

# **Eskom Holdings Limited**



## Environmental Impact Assessment for the Proposed Weskusfleur Substation, Western Cape Province

## FINAL SCOPING REPORT



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## **EXECUTIVE SUMMARY**

## **1** INTRODUCTION

### 1.1 Project Background

The Eskom Conversion Act, 2001 (Act No. 13 of 2001) establishes Eskom Holdings SOC Limited (Eskom) as a State Owned Enterprise (SOE), with the Government of South Africa as the only shareholder, represented by the Minister of Public Enterprises. The main objective of Eskom is to "provide energy and related services including the generation, transmission, distribution and supply of electricity, and to hold interests in other entities".

Electricity cannot easily be stored in large quantities and in general must be used as it is generated. Therefore, electricity is generated in accordance with supply-demand requirements. Eskom Holdings SOC) Limited (Eskom) is responsible for the provision of reliable and affordable power to South Africa. Eskom's core business is the generation, transmission (transport), trading and retail of electricity. Eskom currently generates approximately 95% of the electricity used in South Africa. In terms of the Energy Policy of South Africa "energy is the life-blood of development". The reliable provision of electricity is critical for industrial development and related employment and sustainable development in South Africa.

Eskom Holdings SOC Limited initiated a study to investigate possible alternatives and solutions to address the long term reliability and improvement of the existing 400kV Gas Insulated System substation (GIS) at Koeberg Nuclear Power Station (KNPS) in the Western Grid. The study also included the future long term 400/132kV transformation requirements at Koeberg substation.

Electricity by its nature cannot be stored and must be used as it is generated. Therefore electricity is generated according to supply-demand requirements. Being a nuclear power station, it is vital that the reliability of the electrical infrastructure associated with this power station is never compromised. The station is also critical for grid stability in the Western Cape.

The current 400kV GIS substation was in operation for almost 30 years and there is concerns regarding its reliability as it is difficult to repair as a result of discontinued technology. There is also no space for additional 132 kV feeder bays at Koeberg Substation to accommodate future requirements for new lines.

It is for the aforementioned reasons that a new 400/132kV substation (Weskusfleur Substation) will be required in the vicinity of the Koeberg Power Station to:

- Improve the existing 400kV reliability
- Cater for load growth on the 132 kV network for the 20-year horizon.
- Prevent overloading of existing 400kV busbar
- Replace 30 year old technology/equipment

To improve the reliability of Koeberg MTS, several options were investigated and the option to build a new 2x250MVA, 400/132kV substation in the vicinity of the existing Koeberg GIS substation was the preferred one. The main activities may include:

- Build a new 2x250MVA; 400/132kV substation
- Construct the new 400kV busbar with space capability of 3x250MVA, 400/132kV transformation;
- Equip new 2x250MVA, 400/132kV transformers;
- Re-route the Gen transformers to the new 400kV busbar;
- Re-route the outgoing 400kV feeders; as follows-
  - Reroute Acacia-Koeberg 400kV Line 1
  - Reroute Acacia-Koeberg 400kV Line 2
  - Reroute Ankerlig-Koeberg 400kV Line 1
  - Reroute Ankerlig-Koeberg 400kV Line 2
  - Reroute Koeberg-Muldersvlei 400kV Line 1
  - Reroute Koeberg-Stikland 400kV Line 1
  - Re-route the outgoing 132kV feeders; as follows-
  - $\circ~$  Reroute Ankerlig-Koeberg 132kV Line 1 to accommodate new 2x500kV line servitudes of 45m each
  - Reroute Blaauwberg-Koeberg 132kV Line 1
  - Reroute Dassenberg-Koeberg 132kV Line 1
  - Reroute Dassenberg-Koeberg 132kV Line 2
  - Reroute Duine-Koeberg 132kV Line 1
- Divert the 400kV Ankerlig Sterrekus line around the yard's position to minimize line crossings;
- Temporary storage of large volumes of transformer oil on site to be deposited into transformers;
- Temporary storage of any hazardous chemical substances to be used during the construction phase;
- The clearance of vegetation as a result of the construction of the substation and associated infrastructure;
- Decommissioning some of the existing substation infrastructure and lines.

