SSESSMENT REPORT



environmental affairs

Department: **Environmental Affairs REPUBLIC OF SOUTH AFRICA**

File Reference Number:
Application Number:
Date Received:

(For official use only)	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

- This basic assessment report is a standard report that may be required by a competent authority in terms of the EIA 1. Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
- 2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
- Where applicable **tick** the boxes that are applicable in the report. 3.
- 4. An incomplete report may be returned to the applicant for revision.
- 5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
- This report must be handed in at offices of the relevant competent authority as determined by each authority. 6.
- 7. No faxed or e-mailed reports will be accepted.
- 8. The report must be compiled by an independent environmental assessment practitioner.
- 9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
- 10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this YES NO section?

If YES, please complete the form entitled "Details of specialist and declaration of interest" for appointment of a specialist for each specialist thus appointed: Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail¹:

Kimberley Distribution Substation (KDS).

- Install a new complete 132kV feeder bay and use the spare 132kV feeder bay at KDS. (2x132kV busbar isolators, 1x132kV breaker, 3x132kV CT's, 132kV surge arrestors and 1x132kV line isolator.)
- The installation of the new feeder bay can be accommodated within the existing footprint of the KDS.

Kimberley DS to Homestead new powerline.

- Construct a new 132kV Kingbird powerline (template temperature at 60°C) approximately 13.5km long between the Kimberley DS and Homestead substations.
- Install fibre optic on line for communication.
- The servitude required for the new powerline is 31m.

Homestead Municipal Substation (HMS).

- Install a new complete 132kV feeder bay. (2x132kV busbar isolators, 1x132kV breaker, 3x132kV CT's, 132kV Surge Arrestors 1x132kV line Isolator.)
- Extend existing 132kV to a double busbar.
- Install a new complete 80MVA 132/66kV transformer bay (2x132kV busbar isolators, 1x132kV breaker, 3x132kV CT's, 3x132kV SA, 1x80MVA 132/88kV trfr, 22000/400V Aux trfr, 3x66kV SA, 3x66kV CT's, 1x66kV breaker and 2x66kV busbar isolators)
- Install three 66kV CT's and 1x66kV breaker on the existing transformer (trfr2).
- Install a new complete 66kV feeder bay to supply customer. (2x66kV busbar isolators, 1x66kV breaker, 3x66kV CT's, 66kV Surge Arrestors 1x66kV line Isolator.)
- Again the upgrades and newly installed equipment can be accommodated in the existing footprint of the HMS and the site will not be extended.

¹ Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

Powerline structure information:

See attachments in **Appendix C**.

Poles lengths vary from 18m-24m. The depths of poles are between 1.5m-2m. Span lengths between poles are between 225m-250m. These parameters all varies due to the relationship between the structure, the terrain transversed, ground clearance requirements, geology, etc.

Examples of drawings of the proposed structures that may be used for the powerline are included in **Appendix C**. The specifics of the line structure will be concluded once clarification as to the approved route has been received. Please note that these structures can be used in any non-specific sequence. The application of the structures are usually applied as follow:

- 1. The mono-pole guyed intermediate suspension structures (D-DT-7641) are normally installed at obvious rocky terrains, where the foundations can have a huge cost impact.
- 2. The mono-pole self supporting intermediate suspension structures (D-DT-7649) are the preferred application due to its small footprint.
- 3. The mono-pole angle suspension structures (D-DT-7613) are used on slight angles up to 23°.
- 4. The mono-pole strain structures (D-DT-7615) can be used as 0 ° in-line strainers with four diagonal stays and at angle from 1 ° to 110 ° with a variety of stay configurations to suit the specific application. The structure can also be used as a terminal in situations where the line which approaches the substation feeder bay is at an angle larger than 45°.
- 5. The H-pole (D-DT-7805; 7808; 7811 and other structures from the 78-Series) are used for horizontal applications to cross over or under existing powerlines where clearances are a problem and are used as terminal structures with an in-line approach to the substation feeder bay.
- 6. The 3-pole strain structures (D-DT-7618) are normally used at very long spans crossing rivers, valleys, etc. These are very expensive structures therefore it is not used very often.

