

# BACKGROUND INFORMATION DOCUMENT

FOR THE  
PROPOSED NEW 132KV GRID CONNECTION AND  
ASSOCIATED INFRASTRUCTURE FOR THE AUTHORISED  
EMOYENI WIND ENERGY FACILITIES,  
WESTERN CAPE AND NORTHERN CAPE PROVINCES

OCTOBER 2022



Eskom Holdings SOC Limited, is proposing the development of new grid connection infrastructure, including overhead powerlines & 132kV on-site substations/switching stations with associated access tracks and watercourse crossings for the authorised Umsinde Emoyeni (DEA Ref.: 14/12/16/3/3/2/686), Ishwati Emoyeni (DEA Ref.: DFFE Ref: 12/12/20/2351) and Khangela Emoyeni (DEA Ref.: 14/12/16/3/3/2/687) Wind Energy Facilities (WEFs). The new 132kV powerline will connect the proposed new substations/switching stations to the Eskom Gamma Substation located on the border of the Northern Cape and Western Cape Provinces. The proposed new grid connection infrastructure is located within the Beaufort West REDZ and Central Power Corridor.

Following receipt of the relevant Environmental Authorisations for the grid connection infrastructure for the Emoyeni WEFs, it was noted that several listed activities that were relevant to the grid infrastructure had not been considered, therefore a new Basic Assessment process will be undertaken that will now consider all the applicable listed activities as per the EIA Regulations. In addition, due to alterations in the wind farm layouts, and based on further technical analysis and liaison with Eskom's technical and grid access units, it was determined that the previously authorised powerline routings intended to evacuate electricity generated from these authorised wind energy facilities to the national electricity grid via the Gamma Substation are no longer suitable/ optimal and will need to be revised to cater for the final wind farm layouts, and Eskom's connection requirements. The new Basic Assessment is proposed to be undertaken following the selection of the preliminary grid corridor and review of the relevant screening tool reports undertaken to assess the revised (re-optimised) grid connection layout as well as all applicable listed activities, including the listed activities omitted from the original Basic Assessment process.

The authorised wind energy facilities are located approximately 18km north of the town of Murraysburg and fall within the Beaufort West Local Municipality and Ubuntu Local Municipality under the Central Karoo and Pixely Ka Seme District Municipalities within the Western and Northern Cape Provinces.

The authorised Umsinde and Khangela Emoyeni Wind Energy Facilities have been selected as preferred bidder projects via private off take (i.e. private power purchase) procurement processes, and construction is expected to commence in early 2023.



## **Aim of this background information document**


This document aims to provide you, as an interested and/or affected party (I&AP), with:

- An overview of the proposed grid infrastructure, including overhead powerlines & substations/switching stations with associated access tracks and watercourse crossings for the authorised Umsinde Emoyeni, Ishwati Emoyeni and Khangela Emoyeni Wind Energy Facilities (WEFs).
- An overview of the Basic Assessment process proposed and specialist studies being undertaken (following the selection of the grid corridor and review of the screening tool reports) to assess the proposed infrastructure, including overhead powerlines & substations/switching stations with associated access tracks and water course crossings for the authorised Umsinde Emoyeni, Ishwati Emoyeni and Khangela Emoyeni Wind Energy Facilities (WEFs). As per GNR 2313 published for the adoption of the standard for the development and expansion of powerlines and substation within identified geographical areas and the exclusion of this infrastructure from the requirement to obtain an environmental authorization, the screening tool reports generated for the proposed grid corridor and associated infrastructure have indicated that portions of the grid corridor fall outside of areas identified as low-medium sensitivity. In terms of Section 6.1 of GNR 2313 the Standard and the exclusions do not apply for the proposed infrastructure. Therefore a Basic Assessment Process and the associated specialist assessments are proposed to be undertaken for the development.
- Details of how you can become involved in the BA process, receive information, or raise issues, which may concern and/or interest you.