The required area size for the substation location will be approximately 760 x 550 m depending on the final location and technology option as per the outcomes of EIA process. The substation will need to account for the current and future needs/plans. The length of the diversion of the power lines will also be determined by the final substation's location.

It is important to note that the proposed Weskusfleur Subtation is a normal electricity transmission and distribution project and not associated to any nuclear related activities.

## **1.2** Description of the Study Area

The study area falls within the Western Cape Province between Blouberg and Atlantis within the City of Cape Town Metropolitan Municipality. The distance of towns from the

Koeberg Power Station is: Blouberg = 17,2km, Atlantis = 12,6km, Melkbosstrand = 5,5km and Duinefontein = 2, 2 Km. The R27 (provincial road) is located just south of Koeberg.

The regional location of the proposed project is indicated in **Figure 1**. Refer to **Figure 3.6** for detailed information of the study area.



**Figure 1.1:** The location of the study area within the City of Cape Town Metropolitan Municipality

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## 2 PROCESS TO DATE

The Environmental Impact Assessment (EIA) process for the proposed project is comprised of two main phases, namely the Scoping phase and Impact Assessment phase. This report documents the tasks which have been undertaken as part of the Scoping phase of the EIA. These tasks include the public participation process and the documentation of the issues which have been identified as a result of these activities.

To date, tasks that have commenced include the:

- Identification of stakeholders or I&APs;
- Notification and advertisements;
- Background Information Documents; and
- Ongoing consultation and engagement

More detail on the above is available in Chapter 6.

The Draft Scoping Report was released for public review and comment from **24 July** to **2 September 2013**. During the review period a public participation process (PPP) will <u>was</u> undertaken, allowing Interested and Affected Parties (I&APs) to engage with the project proponents and independent environmental consultants. The PPP <u>included</u> a public meeting, open day, focus group meetings as well as one-on-one interactions where required. Issues raised by I&APs during the public participation process <u>have been</u> documented and included in the Final Scoping Report.

The relevant authorities required to review the proposed project and provide an Environmental Authorisation were consulted from the outset of this study, and have been engaged throughout the project process. The National Department of Environmental Affairs (DEA), is the competent authority for this Project. The Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) and the City of Cape Town are noted as key commenting authorities. For a comprehensive list see Chapter 2 and 6.

The Scoping Phase of an EIA serves to define the scope of the detailed assessment of the potential impacts of a proposed project. The Environmental Scoping Phase has been undertaken in accordance with the requirements of sections 24 and 24D of the National Environmental Management Act (NEMA) (Act 108 of 1998), as read with Government Notices R 543 of the 2010 EIA Regulations. The objectives of the Scoping Phase are to:

- Ensure that the process is open and transparent and involves the Authorities, proponent and stakeholders;
- Identify the important characteristics of the affected environment;
- Ensure that feasible alternatives are identified and selected for further assessment;
- Assess and determine possible impacts of the proposed project on the biophysical and social environment and associated mitigation measures; and

• Ensure compliance with the relevant legislation.

## **3 DESCRIPTION OF THE BASELINE ENVIRONMENT**

The study area falls within the City of Cape Town Metropolitan Municipality in the area adjacent to the existing Koeberg Nuclear Power Station (KNPS) (Koeberg) near Melkbosstrand, 30 km north of Cape Town on the West Coast. The area is bounded to the north by the West Coast District Municipality, to the north east by Cape Winelands District Municipality, to the south east by the Overberg District Municipality and to the south and west by the Atlantic Ocean.