For areas where the proposed line will be a single powerline route, the total servitude width is 31m with a building restriction from the servitude centre line of 15.5m. Where the proposed line will run parallel to an existing power line the minimum separation between powerlines is 21m and the total servitude width is 52m. Foundations will be dug along the route for the most suitable pole structures for the site requirements. The foundations will be filled with cement where appropriate and backfilled. Backfilling will be done with suitable soils to ensure settling without voids (no large rocks or stones can be used; all soil will be sifted through an 80mm mesh). All material used for compacted backfill will be deposited in horizontal layers (approximately 300mm thick). Topsoil (stockpile separately from other soils) will be the final backfilling layer.

Preferred Route (indicated in green on locality map in Appendix A):

The preferred route from the KDS substation firstly runs along side Eskom's Existing 132kV Kimberley-Homestead Powerline after which it diverts around the Kenilworth Industrial Area. At this junction the preferred route cannot continue to follow the existing 132kV (indicated in blue on the layout map) due to space constraints in the Industrial Area and will follow an existing road reserve through the Industrial Area. After this diversion the preferred route runs along the southern side of an existing Municipal 66kV powerline directly to the Homestead substation crossing the N12 and the railway line close to the Industrial Area (Refer to the locality map in Appendix A).

This route is preferred due to the following reasons:

- It follows existing powerline routes for most of its length and thus does not significantly increase the visual impact of powerlines on the surrounding area and visual receptors (i.e. people with a view of the powerlines). A route parallel to an existing route also decreases the ecological impact through the concentration of impacts on already disturbed areas instead of clearing undisturbed areas.
- 2. This route is the shortest route for the proposed powerline.
- 3. It has less bends in its route. Bends in powerline routes are avoided due to the use of a different structure and the use of many more stay wires (more holes) to secure the structure. Each bend increases the cost of constructing the powerline.

Two alternative routes are proposed for the project and are discussed below:

Alternative A (indicated in red on the Locality Map in Appendix A)

This alternative follows the proposed route as per the preferred alternative from the KDS substation until after the railway crossing. Here the route will follow the railway line southwards to again meet up with the existing 132kV line (indicated in blue on the layout map) and follow the same route to the Homestead Substation.

This route is not preferred as there is insufficient space to follow the existing 132kV line through the residential section (i.e. the section west of where the purple route turns north).

Alternative B (indicated in purple on the Locality Map in Appendix A)

This alternative route is the same as Alternative A until just before the new part of the Homestead residential area (not yet indicated on the 1:50 000 map) where it goes north and then west to the substation; this is due to there not being enough space adjacent to the existing 132kV line (blue) in the built-up residential area.

Should the preferred route (green route) not be approved, for reasons indicated below – Eskom would then require that Alternative B (purple route) be approved.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

28°

28°

28°

28°

28°

28°

In the case of linear activities: Preferred Alternative:

Latitude (S):

Longitude (E):

44' 15.14"

46' 35.92"

48' 50.81"

44' 15.11"

46' 12.92"

48' 52.84"

24°

24°

24°

24°

24°

24°

Alternative S1 (**preferred** or only route alternative)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity
- Alternative S2 (Alternative A)
- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S3 (Alternative B)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

,	28°	41' 34.52"	24°	44' 15.14"
ne activity	28°	42' 14.25"	24°	46' 26.78"
	28°	44' 32.77"	24°	48' 50.81"

41' 34.52"

42' 18.83"

44' 32.77"

41' 34.08"

42' 41.94"

44' 31.75"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

See Appendix A for complete list of co-ordinates for each proposed powerline route.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints): for linear activities:

101	mou		
Alt	ernat	ive:	

Alternative A1	(preferred activity alternative)
Alternative A2	(Alternative A)
Alternative A3	(Alternative B)

Length of	tne	activity:
±13.5 km		

±17 km	
±18 km	

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):
Alternative:
Size of the site/servitude:

Alternative A1 (preferred activity alternative)	Maximum	52m	servitude
	along the ro	ute	
Alternative A2 (Alternative A)	Maximum	52m	servitude
	along the route		
Alternative A3 (Alternative B)	Maximum	52m	servitude
	along the route		

5. SITE ACCESS

Does ready access to the site exist? If NO, what is the distance over which a new access road will be built Describe the type of access road planned:

YES	NO
m	

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by DWA);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.11 the positions from where photographs of the site were taken.