### Overview of the proposed grid infrastructure to support the authorised Emoyeni Wind Energy Facilities.

The infrastructure and key components associated with the proposed Basic Assessment includes:

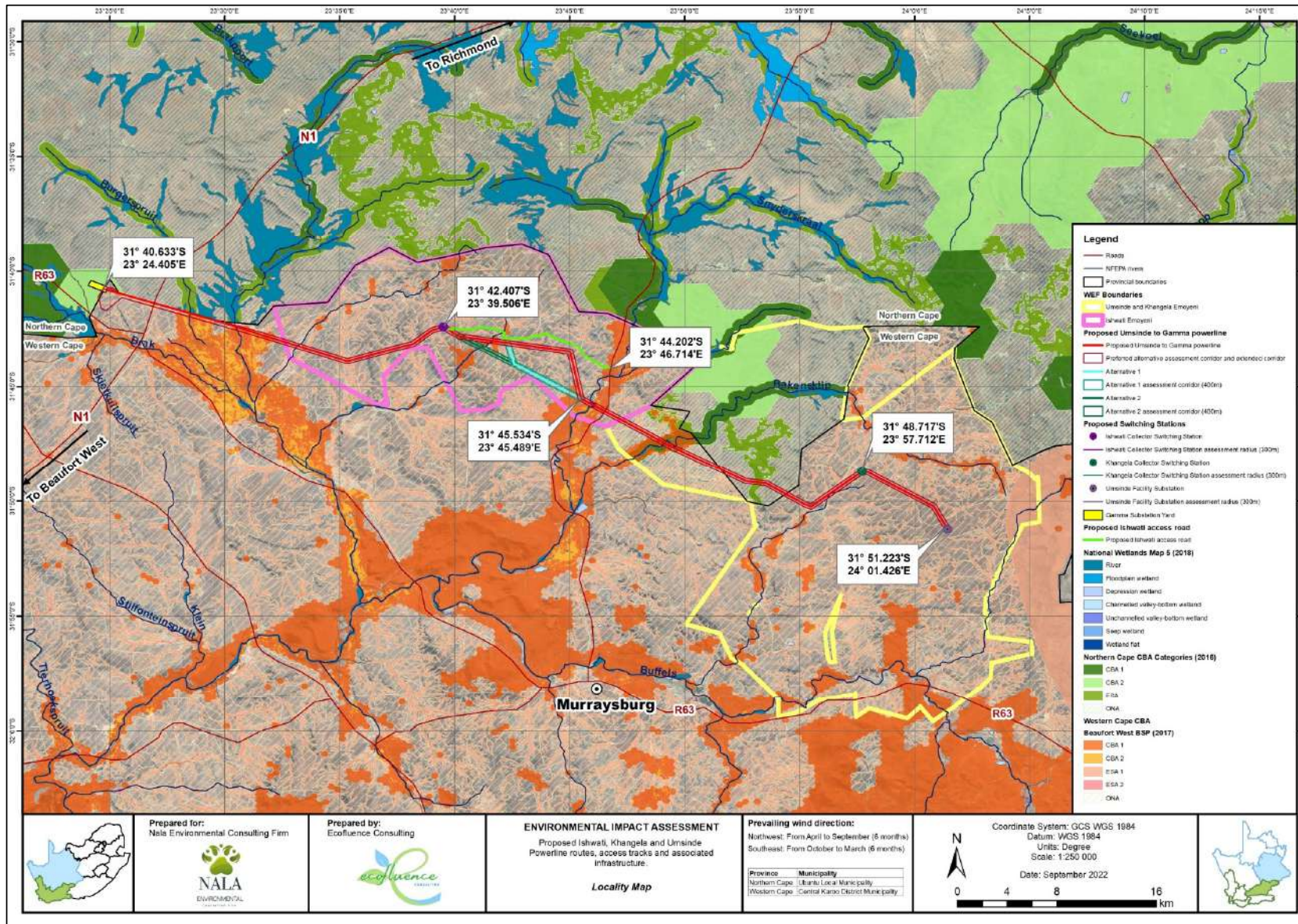
- The establishment of a 132kV collector substation (switching station) within the authorised Umsinde Emoyeni WEF site (adjacent to the authorised WEF facility substation) with a footprint of approximately 100m X 80m (~0.8ha) to be located within an assessment footprint that encompasses a 300m radius.
- The establishment of a 132kV collector substation (switching station) within the authorised Khangela Emoyeni WEF site (adjacent to the authorised WEF facility substation) with a footprint of approximately 100m X 80m (~0.8ha) to be located within an assessment footprint that encompasses a 300m radius.
- The establishment of a 132kV collector substation (switching station) within the authorised Ishwati Emoyeni WEF site (adjacent to the authorised WEF facility substation) with a footprint of approximately 120m X 100m (~1.2 ha) with an assessment footprint that encompasses a 300m radius.
- The establishment of a 132kV powerline within a 400m wide corridor that will extend from the Khangela switching station to the Ishwati switching station (~36km), and then onward for ~25km to the Eskom Gamma Substation. In addition, a further length of 132kV powerline (within a 400m wide corridor) will extend from the Umsinde switching station to the Khangela switching station for ~8km OR it may connect directly into the afore-mentioned Khangela-Ishwati 132kV powerline at the Khangela switching station. An extended powerline development corridor of approximately 1,91km<sup>2</sup> has been assessed in the vicinity of the Gamma Substation, that will enable the 132kV powerline to connect to either the south face of the Gamma Substation yard or approach from the east depending on the available connection point at the time of connection. The 132kV Powerline from Umsinde to Khangela, and from Khangela to Ishwati and onward to Gamma Substation will be a single- or double-circuit overhead powerline, with a single set of pylons structures with a maximum height of 35m. Access/service tracks (jeep tracks) up to 7m wide and associated watercourse crossings will be associated with the powerline, and will be located within the assessed powerline corridor.
- Development of access tracks up to 7m wide and associated watercourse crossings within the powerline corridor to enable construction and maintenance activities.
- The establishment of a new access road approximately 14 km long from the existing public road from Richmond to the authorised Ishwati Emoyeni on-site substation site. The proposed new access road will be unsealed and up to 12m wide during construction, but will be reduced to a maximum of 6 m width during operation