The area has a temperate, Mediterranean-type climate with about 75% of the annual rainfall occurring in the winter months between April and September. Rainfall is cyclonic due to cold fronts moving in from the South Atlantic Ocean. The cold Benguela current inhibits cloud development. The average annual rainfall measured at the Koeberg Nuclear Power Station is 375 mm/a.

Summers are hot and dry with an average temperature of 28°C between January and March. Winter months are cold and wet with an average temperature of 17°C during July. Wind which is a characteristic feature of the West Coast can often be very strong.

Fog is a regular occurrence along the West Coast during the summer months and can drift as far as 3 km inland. The moisture supplied by the fog compensates for the relatively poor rainfall during the summer months.

The alternatives around the power station (*Alternatives 1,2* and *3*) all fall within the Cape Flats Dune Strandveld Vegetation type. This vegetation type has an extent of 138 km2 and occurs in several discontinuous patches on dune fields of the Western Cape. The largest patch spans the south coast of False Bay and penetrates deep into the Cape Flats as a broad wedge as far north as Bellville, the other patch spans Silverstroomstrand and Table Bay and includes the Atlantis dune plume, the third region is a series of small patches covering coastal dune pockets on the Cape Peninsula, while the last patch is on Robben Island.

Alternative 4 occurs on Atlantis Sand Fynbos which has a total extent of 433 km2 and occurs from Rondeberg to Blouberg on the West Coast coastal flats; along the Groen River on the eastern side of the Dassenberg-Darling Hills through Riverlands to the area between Atlantis and Kalbaskraal, as well as between Klipheuwel and the Paardeberg with outliers west of the Berg River east and north of Riebeek-Kasteel between Hermon Heuningberg. Atlantis Sand Fynbos is associated with moderately undulating to flat sand plains with dense, moderately tall, ericoid shrubland dotted with emergent, tall sclerophyllous shrubs and an open short restiod stratum. Restioid and proteoid fynbos are dominant, with asteraceous fynbos and patches of ericaceous fynbos in seepages.

Alternative 5 occurs in Cape Flats Sand Fynbos, which has an extent of 539 km2 and occurs on the Cape Flats from Blouberg and Koeberg Hills west of the Tygerberg Hills to Lankeside and Pelican Park in the south near False Bay, from Bellville and Durbanville to Klapmuts and Joostenburg Hill in the east, and the southwest of the Bottelary Hills to Macassar and Firgrove in the south. Cape Flats Sand Fynbos is associated with moderately flat and undulating plains, with dense moderately tall, ericoid shrub land containing scattered emergent tall shrubs. Proteiod and restioid Fynbos are dominant, with asteraceous and ericoid Fynbos occurring in drier and wetter areas, respectively.

The total population of City of Cape Town is 3 740 025 as of 2011 growing at about 2.6% per annum. The local population has a youthful age structure and the immediate significance of this young age structure is that the population will grow rapidly in future and this implies a future high growth rate in the labour force. At present the local economy is unable to provide sufficient employment opportunities to meet the needs of the economically active population. A youthful population structure also implies a relatively higher dependency ratio.

## 4 **ALTERNATIVES**

#### a) No-Go Alternative

In the context of this project, the no-go alternative implies that the new 400/132kV substation (Weskusfleur Substation) that will improve the existing 400kV reliability and cater for load growth on the 132 kV network for the 20-year horizon will not be constructed.

The no-go alternative can be regarded as the baseline scenario against which the impacts of the substation are evaluated. This implies that the current biophysical and social conditions associated with the proposed sites will be used as the benchmark against which to assess the possible changes (impacts) to these conditions as a result of the substation.

In most cases, the no-go alternative will imply that the identified negative impacts of proceeding with the project will not be incurred. Conversely, selection of the no-go alternative will also result in the benefits (including the potential economic development and related job creation, and increased security of electricity supply) of the project not being realised. One of the most important aspects that will not be realised is the increased security of electricity supply.

The 'no go' alternative will, however, be investigated further in the EIA phase as an alternative as required by the EIA Regulations.

