Basic Assessment Report (BAR)

Relocation of the Blurock Quarry's Powerline August 2013

Project title	1 Colenso/Gowrie 88kV 2.2km Powerline Deviation		
Competent Authority	National Department of Environmental Affairs		
Local Municipality	Umtshezi Local Municipality		
District	Uthukela District Municipality		
DEAT Reference No	14/12/16/3/3/1/857		
Report type	Environmental Management Plan		
Report status	Draft		
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environmental affairs

Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA

File Reference Number: **Application Number:** Date Received:

()	For official u	se 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:

- 1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA 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. This report format is current as of 1 September 2012. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
- 3. 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.
- 4. Where applicable **tick** the boxes that are applicable in the report.
- 5. An incomplete report may be returned to the applicant for revision.
- 6. 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.
- 7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
- 8. No faxed or e-mailed reports will be accepted.
- 9. The signature of the EAP on the report must be an original signature.
- 10. The report must be compiled by an independent environmental assessment practitioner.
- 11. 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.
- 12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
- 13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

- 14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
- 15. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

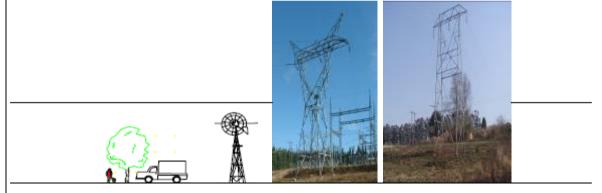
The applicant, Blurock Quarry proposes to deviate approximately 2.2 km of the existing 1 Colenso/Gowrie 88kV powerline.

This deviation will include the following activities:

- Erection of new towers required for the deviation at intervals along the proposed route;
- Foundations for the towers;
- Stringing of lines between towers;
- Removal of 2.2km of existing powerline and towers.

The powerline will have a dedicated servitude of 32km and tower height can range from 15m to 25m. One of the following tower designs will be used for the deviation:

Figure 1: Tower type 248C & Milliken Suspension towers against windmill, truck and man



The affected portion of the powerline is situated on the outskirts of the town of Estcourt. Estcourt is a town in the <u>uThukela District</u> of <u>KwaZulu-Natal Province</u>. This portion of the powerline and the proposed deviation route are situated on the east of Klein Boesman's river and north of Boesman's river.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN R.544, 545 and 546	Description of project activity
 GN R.544 Item 10: The construction of facilities or infrastructure for the transmission and distribution of electricity - (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or 	powerline will be deviated and re-constructed to allow for the expansion of mining activities.

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 as required by Regulation 22(2)(h) of GN R.543. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) 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.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative) (S1) Description The client proposes to deviate 2.2km of the existing 88kV 1 Colenso – Gowrie line as shown in the map below. This deviation will consist of 4 towers and associated lines. This route will be approximately 2.3km in length. This route will be located slightly above the existing line and can be accesses via existing routes. The existing line and towers will be decommissioned and removed, where possible the components of the steel tower structures and lines will be reused / recycled. The tower structure used for this route will be either the 248C & Milliken Suspension tower. Alternative S2

Description

The client proposes to deviate 2.2km of the existing 88kV 1 Colenso – Gowrie line as shown in the map below. This deviation will consist of 6 towers and associated lines. This route will be approximately

3.3km in length. This route will cross one of the existing gravel roads and can be accesses via existing routes. This route option is much longer than the other two route options and will be more expensive to the applicant. Furthermore, this route will traverse more green open space in comparison to the other two alternatives. The existing line and towers will be decommissioned and removed, where possible the components of the steel tower structures and lines will be reused / recycled. The tower structure used for this route will be either the 248C & Milliken Suspension tower.

Alternative S3

Description

The client proposes to deviate 2.2km of the existing 88kV 1 Colenso – Gowrie line as shown in the map below. This deviation will consist of 5 towers and associated lines. This route will be approximately 2.0km in length. This route will cross one of the existing gravel roads and can be accesses via existing routes. This route is in close proximity to the existing buildings within the town of Estcourt. There is also a heritage site located within 100m of the powerline route. The existing line and towers will be decommissioned and removed, where possible the components of the steel tower structures and lines will be reused / recycled. The tower structure used for this route will be either the 248C & Milliken Suspension tower.

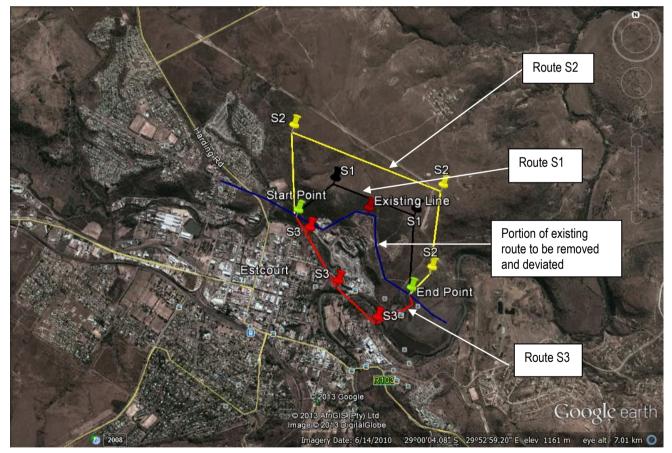


Figure 2: Map showing the route alternative options

In the case of linear activities:

Alternative: Alternative S1 (preferred)	Latitude (S):	Longitude (E):
Starting point of the activity	29º0'27.55"S	29º53'25.61"E
Middle/Additional point of the activity	29º0'1.83"S	29°53'28.56"E
End point of the activity	29º69'59.68S	29º52'43.04"E
Alternative S2 (if any)		
 Starting point of the activity 	29º0'27.55"S	29º53'25.61"E
Middle/Additional point of the activity	29°59'43.92"S	29º53'13.74"E
End point of the activity	29°69'59.68"S	29°52'43.04"E
Alternative S3 (if any)		
 Starting point of the activity 	29º0'27.55"S	29º53'25.61"E
 Middle/Additional point of the activity 	29º00'23.74"S	29°52'57.78"E
End point of the activity	29º69'59.68"S	29°52'43.04"E

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.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A.

b) Lay-out alternatives – No layout alternatives have been considered for this project

