

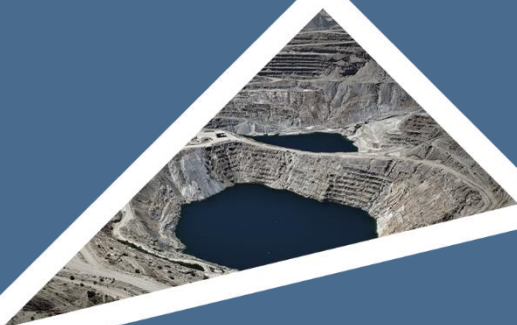


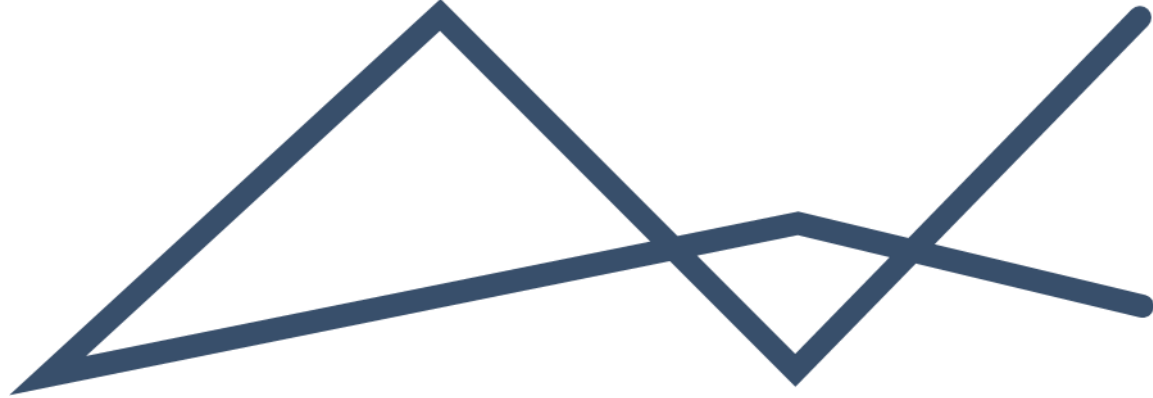
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RADIO FREQUENCY INTERFERENCE (RFI) COMPLIANCE STATEMENT

NTCSA ARIES-PAULPUTS-KOKERBOOM 400KV LOOP-IN-LOOP-OUT
PROJECT





DOCUMENT DETAILS

EIMS REFERENCE: 1607

DOCUMENT TITLE: NTCSA Aries-Paulputs-Kokerboom 400kv Loop-In-Loop-Out Project:
Radio Frequency Interference Compliance Statement

DOCUMENT CONTROL

	NAME	SIGNATURE	DATE
COMPILED:	Dr Lucien James	<i>Sent Electronically</i>	2025/11/19
CHECKED:	John von Mayer	<i>Sent Electronically</i>	2025/11/19
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REVISION AND AMENDMENTS

REVISION DATE:	REV #	DESCRIPTION
2025/11/19	ORIGINAL DOCUMENT	RFI Compliance Statement

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1 INTRODUCTION

National Transmission Company South Africa SOC Ltd (NTCSA) (hereafter referred to as the applicant) has appointed Environmental Impact Management Services (Pty) Ltd (EIMS) as the Environmental Assessment Practitioner (EAP) to assist with undertaking the required authorisation processes (including the statutory public participation), and to compile and submit the required documentation in support of their proposed development of an upgrade to Paulputs Substation and the construction of a Loop-In-Loop-Out (LILO) Powerline from Paulputs Substation connecting to the existing Aries-Kokerboom powerline in the Northern Cape Province.