## b) Technology Alternatives

Two types of technology are considered (Gas Insulated Substation/Switchgear (GIS) and Air Insulated Substation (AIS) depending on the alternatives (**Figure 1** and **Chapter 4**).

#### c) Locality Alternatives

Five sites have been considered as alternatives for the new substation. Three of the options are within close proximity to the power station itself, while the other two options are off-site and lie to the east of the R27 (**Figure 1**).

**Alternative 1** – Located at the north-east corner of the KNPS for the 400kV yard (north east of the perimeter fence surrounding the reactor units and generator buildings) and the parking area alongside the Koeberg reactor unit south of the incoming 400kV lines for the 132kV yard (AIS).

**Alternative 2** – The area at the south eastern corner of the KNPS where part of the PBMR was planned. The site was used as a laydown or construction area when the power station was built and is severely degraded. The vegetation has been heavily impacted in the past and consists of *Cynodon* and alien annual grasses.

**Alternative 3** – The area on the corner of the main access road just east of the road to the conservation offices and north of the main access road south of the incoming 400 kV lines. The vegetation is natural Cape Flats Dune Strandveld and was observed to contain several listed species.

**Alternative 4** – Offsite option to the east of the R27 on the farm Brakke Fontein 32. This footprint is invaded by alien acacia and in many areas the indigenous vegetation has been totally excluded. Many species may persist in the seedbank although the overall diversity and ecological functioning of the area appears to have been severely comprised.

**Alternative 5** – Offsite option, just east of the R304 next to the existing Sterrekus (Omega) Substation. The area around Sterrekus is transformed and the receiving environment comprises old agricultural lands that are covered in Kweek grass and weeds.



**Figure 1:** Illustrates the 5 alternative sites considered for the new substation (Note that the extent of the AIS on the map is larger than required at 950 x 750 m, the actual required size is 760 x 550 m)

## **5 FINDINGS OF THE IDENTIFICATION OF IMPACTS**

Scoping level assessments have been undertaken by the specialists and their findings have been summarised in the FSR. The following is a summary of Scoping-level Specialist Assessments:

## • Identification of Impacts of the Identified Alternatives – Technical Analysis

**Table 1** presents a summary of all the alternatives that have been considered to date and the viability of these alternatives. The technical analysis of all the alternatives was also undertaken the same period when the scoping studies were undertaken. Details on all the alternatives that have been considered for the proposed Weskusfleur Substation have been captured in Chapter 4.

Issue	•	L	2	3	4	5
Roeberg pow station	er	Next to KNPS	Next to KNPS	700m	2 8km	7km
Space for exp	ansion	Limited - ocean etc.	Limited - ocean etc.	Limited – existing lines etc.	enougn	enougn
Transmission Crossina	line	none	none	٧	٧	Not determined
Land Use		Fskom - Rural	Eskom - Rural	Eskom - Rural	Private Utility/residential/Agricu Iture	Fskom - Aariculture
Arress		Good	Good	Good	Good	Good
n13		Not technically viable Due to constructability (cost to move parking lot, entrance dates etc.) and security concerns	Not technically viable ATS will be too large & will clash with Duine Substation and research centre. Not enough space to turn in the lines	Not enough space to turn in the lines & construction underneath existing lines safety risk	Viable Sufficient space, few line crossings and within 5km restriction zone of KNPS and allowed as it support KNPS	Not technically viable Blocks route for 765kV Kanna- Sterrekus Line & lond distance from KNPS(lond lines from Gen transformers will impact performance
GIS		VidUle Due to small size and deviation of lines which is constructible	NUL LECHINEMITY VIDDLE Due to OIL ducts for OID substation will be tee long	NUL LECHINICAILY VIDDLE Due le OIL ducto fui OID oubotation will be teo long	NUL LECHINICALLY VIADLE Due to OIL ducts for OID substation will be too long	NUL LECHNICALLY VIABLE Due to OIL ducts for OIS substation will be too long
Footprint	010	100x100m	100x100m	400x100m	400v190m	
	AIS	/60X550 M	/60X550 M	/60X550 M	7003330 111	7007220 111
Marine pollution		Heavy Corrosion	Heavy Corrosion	medium	medium	medium

