plan refers to the expansion of the park to its 465,816 ha desired state, and states that the desired state for the Park would include the consolidation of priority biodiversity areas in the buffer zone. As per the plan, it is envisaged to:

- Ensure the conservation of a representative sample of the ecological patterns and processes (e.g. upland-lowland interfaces, biome interfaces, quartz outcrops, sand movement, land-sea interfaces, river processes, mammalian herbivores, etc.) associated with the Succulent Karoo Biome in the Namaqualand mountains and adjacent coastal plain in a contiguous functional system;
- Ensure seamless integration between marine, coastal and terrestrial conservation given the biodiversity and economic importance of this area;

Avoid immediate and irreparable threats to biodiversity for well-entrenched mining industry and developing renew energy industry; and Provide an apportunity to create a wilderness area within South African extension of the Succulent Karoo Hotspott. It can therefore be concluded that the future Management does take the REDZ and renewable energy projects consideration in conservation planning.

Cumulative impacts are not adequately assessed or quantified.

WFA is of the opinion that the cumulative impacts of the proposed development have not been adequately assessed or quantified. The DBAR argues that the proposed development's contribution towards the cumulative impact of similar developments is insignificant, while the cumulative impacts of similar, approved developments in the area are not explicitly examined in the context of greater ecosystem functioning, habitat fragmentation, Critical Biodiversity Areas, and Protected Area expansion strategies. The cumulative impacts are seemingly downplayed due to the assumption that not all these developments are likely to enter a construction phase and that the small footprint of the Kleinzee Solar PV facility will not significantly contribute towards said cumulative impact.

The EIA Regulations of 2017 (GN No. R. 326) clearly defines a cumulative impact as:

A "cumulative impact", in relation to an activity, means the past, current and reasonably foreseeable future impact of an activity, considered together with the impact of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing reasonably foreseeable impacts eventuating from similar or diverse activities.

With reference to the definition above the cumulative impacts of the proposed development should be considered and quantified in addition to the various other approved renewable energy developments in the area which have already received Environmental Authorization. These include the 300MW Kap Vley Wind Energy Facility, 300MW Eskom Kleinzee Wind Energy Facility, 140MW Zonnekwa Wind Energy Facility, 140MW Namas Wind Energy Facility and 20MW Project Blue Wind Energy Facility. Additionally, the 360MW Daisy Solar PV facility, for which the same applicant

The Daisy and Kleinzee Solar PV facilities are the only solar facilities planned in the area. Other renewable energy projects (within a 30km radius) include wind energy facilities, which were previously authorised. However, in this regard the wind farm applications cover a relatively large area that includes a wide variety of different vegetation types and habitats, with the result that cumulative impact has thus far been distributed quite widely across these different features. It should also be noted that the 20MW Project Blue Wind Energy Facility does not have a valid Environmental Authorisation. Chapter 8 of the Draft BAR provides an assessment of the cumulative impacts for the proposed project.

[Energy Team (PTY)(Ltd.)] is currently seeking Environmental	
Authorisation, should also be considered in the quantification and	
assessment of cumulative impacts along with all associated	
infrastructure and activities.	
CONCLUSION	According to Appendix D of the BA report, the Kleinzee PV Facility
In view of the concerns and conclusions provided above, WFA is of	lies within an area that is considered relatively low sensitivity on
the opinion that the information provided the BAR and	account of the homogenous nature of the vegetation and the low
accompanying specialist inputs is insufficient for the granting of	abundance of plant SCC. Although it does however lie largely
Environmental Authorization. It is hereby requested that the	within an area of CBA 2 and Namakwa National Park expansion
following be considered by the Environmental Assessment	mosaic. The analysis however reveals that the area that would be
Practitioner and Applicant:	occupied by the PV facility represents 0.2% of the overall extent of
- Consider the potential Biodiversity Offset requirements that	Namaqualand Strandveld and would decrease the availability of
may arise from the proposed Kleinzee Solar PV facility along	Namaqualand Strandveld within the park expansion area by 0.4%
with the cumulative impacts from associated activities,	which is not considered to represent a high significant impact.
including that of the proposed Daisy Solar PV facility and grid	
line connection.	In addition to the Terrestrial Ecology Assessment, a Biodiversity Offset
Consider potential geographic alternatives for the proposed	Analysis report has been undertaken to determine the biodiversity
Kleinzee Solar PV facility which will not impact on Critical	importance of the area in assessing the impact significance of the
Biodiversity Areas and Protected Area expansion priorities thus	proposed PV projects. The Biodiversity Offset Analysis report is
avoiding the potential need for a Biodiversity Offset.	attached as Appendix P . the findings of this report indicate that an
Adequately quantify and assess the cumulative impacts of the	offset for the Kleinzee PV Cluster is not considered necessary or
proposed development considering all similar and approved	appropriate when the facilities are considered each on their own or
developments in the area.	when considered together for cumulative impact.
We duly request concise and detailed responses to the concerns	Responses have been provided above to all comments raised.
we raised and request to information. WFA is willing to engage in	Opportunity to engage further is available during the review period
open discussions with both the Consultant and Applicant to have	of the Revised BAR.
our concerns adequately understood.	