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity		
What is the expected capital value of the activity on completion?	± R 49,142,195.0	69
What is the expected yearly income that will be generated by or as a result of the activity?	R 80,610.686	
Will the activity contribute to service infrastructure?	YES	
Is the activity a public amenity?		NO
How many new employment opportunities will be created in the development phase of the activity?	Eskom has con employment who w carry out the ca contractors do som If there are any opportunities, it can once the contractor he subcontracts.	tractors in their vill be appointed to onstruction. These etimes subcontract. new employment only be established is appointed and if
What is the expected value of the employment opportunities during the development phase?	This can only be excontractor is appoint	stablished once the ted.
What percentage of this will accrue to previously disadvantaged individuals?	>/= 50 %	
How many permanent new employment opportunities will be created during the operational phase of the activity?	0	
What is the expected current value of the employment opportunities during the first 10 years?	N/A	
What percentage of this will accrue to previously disadvantaged individuals?	N/A	

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

NEED:			
1.	Was the relevant provincial planning department involved in the application?	YES	NO
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES	NO
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		

DESIRAB	ILITY:		
1.	Does the proposed land use / development fit the surrounding area?	YES	NO
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES	NO
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	NO
4. If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:			n /
5.	Will the proposed land use / development impact on the sense of place?	YES	NO
6.	Will the proposed land use / development set a precedent?	YES	NO

7.	Will any person's rights be affected by the proposed land use /	YES	NO
	development?		
8.	Will the proposed land use / development compromise the "urban edge"?	YES	NO
9.	If the answer to any of the question 5-8 was YES, please provide further m explanation.	otivatio	n /

BENEFIT	S:
1.	Will the land use / development have any benefits for society in general? YES NO
2.	Explain:
	Sol Plaatje Municipality, as a Direct Customer of Eskom, requires more capacity in the Kimberley area for future growth. At present the Municipality cannot go ahead with any expansion projects due to electrical capacity constraints. The installation of the 80MVA transformer and 132kV powerline will supply the Municipality with electricity capacity for future expansion and create a ring feed between the Homestead and KDS Substations, ensuring secured supply for the future.
3.	Will the land use / development have any benefits for the localYESNOcommunities where it will be located?
4.	Explain:
	The proposed 80MVA transformer and 132kV powerline will supply an area of the Sol Plaatje Municipality thats current electricity supply is under capacity and the area is thus unable to develop. Also, the creation of a ring feed will insure stable supply to the area and ensure stable productivity. Secure and reliable electricity supply can provide opportunities for development and expansion which directly affect the local economy and welfare of communities in the area.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management Act, 1998	Department of	1008
(Act No.107 of 1998)	Environmental Affairs (DEA)	1990
Noise Control Regulations, 1998	DEA	1998
DEA Draft Guideline on Public Participation	DEA&DP	2010
DEA&DP Draft Guideline on Alternatives	DEA&DP	2009
DEA&DP Draft Guidelines on Need & Desirability	DEA&DP	2009
Northern Cape Provincial Growth and	NCPC	2004 2014
Development Strategy (NCPGDS)	NGFG	2004 - 2014
Sol Plaatje Integrated Development Plan (IDP)	Sol Plaatje Municipality	2006/7 to 2011/12
Sol Plaatje Spatial Development Framework	Sol Plaatje Municipality	2004

10

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

If yes, what estimated quantity will be produced per month? How will the construction solid waste be disposed of (describe)?

Any construction solid waste generated on site will be collected after each day and placed in disposal bins. When necessary, full bins will be taken to the nearest registered waste disposal facility and emptied.

Where will the construction solid waste be disposed of (describe)?

Solid waste in the form of construction rubble (mostly cement, left over pieces of cable, etc) and rock will be removed from site and disposed of at the local registered waste disposal site.

Will the activity produce solid waste during its operational phase? If yes, what estimated quantity will be produced per month? How will the solid waste be disposed of (describe)?

N/A

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the YES relevant legislation?

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment YES facility?

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will	the	activity	produce	effluent,	other	than	normal	sewage,	that	will	be	YES	NO
disp	osed	of in a n	nunicipal	sewage s	ystem?	?							

If yes, what estimated quantity will be produced per month?