#### Table 1: Alternative Summary - Technical Analysis

#### • Biophysical Impacts

The desktop study reveals that a relatively large number of listed flora occur in the area and that these species are likely to be impacted by any development within any natural intact vegetation at the site. In addition, the sites are located within the Cape Flats Dune Strandveld and Atlantis Sand Fynbos vegetation types which are classified as Endangered and Critically Endangered respectively. Although there are not that many listed vertebrates which occur in the area, the local endemic reptile the Bloubergstrand Dwarf Burrowing Skink *Scelotes montispectus* is confirmed present and would potentially be impacted by the development. A relatively large number of listed bird species have been recorded in the area and any new power lines required to connect the facility to the power station and grid are a major concern for vulnerable species.

The following broad impacts were identified as being likely to be associated with the construction of the Weskusfleur Substation and will be assessed during the EIA phase of the development:

- Impacts on vegetation and protected plant species
- Loss of Landscape Connectivity and Ecological Function
- Faunal impacts
- Avifaunal Impacts

An evaluation of the overall likely sensitivity of each Alternative to the development was carried out. Due to the large difference in footprint, the GIS option is preferable to the AIS in all cases where a GIS is technically feasible. Of the five Alternatives investigated as possible options for the new Weskusfleur substation, Alternative 3 is identified as being the most sensitive across the board and is not recommended as a viable alternative given the known presence of species of conservation concern within the affected area and the high conservation status of the constituent vegetation type. Alternative 4 is also considered relatively sensitive, but the high potential biodiversity value of this area has been substantially reduced by the invasion of Acacia saligna. Alternatives 1 and 2 are adjacent to Koeberg Power Station and the GIS option could be accommodated with relatively little impact to currently impact vegetation. However, the power lines would need to be turned into the substation sites and would require a relatively large deviation across currently intact and sensitive dune vegetation. The AIS options at Alternatives 1 and 2 would impact a relatively large extent of natural vegetation and are not recommended as preferred options due to habitat loss and the potential disruption of landscape connectivity. Regardless of which substation type is used, the overhead power lines required to link the substation to the Koeberg and transmission grid are an additional consideration that potentially contributes a significant additional footprint to the substation itself and cannot be ignored.

From an ecological standpoint, *Alternative 5* appears to pose the least ecological risk, while the GIS option at *Alternative 4* also appears relatively favourable in comparison with the other Alternatives for GIS or AIS. The GIS option at *Alternatives 1* and *2* is also favourable in terms of the substation location, but the overhead power lines would need to be deviated across a sensitive area and are less preferred as a result. *Alternative 3* is the least preferred Alternative for both AIS and GIS options as this area is the least disturbed of the sites and has confirmed listed species present.

#### Soil and agricultural potential

The proposed new substation development will not have large impacts on *Alternatives* sites 1 - 4 due to the overall low agricultural potential and the current land use. *Alternative* 5 may have slightly higher impact due to the low to medium agricultural potential where there are indications of dryland cultivation and slightly better soils.

## <u>Surface Water</u>

The primary drainage paths is located a distance from the sites except for a small tributary of the Sout River which run through the western corner of the proposed *Alternative 5* north of the Sterrekus Substation. The area of all the proposed alternatives consists mainly of minor drainage paths over a flat sandy terrain. Impacts as a result of flooding linked to watercourses are therefore absent. The preliminary indication is that peak flows will be higher at *alternative 4* and *5*. Surface water impacts of the all the proposed alternatives will largely be related in the way local stormwater is managed and an integrated approach is encouraged.