The proposed project is for construction of a new 49km long 400kV loop-in loop-out powerline as well as an expansion of the existing Paulputs substation. The need for the project is based on the Northern Cape Strengthening for Renewable Generation Integration (IRP 2019). To provide future reliability and flexibility in the evacuation of renewable power from Paulputs Substation, an additional 400 kV infeed is proposed via a loop in loop out from the Aries – Kokerboom 400 kV line. The project is part of the group of projects identified for the Northern Cape network strengthening requirements in meeting the IRP 2019 renewables generation integration. The installed generation capacity in the Northern Cape already exceeds the peak load in the province. Generation capacity is expected to increase in the province as a result of bulk renewable energy generation capacity allocation due to favourable sun and wind conditions. Therefore, significant network infrastructure is required to enable the integration and evacuation of power from the renewable energy plants anticipated in the province.

The project falls within the promulgated Strategic Transmission Corridors as per the GN R.113 dated 16 February 2018 and therefore will follow a Basic Assessment Process.

The proposed project is located on Farms Blad-Grond South No. 94 Portions 3, 0 (Remaining Extent), 1 (Remaining Extent), 4 (Remaining Extent), 5 (Remaining Extent), Blad-Grond North No. 77 Portion 2 (Remaining Extent), Steyns Puts 178 Portion 1 (Remaining Extent), Lucas Vlei No. 93 Portion 4 (Remaining Extent), 5 (Remaining Extent), Scuit-Klip No. 92 Portions 0 (Remaining Extent), 1 (Remaining Extent), 2 (Remaining Extent), 4, and Konkoonies No. 91 Portion 1 and 6, in the Khâi-Ma and Kai !Garib Local Municipalities, Northern Cape. The site is approximately 30kms northeast of Pofadder. The key points of the site are proposed powerline route – Start: 28°52'43.12"S; 19°33'53.35"E; Middle: 28°52'47.57"S; 19°33'56.49"E; End: 28°51'42.17"S; 20°0'18.92"E..

2 OBJECTIVE OF THIS COMPLIANCE STATEMENT

This compliance statement addresses potential impacts the current project may have on Radio Frequencies (RF). In this regard, the proposed infrastructure's ability to generate radio frequency, and subsequently present interferences to signals is here evaluated.

Electromagnetic interference (EMI), or radio-frequency interference (RFI) within the radio spectrum, is unwanted energy from external sources that disrupts electrical circuits through induction, coupling, or conduction. RFI typically occurs in two forms: conducted (several kHz to 30 MHz) and radiated (30 MHz to 10 GHz). Radiated emissions escape as electric or electromagnetic fields, while conducted emissions travel along power or signal cables.

Therefore, the project may produce conducted emissions, albeit very low frequencies, which may interfere with radio frequencies of other sources and telecommunication infrastructure. For this reason, comment from any identified Interested and Affected Parties who responsible for potentially affected RF sources would compliment this statement.

The details of the EIMS EAP and consultant who compiled this compliance statement are as follows:

Table 1: EAP Details.

Name of Practitioner	John von Mayer (Project Manager/EAP)
Tel No:	+27 11 789 7170



Fax No:	+27 86 571 9047
E-mail:	paulputslilo@eims.co.za
Professional Registrations:	Professional Natural Scientist with the South African Council for Natural Scientific Professions - SACNASP (400336/11). Registered EAP with the Environmental Assessment Practitioners Association of South Africa - EAPASA (2019/1247).

Mr John von Mayer is a senior consultant at EIMS and has been involved in numerous significant projects the past 15 years. He has experience in Project Management, small to large scale Environmental Impact Assessments, Environmental Auditing, Water Use Licensing, and Public Participation. He is a Registered Professional Natural Scientist (400336/11) with the South African Council Natural and Scientific Professions (SACNASP) as well as a registered Environmental Assessment Practitioners Association of South Africa (EAPASA) Environmental Practitioner (2019/1247).



3 PROJECT LOCATION

A description of the application area and location as well as the properties are included in Table 2 below.