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

If yes, provide the particulars of the facility:

YES	NO
± 10 m	3

m ³	
Yes	NO

NO

YES

ogistorod

NO

NO

NO

m³

Facility name: Contact			
person:			
Postal			
address:			
Postal code:			
Telephone:	C	Cell:	
E-mail:	F	ax:	
Describe the me	easures that will be taken to ensure the opti	imal reuse	or recycling of waste
water, if any:			
N/A			

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere? If yes, is it controlled by any legislation of any sphere of government? If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Dust will be generated during the construction phase due to construction activities and motor vehicle use. Dust will be monitored and dust suppression methods used as per the **Environmental Management Programme (EMPr)**, in **Appendix F**, when and where necessary.

11(d) Generation of noise

Will the activity generate noise?

If yes, is it controlled by any legislation of any sphere of government? If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. If no, describe the noise in terms of type and level:

YES YES

YES

NO

Noise will only be present during the short-term construction phase of the proposed powerline and the expansion of the KDS and Homestead substations.

Noise will be mitigated through the following:

- All machinery will be maintained to reduce unnecessary noise levels;
- All employees working on site will keep noise levels to a minimum; and
- Work times will be during day-light hours (7am 6pm).

Please refer to the Environmental Management Programme (EMPr) in Appendix F.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

		· · ·				
municipal	water board	groundwater	river, stream,	other	the activity will not	
			dam or lake		use water	

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

Does the activity require a water use permit from the Department of Water Affairs?

 litres

 YES
 NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Security lighting at the substations will be day/night lights, automatically switching on or off when the light intensity decreases/ increases. The applicant will investigate the use of low-voltage lights in order to conserve energy.

Due to the proposed project not requiring on-site personnel, the resultant energy consumption of the project will be minimal.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

 For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section	C C	opy N	lo. (e.	g. A)):	
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2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? **YES**

If YES, please complete the form entitled "Details of specialist and declaration of interest"

for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:	See Affected Parcels Lists in Appendix A
	(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.
	In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.
Current land-use zoning:	Refer to Land Zonings List in Appendix A
	In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to , to this application.
Is a change of land-use or a	consent use application required?
Locality map:	 An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following: an indication of the project site position as well as the positions of the alternative sites, if any; road access from all major roads in the area; road names or numbers of all major roads as well as the roads that provide access to the site(s); all roads within a 1km radius of the site or alternative sites; and a north arrow; a legend; and locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Preferred Alternative S1:

Flat	1:50 –	1:20 –	1:15 – 1:10	1:10 –	1:7,5 – 1:5	Steeper than
	1:20	1:15		1:7,5		1:5

Alternative A:

Flat	1:50	_	1:20	_	1:15 – 1:10	1:10	_	1:7,5 – 1:5	Steeper	than
	1:20		1:15			1:7,5			1:5	

Alternative B:

Flat	1:50 –	1:20 –	1:15 – 1:10	1:10 –	1:7,5 – 1:5	Steeper	than
	1:20	1:15		1:7,5		1:5	

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain
- 2.4 Closed valley
- 2.5 Open valley

2.6 Plain

2.7 Undulating plain / low hills

2.8 Dune

2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

13 the Site(3) located on any or		ang (uok un	s appropria				
	Preferr Alterna	ed tive S1:	Alterna	tive A:	Alterna	ative B:	
Shallow water table (less than 1.5m deep)	YES	NO	YES	NO	YES	NO	
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO	-
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO	-
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO	-
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO	
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO	
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO	-
An area sensitive to erosion	YES	NO	YES	NO	YES	NO	

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

For all Alternatives:

	Natural veld with scattered aliens ^E				
Natural veld - good condition ^E	Vaalbos Rocky Shrubland and Kimberley Thornveld both vegetation types are listed as Least Threatened in terms of their ecosystem status.	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens	
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil	

If any of the boxes marked with an "E "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

For all Alternatives:

5.1 Natural area 5.2 Low density residential 5.3 Medium density residential 5.4 High density residential 5.5 Informal residential^A 5.6 Retail commercial & warehousing 5.7 Light industrial 5.8 Medium industrial AN 5.9 Heavy industrial AN 5.11 Office/consulting room Military or police base/station/compound 5.13 Spoil heap or slimes dam^A 5.14 Quarry, sand or borrow pit