Alternative 1 (preferred alternative)				
Description	Lat (DDMMSS) Long (DDMMSS)			
	Alternative 2			
Description	Lat (DDMMSS) Long (DDMMSS)			
Alternative 3				
Description	Lat (DDMMSS) Long (DDMMSS)			

c) Technology alternatives – No technology alternatives have been considered for this project

Alternative 1 (preferred alternative)	
Alternative 2	
Alternative 3	
Alternative o	

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives) – No other alternatives have been considered for this project

Alternative 1 (preferred alternative)			
	Alternative 2		·
	Alternative 3		

e) No-go alternative

The powerline will not be relocated and will remain in its existing route. Mining activities will continue as approved under authorisation (KZN30/5/1/2/2/276 MR). Blasting activities may damage the existing foundations, power lines and towers therefore posing a safety risk and may also result in the disruption of power to Estcourt town due to damage of the infrastructure.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1¹ (preferred activity alternative) Alternative A2 (if any) Alternative A3 (if any)

or, for linear activities:

Alternative:

Size of the activity:

N/A

N/A

N/A

Alternative A1 (preferred activity alternative)	
Alternative A2 (if any)	
Alternative A3 (if any)	

Length of the activity:

2300 m
3300 m
2000 m

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

Alternative A1 (preferred activity alternative) Alternative A2 (if any) Alternative A3 (if any)

Size of the servitude:		
	32 m	
	32 m	
	32 m	

¹ "Alternative A.." refer to activity, process, technology or other alternatives.

4. SITE ACCESS

Does ready access to the site exist?

If NO, what is the distance over which a new access road will be built

YES NO X N/A

Describe the type of access road planned:

The existing roads used to access the existing powerline and the mines can be used to access the relocated portion of the powerline. (Refer to Appendix A for map showing the existing road network)

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.

5. 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 accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s;)
- 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).

6. LAYOUT/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:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and

• a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- 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 infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. 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 report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 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.

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES X	NO	Please explain
The deviated powerline route will be located on a site that has been and has an existing permit in place (KZN 30/5/1/2/2/76 MR). The reloc is to accommodate the approved mining activities which include blasting impact on the approved land use.	ation of	the exis	sting powerline

(a)	Provincial Spatial Development Framework (PSDF)	YES X	NO	Please explain
and has is to acc	iated powerline route will be located on a site that has been an existing permit in place (KZN 30/5/1/2/2/276 MR). The reloc commodate the approved mining activities which include blasting s site has been approved for mining activities that there is no af	approve ation of g. It is th	the existence	sting powerline
(b)	Urban edge / Edge of Built environment for the area	YES X	NO	Please explain
and has is to acc	iated powerline route will be located on a site that has been an existing permit in place (KZN 30/5/1/2/2/276 MR). The reloc commodate the approved mining activities which include blasting is site has been approved for mining activities that there will be	ation of g. It is th	the existered	sting powerline assumed that
	Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES X	NO	Please explain
approval	les in this area contribute to the local economy within this n I of this application would not compromise the integrity of the e SDF. This proposal will allow for the quarry to continue with the	xisting a	pprove	and credible
(d)	Approved Structure Plan of the Municipality	YES X	NO	Please explain
The dev and has is to acc has conf section f	iated powerline route will be located on a site that has been an existing permit in place (KZN 30/5/1/2/2/276 MR). The reloc commodate the approved mining activities which include blastir firmed that they have no objection to the proposed relocation (for actual comment), it is therefore assumed that the proposed	X approve ation of ng. The (see con	d for m the exis Umtshe nments	ining activities sting powerline ezi Municipality and response
The dev and has is to acc has conf section f municipa (e)	iated powerline route will be located on a site that has been an existing permit in place (KZN 30/5/1/2/2/276 MR). The reloc commodate the approved mining activities which include blastir firmed that they have no objection to the proposed relocation (X approve ation of ng. The (see con d relocat	d for m the exis Umtshe nments	ining activities sting powerline ezi Municipality and response
The dev and has is to acc has conf section f municipa (e) The dev and has is to acc mining p Tourist o small are be used	iated powerline route will be located on a site that has been an existing permit in place (KZN 30/5/1/2/2/276 MR). The reloc commodate the approved mining activities which include blastir firmed that they have no objection to the proposed relocation (for actual comment), it is therefore assumed that the proposed alities existing plans. An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability	X approve ation of ng. The (see cond relocation y YES X approve ation of ing. Acc Il be transported ower stru- phase.	d for m the exis Umtshe nments tion is i NO d for m the exis ording nsforme uctures The exi importa	ining activities sting powerline ezi Municipality and response in line with the Please explain sting activities sting powerline to the existing ed into an Eco will occupy a sting roads will ant to note that

3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES X	NO	Please explain
The deviated powerline route will be located on a site that has been and has an existing permit in place (KZN 30/5/1/2/2/276 MR). The reloc is to accommodate the approved mining activities which include blastin has confirmed that they have no objection to the proposed relocation (section for actual comment), it is therefore assumed that the proposed municipalities existing plans.	ation of ng. The l (see con	the exis Umtshe nments	sting powerline zi Municipality and response
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES X	NO	Please explain
The deviated powerline route will be located on a site that has been and has an existing permit in place (KZN 30/5/1/2/2/276 MR). The reloc is to accommodate the approved mining activities which include blasting employment in the area as well to the local municipality.	ation of	the exis	ting powerline
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES X	NO	Please explain
The proposed relocation will not require any additional services, as relocated. The Umtshezi Municipality has confirmed that they have relocation (see comments and response section for actual comment), it proposed relocation is in line with the municipalities existing plans and the development. The cost of the relocation will be covered by the applied	no object is thereft that they	tion to ore ass	the proposed sumed that the
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES X	NO	Please explain
The proposed relocation will not require any additional services, as relocated. The Umtshezi Municipality has confirmed that they have relocation (see comments and response section for actual comment), it proposed relocation is in line with the municipalities existing plans and the development. The cost of the relocation will be covered by the applic	no object is thereft that they	tion to fore ass	the proposed sumed that the