4. South African National Parks (SANParks) hereby submits comments on the Draft BARs. SANParks' mandate and desire is to protect and manage the National Park estate. Viewsheds and buffer zones are important parts of this.

In these comments, SANParks addresses two issues in the Draft BARs:

- The anticipated impact of the proposed development on terrestrial biodiversity is more significant than the significance rating in the Draft BARs.
- The anticipated visual impact of the proposed developments is more significant than the significance rating in the Draft BARs.
- Potable water should not be used to mitigate the impact of dust on the proposed developments.

Pheladi Chuene Park Manager: Namaqua National Park SANParks

Letter: 01 June 2023

The comments are acknowledged and considered in the Revised BAR. The Kleinzee PV project has been considered in view of the existing Namaqua National Park Management Plan 2014 – 2023, and the Draft Namaqua National Park Management Plan 2024 – 2033, and all appended maps to the Plan. Considering the timeline for the roll out of a renewable energy project, the draft Management plan is of more relevance to the long-term planning for new developments in this area.

According to the Visual Impact Assessment **Appendix H** of the Draft BAR the operation of the Kleinzee Solar PV facility could have a moderate visual impact on existing visual receptors (i.e. residents of Sonnekwa B and Graafwater) within a $1-3\mathrm{km}$ radius of the PV facility structures. This impact may be mitigated to low.

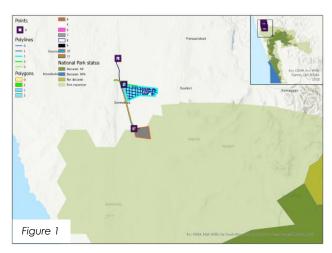
It is expected that should the expansion of the Namaqua National Park be undertaken as planned (according to NPAES), then the operational PV facility could have a moderate visual impact before and after mitigation on future visitors and tourism development in the Namaqua National Park by the proposed development.

The grid connection infrastructure will have a low visual impact on residents of existing homesteads within a 1.5 – 3km radius of the infrastructure both before and after mitigation. It is expected that should the expansion of the Namaqua National Park be undertaken as planned (according to NPAES), then the grid connection infrastructure could have a moderate visual impact before and after mitigation.

The use and conservation of portable water has been considered in the EMPr which is attached to the Draft BAR as **Appendix L**.

Impact significance: terrestrial biodiversity

SANParks recognises the need for, and supports, renewable energy development in South Africa. SANParks acknowledges the competition for suitable WEF sites and the fact that the proposed developments lie within a renewable energy development zone. However, importantly, it is noted that the renewable energy zones were developed before the SANParks' Land Inclusion plan was adopted by the Minister of Forestry, Fisheries and the Environment (Minister). A portion of the proposed developments (see **Figure 1** below) falls within the expansion footprint of the Namaqua National Park. The proposed developments also fall within the current buffer zone of the Park.

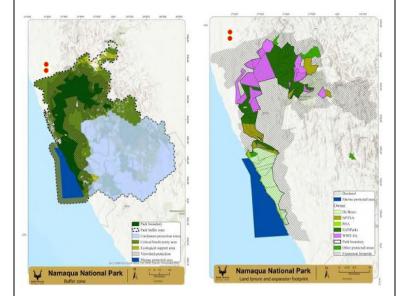


By pursuing development within a recognised priority area for conservation (taking into account the multiple values of the affected area as a national protected area expansion strategy focus area, a CBA 2, the buffer zone of the Namaqua National Park and within the expansion footprint of that Park), the proposed

SANPark's support for renewable energy development is noted.

The Kleinzee Solar PV development falls within the current expansion footprint of the Namaqua National Park. However, in line with the Namaqua National Park draft Management Plan 2024 – 2033 the Kleinzee Solar PV facility is located outside the Park's buffer zone.