5.15 Dam or reservoir 5.16 Hospital/medical centre 5.17 School 5.18 Tertiary education facility 5.19 Church 5.20 Old age home 5.21 Sewage treatment plant^A 5.22 Train station or shunting yard N 5.23 Railway line N 5.24 Major road (4 lanes or more) N 5.25 Airport N 5.26 Harbour 5.27 Sport facilities 5.28 Golf course 5.29 Polo fields
5.30 Filling station ^H
5.31 Landfill or waste treatment site
5.32 Plantation
5.33 Agriculture
5.34 River, stream or wetland
5.35 Nature conservation area
5.36 Mountain, koppie or ridge
5.37 Museum
5.38 Historical building
5.39 Protected Area
5.40 Graveyard
5.41 Archaeological site
5.42 Other land uses (describe)

If any of the boxes marked with an " N "are ticked, how will this impact / be impacted upon by the proposed activity?

The proposed Eskom powerline will cross over a railway line next to the N12 at the Kenilworth industrial area, but will have no direct impact on the railway line.

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity?

The proposed powerline will run through an industrial area near Kenilworth / Kimdustria. There is an existing line also transecting this area but due to lack of space in the existing servitude (blue line on the locality map), all three alternatives for the proposed line will follow a road servitude running through the area. The industries along the route may be temporarily impacted on during the construction phase, however it is not foreseen that the powerline will have any impact on the neighbouring industries during the operational phase.

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain: **N/A** If YES, specify:

6. CULTURAL/HISTORICAL FEATURES

For all Alternatives:

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including								
Archaeological site?	Archaeological or palaeontological sites, on or close (within 20m) to the NO site?							
lf YES,								
explain:	David Morrison of the McGregor Museum was appointed to undertake a Heritage and Archaeological Assessment of all the alternative routes.							
lf un contain a	andust a sussibility investigation by a recordinal sussi	aliat in th	e field to					
establish wheth	er there is such a feature(s) present on or close to the site.	alist in th	e tield to					
Briefly								
explain the	No significant heritage or archaeological traces where identified along any of							
findings of	indings of the alternative routes that are considered to require major mitigation.							
the specialist:								
Will any building or structure older than 60 years be affected in any way? YES NO								
Is it necessary to apply for a permit in terms of the National Heritage YES NO								
Resources Act, 1999 (Act 25 of 1999)?								
If yes please submit or make sure that the applicant or a specialist submits the necessary								

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in-
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;

- (iv) where further information on the application or activity can be obtained; and
- (iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all State Departments and or any other applicable authority with their contact details can be found in the I&AP Database in Appendix E.

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

List of authorities informed:

- Mr LJ Snyders, Northern Cape Department of Water Affairs
- Ms Tsholofelo Makaudi, Northern Cape Department of Tourism, Environment and Conservation
- Mr G Akharwaray, Sol Plaatje Local Municipality Municipal Manager
- Mr Keith Williams, Sol Plaatje Local Municipality Environmental Manager
- Ms Fumoni Phatidi, Sol Plaatje Local Municipality -Town Planner
- Ms Adele Conroy, Sol Plaatje Local Municipality Zoning
- Mr Rob Gibson, Sol Plaatjie Local Municilapity GIS
- Ms Lorette Williams, Sol Plaatje Local Municipality Ward
- Mr Petrus Louw, Sol Plaatje Local Municipality Ward 21
- Ms Frances Warmer, Sol Plaatje Local Municipality Ward 25
- Ms Fransina Swanepoel, Sol Plaatje Local Municipality Ward 28

List of authorities from whom comments have been received:

To be completed once the public participation review period has ceased.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority. Proof of any such agreement must be provided, where applicable.

 Has any comment been received from stakeholders?
 YES
 NO

 If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):
 NO

To be completed once the public participation review period has ceased.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

The majority of I&APs support the proposed development and the preferred route. However, WESSA have indicated their concerns regarding the high impact on avifauna in the area. Should Eskom not be in a position to implement the recommended mitigation measures of day-night bird flappers, then WESSA reject the preferred route (green route) and propose that Eskom rather construct the powerline along the purple or red alternative routes.