#### <u>Wetlands</u>

A wetland/freshwater ecosystem study will also be included in the EIA phase.

#### <u>Geohydrology</u>

A geohydrological study will also be included in the EIA phase to evaluate the sites with regard to their suitability.

#### • Social and related impacts

#### <u>Visual</u>

As a result of the existing Koeberg National Power Station which has been in operation for many years, the landscape context is strongly associated with large isolated structures and numerous powerlines. The combination of the structures and infrastructure generate high levels of visual contrast which increase the visual absorption capacity of the area. Although there are important tourist activities located in the vicinity, they all exist and operate within the existing KNPS zone of visual influence. Due to the existing modified landscape context and precedent, to No-Go option should not be considered as it is likely that the proposed landscape modifications would not result in a significant change to the surrounding landscape character. However, to ensure that the landscapes utilised by existing tourist related activities and routes are not significantly degraded, it is recommended that a full visual impact assessment is required to address the potential change to the landscape character.

#### <u>Heritage</u>

Heritage scoping has indicated that the proposed construction of the Weskusfleur substation will not impact on any significant surface archaeological heritage, in site *Alternatives 1-5*. The desk top study has shown, however, that most of the significant archaeological and palaeontological heritage is deeply buried and will only be exposed during the construction phase of the project. This applies particularly to *Alternatives 1* and 2. Some archaeological heritage (mainly ESA artefacts) might be exposed or uncovered in *Alternatives 3*, 4 and 5, but these are expected to be thinly and unevenly distributed over the proposed development sites and will be of little scientific value. Unmarked human burials may be exposed or uncovered during bulk earthworks and excavations. Exposure of heritage resources (in *Alternatives 1 & 2*) may result in extensive and lengthy mitigation, possibly delaying construction of the proposed substation by several years. These are potential risks that will need to be taken into account when deciding on the preferred site alternative.

#### <u>Social</u>

 Perceptions and fears associated with the proposed development, tourist perceptions; and • Local, site-specific issues (during construction and operation phases).

The above mentioned impacts will be investigated in more detail during the EIA phase of the project.

## **6** CONCLUSIONS AND RECOMMENDATIONS

Based on the desktop studies and site visit undertaken to date no environmental fatal flaws were identified that would prohibit the project from continuing at this stage of the process. However, a number of potentially significant environmental impacts were identified as requiring some more in-depth investigation and the identification of detailed mitigation measures. Therefore, a detailed Environmental Impact Assessment is required to be undertaken in order to provide an assessment of these potential impacts and recommend appropriate mitigation measures, where required.

Various projects are also proposed in and adjacent to the area which includes a possible landfill by City of Cape Town and proposed solar parks by IPP at / adjacent to alternative 4 for example. At alternative 1 - 3 at Koeberg itself, the Nuclear 1 Power Station and the associated infrastructures (i.e. including the 5 x 400kV power lines from Omega to the HV Yard of Nuclear 1) are proposed and the status of these projects is already at the advanced stages of EIA process. **Table 2** presents a summary of past, current and future Eskom EIA Environmental Authorizations within vicinity of Koeberg Power Station excluding high voltage line projects.

**Table 2:** Past, Current and Future Eskom EIA Environmental Authorizations within vicinityof Koeberg Power Station excluding high voltage line projects

Project	Current, Past or Future	Approx. loss of un- transformed indigenous vegetation	Fynbos Type	Comments
Koeberg Admin and Training Centre Campus	Past	8 ha	Atlantis Dune Fynbos	EA did not require any biodiversity off-set however stewardship agreement is required
Ankerlig power station conversion and integration	Past	17.5 ha	Cape Flats Dune Strandveld	EA requires a biodiversity off set of 225 ha. Off-set not yet implemented due to project on hold
Weskusfleur Substation	Current	Alt 1: None Alt 4: 27 ha	Alt 1: Previously Transformed Alt 4: Atlantis Dune Fynbos	Biodiversity off set (if required) subject to EIA process
Nuclear-1	Current	265 ha	Some Cape Flats Dune Strandveld,	Biodiversity off set (if required) subject to EIA process

			some unlisted	
Koeberg Transient Interim Nuclear Used Fuel Storage Facility	Future Proposed	None	Previously Transformed Cape Seashore Fynbos	Biodiversity off set (if required) subject to EIA process
Koeberg Thermal Power Uprate	Future Proposed	None	N/A	No biodiversity off-set required
Koeberg portable equipment store and water storage tank	Future Proposed	None	Previously Transformed	Biodiversity off set (if required) subject to EIA process
Koeberg Insulator Pollution Test Station	Future Proposed	None	Previously Transformed	Biodiversity off set (if required) subject to EIA process
Koeberg Visitor's Centre	Future Proposed	None	Previously Transformed	Biodiversity off set (if required) subject to EIA process

In terms of development on Cape Farm 34 (Alternative 1- 3) Eskom is yet to sign a binding stewardship agreement for the site or commit any parts of the Koeberg property to formal conservation: The Koeberg Training and Admin Complex EIA authorisation requires a Stewardship Agreement for the Nature Reserve to be agreed with CapeNature. A Number of discussions have been held with CapeNature and are still ongoing. No formal agreement has yet been concluded but is being progressed. The constraints to be imposed by the stewardship agreement and other projects should be considered and investigated further through the EIA process and public participation.

The technical analysis of all the alternatives was also undertaken the same period when the environmental scoping studies were undertaken. During the scoping public participation process I&APs have been allowed to comment on all the proposed alternatives. The preferred alternatives that will be taken into the EIA phase by taking all of this into consideration include **alternative 1 GIS** and **alternative 4 AIS**. The other alternatives have been deemed technically and/or ecologically unviable.

The scope of work required in the EIA phase of the project is included in the Plan of Study for EIA (**chapter 10**).

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## Eskom Holdings Limited Environmental Impact Assessment for the Proposed Weskusfleur Substation, Western Cape Province

#### Final Scoping Report

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#### ABBREVIATIONS

AIS	Air Insulated Substation
BID	Background Information Document
СТВМ	Cape Town Biodiversity Network
DEA	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs & Development Planning
DSR	Draft Scoping Report
DAFF	Department of Agriculture, Forestry & Fisheries
DWA	Department of Water Affairs
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Plan
FSR	Final Scoping Report
GIL	Gas Insulated Line
GIS	Gas Insulated Substation
На	Hectare
HIA	Heritage Impact Assessment
НЖС	Heritage Western Cape
HV	High Voltage
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
IPP	Independent Power Producer
Km	Kilometre
KV	Kilovolt
LUPO	Land Use Planning Ordinance, Ordinance 15 of 1985
м	Metre
MTS	Main Transmission Station
NEMA	National Environmental Management Act (No. 107 of 1998)
NERSA	National Energy Regulator of South Africa
NNR	National Nuclear Regulator
NWA	National Water Act (No 36 of 1998)
NWRS	National Water Resource Strategy
OEM	Original Equipment Manufacturer
PPP	Public Participation Process
POS	Plan of Study for EIA
SAHRA	South African Heritage Resource Agency

SANS	South African National Standards
SANBI	South African National Biodiversity Institute
SIA	Social Impact Assessment
SDF	Spatial Development Framework
ToR	Terms of Reference
VIA	Visual Impact Assessment
WMA	Water Management Area
wwтw	Waste Water Treatment Works



## **DOCUMENT CONTROL SHEET**

#### **CLIENT: Eskom Holdings Limited**

#### **PROJECT: Environmental Impact Assessment**

## TITLE: FINAL SCOPING REPORT FOR THE PROPOSED WESKUSFLEUR SUBSTATION IN THE VICINITY OF KOEBERG POWER STATION, WESTERN CAPE PROVINCE

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