Namaqua NP buffer zone and expansion footprint as extracted from the Draft Namaqua NP Management Plan (2024 - 2033) are indicated below. The proximate locations of the proposed Daisy and Kleinzee PV facilities have been superimposed on the images (as red dots).



Although proposed project is located within a recognised 'offset receiving area' (i.e. a protected area expansion focus area, in CBAs, and ideally adjacent to an existing Protected Area with a

developments will undoubtedly have significant impacts, notwithstanding effective minimisation of the anticipated impacts. In addition, development within a recognised 'offset receiving area' (i.e. a protected area expansion focus area, in CBAs, and ideally adjacent to an existing Protected Area with a capacitated management authority¹) will simultaneously reduce the extent of these 'offset receiving areas' for other development projects requiring biodiversity offsets in the Northern Cape.

Despite these features, the rating of the significance of the impact of the proposed development on terrestrial biodiversity is recorded as "low" in the Draft BARs, primarily because the extent of the conversion of a natural area is not big. However, SANParks is of the opinion that the impacts should be noted as "High" for the following reasons:

- It is not only CBAs and national protected area expansion focus areas that are important, but, in this context, it is the Namaqua National Park expansion footprint and buffer area that is particularly relevant; and it is not only the intrinsic biodiversity values that must be taken into account, but also the direct and indirect use values of affected ecosystems and biodiversity. In summary, the evaluation of impact significance must take into account both technical/ scientific, objective data or information, and societal or interested and affected party values.²
- It is not the size of the habitat conversion on the site that is of relevance, but the reduction in the expansion footprint of the Namaqua National Park, buffer and priority natural areas (as well as loss of priority 'offset receiving area'). The fact that the area was identified through systematic biodiversity planning to be a CBA 2 and that it is situated within a recognised PAE focus area and NNP expansion footprint and buffer, implies that it has national conservation value. Applying current guidance and draft policy, residual impacts in these areas should preferably

capacitated management authority) will simultaneously reduce the extent of these 'offset receiving areas' for other development projects requiring biodiversity offsets in the Northern Cape., it should be noted that the proposed projects are located in a gazetted Renewable Energy Development Zone, i.e., in an area that Government has determined to be suitable for PV facility and Wind facility developments.

According to **Appendix D** of the BA report, the Kleinzee PV Facility lies within an area that is considered relatively low sensitivity on account of the homogenous nature of the vegetation and the low abundance of plant SCC. Although it does however lie largely within an area of CBA 2 and Namakwa National Park expansion mosaic. The analysis however reveals that the area that would be occupied by the PV facility represents 0.2% of the overall extent of Namaqualand Strandveld and would decrease the availability of Namaqualand Strandveld within the park expansion area by 0.4% which is not considered to represent a high significant impact.

In addition to the Terrestrial Ecology Assessment, a Biodiversity Offset Analysis report has been undertaken to determine the biodiversity importance of the area in assessing the impact significance of the proposed PV projects. The Biodiversity Offset Analysis report is attached as **Appendix P**. the findings of this report indicate that an offset for the Kleinsee PV Cluster is not considered necessary or appropriate when the facilities are considered each on their own or when considered together for cumulative impact.

The Kleinzee PV project has been considered in view of the existing Namaqua National Park Management Plan 2014 – 2023, and the Draft Namaqua National Park Management Plan 2024 – 2033, and all appended maps to the Plan. Considering the timeline for the roll out of a renewable energy project, the draft Management plan is of more relevance to the long-term planning for new developments

be avoided; loss would thus automatically be considered as being 'significant' (i.e., of high or at the very least moderate significance) ³ .	in this area. Therefore, the buffer of the NNP does not impact the proposed project.
3.g3411337 .	

<u>Significant residual impacts on biodiversity must be offset</u>.⁴ For this reason, seeking an alternative location for the proposed developments could benefit the proponent: renewable energy projects located outside of CBAs and protected area expansion focus areas (including the Namaqua National Park expansion and buffer zones) would be unlikely to trigger⁵ a requirement for a biodiversity offset.