The following have been identified for the abovementioned grid infrastructure for the authorised Umsinde Emoyeni and Khangela Emoyeni Wind Energy Facilities, located within the Northern and Western Cape Provinces.

- Portion 1 of farm Klein Driefontein No. 152
- Remainder of Farm De Hoop No. 30
- Portion 2 of Farm De Hoop No. 30
- Remainder of Farm Swavel Kranse No. 28
- Portion 2 of Farm Swavel Kranse No. 28
- Portion 4 (portion of portion 1) of farm Driefontein 26
- Portion 1 of Farm Klipplaat No.109
- Portion 4 (portion of portion 2) of Farm Klipplaat No.109
- Remainder Klipplaat No. 109
- Portion 1 of the Farm Uitvlugfontein No.265
- Portion 6 of Farm Klipplaat 109
- The Farm Riet Poort No. 9
- Remainder of Farm Driefontein No. 8
- Portion 3 of Farm Badfontein No. 10 (powerline alternative 1 route)
- Remainder & Portion 2 of Farm Leeuwenfontein No. 6
- Portion 4 (a portion of portion 1) of Farm Allemansfontein No.7
- Portion 2 (a portion of portion 1) of Farm Allemansfontein No.7
- The Farm Klein Los Kop No.5
- Remainder of the Farm Schietkuil No.3

**LOCALITY MAP OF THE PROPOSED GRID CONNECTION INFRASTRUCTURE ASSOCIATED WITH THE AUTHORISED EMOYENI WIND ENERGY FACILITIES**



Prepared for:  
Nela Environmental Consulting Firm



Prepared by:  
Ecofluence Consulting



**ENVIRONMENTAL IMPACT ASSESSMENT**  
Proposed Ishwati, Khangela and Umsinde Powerline routes, access tracks and associated infrastructure.