Refer to the Issues and Response Report in Appendix E.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report as Annexure E):

Eskom have agreed to construct the powerline along the purple alternative route, should they not be in a position to implement the recommended day-night bird flapper mitigation required for the proposed route.

Refer to the Issues and Response Report in Appendix E.

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

For all powerline route alternatives Construction Phase

Direct impacts:

- Disturbance of natural vegetation;
- Noise impacts;
- Potential soil pollution due to hydrocarbon and other spills;
- Soil erosion;
- Sewage impacts;
- Dust impacts.

Indirect impacts:

• Visual impacts.

Cumulative impacts:

Cumulatively all the impacts associated with the construction phase are considered to be of a low significance. Impacts are readily mitigated throughout the construction phase (refer to the attached EMPr in Appendix F) and will result in minimal long-term impacts.

Operational Phase

Direct impacts:

- Bird collisions and electrocution; and
- Visual impact.

Indirect impacts:

• Positive impact - allows for proposed future development of the area.

Cumulative impacts:

Impacts during the operational phase are limited to the visual impact (which is considered negligible due to the presence of existing powerlines along the proposed routes) and impacts on avifauna in the area.

Avifaunal impacts can be mitigated (by erecting bird-flappers to the mid-span area of the powerline) to reduce the likelihood of bird collisions. The likely impacts of bird collisions is greatest for the preferred route (green route) due to its close proximity to the Kamfers dam area to the north (section between the railway line and the Homestead substation). Impacts associated with bird collisions are lower for the proposed alternative routes (Alternative routes A and B) due to the close proximity to the residential area. Bird collisions in the De Beer section of the proposed powerline route are minimal and can be effectively mitigated using bird flappers in the central 10m of the span length between pylons.

The new powerline will contribute to increased electrical capacity within the area and thus contribute positively to development and expansion of the area during the operational phase of the activity.

No-go alternative (compulsory)

Direct impacts:

- No increase in electricity capacity for the current town users;
- No surety in terms of decreased load shedding;
- No future development will be allowed as there will be no spare electrical capacity; and
- No increase in possible bird fatalities due to increased number of lines in the area.

Indirect impacts:

• Decrease in employment security (existing employees) as no new developments will be approved without available electricity;

- No housing projects; and
- Economic impacts on existing businesses and infrastructure should load shedding continue this in turn affects the economy of the immediate area.

Cumulative impacts:

Significant impact on the local economy as no further development of the area can take place without electricity capacity, this indirectly impacts on employment and operations of existing businesses and households.

All alternative routes have the same mitigation measures applicable:

Construction Phase:

Direct impacts:

Destruction of vegetation

- All construction activities will be closely monitored and will remain within the construction site boundary (the servitude area of 52m). As the routes contain limited natural vegetation, where natural vegetation does occur, these areas are to be avoided and protected from construction activities, wherever practical and implementable;
- Large portions of the routes traverse open grassland type habitat and thus clearing of vegetation is not necessary (disturbance will be limited to the footprints of the pylons/ poles), where vegetation is to be cleared only that which inhibits construction of the line will be cleared (e.g. one or two large trees and bushes directly below the powerline); and
- All vegetation ripped up will be stockpiled to one side and used for rehabilitation once the powerline has been erected.

Noise impacts

- All machinery will be maintained to reduce unnecessary noise levels;
- All employees working on site will keep noise levels to a minimum; and
- Work times will be during day-light hours (7am 6pm).

Soil pollution due to hydrocarbon and other spills

- All construction vehicles will be properly maintained to ensure that there are no leaks;
- Leaking vehicles or equipment must be repaired immediately;
- All standing vehicles or equipment must have drip trays placed under fuel tanks or oil storage areas in order to contain any potential spillages or leaks;
- Oil Spill kits must be available on site; and
- All spills must be removed and disposed of at a registered waste disposal facility.

Soil erosion

- To reduce the loss of material by erosion, the disturbance on site will be kept to a minimum (to remain within the construction boundary, i.e. 52m servitude); and
- Soil excavated for the foundations of the pylons/ poles will be used to rehabilitate the area once the pylon/ pole is in place.