The following factors also have to be taken into consideration in the Draft BARs:

- The goal of South Africa's Protected Area Expansion Strategy, 6 recognising that the protected area network remains insufficient, is to achieve cost effective protected area expansion for improved ecosystem representation, ecological sustainability, and resilience to climate change. The need for the Protected Area Expansion Strategy was identified in the National Biodiversity Framework.
- The Northern Cape Protected Area Expansion Strategy, contributing to the national Protected Area Expansion Strategy, used biodiversity targets for each ecosystem as the long-term protected area targets, adjusted based on South Africa's global biodiversity commitments. The spatial prioritisation for the province's PAE strategy was based on the 2016 provincial Critical Biodiversity Areas (CBA) map. Focus areas were largely limited to CBAs.
- SANParks is one of the principal implementers of the National Protected Area Expansion Strategy through national park expansion. The intended area to expand the Namaqua National Park (NNP) is clearly shown in the Park's management

The Draft Namaqua National Park Management Plan 2024 – 2033 has been considered as this is important to the long-term planning strategy for this area. The Kleinzee Solar PV facility is located outside the Namaqua NP buffer zone and expansion footprint.

It is understood that the Park and expansion area is aiming to achieve protected area targets, and the expansion of the park is critical for the conservation of under-represented ecosystems that characterise the area (SANBI, 2019).

It is also noted that the Namaqua NP buffer zone and expansion footprint boundary has been changed from the current Management Plan, and that the Kleinzee PV footprint is outside of any buffer zone or expansion area.

Kleinzee PV Facility lies within an area that is considered relatively low sensitivity on account of the homogenous nature of the vegetation and the low abundance of plant SCC. Although it does however lie largely within an area of CBA 2 and Namakwa National Park expansion mosaic. The analysis however reveals that the area that would be occupied by the PV facility represents 0.2% of the overall extent of Namaqualand Strandveld and would decrease the availability of Namaqualand Strandveld within the park expansion area by 0.4% which is not considered to represent a high significant impact.

Furthermore, a Biodiversity Offset Analysis report has been undertaken to determine the biodiversity importance of the area in assessing the impact significance of the proposed PV projects. The

⁴ See, for example, the Draft National Biodiversity Offset Guideline that has been published for public comment by the Minister.

⁵ Provided that threatened species, rare habitats, important ecological process areas or ecosystem services did not trigger an offset requirement.

⁶ Department of Environmental Affairs (2016) National Protected Areas Expansion Strategy for South Africa 2016. Department of Environmental Affairs, Pretoria, South Africa.

Plan (2013-2023)⁷, approved and authorised by the Minister in terms of Section 39 and 41 of the National Environmental Management Protected Areas Act (57 of 2003).

- All national parks must have buffer zones, addressing priority natural areas, viewshed protection and catchment protection. Buffer Zones for national parks identify the area within which activities may have an impact on that park, in terms of both current and future intended extent. According to the Strategy on Buffer Zones for National Parks⁸, the six objectives of a buffer zone to a national park include strictly biodiversity-based criteria such as ensuring the persistence of important species and ecological processes, but also the need to protect, enhance and restore the unique and memorable character the sense of place that underpins the image of the national parks and their approaches, and to protect and enhance the wilderness experience of park users.
- The Namaqua National Parks's buffer zone is intended to give an additional layer of protection to the park, acting as an insulation layer between the park and potential negative influences outside the park boundaries. It aims to assist adjacent and affected communities to secure appropriate and sustainable benefits from the national park and buffer zone area itself by promoting a conservation economy, ecotourism and its supporting infrastructure and services, and sustainability through properly planned harvesting?

Biodiversity Offset Analysis report is attached as **Appendix P**. The findings of this report indicate that an offset for the Kleinzee PV Cluster is not considered necessary or appropriate when the facilities are considered each on their own or when considered together for cumulative impact.

The role of national parks buffer zones is noted and acknowledged.

The aims and objectives of the Namaaqua National Parks buffer zone is acknowledged and thus a Biodiversity Offset Analysis has been undertaken to determine the biodiversity importance of the area and the assessing the impact significance of the proposed PV projects. The Biodiversity Offset Analysis has been attached hereto as **Appendix P**.

⁷ Authorised as required for managing the Namaqua National Park in terms of Sections 39 and 41 of the National Environmental Management: Protected Areas Act (Act 57 of 2003) and approved by the Minister.

⁸ Biodiversity Policy and Strategy for South Africa: Strategy on Buffer Zones for National Parks (8 February 2012, Notice 106 of 2012).

⁹ Spatial planning in protected areas and their buffers. Presentation given to SANBI Planning Forum. Ms Jayshree Govender, Dr Mike Knight and Mr Russell Smart. 22 June 2017.