Table 2: Locality details

EA Application Area (ha)	The area includes the upgrade to Paulputs Substation (which will cover ~11,3 ha including the area of the current infrastructure) as well as a powerline servitude ~50km long and 110m wide (~550 ha).	
District Municipalities	Namakwa and ZF Mgcawu	
Distance and direction from nearest towns	The EA Application area is situated approximately 30kms northeast of Pofadder.	
Farm Name, Number and Portion as well as 21-digit Surveyor General Code	Farm Name, Number and Portion	21 Digit Surveyor General Code
	BLAD-GROND SOUTH 94 (PTN 3)	C0360000000009400003
	BLAD-GROND SOUTH 94 (PTN 1 Rem Ext.)	C03600000000009400001
	BLAD-GROND SOUTH 94 (PTN 4 Rem Ext.)	C03600000000009400004
	BLAD-GROND SOUTH 94 (PTN 0 Rem Ext.)	C03600000000009400000
	BLAD-GROND SOUTH 94 (PTN 5 Rem Ext.)	C03600000000009400005
	BLAD-GROND NORTH 77 (PTN 2 Rem Ext.)	C03600000000007700002
	STEYNS PUTS 178 (PTN 1 Rem Ext.)	C03600000000017800001
	LUCAS VLEI 93 (PTN 5 Rem Ext.)	C03600000000009300005
	LUCAS VLEI 93 (PTN 4 Rem Ext.)	C03600000000009300004
	SCUIT-KLIP 92 (PTN 2 Rem Ext.)	C03600000000009200002
	SCUIT-KLIP 92 (PTN 0 Rem Ext.)	C03600000000009200000
	SCUIT-KLIP 92 (PTN 1 Rem Ext.)	C03600000000009200001
	KONKOONSIES 91 (PTN 1)	C03600000000009100001
	KONKOONSIES 91 (PTN 6)	C03600000000009100006
	SCUIT-KLIP 92 (PTN 4)	C03600000000009200004

Refer to Figure 1 below for a map showing the proposed development location and boundary of the site. Refer to Figure 2 below for a map showing the proposed development footprint overlaid on the RFI sensitivity map generated by the screening tool.

The project is located near some towers and masts which generate RFs, one being notably close to the proposed powerline. It was further ascertained that the tower in question relates to nearby Solar PV facilities and their activities.

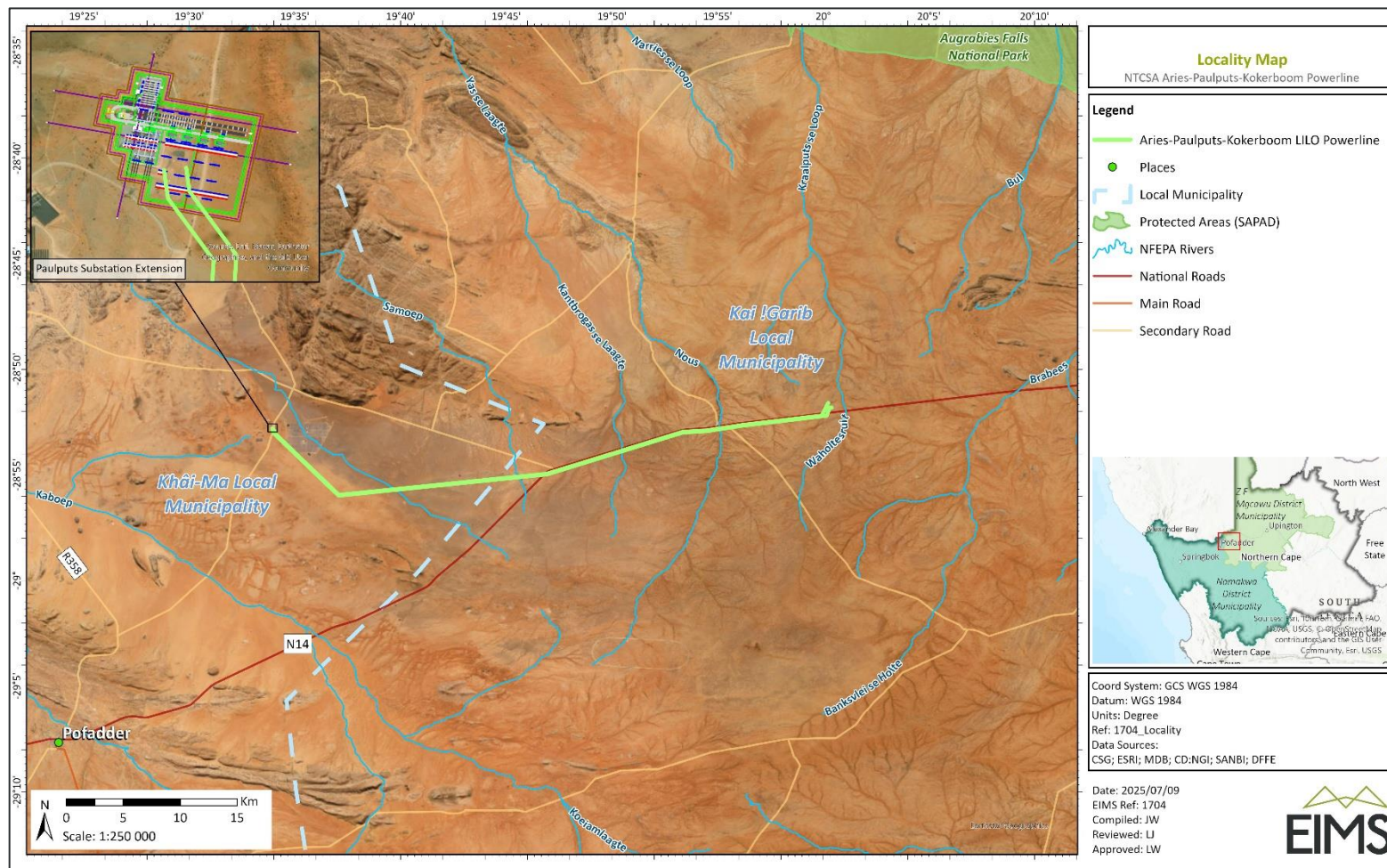


Figure 1: Locality map of the proposed development

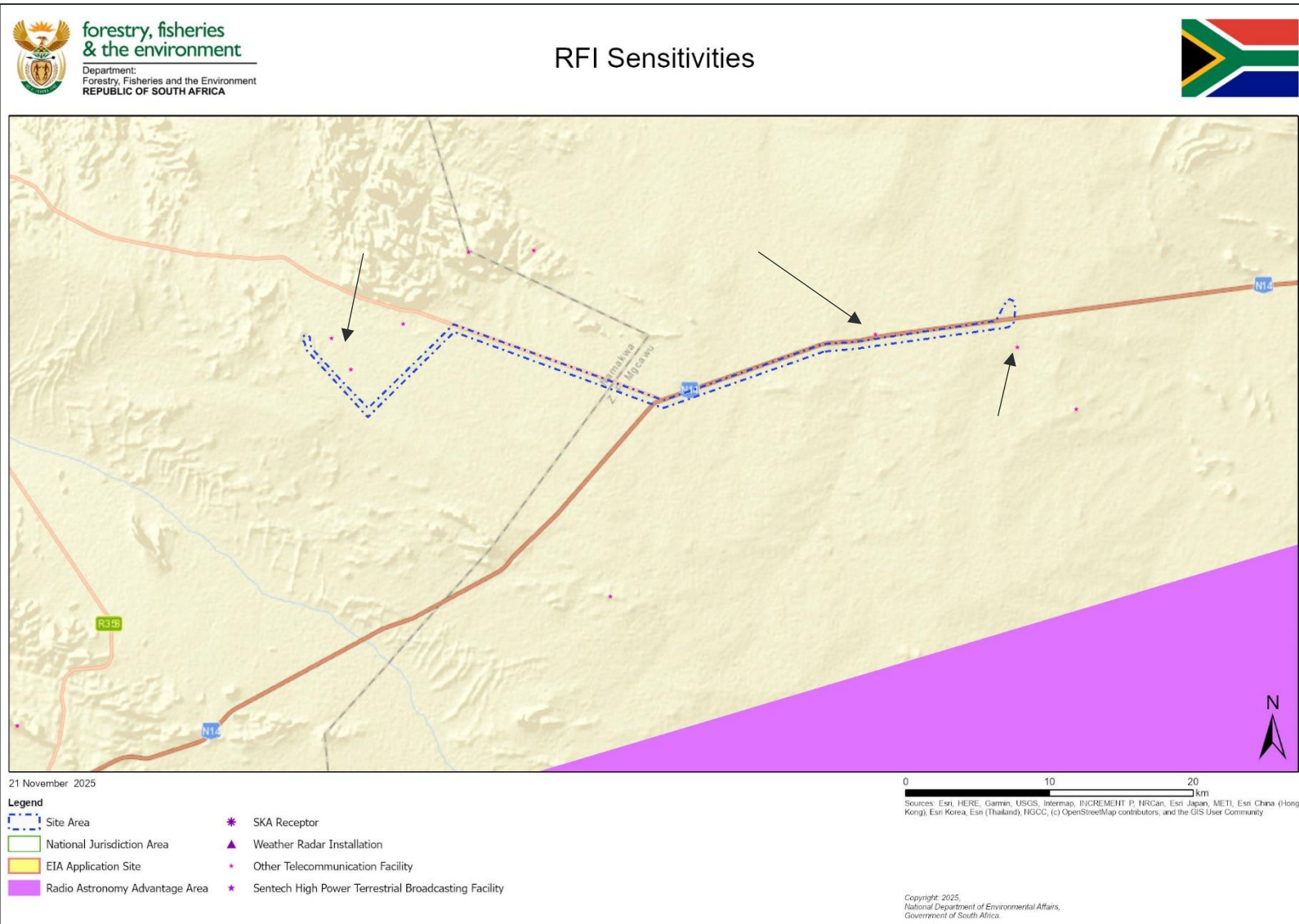


Figure 2: Map extracted from the DFFE Screening Tool showing areas of sensitivity. Arrows indicating RFI sensitive infrastructure.



4 RECOMMENDATIONS AND APPROACH

Written comment was requested from Interested and Affected Parties of this project to confirm the sensitivity of the site. Comments received are included as an appendix to this statement and have also been incorporated in the Comments Record of the Basic Assessment Report.

As a key stakeholder with regards to telecommunications and associated infrastructure, Sentech was contacted directly to provide comment. Sentech responded that they have no objection to the project. Please see refer to formal comment received from Sentech here included as Appendix 1.

As no objection is noted in terms of RFI, the recommendations and approach are that development may continue. This report acts to address the requirements of the application for a statement in this regard.



5 UNDERTAKING REGARDING CORRECTNESS OF INFORMATION

I **John von Mayer** herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders have been correctly recorded in the report.

Signature of the EAP

Date: 19 November 2025



APPENDIX 1: COMMENT FROM SENTECH

Private Bag X06
Honeydew
2040
Enquiries
Tel: (011) 471 - 4400
motlhakes@sentech.co.za

National Transmission Company South Africa SOC Ltd (NTCSA)

8 Dalmeny Road
Pine Park
2194