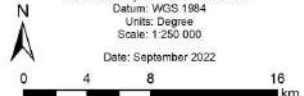
*Locality Map*

**Prevailing wind direction:**  
Northwest: From April to September (6 months)  
Southeast: From October to March (6 months)

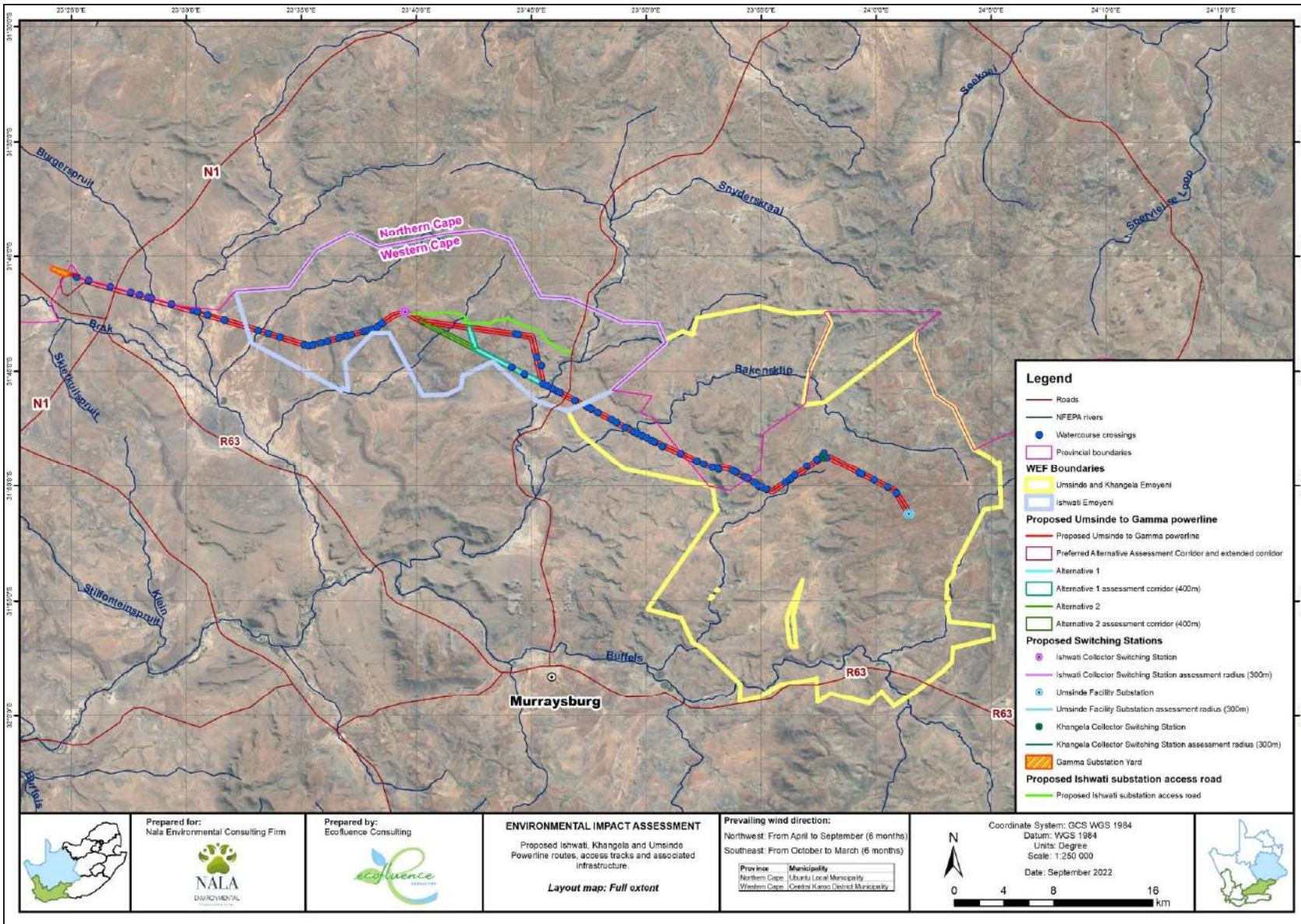
Province	Municipality
Northern Cape	Uitenhage Local Municipality
Western Cape	Central Karoo District Municipality

Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree  
Scale: 1:250 000

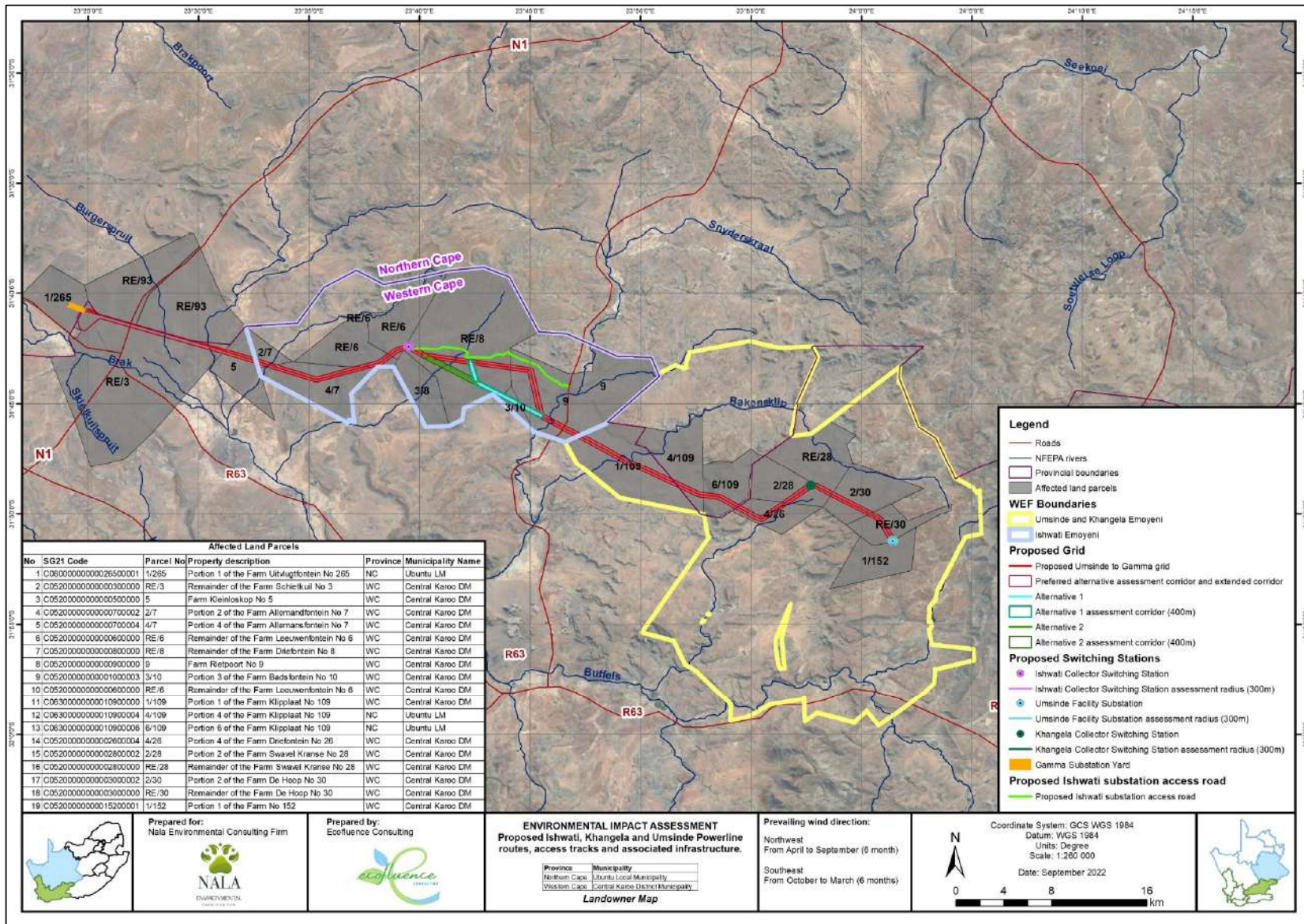
Date: September 2022




LAYOUT MAP OF THE PROPOSED GRID CORRIDOR ALTERNATIVES



**AFFECTED LANDOWNER MAP OF THE PROPOSED GRID CONNECTION INFRASTRUCTURE ASSOCIATED WITHIN THE EMOYENI WIND ENERGY FACILITIES**