The above layers of plans all contribute to meeting South Africa's obligations and commitments to the Convention on Biological Diversity. ¹⁰ They also reflect and inform the pattern and desirability of future spatial development and land use in the Namaqualand region. While their content does not confer or take away land-use rights, it is important that these national societal values are taken into account in land-use and development decision making from municipal to national levels, and thus in the assessment and evaluation of impact significance to inform decision making.

Cumulative impacts

In the Draft BARs, it is stated that it is not problematic that the proposed developments are situated in a protected area expansion priority area because similar developments have been approved in the area and that those developments therefore form part of the "living landscape" of the area. In SANParks' opinion, this statement is disingenuous because it disguises the cumulative impact of yet another such development in a landscape that has been identified as a priority for protected area expansion.

There is no analysis of the additive erosion of CBAs, or of the NNP expansion footprint or the NNP buffer in the Draft BARs. SANParks sees this omission as serious and is of the view that the increase in cumulative effects of renewable energy facilities is material and contributes to landscape fragmentation and ongoing erosion of national conservation priority areas and national park expansion plans. The fact that the proposed developments are to be sited in

The Draft Namaqua National Park Management Plan 2024 – 2033 has been considered as this is important to the long-term planning strategy for this area. The Kleinzee Solar PV facility is located outside the Namaqua NP buffer zone and expansion footprint.

It is understood that the Park and expansion area is aiming to achieve protected area targets, and the expansion of the park is critical for the conservation of under-represented ecosystems that characterise the area (SANBI, 2019).

It is also noted that the Namaqua NP buffer zone and expansion footprint boundary has been changed from the current Management Plan, and that the Kleinzee PV footprint is outside the landscape of any buffer zone or expansion area.

A biodiversity offset analysis has been completed and is included as **Appendix P**. The offset analysis has determined "the project area has been the focus of numerous renewable energy development applications and there are several approved WEFs in the area, raising the potential for cumulative impacts on fauna and flora. However, the wind farm applications cover a relatively large area that includes a wide variety of vegetation types and habitats, with

¹⁰ See https://www.cbd.int/article/cop15-cbd-press-release-final-19dec2022.

of the expansion footprint of the Namaqua National Park and buffer zone is a material consideration, given the extent of likely aesthetic and sense of place impacts on the park's future planning.

It is furthermore pointed out that at least some of the other renewable energy developments in the area were required to offset their impacts on terrestrial biodiversity.

Impact significance: visual impact

It is stated that the visual impact of the proposed developments would be low. However, this significance rating considers only the 'here and now' situation, rather than giving due consideration to the future expansion of the Namaqua National Park: a new associated 'receptor'. An opportunity cost is therefore imposed on future visitor and tourism development in the Namaqua National Park by proposed developments. In SANParks' opinion, the visual impact should be noted to be at least "medium."

cumulative impact distributed widely across these features. Additionally, the areas targeted by the wind farms represent somewhat different habitats from the areas likely to be affected by the Kleinzee PV Cluster as the wind energy facilities tend to favour the areas of higher-lying ground, while the PV facilities are located in relatively low-lying areas. As there are no species of fauna and flora that would be specifically vulnerable to cumulative impact on the current affected area, and there are no specific ecological processes that are likely to be significantly disrupted, cumulative impacts associated with the Kleinzee PV Cluster are considered acceptable. Therefore, the conclusion is made that an offset for the Kleinzee PV Cluster is not considered necessary or appropriate when the facilities are considered each on their own or when considered together for cumulative impact".

According to the Visual Impact Assessment **Appendix H** of the Draft BAR the operation of the Kleinzee Solar PV facility could have a moderate visual impact on existing visual receptors (i.e. residents of Sonnekwa B and Graafwater) within a $1-3 \,\mathrm{km}$ radius of the PV facility structures. This impact may be mitigated to low.

It is expected that should the expansion of the Namaqua National Park under the current plan be undertaken as planned (according to NPAES), then the operational PV facility could have a moderate visual impact before and after mitigation on future visitors and tourism development in the Namaqua National Park by the proposed development.

The grid connection infrastructure will have a low visual impact on residents of existing homesteads within a $1.5-3 \,\mathrm{km}$ radius of the infrastructure both before and after mitigation. It is expected that should the expansion of the Namaqua National Park be undertaken as planned (according to NPAES), then the grid connection

	infrastructure could have a moderate visual impact before and after mitigation.
Non-potable water should be used to manage dust in the project	The use and conservation of portable water has been identified and
area	included in the EMPr (Appendix L).
Water will be required to mitigate the impact of sand and dust on	
the solar PV facilities. Given water scarcity in the region, SANParks	
holds the strong view that non-potable water should be used for	
that purpose to ensure that the proposed development would	
have a limited impact on the availability of water for domestic, and	
other, water uses.	