7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO X	Please explain
The purpose of this project is to relocate an existing powerline and as will affect the municipal plans as the site has an existing mining permit.	such the	ere is r	o change that
8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES X	NO	Please explain
The site has been approved for mining activities, the proposed relocation for mining activities to continue as approved by DMR.	on of the	power	line is to allow
9. Is the development the best practicable environmental option for this land/site?	YES X	NO	Please explain
The site has been approved for the mining activities (KZN 30/5/1/2/2/276 MR) and it also important to note that this project is to relocate an existing powerline. The preferred route is the best practicable environmental option as it is the shortest route which will traverse less open space.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES X	NO	Please explain
If the powerline is not relocated, then there is a potential for blasting affect the powerline and associated infrastructure. Power supply may b may be damaged if the relocation does not occur. There may also be a powerline is not relocated as well as and economic cost.	e disrupt	ed and	infrastructure
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO X	Please explair
The site has been approved for mining activities. The relocation is nec able to proceed with the approved activities. The proposed relocation precedent.			A REAL PROPERTY AND A REAL
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO X	Please explair
The sites affected by the route are owned by Blurock Quarries and negatively affected. The preferred route is situated more than 500m from			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO X	Please explair
The powerline will be located in an area that has been approved for anticipated that the urban edge will be affected.	mining a	activitie	es, so it is not
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO X	Please explain
The project is to relocate an existing powerline which distributes distribution of electricity for all, the relocation of the powerline will e continue to receive electricity.			

15. What will the benefits be to society in general and to the local communities?	Please explain
During the construction phase, there is potential for employment for skilled and ur from the local community. The relocation / deviation of the line will ensure that power s line is not disrupted due to blasting activities. The relocation will also ensure that mini allowed to continue thereby contributing to the local economy.	supply form this
16. Any other need and desirability considerations related to the proposed activity?	Please explain
The need for deviation of the powerline is to provide space for the planned expan Quarry. The deviation will also provide adequate space required for safe blasting dista damage to the electrical infrastructure.	
17. How does the project fit into the National Development Plan for 2030?	Please explain
 The 2030 plan looks at various issues, in terms of the economy and local employment of the powerline will ensure that the mining activities are able to continue, therefore the local economy and providing employment to local community members. It is the that this project is in line with future plans. 18. Please describe how the general objectives of Integrated Environmental M 	e contributing to erefore believed
set out in section 23 of NEMA have been taken into account.	ialiayement as
All potential impact have been discussed in the impact section of this report, public p been undertaken as required regulation 54 of NEMA. Furthermore the best practicable route option has been chosen for the relocation of the existing line, where the potentia of least significance.	e environmental
19. Please describe how the principles of environmental management as set o of NEMA have been taken into account.	ut in section 2
This project is to relocate an existing powerline to accommodate for mining activities approved by DMR. The powerline will be relocated within an existing mining s structures occupy a small area and therefore the potential impact on the environ minimal during both the construction and operational phases. The best practicable route has been chosen as the preferred route and will ensure compliance with the permit in place. From an economic perspective, this is the most feasible option to allo continue and provide employment and contribute to the economy. Recycling will ta possible and waste avoided. This project is in line with the NEMA principles.	site. The tower nmental will be e environmental existing mining ow for mining to

11. 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	Applicability to the project	Administering authority	Date
National Environmental Management Act	Section 24 – Environmental Authorisation is required as listing notice 544 is triggered. Section 28 – Duty of care and remediation of environmental	All organs of State.	1998

	damage.		
	Environmental management principles.		
Mineral and Petroleum Development Act	The relocation will occur within an approved mining site and therefore all existing conditions must be adhered to as approved by DMR in line with the Act. (KZN	DMR	2002
	30/5/1/2/2/276 MR)		
Constitution of the Republic of South Africa, (Act No. 108 of 1996)	Chapter 2 – Bill of Rights. Section 24 – environmental rights.	SA Government	1996
Environment Conservation Act	Environmental protection and conservation.	DEA / DAEA	1989
	Noise regulations and waste management from the act is applicable.		
World Heritage Convention Act	Measures for the protection of heritage resources.	AMAFA	1999
Conservation of Agriculture Resources Act	Control measures for the prevention of erosion and for alien and invasive plant species.	DEA / DAEA	1983
National Environmental Management: Biodiversity Act	The Management and conservation of the country's biodiversity including the protection of species and ecosystems.	DEA	2004
National Forests Act	Authorisation required for impacts to protected trees if identified during the construction or operational phase.	DAFF	1998
National Water Act and National Water Resources Strategy	The protection of water resources beneath the power lines. Prevention and remedying effects of pollution.	DWA	1998 and 2004 respectively
	Control of emergency incidents. Water use and watercourse		
	crossings if applicable.		
Occupational Health and Safety Act	Provisions for Occupational Health & Safety during the construction and operational phase.	Department of Labour	1993
Hazardous Chemical Substance regulations	Hazardous chemicals may be used during the construction or operational phases.	Department of Labour	1995
Construction Regulations	Applicable during the construction phase of the project.	Department of Labour	2003
Noise Induced Hearing Loss Regulations	Noise will be produced by construction vehicles and from	Department of Labour	2003

	existing mining operations.		
National Environmental Management: Air Quality Act	Air quality management, dust control will be implemented where applicable.	DEA / DAEA	2004
National Environmental Management: Waste Act	Waste will be produced during the construction and operational and will not require a waste license, however the minimisation of waste production is applicable, including recycling.	DEA / DAEA	2008
National Road Traffic Act	Existing access roads will be used during the construction and operational phases.	DEA / DAEA	1996

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

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?

YES X	NO
Le	ess than
	100m ³

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

The solid waste will be temporarily kept on site in designated waste skips and then removed by an approved contractor to the landfill. This will be managed with the Environmental Management Programme (EMPr).

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

The waste will be disposed of at the closest registered waste disposal facility within the municipality. Scrap metal will be recycled where possible.

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

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

N/A

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

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.

NO

Х

N/A

YES

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?

If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment 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. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

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:

, 1		,			
Facility name:	N/A				
Contact	N/A				
person:					
Postal	N/A				
address:					
Postal code:	N/A				
Telephone:	N/A		Cell:	N/A	
E-mail:	N/A		Fax:	N/A	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

No measures have been put in place.

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions	YES
and dust associated with construction phase activities?	
If YES, is it controlled by any legislation of any sphere of government?	YES

YES	NO X
YES	NO
	Х

If YES, the applicant must 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:

YES	NO X
	N/A
YES	NO
TES	Х

YES

NO

Х

NO

Х

NO

X

YES

YES

Dust will be produced during the construction phase as well as emissions from construction vehicles accessing the site. These emissions will be comprised primarily of CO2 and will be of a low concentration. Dust abatement measures will need to be implemented throughout construction activities and this must be controlled by an EMPr.