**Affected Land Parcels**

No	SG21 Code	Parcel No	Property description	Province	Municipality Name
1	C060000000002650001	1/265	Portion 1 of the Farm Uitvlugtfontein No 265	NC	Ubuntu LM
2	C0520000000000300000	RE/3	Remainder of the Farm Schielkuil No 3	WC	Central Karoo DM
3	C0520000000000500000	5	Farm Kleinloskop No 5	WC	Central Karoo DM
4	C0520000000000700002	2/7	Portion 2 of the Farm Allemansfontein No 7	WC	Central Karoo DM
5	C0520000000000700004	4/7	Portion 4 of the Farm Allemansfontein No 7	WC	Central Karoo DM
6	C0520000000000600000	RE/6	Remainder of the Farm Leeuwenfontein No 6	WC	Central Karoo DM
7	C0520000000000800000	RE/8	Remainder of the Farm Diebriestein Na 8	WC	Central Karoo DM
8	C0520000000000900000	9	Farm Rietpoort No 9	WC	Central Karoo DM
9	C0520000000001000003	3/10	Portion 3 of the Farm Badsfontein No 10	WC	Central Karoo DM
10	C0520000000000600000	RE/6	Remainder of the Farm Leeuwenfontein No 6	WC	Central Karoo DM
11	C06300000000010600000	1/109	Portion 1 of the Farm Klaplaai No 109	WC	Central Karoo DM
12	C06300000000010900004	4/109	Portion 4 of the Farm Klaplaai No 109	NC	Ubuntu LM
13	C06300000000010900006	6/109	Portion 6 of the Farm Klaplaai No 109	NC	Ubuntu LM
14	C05200000000002600004	4/26	Portion 4 of the Farm Diefontein No 26	WC	Central Karoo DM
15	C05200000000002800002	2/28	Portion 2 of the Farm Swavel Kransse No 28	WC	Central Karoo DM
16	C05200000000002800000	RE/28	Remainder of the Farm Swavel Kransse No 28	WC	Central Karoo DM
17	C05200000000003000002	2/30	Portion 2 of the Farm De Hoop No 30	WC	Central Karoo DM
18	C05200000000003000000	RE/30	Remainder of the Farm De Hoop No 30	WC	Central Karoo DM
19	C05200000000015200001	1/152	Portion 1 of the Farm No 152	WC	Central Karoo DM

- Legend**
- Roads
  - NFEPA rivers
  - Provincial boundaries
  - Affected land parcels
- WEF Boundaries**
- Umsinde and Khangela Emojeni
  - Ishwati Emojeni
- Proposed Grid**
- Proposed Umsinde to Gamma grid
  - Preferred alternative assessment corridor and extended corridor
  - Alternative 1
  - Alternative 1 assessment corridor (400m)
  - Alternative 2
  - Alternative 2 assessment corridor (400m)
- Proposed Switching Stations**
- Ishwati Collector Switching Station
  - Ishwati Collector Switching Station assessment radius (300m)
  - Umsinde Facility Substation
  - Umsinde Facility Substation assessment radius (300m)
  - Khangela Collector Switching Station
  - Khangela Collector Switching Station assessment radius (300m)
  - Gamma Substation Yard
- Proposed Ishwati substation access road**
- Proposed ishwati substation access road



Prepared for:  
Nala Environmental Consulting Firm

Prepared by:  
Ecofluence Consulting

**ENVIRONMENTAL IMPACT ASSESSMENT**  
Proposed Ishwati, Khangela and Umsinde Powerline routes, access tracks and associated infrastructure.

Province	Municipality
Northern Cape	Ubuntu Local Municipality
Western Cape	Central Karoo District Municipality

**Landowner Map**

Prevailing wind direction:  
Northwest  
From April to September (6 months)  
Southeast  
From October to March (6 months)

Coordinate System: GCS WGS 1984  
Datum: WGS 1984  
Units: Degree  
Scale: 1:260 000  
Date: September 2022





## LEGAL CONTEXT

As per GNR 2313 published for the adoption of the standard for the development and expansion of powerlines and substation within identified geographical areas and the exclusion of this infrastructure from the requirement to obtain an environmental authorization, the screening tool reports generated for the proposed grid corridor and associated have indicated that portions of the grid corridor fall outside of areas identified as low-medium sensitivity. In terms of Section 6.1 of GNR 2313 the Standard and the exclusions do not apply for the proposed infrastructure. Therefore a Basic Assessment Process and the associated specialist assessment are proposed to be undertaken for the development.

