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IWS Project Ref: 3219

To whom it may concern

BAT SPECIALIST LETTER RELATING TO THE EXTENSION OF VALIDITY TO THE ENVIRONMENTAL AUTHORIZATION FOR PORTION D AND PORTION E OF THE UKUQALA SOLAR PV FACILITY IN THE NORTHERN CAPE

Environmental Authorisations (EAs) were received for two solar PV facilities near De Aar in the Northern Cape on Portion D and Portion E on the Remaining extent of the Farm Vetlaagte No 4. These two facilities will be constructed and operated as one facility, to be called the Ukuqala Solar PV Facility. The 10-year validity of the EAs of both Portion D and E will lapse in July 2023. To enable compliance with financial close requirements, and to enable commencement of construction activities shortly thereafter, a motivation to extend the validity of the EA requires, inter alia, letters of comment from applicable specialists.

To this end, Inkululeko Wildlife Services (Pty) Ltd (IWS) was requested to provide the present Bat Specialist Letter, which serves to state that:

- The EA for Portion D and Portion E of the Ukaqala Solar PV Facility was granted on 19 July 2013 (DFFE Ref: 14/12/16/3/3/2/382/3 and 14/12/16/3/3/2/382/4).
- Pre-construction bat monitoring for Portion D and Portion E of the Ukaqala Solar PV Facility, was undertaken by Dr B.J. Henning of Africa Geo-Environmental Services (AGES) in accordance with the National Environmental Act, 1998 (Act No. 107 of 1998). The scoping assessment involving a brief site visit was performed by Dr Henning (AGES 2012). The present Bat Specialist Letter was compiled based primarily on the findings of Dr Henning's (AGES 2012) assessment.
- The AGES (2012) bat study for Portion D and Portion E of the Ukuqala Solar PV site revealed that:
    - At least four bat species are likely to occur onsite.
    - The lack of known caves in the direct vicinity of the site reduces the potential of cave-dwelling bat species (such as the Geoffroy's Horseshoe Bat) being found onsite.
    - The commonly found Egyptian Free-tailed Bat (*Tadarida aegyptiaca*) is associated with the habitat types recorded for the site, but tends to fly high, and as such has a low probability of being negatively impacted by solar panels.
    - The Cape Serotine Bat (*Laephotis capensis*) is widespread across South Africa, and may find suitable roosting sites in buildings or under the bark of trees found onsite. It is likely that this species will forage on insects that gather around lights, but risk of collisions with solar panels are likely low for this species too.

- The removal of vegetation should only occur if necessary, considering the height of the vegetation layer that will occur beneath the solar panels. Slashing of the herbaceous layer and shrubs is recommended rather than total clearing of the site. The anticipated impact will be on small sections in relation to the total available surrounding habitat for bats. The habitats of the fauna will not be significantly fragmented since the area below the panels will still be available for fauna to move through. Development also won't influence the natural feeding and movement patterns of the existing bats in the area. Peripheral impacts on the larger area should however still be avoided.
- The actual construction of the solar plant and power line will not have a direct significant impact on local bats since the grassy Karoo habitat type will be preserved below the solar panels while adequate natural habitat/vegetation would be available in the peripheral Savanna habitats outside the study area. Furthermore, the sensitive habitats of the drainage channel and rocky outcrops on the site will be preserved as bat roosting and foraging habitats.
- The protection of different habitat types in the area will be important to ensure the survival of the bat species occurring in the area due to each species' individual needs and requirements. Sufficient natural corridor sections should be protected around the proposed development footprints to allow bats to move freely between the different microhabitats in the study area. In this regard the drainage channels and outcrops that occurs on the proposed development area and surrounding areas will be more than sufficient as corridors.
- Monitoring of the environmental aspects should be done over the longer term to ensure that impacts are limited to a minimum during the constructional and operational phases.

- Potential impacts on bats from Portion D and Portion E of the Ukuqala Solar PV Facility - as authorized in 2013- are listed in **Table 1** (taken from AGES 2012). Potential significant impacts on bats were considered at that time to include: loss of and damage to natural bat habitats, collisions with solar panels while foraging for insects, and roost disturbance due to noise and dust created during construction. With effective mitigation, it is expected that the construction of Portion D and Portion E of the Ukuqala Solar PV Facility will have a low negative impact on bat populations in the area.
- An extension of the validity of the EA of Portion D and Portion E of the Ukuqala will *itself*, not alter the potential impacts on bats from the project. Within the EA extension period, however, the Ukuqala Solar PV Facility will contribute to a foreseeably greater cumulative impact on bats from the rapidly growing number of renewable energy developments in and around the De Aar region. The potential contribution of the proposed Ukuqala Solar PV Facility to the growing cumulative impact from increasingly more wind and solar developments in the Northern Cape region must be considered and mitigated for during all phases of this project.

Provided that there is diligent implementation of the bat impact mitigation measures recommended by AGES (2012) and IWS, we do not object to the validity of Portion D and Portion E of the Ukuqala Solar PV Facility EA.

Conclusion

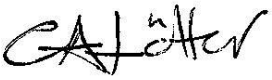
1. The baseline status of the environment in terms of the bat assessment has not changed since the initial EIA was done in 2012/2013.

2. The initial impact rating undertaken during the initial assessment is still valid.
3. The mitigation measures provided in the initial assessment are still applicable. There are no new mitigation measures that should be added to the Environmental Authorisation.
4. No changes to the environment have occurred since the initial EA was issued.

In conclusion, the environment in terms of bats has not changed significantly since 2012; therefore, there is no objection to the extension of the validity of the Environmental Authorisation for the Ukuqala Solar PV - Portion D and Portion E.

Kind regards

Dominique Greeff
Inkululeko Wildlife Services (Pty) Ltd



Dr Caroline Lötter, Pr. Nat. Sci.
Inkululeko Wildlife Services (Pty) Ltd

REFERENCES

AGES. 2012. *A bat specialist report for the proposed solar energy facility on the remaining extent of the farm Vetlaagte 4, near De Aar, Northern Cape*. Africa Geo-Environmental Services (Pty) Ltd, South Africa.

Table 1 Impact assessment matrix (taken from AGES 2012)

Impacts	Probability	Duration	Scale	Magnitude (WOM)	Magnitude (WM)	Scoring (WOM)	Scoring (WM)
1. Direct habitat destruction	3	4	1	6	2	33 (Low)	21 (low)
2. Collisions	3	4	1	6	2	33 (Low)	21 (low)
3. Disturbances	5	4	2	6	2	60 (Moderate – high)	40 (Moderate – low)