It must also be noted that the dust generated from the mining and blasting activities will be much higher than any of the construction activities associated with the powerline.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?

If YES, is it controlled by any legislation of any sphere of government?

YES X	NO
YES	NO

NO

Х

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:

The proposed deviation will generate noise during the construction phase as construction vehicles and equipment will be used. It is not expected that noise levels during construction will exceed 85dBa. Noise suppressors should be used on machinery on site. Should activities that generate high levels of noise be required, nearby residents must be notified of the activities prior to the event. Workers must be trained regarding noise on site and construction hours must be kept to working hours (07h00 to 17h00). Work should not continue on weekends, after hours or on public holidays.

It should also be noted that the noise generated from the mining and blasting activities will be much higher than the proposed construction activities associated with the powerline.

13. 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, dam or lake	Other	The activity will not use water X
-----------	-------------	-------------	-------------------------------	-------	---

If water is to be extracted from groundwater, river, stream, dam, lake or any other	N	/A
natural feature, please indicate the volume that will be extracted per month:	IN	
Does the activity require a water use authorisation (general authorisation or water	YES	
use license) from the Department of Water Affairs?	IES	

litres

NO X If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

14. ENERGY EFFICIENCY

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

None for this project

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

None for this project.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

2.

1. 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 B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A):

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 X

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property	Province	Kwa-Zulu Natal		
description/physi	District	Uthukela District Municipality		
cal address:	Municipality			
	Local Municipality	Umtshezi Local Municipality		
	Ward Number(s)	KZN234		
	Farm name and	Farm 402		
	number			
	Portion number	Erf 4565; Portion 1 of Erf 4564 and Portion 1 of Erf 4563		
	SG Code	N0FS04020000456300000		
		N0FS04020000456400000		
		N0FS04020000456500000		
	Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.			
Current land-use zoning as per local municipality IDP/records:	The site is used for mining and has been approved for future mining activities.			
		ere is more than one current land-use zoning, please land use zonings that also indicate which portions each application.		

Is a change of land-use or a consent use application required?

YES	NO
	Х

1. **GRADIENT OF THE SITE**

Indicate the general gradient of the site.

The topography of the site for alternative S1, S2 and S3 is gently undulating with a low gradient.

Alternative S1:

Flat	1:50 – 1:20 X	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
Alternative S2	! (if any):					
Flat	1:50 – 1:20 X	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
Alternative S3	(if any):					
Flat	1:50 – 1:20 X	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

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

- 2.1 Ridgeline
- 2.2 Plateau
- 2.5 Open valley 2.6 Plain 2.3 Side slope of hill/mountain

2.7 Undulating plain / low hills 2.8 Dune
2.8 Dune
2.9 Seafront



3. **GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE**

2.4 Closed valley

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

Shallow water table (less than 1.5m deep)

Dolomite, sinkhole or doline areas

Seasonally wet soils (often close to wate bodies)

Unstable rocky slopes or steep slopes with loose soil

Dispersive soils (soils that dissolve in water)

Soils with high clay content (clay fraction more than 40%)

Any other unstable soil or geological feature

An area sensitive to erosion

	YES	NO X
	YES	NO X
er	YES	NO X
h	YES	NO X
	YES	NO X
е	YES	NO X
	YES	NO X
	VEQ	NO

YES

Х

Alternative S1:

Alternative S2 (if any):			
YES	NO X		

Alterna (if any):	
YES	NO X

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).

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	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.

A specialist is not required to complete this section. The site falls within the Natal Central Bushveld of the Savanna Biome. This area is made up of open savannah with scattered trees. No endangered or rare species were identified on this site. The site has been approved for mining activities (Ref number: KZN 30/5/1/2/2/276 MR) and as such the areas chosen for the location of the powerline and towers have already been approved for mining and will therefore be damaged by the approved mining activities. A rehabilitation plan will thereafter be implemented as a condition of the mining permit.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES X	NO	UNSURE
Non-Perennial River	YES	NO X	UNSURE
Permanent Wetland	YES	NO X	UNSURE
Seasonal Wetland	YES	NO X	UNSURE
Artificial Wetland	YES	NO X	UNSURE
Estuarine / Lagoonal wetland	YES	NO X	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

The relocation of the powerline will traverse the Klein Boesmanspruit watercourse. This watercourse is located within the V70D quaternary catchment. The lines will be stringed over the watercourse. No towers will be located within 32m of the watercourse and no activities will take place. The preferred route is located further than 3km from watercourse.

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that 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:

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial AN	Train station or shunting yard N	Mountain, koppie or ridge
Heavy industrial AN	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site (within 500m of the S3)
Quarry, sand or borrow pit	Golf course	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?

N/A

If any of the boxes marked with an "^{An}" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "^H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)		NO
		Х
Core area of a protected area?	YES	NO

		Х
Buffer area of a protected area?	YES	NO
		Х
Planned expansion area of an existing protected area?	YES	NO
		Х
Existing offset area associated with a previous Environmental Authorisation?	YES	NO
		Х
Buffer area of the SKA?	YES	NO
		Х

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES (ALTERNATIVE \$1 AND \$2)

including Archaeological or paleontological sites, on or close (within 20m) to the Uncertain site? If YES, explain:	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),		N)
		Unce	rtain

N/A

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

N/A

Will any building or structure older than 60 years be affected in any way?

Is it necessary to apply for a	permit in terms	of the National	Heritage Resources
Act, 1999 (Act 25 of 1999)?			

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

CULTURAL/HISTORICAL FEATURES (ALTERNATIVE S3) 8.

Are there any signs of culturally or historically significant elements, as defined in	YES	NO
section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999),	IEO	Х
including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:		ertain
N/A		

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

N/A

Will any building or structure older than 60	years be affected in any way	y و
--	------------------------------	-----



NO

Х

NO

Х NO

Х

YES

YES

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES	NO
IES	Х

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

There is a heritage site located within 100m of the route alternative 3. A cultural heritage survey of a proposed powerline route at Blurock adjacent to Estcourt, KwaZulu-Natal produced no heritage features directly adjacent to the proposed route. A Voortrekker memorial and associated graveyard do occur in the south eastern section of the study area. However, this heritage site is situated more than 120m from the proposed route and it is not threatened buy the proposed development. There is no archaeological reason why the proposed development may not proceed as planned. However, attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency. (Prinz, 2013)

9. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

33% as per the 2011/2012 IDP.

Economic profile of local municipality:

Approximately 10% of the total working force in the municipality is skilled. Only 18.3% of the workforce is professional. Trade and craft constitute 10% of the workforce. Wholesale and retail trade employs 1 857 (4.9%) while electricity, gas and water supply employ 4.2% of the population. While agriculture is considered a key economic sector, statistics reveal that the sector employs 2.4% of the economically active population.

Using household income, employment profile and employment by sector, it is strikingly clear that Umtshezi Municipality has a relativelyhigh rate of unemployment, is dominated by low income households and the majority of those who are employed are involved in elementary sectors. Agriculture, which is essentially a dominant land use accounts for a small number of existing jobs. It follows that the majority of the unemployed are in areas with high population concentration (2011 / 2012 IDP).

Level of education:

The majority of the population can be considered functionally illiterate as 70.5% of the population has a primary education and 18.8% % have not been to school (2011 / 2012 IDP).

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion? F What is the expected yearly income that will be generated by or as a result of the activity?

R1.5 million None

Will the activity contribute to service infrastructure?	YES X	NO
Is the activity a public amenity?	YES X	NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	None	
What is the expected value of the employment opportunities during the development and construction phase?	None	
What percentage of this will accrue to previously disadvantaged individuals?	None	
How many permanent new employment opportunities will be created during the operational phase of the activity?	None	
What is the expected current value of the employment opportunities during the first 10 years?	None	
What percentage of this will accrue to previously disadvantaged individuals?	None	

10. BIODIVERSITY

The powerlines and towers will be located in an area that has been approved for mining under the following authorisation umber: (KZN 30/5/1/2/2/276 MR)

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category			Category	If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA) X	No Natural Area Remaining (NNR)	The area falls outside an area of conservation importance.

b) Indicate and describe the habitat condition on site

	Percentage of	Description and additional Comments and
Habitat Condition	habitat	Observations
	condition	(including additional insight into condition, e.g. poor

	class (adding up to 100%)	land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	40 %	The site is an open savannah with scattered trees of Acacia species. The herbaceous layer is variable with secondary grassland dominated by the common thatchgrass and the sour grassland is dominated by the Hairy tridentgrass. Other grass species were also note on site such as the narrowheart lovegrass, pincushion grass, broadleaf bluestem, amongst others. Alien invasive species such as lantana, bugweed and wattle were identified on the site.
Degraded (includes areas heavily invaded by alien plants)	%	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	60 %	This site has an existing mine on the property and has been granted a mining permit for mining dolerite on the property. It is therefore important to note that most of the natural area will undergo mining in the near future. The site also consists of a number of gravel roads and tracks which are used to service the mines.

c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems							
Ecosystem threat	Critical	Wetland (including rivers,							
status as per the Endangered		depressions, channelled and unchanneled wetlands, flats,			Est	iarv	Coastline		
National	Vulnerable	seeps pans, and artificial			Estuary				
Environmental Management:		wetlands)							
Biodiversity Act (Act	Least Threatened	YES	NO	NO	UNSURE	YES	NO	YES	NO
No. 10 of 2004)	No. 10 of 2004) X NO		ONCORE	120	Х		Х		

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

No threatened plant or tress species were identified. The relocation of the powerline will traverse the Klein Boesmanspruit watercourse. This watercourse is located within the V70D quaternary catchment. The lines will be stringed over the watercourse. No towers will be located within 32m of the watercourse and no activities will take place. As previously described, the site has been approved for mining activities by DMR and the site be rehabilitated upon completion of mining activities as per the permit.

SECTION C: PUBLIC PARTICIPATION

Proofs of all notification of the Basic Assessment Process will be provided and confirmed in the final BAR.

1. ADVERTISEMENT AND NOTICE

Publication name	Escourt Midlands	
Date published	July 2013	
Site notice position	Latitude	Longitude
_		
Date placed		

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 54(2)(e) and 54(7) of GN R.543.

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
-	Zaaylager Trust	TBC

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2 (Proofs will be provided in the Final BAR). This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP

implemented in accordance with the sustainable development principles of the National Environmental Management Act 107 of 1998.	
The Umtshezi municipality has no objection to the proposed deviation of powerlines required for the expansion of Blurock Quarries. It is also understood that Eskom has given their approval and that all costs for the deviation will be paid for by Blurock Quarries.	

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR 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 the Final BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Umtshezi Local Municipality	TBC				P.O.Box 15 Estcourt, 3310
Uthukela District Municipality	Mr Dan Ramaoilgum			dan@uthukeladm.co.za	P.O. Box 116, Ladysmith, 3370
Department of Agriculture and Environmental Affairs (KZN)	Mr Todi Netshitangani				Private Bag X9905, Ladysmith, 3370
Department of Water Affairs	TBC				
Department of Mineral Resources	TBC				
Ezemvelo KZN Wildlife	Mr Dominic Weiners				P.O. Box 13053, Cascades, 3202
Eskom	TBC				
AMAFA	Weziwe Tshabalala				P.O. Box 2685 Pietermaritzbug, 3200

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation 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. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

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. 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

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts 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. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Activity	Impact summary	Significance	Proposed mitigation
Alternative '	1 (preferred alternative), Alternative 2	and Alternativ	e 3
	Direct impacts:		
	Potential impact on the flow of the watercourse	Low	No construction activities are allowed to take place within 32m of the watercourse. Towers must not be placed within 32m of the watercourse. Stringing of lines over the watercourse must be done with the use of a helicopter or special arrangements must be made. Existing access roads must be used during the construction and operational phases. Construction camps must be located further than 50m from the watercourse. This must be further managed with the use of the Environmental Management Programme.
	Potential impact on river morphology due to erosion / damage to habitat	Low	No construction activities are allowed to take place within 32m of the watercourse. Towers must not be placed within 32m of the watercourse. Stringing of lines over the watercourse must be done with the use of a helicopter or special arrangements must be made. Existing access roads must be used during the construction and operational phases. Construction camps must be

No impacts are associated with the design and planning phase

Activity	Impact summary	Significance	Proposed mitigation
			located further than 50m from the
			watercourse. This must be further
			managed with the use of the
			Environmental Management Programme
	Potential impact on water quality due to sedimentation or poor construction practises	Low	 Implement suitable stormwater measures during construction to manage ingress of runoff into watercourses. Silt traps to be implemented if required. Ensure proper storage of material (including fuel, paint) that could cause water pollution. Ensure proper storage and careful handling of hazardous substances with spill prevention materials at hand.
			Ensure proper waste management and housekeeping.
	Erosion of stockpiled material	Low	 Material must be stocked in such a way that it cannot fall or cause injury or damage to properties or the natural environment. Stockpiles must not exceed 2m in height and must be covered if exposed to heavy wind or rain. Alternatively, low walls or berms must be constructed
			 around the stockpiles. No material is allowed to be stockpiled within 35m of any watercourse.
			An Environmental Management Programme (EMPr) has been designed to manage construction activities and is included in Appendix G.
	Erosion of steep areas / access roads	Low	 No cutting and filling in areas of 4% sideslope and less. Stabilisation of cleared areas to prevent and control erosion. The method chosen (e.g. watering, planting, retaining structures, commercial anti-erosion compounds) will be selected

Activity	Impact summary	Significance	Proposed mitigation
			 according to the site specific conditions. Drainage management should also be implemented to ensure the minimisation of potential erosion on access roads. Acceptable reinstatement and rehabilitation to prevent erosion during operation phase. A detailed geotechnical assessment may need be undertaken for each tower site prior to commencement of construction activities.
	Contamination of soil due to concrete mixing	Low	Cement mixing must take on a hard surface or cement mixing trays. Construction must be monitored by an ECO who will manage compliance with the construction EMPr.
	Vegetation loss due to construction activities	Low	 Only vegetation directly affected by the construction of the foundation of the tower site may be removed. Topsoil disturbance must be minimised as far as possible. Erosion control measures must be implemented as required. No protected vegetation was identified on site, however it is recommended that a site survey be undertaken prior to commencement of construction activities by the ECO and Engineer, if identified the plant or tree may not be removed without the relevant permit.
	Damage to plant life outside of the proposed distribution line routes	Low	 Any plant accidentally removed outside the proposed routes should be replaced or rehabilitated at the expense of the contractor. Measures must be taken to penalize construction workers who damage plants intentionally or remove plants accidentally without reporting the incident.
	The deviation of the power line may	Low	The encroachment of alien

Activity	Impact summary	Significance	Proposed mitigation
	affect biodiversity through the encroachment of exotic vegetation following soil disturbance, in addition the maintenance of the area would disturb naturalized species within the area.		 vegetation must be monitored regularly and controlled; The area must be kept clear of all invader plants as per the Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983). Rehabilitation measures must be employed until such a time as indigenous species are established. If herbicides are used then correct licenses and permits must be acquired
	Disturbance to fauna and avifauna	Low - Medium	 prior to use. During site preparation special care must be taken during the clearing of the
			 works area to minimize damage or disturbance of any roosting and nesting sites. Barricading measures to be utilised should not restrict the movement of the fauna in the area.
			 area. If any livestock is found on site, it must be carefully relocated outside the construction servitude. If required, bird flappers are to be used to avoid collision right with the deviated lines.
	Bird streamers causing electrical faults	Low	risks with the deviated lines. Perch management through the use of bird guards can be used and fitted at least 1m directly above and on both sides of the phase conductor. Open perch areas should be allowed to remain after construction.
	Collision of birds with the power lines	Low	 People responsible for maintaining the area should monitor for collisions and report any incidents. Eskom employees and or subcontractors to remain inside construction footprint. All staff to be informed of disciplinary actions for the wilful damage to plants and animals.
			 Fitting bird flappers on the lines within migratory pathways and the major migratory routes pertaining to

Activity	Impact summary	Significance	Proposed mitigation
			 the project area to coincide with sensitive areas such as river valleys and prominent ridge systems. Maintenance crews to monitor for bird collisions and to mitigate for this impact within areas identified as hotspot collision areas not previously identified during the pre-construction and construction and phase
	Damage of heritage resources	Low	 construction and phase. Should any remains and/or artefacts be discovered on the site during earthworks, all construction work will stop in the area affected and the Contractor will immediately inform the Manager. A registered heritage specialist must be called to site. Should any heritage resources be exposed during excavation or be found on site, AMAFA must be informed about the finding. No heritage material may be destroyed or removed from site. If any heritage structures cannot be avoided the relevant permit must be obtained from AMAFA Should any remains be found on site that is potentially human remains, the South African Police Service should also be contacted.
	Reduction in visual quality due to construction activities and poor housekeeping	Low	 Suitable screening of works area. Construction camps to be situated in areas with reduced impact to surrounding community members. On-going housekeeping to maintain a tidy construction area. Proper reinstatement and rehabilitation of construction area must be undertaken.
	Reduction in visual quality due to towers and lines	Low	Trees should be used to screen the towers where possible, however there is an existing line in

Activity	Impact summary	Significance	Proposed mitigation
			place and the project is to merely relocate the line within the same property.
	Potential employment for local skilled workers, Deviation will also allow for mining to continue therefore contributing to the local economy.	High	No mitigation required, positive impact.
	Temporary disruption of traffic during construction	Low	 Existing roads will be used and must be rehabilitated if damaged in any way. Flagsman should be used to control traffic. Speed limits must be implemented and maintained.
	Emission and dust generated during the construction phase	low	Vehicles that are not in good working order must be removed from site. Emissions generated from construction vehicles will be minimal and is not expected to significantly affect surrounding residents or hotel patrons. A water truck should be used to wet bare ground.
	Noise generated by construction vehicles and other vehicles	Low	Excessive noise must be controlled on site. Workers will be trained regarding noise on site and construction hours will be kept to working hours (07h00 to 17h00). The construction will need to be monitored by an ECO who will ensure compliance with the construction EMPr. All precautions must be taken to ensure that noise generation is kept to a minimum. If excessive noise is expected during certain stages of the construction, residents must be notified prior to the event. An Environmental Management Programme (EMPr) has been designed to manage construction activities.
	The improper storage and disposal of waste resulting in contamination of surrounding environment	Low	Hazardous waste: Hazardous waste must be stored on a hard surface within a bunded area and must not be allowed to enter storm water drains and the surrounding environment. Waste must be disposed of regularly by a reputable contractor to a n approved landfill site. Hazardous waste such as oils, contaminated rags etc. must be disposed of at a

Activity	Impact summary	Significance	Proposed mitigation
			hazardous class landfill. Safe disposal certificates must be obtained and kept on site at all times.
			General Waste: Waste must be stored in the bins within the waste collection area in the Construction Camp and must not be allowed to blow around the site, be accessible by animals, or be placed in piles adjacent the skips / bins. Separate waste bins for each of the waste streams generated must be provided. The waste containers must be appropriate to the waste type contained therein and where necessary should be lined and covered. Waste must not be allowed to accumulate on site but should be disposed of regularly by a reputable contractor and must be disposed of at an appropriate landfill site.
			Steel and Rubble: All excess material and rubble must be removed from the site so not to restrict the rehabilitation process. All excess material and rubble must go to an approved, designated landfill and a safe disposal certificate must be obtained.
	Potential issues related to the electro magnetic field impacts	Low	Potential impacts are anticipated to be minimal based on previous studies undertaken by Eskom however the tower sites must be adequately fenced and danger and warning signs must be appropriately utilised.
	Potential impact on construction activities due to blasting or other mining activities	Low	The mine manager must be notified of the commencement of construction activities. All construction workers must undergo the mining induction and must be made aware of any potential activities that may affect the workers or construction activities.
	Waste produced during the decommissioning / closure phase	Low	It is not anticipated that the deviated line will be

Activity	Impact summary	Significance	Proposed mitigation
	incorrectly disposed off		decommissioned, however should this occur, the steel for the towers and the lines must be removed and recycled where possible. If this is not possible, the waste must be sent to a registered landfill site. The concrete used for the foundations are to be removed and the site to must be rehabilitated with indigenous vegetation.
	<i>Indirect impacts:</i> Potential for construction waste to be disposed of at incorrect landfill resulting in contamination at the landfill site.	Low	Recycling should be undertaken where possible to limit waste added to the Landfill site. Waste to be sent to registered landfills and safe disposal certificates must be retained for hazardous waste.
	<i>Cumulative impacts:</i> Loss of indigenous vegetation within the Savanna Biomes	Low	The deviation will result in the loss of vegetation which will contribute to the degradation and loss of indigenous within the savannah biome. It is however important to note that as part of the mining permit, this site will be rehabilitated to an eco tourist conservancy area.
	Emission and dust generated in the area	Low	The increase in emissions will contribute to the existing emissions released by the mining activities, however the following mitigation must still be implemented to reduce emissions. Vehicles that are not in good working order must be removed from site. Emissions generated from construction vehicles will be minimal and is not expected to significantly affect surrounding residents or hotel patrons. A water truck should be used to wet bare ground.
	Noise generated from construction vehicles	Low	The construction activities will contribute to the increased noise in the area that is already created from mining activities. However the noise from the construction activities is anticipated to be minimal.

Activity	Impact summary	Significance	Proposed mitigation
	Increase in waste sent to the landfill	Low	Waste streams must be separated and recycled where possible to limit the amount of waste being added to the landfill site. Where possible, materials suitable enough to be used as fill material, should be used as fill to further reduce waste being sent to the landfill site.
Alternative 3		1	
	<i>Direct impacts:</i> Damage to the Voortrekker Heritage	Medium	 The site must be clearly demarcated. No towers should be located
	site		 No towers should be located within 100m of the heritage site. Contractors must be made aware of the site and that it is a no-go area. Should the site be damaged in any way, construction activities must stop and AMAFA must be immediately contacted.
Alternative 2	only		contactor.
	Direct impacts: Vegetation loss due to construction activities	Low-Medium	 Only vegetation directly affected by the construction of the foundation of the tower site may be removed. Topsoil disturbance must be minimised as far as possible. Erosion control measures must be implemented as required. No protected vegetation was identified on site, however it is recommended that a site survey be undertaken prior to commencement of construction activities by the ECO and Engineer, if identified the plant or tree may not be removed without the relevant permit.
No-go option		[
	Direct impacts: Potential damage to power supply and damage to infrastructure Potential health and safety risk	High High	The power may be disrupted to blasting activities resulting to damage to the powerline and associated infrastructure. The power may be disrupted to
	caused as a result of impact to		blasting activities resulting to

Activity	Impact summary	Significance	Proposed mitigation
	powerline from blasting activities		damage to the powerline and associated infrastructure. This may result to a health and safety risk to mine workers and surround businesses.
	<i>Indirect impacts:</i> Potential loss of income and possible retrenchment for employees if the powerline is not relocated as the mine may be able to proceed with the mining activities.	High	This will result in the loss of jobs, also having a negative effect on the economy. This cannot be mitigated against.
	Cumulative impacts: N/A	N/A	N/A

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 must be included as Appendix F.

2. 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 <u>after</u> 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.

Alternative S1 (preferred alternative)

2.2km of the existing 1 Colenso- Gowrie 88kV powerline will be removed and deviated. Route alternative 1 (S1) is recommended as the preferred alternative as it is the Best Practicable Environmental Option. With the selection of the BPEO for the deviation of the 88kV line, the adoption of the mitigation measures included in this report and the dedicated implementation of the Environmental Management Programme (EMPr), it is believed that the significant environmental aspects and impact associated with this project can be suitably mitigated.

The most significant impacts associated with this route alternative is the potential loss of vegetation as this is an existing mining site, where construction equipment are already present and where there is already existing disturbances in terms of noise, air quality etc. The potential impact on vegetation is anticipated to be minimal as only 4 towers will be erected for the deviation. All other potential impacts associated with this alternative can be mitigated against and the significance of those impacts are low. This option is also the most cost effective route and the shorter route in comparison to alternative S2.

It is believed that there are no fatal flaws with this route option and provided that all mitigation measures as per this Basic Assessment Report and the EMPr are followed, together with the implementation of a ECO, the potential impacts can be mitigated against and minimised and are off low significance.

Alternative S2

2.2km of the existing 1 Colenso- Gowrie 88kV powerline will be removed and deviated. Should route option S2 be chosen as the preferred alternative for the deviation of the 88kV line, with the adoption of the mitigation measures included in this report and the dedicated implementation of the Environmental Management Programme (EMPr), it is believed that the significant environmental aspects and impact associated with this project can be suitably mitigated.