2. COMMENTS RECEIVED DURING THE INITIATION OF THE PUBLIC PARTICIPATION PROCESS

1.3. Organs of State

NO.	COMMENT	RAISED BY	RESPONSE
4.	Acknowledged receipt of the BID and indicated that the	Elsabe Swart	The Department was requested to submit written comments
	Department will submit comments on the proposed development.	Northern Cape	regarding the proposed development (refer to Appendix C4 of the
		Department of	BA Report). A FGM will be held with the Department once the Basic
		Agriculture,	Assessment report is available for review.
		Environmental Affairs,	
		Rural Development and	
		Land Reform	
		Email: 20 January 2023	

1.4. Stakeholders and Interested and Affected Parties

NO.	COMMENT	RAISED BY	RESPONSE
1.	I would like to register WWF South Africa as an Interested and	Katherine Forsythe	The stakeholder has, as requested, been added to the project
	Affected Party for the Gromis, Daisy and Kleinsee renewable energy	LHSKT Succulent Karoo	database.
	developments in the Northern Cape.	Project Coordinator:	
		Land Programme,	All registered stakeholders on the project database will be notified of
	WWF works very closely with SANParks and the Northern Cape	WWF South Africa	the availability of the BAR for review.
	Department of Agriculture, Environmental, Land Reform and Rural		
	Affairs on expanding Protected Areas in the Northern Cape to help	E-mail: 30 January	The Gromis Project does not form part of this PV cluster, which
	achieve our national targets for biodiversity. We would welcome	2023	comprises only of the Daisy Solar PV and Kleinzee Solar PV.
	discussions about how we can ensure that any proposed		
	developments falling within the National Protected Areas Expansion		A FGM was held on 19 January 2023 with SANParks where biodiversity
	Strategy Zones and Park Buffer areas do not compromise our ability		targets, the National Protected Areas Expansion Strategy area and
	to meet biodiversity targets.		Namaqua National Park were discussed.
	We would appreciate understanding the timeframes, processes		
	and next steps for the Gromis, Daisy and Kleinsee developments.		
2.	Do you have any further information on the with the re-instatement	Katherine Forsythe	Savannah Environmental has not been appointed as the
	of the Gromis development. Am I correct that Savannah is also	LHSKT Succulent Karoo	Environmental Consultants for the Gromis development and thus does
	handling this? Will that be a separate process to the Daisy and	Project Coordinator:	not have information on when the project will be re-instated.
	Kleinsee developments?	Land Programme,	Furthermore, the Gromis development does not form part of the Daisy
		WWF South Africa	and Kleinzee developments.
		E-mail: 01 February	
		2023	
3.	Application not administrated by NER Region.	Chris Schutte	The email has been forwarded to the Eastern, Southern and Western
	Please direct it to the emails below.	Mvelaphande Trading	Wayleave Regions for comment and contact details of the relevant
	Eastern Region - <u>wayleaves2@telkom.co.za</u>		Official/s were requested.
	Southern Region <u>-wayleavessr@telkom.co.za</u>	Email: 02 February	
	Western Region - <u>wayleaveswr@telkom.co.za</u>	2023	
4.	NO COPPER OR OPTIC FIBRE SERVICES AFFECTED	Stefan Geldenhuys	Noted. The details as contained in the correspondence have been
		Operations Manager	provided to the Applicant for further action, as may be required.

<u>Wayleave application</u>: Solar PV plant and, mounting structures, inverters, transformers, cabling, substation, battery energy storage system, Kleinzee solar PV, 20km west of Kommagas and 24km southeast of Kleinzee.

With reference to your letter received 16 March 2023

Please notify this office immediately if you locate any Openserve plant that was not indicated.

Please contact our representative

Marius Makier / 021 981 3399 / 081 348 2317 / Mariusm1@openserve.co.za

48 hours prior to commencement of construction work.

I hereby inform you that Openserve approves the proposed work indicated on your drawing in principle. This approval is valid for 06
MONTHS ONLY, after which reapplication must be made if the work has not been completed.

Any changes or deviations from the original planning during or prior to construction must immediately be communicated to this office.

As per supplied sketches it would appear as if Openserve infrastructure would not be affected.

Sketch attached to letter.

PP Wayleave
Management: Western
Region
Openserve
(Eskom service
provider)

Letter: 03 April 2023