The following Environmental Themes and relevant sensitivity ratings were applicable for the grid corridor as per the DFFE Screening Tool :

Environmental Theme	Screening Tool Sensitivity
Agriculture	High
Animal Species	High
Aquatic	Very High
Archaeological & Cultural Heritage	Very High
Civil Aviation	Low
Defence	Low
Palaeontological	Very High
Plant Species	Medium
Terrestrial Biodiversity	Very High



# PROPOSED BASIC ASSESSMENT PROCESS

Following the outcome of the results of the screening tool report undertaken for the proposed grid corridor, majority of the environmental themes have been identified as Very High- High Sensitivity. In this regard the relevant specialists have been appointed to undertake site verification assessment to confirm the site sensitivity of the grid corridor. Based on the findings of the screening tool report and outcome of the site sensitivity verification by all specialists Section 6.1. of GNR 2313 is applicable to the proposed development, thereby meaning that the proposed development is not excluded from undertaking a full Basic Assessment process to assessment the impacts associated with the development. The proposed development may not undertake a registration process.

As per the EIA Regulations published in terms of Section 24(5) of the National Environmental Management Act (NEMA, Act No 107 of 1998), the development of the proposed grid infrastructure to support the authorised Emoyeni Wind Energy Facilities requires Environmental Authorisation (EA) from the National Department of Forestry, Fisheries and the Environment, (DFFE) (in consultation with Western Cape Government Environmental Affairs and Development Planning and the Northern Cape Department of Agriculture, Environmental Affairs, Rural Development and Land Reform) for the development of the project. In terms of sections 24 and 24D of the National Environmental Management Act (No 107 of 1998), as read with the EIA Regulations, 2014, as amended (GNR 324 - 327), a Basic Assessment (BA) process is required to support the applications for authorisation. The application for authorisation is required to be supported by comprehensive, independent environmental studies undertaken in accordance with the EIA Regulations, 2014, as amended, and relevant specialist protocols.



# PROPOSED BASIC ASSESSMENT PROCESS

The BA is an effective planning and decision-making tool. It allows the environmental consequences resulting from the construction and operation of a project to be identified early in the planning process and appropriately managed. It provides the opportunity for the developer to be fore warned of potential environmental issues and allows for the resolution of the issue(s) reported on in the BA reports, as well as opening a dialogue with interested and affected parties.

Nala Environmental has been appointed as the independent environmental consultant to undertake the required Basic Assessment process, in order to identify and assess all potential environmental impacts associated with the proposed grid infrastructure, including overhead powerlines & on-site substations/switching stations with associated access tracks and watercourse crossings to support the authorised Emoyeni Wind Energy Facilities. This also includes the recommendation of appropriate mitigation measures in the Environmental Management Programmes (EMPrs). As part of these environmental studies, I&APs will be actively involved through the public participation process being undertaken by Nala Environmental.



## What are the potential environmental impacts associated with the project?

Based on the nature and extent of the proposed project, the screening tool reports, the nature of the affected area, and experience of the consultants on similar projects, a number of potential environmental impacts associated with the proposed project have been identified at this stage. Site-specific environmental specialist studies will be undertaken for the identified development areas in order to delineate areas of potential sensitivity, assess impacts associated with the project and make recommendations regarding avoidance, management and mitigation of impacts. Specialist site verifications and specialist studies will include the following:

- » Ecological Impact Assessment (Fauna and Flora)
- » Avifauna Impact Assessment
- » Aquatic Impact Assessment
- » Soil, Land Use, land capacity, and Agricultural Potential Compliance Statement
- » Heritage & Palaeontological Assessments
- » Visual Impact Assessment

The specialist studies will be informed by existing information, field observations and input from the public participation process.

As an I&AP, your input is considered as an important part of the process, and we urge your involvement.