19 September 2025

Attention: The Directors of National Transmission Company South Africa SOC Ltd (NTCSA)

RE: PROPOSED DEVELOPMENT OF ARIES-PAULPUTS-KOKERBOOM 400KV LOOP-IN-LOOP-OUTPOWERLINE AND SUBSTATION UPGRADE PROJECT.

1. The above matter refers.
2. We wish to advise that SENTECH SOC Ltd ("SENTECH") has received an application from **National Transmission Company South Africa SOC Ltd (NTCSA)** ("the applicant"), which plans to construct Aries-Paulputs-Kokerboom 400kv Loop-In-Loop-Out Powerline And Substation Upgrade Project in the KHÂI-MA AND KAI! Garib Local Municipalities in the Northern Cape Province as described in annexure 1, hereafter referred to as "Beta Solar Power Plant", in accordance with the provisions of Section 29(1) (b) of the Electronic Communications Act no. 36 of 2005 ("the Act").
3. SENTECH has analysed the information provided by the applicant in accordance with the provisions of Section 29(1) (c) of the Act, and specifically the location of the site and confirm that there would be limited degradation of SENTECH transmitted Terrestrial UHF/VHF Television (TV), and/or FM radio services in the planned deployment area, as indicated in annexure 1.
4. SENTECH hereby grants the applicant approval to proceed with the construction of its energy project at the site subject to the following terms and conditions:
 - 4.1 Due to the fact that the findings made by SENTECH are based on simulations and calculated on a theoretical model, using available data and assumptions where no data

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Company Secretary: Ayanda Manqele

SENTECH SOC Ltd Reg no: 1990/001791/30

was provided, such findings may change at any time should any further information be made available to or come to SENTECH's attention;

- 4.2 At any time after the approval, and during construction of the project, should any radio transmissions be affected by construction activities, SENTECH will give the applicant 7 (seven) day's written notice to remove the cause of the interference.
- 4.3 Under no circumstances whatsoever will SENTECH be liable to the applicant or any third party for any damages, loss or costs, of any nature whatsoever or howsoever arising, suffered as a consequence of the aforementioned request and the applicant fully indemnify SENTECH;
- 4.4 SENTECH prior written consent must first be obtained before any construction activities underneath, along, across or within close proximity to SENTECH infrastructure can begin and shall comply with the applicable SENTECH guidelines relating to clearances between equipment and the proposed construction activity. Furthermore, the applicant shall clearly adhere to, and ensure all installations shall be fully compliant with the Occupational Health and Safety Act No. 85 of 1993.
5. This approval is further subject to the submitted applications boundaries or structures listed in annexure 1 hereto, the materials used, as well as the size and positioning of structures declared in the application. If the services of SENTECH or its clients is in any way compromised by a deviation or change of this submission, the applicant shall be liable for all costs to re-establish, or relocate the services, and under no circumstances whatsoever will SENTECH be liable to the applicant or any other third party for any damages, loss or costs, of any nature whatsoever or howsoever arising, suffered as a consequence.
6. This approval is valid and applicable between SENTECH and the applicant only. It does not include any approval for any of the other electronic communication operators which have current co-sharing agreements to utilise SENTECH's radio masts.
7. Any additions, amendments, additional structures to be built, or any change to the energy farm boundaries, will require a new application to SENTECH.
8. The validity of this approval is for a period of 12 (twelve) months. If construction of the designed project commences after the expiry of the twelve months period, the application must be re-submitted to SENTECH for further evaluation and approval.
9. This approval does not imply any rights of access whatsoever to SENTECH property or use of SENTECH's access roads for construction or maintenance of the design project. Separate permission must be obtained from SENTECH in this regard. Furthermore, SENTECH reserves the right to claim damages in terms of Section 29 of the Act, for any loss or damages sustained as a result of damages to any of SENTECH's electronic broadcast and communications infrastructure.

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10. The applicant shall, in carrying out any work or project, take all the necessary precautions for the safety of SENTECH's employees, contractors, representatives and its property, including the radio transmitters and links on or near the site against damages as a result of construction of the applicant's energy project.
 11. The applicant shall be liable for all and any direct and/or indirect, and/or consequential damages or injury that may be caused by the applicant, its contractors, subcontractors, employees, agents or representatives to any employee, contractor, representative or property of SENTECH including radio network transmitters and/or links or land which may have been disturbed shall be restored to the same condition in which it was before commencement of the construction of the energy project.
 12. In no event will SENTECH, its employees, contractors, or representatives be liable to the applicant or any third party whatsoever for special, collateral, exemplary, direct, indirect, incidental, consequential or any other damages of any nature whatsoever or howsoever arising (including without limitation, loss of goodwill, loss of profits or revenues, loss of savings, loss of use, interruptions or noisiness, or injury) whether or not such damages or injury occurred prior or subsequent to, or are alleged as a result of any SENTECH radio network approved and/or not approved in terms of this letter, even if SENTECH has been advised of the possibility of such damages or injury.

All SENTECH rights are fully reserved.

Regards.

Mr Serame Motlhake..........Date: 19 September 2025

Manager: SSDD AND QAO

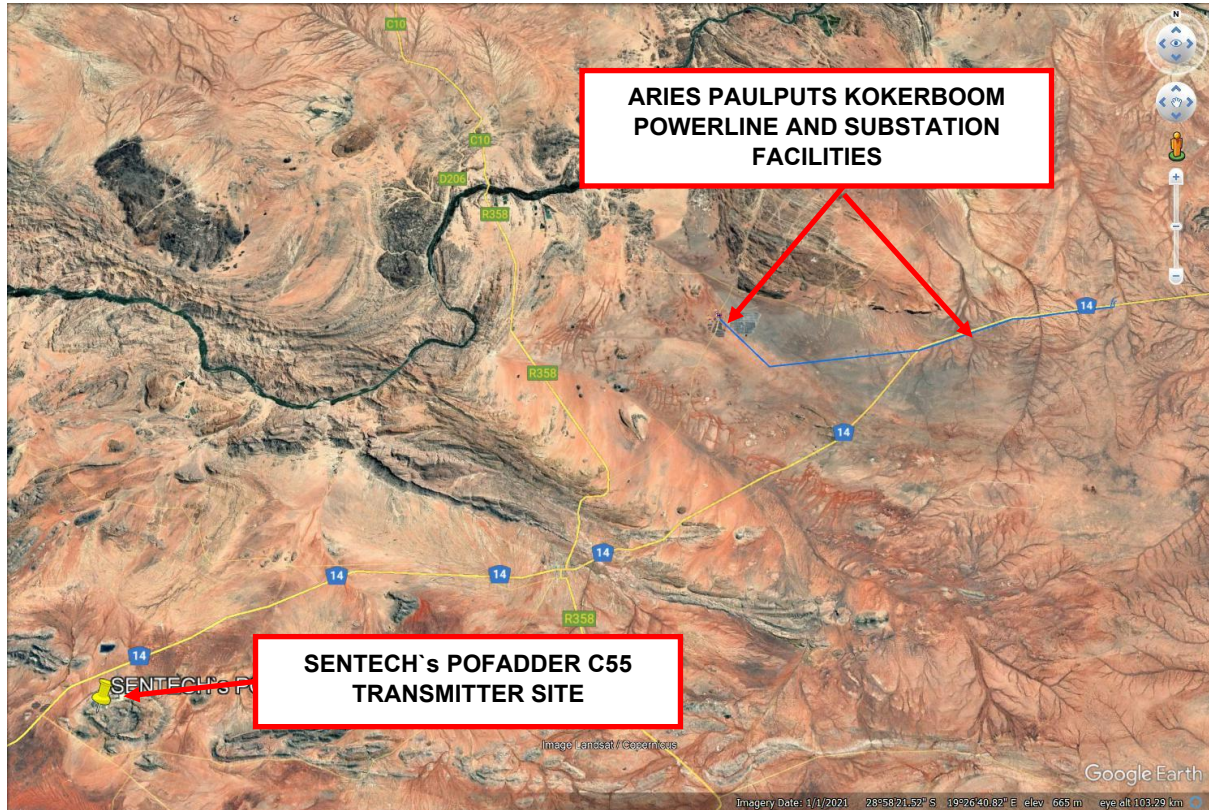
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ANNEXURE 1

The planned site facility to be located ± 72.12 km north-east of SENTECH Pofadder C55 transmitter site. There is no interference to be caused to any of SENTECH's networks.



MAP 1: Aries Paulputs Kokerboom Powerline and Substation Facilities and SENTECH's Pofadder C55 Transmitter Site

END DOCUMENT

Directors: Themba Phiri (Interim Chair), Mbasa Metuse, Peter Zimri, Lwazikazi Nopece, Lavandran Gopaul, Alexandria Procter, Patrick Wadula, Tebogo Leshope (ED & CEO), Clarinda Simpson CA(SA) (ED & CFO), Flenk Mnisi (ED & ACOO)

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