Sewage Impacts

• Sufficient portable toilets must be provided along the route for staff to use;

- Portable toilets must be securely fastened and anchored;
- Toilets must be cleaned on a regular basis to ensure that no unpleasant odours are detected by nearby residents; and
- Toilets must be removed from site over long week-ends or builders holidays.

Dust pollution

 Dust must be carefully monitored. Should excessive dust be generated on site, dust suppression by means of spraying water must be carried out. Potable water must not be used for dust suppression.

Indirect impacts:

Visual impacts (litter, building rubble, etc)

- The entire construction site (servitude) must be kept clean and tidy of any litter and builders rubble;
- Regular litter patrols must be carried out to ensure that the site is maintained and tidy; and
- All waste must be collected and removed to a registered landfill site, as and when required.

The construction phase of the proposed powerline and substation upgrades will be monitored continuously by an on-site Environmental Site Officer (ESO). The ESO will ensure that the EMP is implemented and any environmental degradation or damage is reported to the independent Environmental Control Officer (ECO). The ECO will audit compliance with the EMP and Environmental Authorisation on a monthly basis (or at the frequency suggested by the approving authority).

Please refer to Appendix F for a comprehensive Construction Phase Environmental Management Programme (EMPr) that addresses all potential impacts and proposes mitigation measures for each.

Operational Phase:

Direct impacts:

Bird collisions and electrocution (refer to the specialist report in **Appendix D**)

- Electricity infrastructure has three forms of impacts upon birds: 1) electrocution 2) habitat alteration and 3) collision. The support structures for the proposed powerline will be of a design that will minimise any risk of birds getting electrocuted. The core issue is the risk of injury and death of birds as a result of collision with the proposed powerline.
- Collision risk would be lowest if either the proposed Alternative A and B routes are selected but the Preferred Alternative route (green route) is considered acceptable, with a substantial saving to ESKOM, provided the risk of collision is mitigated through the installation of appropriate bird diverters. It is critically important that the devices installed actively divert birds at night.
- A combination of two types of bird diverters is advocated both of which independently clamp onto lines which enables them to be removed for servicing or in the event of deterioration over time. One diverter, several of which should be spaced along spans

between each support mast, uses the magnetic field of the powerline to power a light (normally used for aircraft warning). The other diverter combines a daylight flapper with a panel to refract light and the combination of motion and light hazes birds whilst a solar panel feature enables the panel to glow for up to ten hours after dusk. Given use of a combination of numerous flappers with spaced among them a few stronger light devices it is considered that the risk of bird collision will be alleviated to the extent that the ESKOM's preferred alignment (green route) will be acceptable.

• Interaction of birds with power lines should be prevented by the application combination of catenary lights and bird diverters on the entire length of the line from the railway to the Homestead substation.

Visual impact

• Powerlines will be maintained on a regular basis.

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Preferred Route Alternative (Green route)

The proposed construction of a new 132kV line and proposed upgrades to the KDS and Homestead substations will have minimal impact on the environment and directly affected landowners or occupiers of land, provided the correct mitigation measures are implemented.

Construction of the powerline will have a low negative impact on natural vegetation. The majority of vegetation along the proposed route is low growing shrubs or grasses. Most areas will not have to be cleared; vehicles will be able to access the servitude area easily, without clearing vegetation (especially the section of the powerline between the KDS and Industrial Area. In other areas, such as the section near the sewerage works may require minimal clearing of vegetation for vehicular access. This vegetation will be ripped and stockpiled and used for rehabilitation once the line is erected. During construction activities, noise impacts will be short-term and predominantly linked to every day construction activities. These activities will be closely monitored and managed, thus maintaining the significance of the impact at a very low level. Dust generated from the construction activities is perceived to be minimal (low significance) due to the limited clearing of vegetative cover, however it will be monitored and dust suppression methods implemented on dry and windy days during the construction period. The short-term (low significant) visual impact of the proposed activity will be greatly reduced through appropriate mitigation of waste generation, limited vegetation clearing and general maintenance of the servitude area.

The upgrades and additions to the substations can be accommodated within the existing substation footprints and no expansion of the facilities will be necessary.

Cumulatively the significance of the impacts as a result of the proposed activity along the preferred route will be a low negative significance.

During the operational phase the impacts associated with avifauna can be successfully mitigated with the erection of appropriate bird flappers and lights devices on the powerline and bird deterrent devices on pylons/ poles (as proposed by the avifaunal specialist).

At present Eskom do not have approved night time bird diverter which is effective at reducing the risk of collision at night. The avifaunal specialist highlighted that the preferred route is only acceptable if appropriate and effective night time bird flappers/ diverts are installed. Eskom are in the process of investigating and testing a fluorescent diverted to act as a night time flapper. As this process may take

some time, Eskom may not be in a position to attached night time diverters to the powerline at the time of construction, but may be able to add them at a later stage, if approved.

Should the DEA require, as a condition of the Environmental Authorisation of the preferred route, that night time diverters be attached immediately to the powerline, Eskom would then rather revert to route Alternative B (purple route) as the alternative to be approved – mainly due to the fact that the approval of the night time bird diverts may only take place after the powerline is erected and operational for some time.

The avifauna specialist has indicated that route Alternative B would have a lesser impact and night time diverters would be a less critical mitigation measure. Route alternative B would however be more costly due to the increased length of the powerline and additional bends/ turns.

The positive impact of providing increased electrical capacity to the town of Kimberley is hugely significant to the town's future development and expansion which directly and/or indirectly affects the local economy.

Alternative A & B powerline routes

The impacts and cumulative impacts of these alternative routes are very similar to the preferred alternative, highlighted above.

Both alternatives will also be adjacent to existing powerlines. In terms of environmental impacts, the construction phase will have similar impacts as for the preferred route; however the social and economic impacts do differ. Alternative routes A and B are closer to the residential areas of Kimberley and thus will have a greater visual impact (although still considered to be of a low negative significance due to the existing 132kV powerline). Due to the proximity of the residential area, there may be increased numbers of complaints in terms of noise and dust generation during the construction phase, albeit for the short-term. In terms of the economic impact, the alternative routes are slightly longer and have more turns/ bends associated with the line, thus increasing the cost of construction significantly.

During the operational phase, the impact on birds will be less due to the increased distance from the sensitive bird area associated with the Kamfers Dam. Other operational impacts will remain similar to that of the preferred route.

Cumulatively, alternative routes A and B may have a slightly greater negative impact due to the proximity to residential areas and increased costs, however during the operational phase impacts associated with bird fatalities could be less. The explicit need for night time flappers or bird diverters is also less. The existing Eskom approved bird diverters/ flappers are sufficient for these proposed routes.

No-go alternative (compulsory)

The no-go alternative will significantly (high negative) impact the Kimberley community and future development of the area. The proposed activity is needed to provide current users with a more stable and reliable electricity source as well as provide needed infrastructure and capacity for future development of the town and immediate surrounding areas.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached Hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

S	NO

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

- For approval in terms of the Preferred Route (Green line): Interaction of birds with powerlines should be prevented by the application of a combination of catenary lights and bird diverters on the entire length of the line from the railway line to the Homestead substation. These bird diverters must be effective at diverting birds during both day- and, especially, night-time, and must be able to be fitted in place so that they do not drift along the line and be readily and cost effectively installed on, or removed from, existing lines. Existing approved Eskom bird flappers/ diverts must be installed on the central 10 metres of the lines between pylons/ poles for the length of the powerline within the De Beers Section (as per the specialist recommendation).
- For approval in terms of Alternative B (purple line): Interaction of birds with powerlines should be prevented by the existing and approved Eskom bird diverters/ flappers. Sufficient bird flappers must be installed on the central 10 metres of the lines between pylons/ poles for the length of the powerline within the De Beers Section (as per the specialist recommendation) as well as being installed on the entire span length between pylons/ poles for the section of the powerline where it turns west towards the Homestead substation. Flappers must be able to be fitted in place so that they do not drift along the line and be readily and cost effectively installed on, or removed from, existing lines.
- The Construction Phase EMPr must be implemented and monitored by an independent Environmental Control Officer (ECO), with (at least) monthly audit reports submitted to the proponent, contractor and the DEA (if requested).
- The visual impact of the proposed activity is emphasised. In order to reduce the visual impact during construction, construction activities must remain within the servitude area and substation boundaries and is to be maintained free of litter, rubble and other construction waste.

Is an EMPr attached?

YES NO

The EMPr must be attached as **Appendix F**.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information