## Public Participation Process

The sharing of information forms the basis of the public participation process and offers you the opportunity to become actively involved in the BA process from the outset. Comments and inputs from I&APs during the BA process are encouraged in order to ensure that all potential impacts are considered within the ambit of the study.

The public involvement process aims to ensure that:

- Information containing all relevant facts in respect of the applications are made available to I&APs for review.
- Participation by potential I&APs is facilitated in such a manner that I&APs are provided with a reasonable opportunity to comment on the applications.
- Adequate review period is provided for I&APs to comment on the findings of the BA reports.

## Your responsibilities as an I&AP

In terms of Section 24J of the National Environmental Management Act, Act 107 of 1998 and the Department of Environmental Affairs Public Participation Guideline 2017, as part of the BA process, an I&AP has the responsibility to:

- Provide comment regarding the proposed project within the specified timeframes;
- Submit written comment directly to the public participation team;
- Disclose any direct business, financial, personal or other interest which that I&AP may have in the approval or refusal of the applications.



# Comments and queries

Direct all comments, queries or responses to:

Nala Environmental

Arlene Singh

Waterfall, Johannesburg, 2090

Cell: 072 700 7048

Fax: 086 471 4190

Email: [publicparticipation@nalaenvironmental.co.za](mailto:publicparticipation@nalaenvironmental.co.za)

Post: Private Bag X26

Suite 548

Sunninghill, 2157

To view project documentation, visit

<https://nalaenvironmental.co.za/projects/>



## How to become involved

1. By responding (by phone, fax or email) to our invitation for your involvement which has been advertised in local newspapers and on site.
2. By returning the attached Reply Form to the relevant contact person.
3. By contacting the consultants with queries or comments.
4. By reviewing and commenting on the BA report within the stipulated 30-day review period.

If you consider yourself an I&AP for the proposed grid infrastructure including overhead powerlines & substations/switching stations with associated access tracks and watercourse crossings for the Emoyeni Wind Energy Facilities , we urge you to make use of the opportunities created by the public participation process to provide comment or raise those issues and concerns which affect and/or interest you, and about which you would like more information. Your input into this process forms a key element of the BA process.



**BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS**

**PROPOSED NEW 132KV GRID CONNECTION AND ASSOCIATED INFRASTRUCTURE FOR THE AUTHORISED EMOYENI WIND ENERGY FACILITIES, NEAR MURRAYSBURG, BEAUFORT WEST AND UBUNTU LOCAL MUNICIPALITIES AND CENTRAL KAROO AND PIXELY KA SEME DISTRICT MUNICIPALITIES, WESTERN CAPE AND NORTHERN CAPE PROVINCES**

**OCTOBER 2022**

*Return completed registration and comment form to: **Arlene Singh** of **Nala Environmental***

<b>Phone:</b>	<b>084 2777 074</b>
<b>Mobile (incl. 'please call me', WhatsApp, Telegram):</b>	<b>072 700 7048</b>
<b>Fax:</b>	<b>086 471 4190</b>
<b>E-mail:</b>	<b>publicparticipation@nalaenvironmental.co.za</b>
<b>Postal Address:</b>	<b>Private Bag X26, Suite #548, Sunninghill, 2157</b>

**Your registration as an interested and/or affected party will be applicable for this project only and your contact details provided are protected by the PoPI Act of 2013**

**Please provide your complete contact details:**

Name & Surname:			
Organisation:			
Designation:			
Postal Address:			
Telephone:			
Mobile:		Fax:	
E-mail:			

<b>Please register me as an Interested and Affected Party (I&amp;AP) on the project's database (<i>please indicate your preference by the applicable box</i>):</b>	<b>YES</b>	<b>NO</b>	
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**In terms of EIA Regulations, 2014, as amended, Regulation 43(1), you are required to register as an I&AP to receive further correspondence regarding the Basic Assessment processes and to disclose any direct business, financial, personal or other interest which you may have in the approval or refusal of the application (add additional pages if necessary):**

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**Please list your comments regarding the proposed project and the Basic Assessment Process** (add additional pages if necessary):

**Please provide contact details of any other persons who you regard as a potential interested or affected party:**

Name & Surname:

Postal Address:

Telephone:

Mobile:

E-mail:
