

Annexure B - Distribution Environmental Screening Document (DESD)
(Informative)

Reticulation Powerlines and Ancillary Services

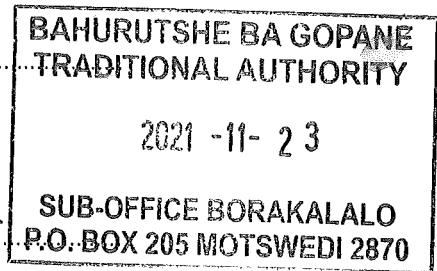
Ratified and accepted by:

Environmental Practitioner/ Senior Environmental Advisor/Senior Supervisor Engineering
Survey
(one signature above please)

Accepted by Land Owner/s/Users
(Kindly cross-out what is non-applicable)

Landowner/land-user declaration:

I have seen the completed document and accept the
recommendations made :



Assessor/s
Form completed by MARY DITBELA Signature: [Signature]

in consultation with : MARY KOTIKWA Signature: [Signature]

CAPACITY (e.g. land owner, specialist): SECRETARY

DATE COMPLETED: 29/11/2021

Instructions

1

GUIDELINE TO DESD COMPILERS

1. PURPOSE

The purpose of this DESD is to:

- Determine whether or not the project triggers a listed activity in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended in the latest Environmental Impact Assessment Regulations, and thus require an Environmental Authorisation before construction can commence.
- Identify and mitigate the negative impact of Eskom's activities to a minimum in line with both Legislation and Eskom's Environmental Policies.
- Inform route selection and engineering design.
- Provide opportunity for alternative selection of routes upon assessment of impacts on proposed location and provide mitigation measures.

2. INSTRUCTIONS AND SUBMISSION PROCESS

- 2.1 The DESD must be completed on site, ensure that all three (3) alternatives are assessed. Mark the appropriate box with an 'x' where applicable.
- 2.2 Please COMPLETE ALL REQUIRED INFORMATION and where the question / statement is not applicable mark N/A.

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Supplementary Information	Not Applicable	Attached to Application?	
		Yes	No
Locality Map			
GPS coordinates of sensitive features (river crossings, wetlands, trees, graves, old structures or buildings, etc.)			
Photographs of site (location of proposed infrastructure within the surrounding environment)			
Photos of trees to be removed (if trees need to be removed please take a photo of the tree and a close up of a branch of the tree in order to identify the tree)			
Development Environmental Authorisation (eg. Vodacom, municipal housing development, etc.)			
GPS coordinates of location of new infrastructure (start, middle and end)			
Any other supplementary information supplied?			

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Farm Number (Registration Nr, Division and Sub-division):			
GPS Coordinates of Property (A logical centre point. Format based on WGS84):		Line Length (m):	

3. PROJECT SCOPE AND SUPPLEMENTARY INFORMATION

Give a brief description of the project scope, including all activities anticipated:				
Will the power line/ cable be 300m or longer? (Y/N)	YES	✓	NO	
Will the line be near any old structures or buildings or known historical towns.	YES		NO	✓
Are there any marked or unmarked graves on the route/ or on site?	YES		NO	✓
Will any planned activity or infrastructure be within 100meters of a watercourse (rivers/ streams/ dams)?	YES		NO	✓
Is any portion of the power line or cable or any other infrastructure within 32m of a watercourse/ wetland? <i>If yes , is the physical footprint of the structure 100 square meters or more</i>	YES		NO	✓
Will any planned activity or infrastructure be within 500meters of a wetland (seasonal and permanent)?	YES		NO	✓
Is any portion of the power line or proposed activity within 100m of the high-water mark of the sea/ estuary/ lagoon in the Urban area and 1000m in the rural areas?	YES		NO	✓
Is any property affected a nature reserve or conservancy?	YES		NO	✓
Will the power line be going through or adjacent to a forest/ plantation area?	YES		NO	✓
Will any portion of project be cabled through veld/ natural vegetation?	YES		NO	✓
Will any portion of project be cabled through a river-bed/ stream?	YES		NO	✓
Are new access roads/ tracks needed to maintain & operate the power line?	YES		NO	✓
Are there any protected trees/ heritage trees along the power line or close to it? (Owner might know)	YES		NO	✓
Will natural/ indigenous vegetation have to be removed prior to construction?	YES		NO	✓
Did you observe any evidence of wildlife in close proximity to the power line? For example, birds, nests, giraffe, elephants, etc.	YES	✓	NO	

SECTION B: ENVIRONMENTAL IMPACT SCREENING

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2. SOIL					
Aspect (Mark with an 'X' if applicable)		Present Condition (Mark with an 'X' if applicable)		Potential Impact (Mark with an 'X' if applicable)	
Sandy	✓	Unstable rocky or steep slopes		Contamination of soil with concrete and cement	
Rocky	✓	Saturated/ wet soils/ shallow water table		Compaction of soil due to driving	
Clayey	✓	Sensitive to erosion or evidence of erosion in the area		Erosion	
Other (Specify):		N/A		N/A	

3. TOPOGRAPHY					
Aspect (Mark with an 'X' if applicable)		Present Condition (Mark with an 'X' if applicable)		Potential Impact (Mark with an 'X' if applicable)	
Flat	✓	Unstable rocky or steep slopes		Difficult to construct in area	
Ridgeline		Erosion present on site	✓	Erosion	
Mountainous/ Side slope of hill/ mountain		Steep slopes with loose soil		Difficult vehicular access	
Undulating plain/ low hills		Rocky outcrops		New access roads needed	
Dune (In-land or Coastal)		Dolomite, sinkhole or doline areas		Seasonal dune movement (Impact on clearance)	
Sea-front		Any other unstable soil or geological feature		Other (Specify):	
Valleys/ Ravine/ Donga		Other (Specify):			
Other (Specify):		N/A			

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6.RESTRICTED AREAS			
Aspect (Mark with an 'X' if applicable)		Potential Impact (Mark with an 'X' if applicable)	
Nature Reserve/ Conservancy		Construction within nature reserve or a conservancy	
Heritage Site/ Areas of cultural significance		Loss of natural vegetation/ biodiversity	
Green belts/ Vegetation Corridors		Require permits	
Residential Areas	✓	Objection from public/ other interest groups	
Sacred/ Holy Grounds		Threat of Encroachment/ Direct Impact on restricted area	
Other (Specify):		Other (Specify):	

7.VISUAL AESTHETICS			
Aspect (Mark with an 'X' if applicable)		Potential Impact (Mark with an 'X' if applicable)	
Easily Seen	✓	Infrastructure will be obtrusive in landscape (not fit in)	
Hidden Partially		Objection by members of public/ interest group/ owners	
Hidden Completely		Negatively impact on a business (e.g. Tourism)	
Other (Specify):		Other (Specify):	

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9. LAND USE, COMMERCIAL & OTHER INFRASTRUCTURE			
Aspect (Mark with an 'X' if applicable)		Potential Impact (Mark with an 'X' if applicable)	
Agriculture / Farm lands (Crops, Orchards, Grazing, etc.) Please Specify:	✓	Objection by members of public/ interest group/ owners	
Forestry Area		Negatively impact on a business (e.g. Tourism)	
Mining Activity (including sand mining): Please specify:		Impact on centre pivots or other farming/ mining implements	
Factories/ Shops/ Industrial (Please specify):		Threat of encroachment with or contact(Safety risk/ clearance)	
Road Crossings or near main roads (National Roads, etc.)		Construction limited to specific season/ time period	
Other infrastructure (e.g. Railways, communication towers, existing power lines, sewer, water pipes, cables) Please specify:	✓	Loss of orchards, crops, etc.	
Air fields, landing strips/ wind turbines (Please specify):		Other (Specify):	

10 IMPACT OF PROJECT

Significance rating:

The criterion below was used to assess the significance of the impacts. The significance ratings in relation to characteristics of Eskom electrical infrastructure maintenance activities are determined. These ratings are defined in terms of the magnitude, Likelihood, Business risks, Regulatory scrutiny and Stakeholder interest.	
LIKELIHOOD	MAGNITUDE
High (3):	High (3):
Routine or ongoing activity or impact. Is known to have occurred on routine basis in the past. Impacts associated with the aspects are likely to emerge soon. Impacts are known.	Aspect has a recognized global environmental impact. Widespread or permanent ecological damage locally. Remediation would take longer than one year. Could result in a major public health hazard.

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SIGNIFICANCE OF THE IMPACTS:
The significance of the unmanaged and managed impacts has been assessed through consideration of the likelihood of the impact occurring, the magnitude over which the impact will be experienced, and the level of business risk, regulatory scrutiny and stakeholders interest the impact will have on the environment.
The formula for calculating the significant environmental impacts score is:
(Likelihood X Magnitude)
+ Regulatory scrutiny
+ Stakeholder interest
+ Business risk/benefit
The significant rating, as determined by the Operating unit, is as follows:
· 0 – 5: Low
· 6 -10: Medium
· 11 – 18: High
Impacts with a value greater than or equal to 11 will be considered as significant, environmental practitioner must conduct site verification in the event of significantly rated alternatives.

13. **SPECIAL CONDITIONS TO BE ADHERED TO DURING DESIGN / CONSTRUCTION / OPERATIONS PHASES** (specific issues identified during the scoping as needing attention/migratory measures i.e. anti-erosion berms, bird flappers, protected trees, avoid wetlands with vehicles, landowner's specific request, etc.)

- Use bird-friendly structures

Annexure C - Environmental Management Plan
(Normative)

ENVIRONMENTAL MANAGEMENT PROGRAMME

Conditions of Environmental Management Plan to be adhered to during construction and operational phase:

- 1.1 The Eskom project manager or coordinator shall be responsible for ensuring that the land owners have been informed before any work is carried out on site. Contractors shall find out if the landowners have been informed before moving onto site.
- 1.2 No infrastructure may be placed with 32 meters of any watercourse (rivers, streams, dams). **(Permit required!!!) If this cannot be avoided, consultation is needed with Department of Water and Sanitation and an application for a Water Use License (WULA) or General Authorisation. Please contact the Land Development-Environmental Management Department to provide this service.**
- 1.3 No Infrastructure may be placed within 500meters of any wetland (seasonal or permanent). **(Permit required!!!) If this cannot be avoided, consultation is needed with Department of Water Affairs and an application for a Water Use License (WULA) or General Authorisation. Please contact the Land Development-Environmental Management Department to provide this service.**
- 1.4 No Infrastructure may be placed within 100meters of the high-water mark of the sea or estuary or any river with a saline component (particularly relevant to coastal towns) without an Environmental Authorisation (on completion of EIA process). **Please contact the Land Development-Environmental Management Department to provide this service.**
- 1.5 No tree cutting/ clearance/ pruning may be done without identifying the type of tree, identifying whether it is a protected tree or not and/ or whether it is in a forest/ plantation area. **(Permit required!!!) A permit is required if Eskom needs to cut/ disturb any protected tree, champion tree, heritage value tree or any tree in a forest/ plantation area. Please contact the Land Development-Environmental Management Department to provide this service.**

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**ENVIRONMENTAL IMPACT ASSESSMENT FOR
DISTRIBUTION ACTIVITIES**

Unique Identifier: 240-
Revision: 1
Page: 39 of 59

1.22 Herbicides shall only be applied with Eskom's permission and in accordance with the Eskom Specifications

1.23 Camp and office sites shall be dismantled and removed after completion of the construction phase of the project. The site shall be rehabilitated to as close as possible to its original condition to the satisfaction of the landowner, which shall be in writing.

1.24 All excavations shall be enclosed to prevent animals or people from accidentally falling into excavations.

1.25 No trees shall be cut or removed without prior permission from the landowner. Permits shall be obtained for the cutting and removal of street side or protected trees (protected trees shall be dealt with in 2, (Special conditions))

1.26 Should any natural heritage object be found, or exposed during excavations, all work shall be terminated immediately and the finding reported to the Project Manager who shall inform the Eskom Environmental Practitioner and the SAHRA.

ADDITIONAL SITE SPECIFIC CONDITIONS:

The Distribution Environmental Screening Document (DESD) for the above project is approved subject to compliance to the conditions of the Environmental Management Plan attached and the site specific conditions below:

RECOMMENDED FOR COMPLIANCE AUDITING DURING CONSTRUCTION?

Y



N



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Annexure C
(continued)

TYPICAL MITIGATION MEASURES

ENVIRONMENTAL CONCERNS	MITIGATION MEASURES
AGRICULTURE	
Loss of standing crop due to access road and tower work site.	<ul style="list-style-type: none"> - limit width of access and size of tower site. - avoidance of crop areas. - monetary compensation for crop loss. - time construction to avoid growing season.
Soil Compaction	<ul style="list-style-type: none"> - scheduling activities to times of the year when soils are least susceptible to compaction. - stop activities when ground conditions are poor. - use of equipment with low bearing capacity. - chisel ploughing.
Construction of new lines	<ul style="list-style-type: none"> - locate access roads along existing traffic routes.
Topsoil – subsoil mixing/soil rutting	<ul style="list-style-type: none"> - scheduling activities. - stop activity when ground conditions are poor. - use of equipment with low bearing capacity. - use of gravel roads. - addition of manures to offset fertility loss. - compensation for reduced soil pEAactivity. - removal of spoil and/or bentonite from foundation operations. - Segregation of topsoil and subsoil.
Disturbance to farm operations	<ul style="list-style-type: none"> - maintain contact with landowner/tenant regarding preferences.
Loss of livestock	<ul style="list-style-type: none"> - employ noise control measures near sensitive livestock. - Construction of farm gates. - Securing farm gates. - Clean-up construction materials which could be ingested. - Compensation for lost, injured livestock.
SOCIAL IMPACTS	
Mud and Dust	<ul style="list-style-type: none"> - wetting down dry soils. - chemical control of dust. - cleaning roads to remove mud. - temporary planting of grasses.

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Annexure C
(continued)

Contamination by petrochemicals.	<ul style="list-style-type: none"> - Spill control material and procedures made readily available. - Restoration methods investigated.
FAUNA & FLORA	
Loss of habitat, breeding and/or food source for terrestrial wildlife.	<ul style="list-style-type: none"> - Environmental mapping to identify sensitive areas. - avoidance of areas containing rare/endangered species. - Construction and maintenance activities to be timed where possible to avoid peak breeding periods. - the creation of "edge" (may be considered a positive impact.) - promotion of wildlife habitat through vegetation control. - avoid the filling of small wetlands. - use design with low risk to wildlife electrocution or collision - fit bird flight divertors to powerlines in bird migration areas.
Changes in composition of vegetation as a result of disturbance.	<ul style="list-style-type: none"> - construction timing to minimise soil disturbance. - restoration of soils to a stable condition.
Removal or burial of stream bottom habitat and increased turbidity due to sedimentation.	<ul style="list-style-type: none"> - Minimise erosion from the right-of-way by maintaining a cover crop. - Mechanical erosion control. - Minimise stream bank erosion by retaining shrubby bank vegetation and selective cutting, pruning of trees near watercourses. - Installation of sediment traps when necessary.
Possible loss of wildlife/fish migration/travel routes.	<ul style="list-style-type: none"> - Avoid filling small wetlands servings as staging areas for waterfowl migration. - Installation and maintenance of a proper stream crossing device. - time construction activities to avoid disturbance to migrating fish and wildlife or during breeding. - Follow Eskom standards for the application of herbicides near watercourses. - Preserve and/or augment existing natural corridor crossings; investigate tower placement to optimise clearances to preserve existing vegetation.
IntEAuction of exotic plant species resulting from vegetative erosion control.	<ul style="list-style-type: none"> - use of native species for erosion control.
Vegetation stress due to nutrient loss as a result of soil deterioration.	<ul style="list-style-type: none"> - erosion control measures.
Changes in vegetation due to soil disturbance (topsoil-subsoil mixing).	<ul style="list-style-type: none"> - time construction/clearing to take advantage of stable soil conditions.

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