The most significant impacts associated with this route alternative is the potential loss of vegetation as this is an existing mining site, where construction equipment are already present and where there is already existing disturbances in terms of noise, air quality etc. The potential impact on vegetation is anticipated to be of low significance, as only 6 towers will be erected for the deviation. All other potential impacts associated with this alternative can be mitigated against and the significance of those impacts are low.

Should this alternative be selected, the route will follow site alternative 3. This option is not considered to the be the BPEO as the potential impact in terms of the loss of vegetation is greater for this route as this route will have 6 towers sites in comparison to 4 for site alternative 1 and 5 for site alternative 2. This option is more costly than site alternative 1 and 3. However the potential impacts can be mitigated against and if the conditions of this Basic Assessment Report and the measures of the EMPr are adhered to, the potential impacts are low-medium significance. This option is the most expensive option and the longest route option.

Alternative S3

2.2km of the existing 1 Colenso- Gowrie 88kV powerline will be removed and deviated. Should route option S3 be chosen as the preferred alternative for the deviation of the 88kV line, with the adoption of the mitigation measures included in this report and the dedicated implementation of the Environmental Management Programme (EMPr), it is believed that the significant environmental aspects and impact associated with this project can be suitably mitigated.

The most significant impacts associated with this route alternative is the potential damage to the Voortrekker Heritage site and the potential loss of vegetation as this is an existing mining site, where construction equipment are already present and where there is already existing disturbances in terms of noise, air quality etc. As per the HIA, this proposed route is further than 100m from the proposed heritage and will therefore not have any direct on the heritage site. The potential impact on vegetation is anticipated to be of low significance, as only 6 towers will be erected for the deviation. All other potential impacts associated with this alternative can be mitigated against and the significance of those impacts are low.

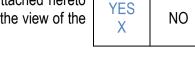
Should this alternative be selected, the route will follow site alternative 2. This option is not considered to be the BPEO as the powerline will be in closer proximity to the Voortrekker heritage site in comparison to S1 and S2. This route will also be closer to the town in comparison to the other 2 alternatives. However the potential impacts cannot be prevented, but it can be mitigated against. Should the mitigation measures as per the BAR and EMPr be adhered to the potential impact is considered to be of low-medium significance.

No-go alternative (compulsory)

Should the no-go alternative be approved, then there may be damage and or destruction to the existing powerline resulting to disruption of power and may also present a health and safety risk. Furthermore there may also be a loss of income and retrenchment associated if the powerline is damaged or if the mining activities cannot proceed as a result of the location of the existing line.

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)?



YES

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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).

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.

- It is recommended that route alternative S1 be chosen as the preferred option.
- All conditions of the BAR and the EMPr must be strictly adhered to, it is recommended that an ECO be appointed to monitor compliance of the conditions of the Environmental Authorisation together with the conditions of the EMPr and the BAR.
- All other relevant legislation must be adhered to, including conditions of the existing mining permit for the site.
- All existing services that may be affected by the proposed deviation must be identified prior to commencement of construction activities.
- All watercourses must be clearly marked as no-go and a 35m buffer must be implemented. No work is allowed to take place in the watercourse without the relevant permit. Suitable stormwater management measures must be implemented.
- The Mine Manager of Blurock Quarry must be contacted upon authorisation, prior to commencement of any construction activities on site.

Is an EMPr attached?

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

Dudu Ngidi

NAME OF EAP

SIGNATURE OF EAP

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

- Appendix B: Photographs
- Appendix C: Facility illustration(s)
- Appendix D: Specialist reports (including terms of reference)
- Appendix E: Public Participation
- Appendix F: Impact Assessment
- Appendix G: Environmental Management Programme (EMPr)
- Appendix H: Details of EAP and expertise
- Appendix I: Specialist's declaration of interest
- Appendix J: Additional Information

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Public Participation

Site notice (E1)

Proof of I & AP and State Authority Notification (E2)

(To be provided in the Final BAR as I & Aps will be notified of the release of the Draft BAR)

Background Information Document (BID) (E3)

List of registered I and Aps (E4)

Comments and response table and actual comments (E5)

(To be provided in the Final BAR)

KZN Wildlife	Ezemvelo does not anticipate that the proposed activity would result in significant negative impacts upon local biodiversity, provided that best practice mitigation measures are implemented during the construction and operational phase. All the appropriate measures to safeguard the ecological integrity of the receiving environment must be implemented in accordance with the sustainable development principles	Noted. The best practicable environmental route will be chosen and all impacts will be prevented where possible, if not minimised and managed.
	of the National Environmental Management Act 107 of 1998.	
Umtshezi Local Municiaplity	The Umtshezi municipality has no objection to the proposed deviation of powerlines required for the expansion of Blurock Quarries. It is also understood that Eskom has given their approval and that all costs for the deviation will be paid for by Blurock Quarries.	It is acknowledged that the municipality has no objection.

Other correspondence with I and Aps (E6)

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information

Site / Route Alternative Number	South	East	
Start Point	29º0'27.55"S	29º53'25.61"E	
1	28°59'54.83"S	29°52'50.60"E	
2	28°59'50.00"S	29°52'58.02"E	
3	28°59'53.16"S	29°53'6.45"E	
4	28°59'56.35"S	29°53'14.99"E	
5	28°59'59.59"S	29°53'23.54"E	
6	29° 0'4.86"S	29°53'28.21"E	
7	29° 0'12.93"S	29°53'27.29"E	
8	29° 0'21.06"S	29°53'26.40"E	
End Point	29º69'59.68S	29°52'43.04"E	

Co-ordinates for alternative Routes

Site / Route Alternative2 (S2):

Number	South	East	
Start Point	29º0'27.55"S	29º53'25.61"E	
1	28°59'51.48"S	29°52'43.18"E	
2	28°59'43.43"S	29°52'43.23"E	
3	28°59'35.15"S	29°52'43.29"E	
4	28°59'34.24"S	29°52'48.59"E	
5	28°59'37.56"S	29°52'56.98"E	
6	28°59'40.91"S	29°53'5.34"E	
7	28°59'44.09"S	29°53'13.81"E	
8	28°59'47.23"S	29°53'22.20"E	
9	28°59'50.59"S	29°53'30.55"E	
10	28°59'53.91"S	29°53'38.99"E	
11	29° 0'1.91"S	29°53'37.49"E	
12	29° 0'9.94"S	29°53'36.01"E	
13	29° 0'17.86"S	29°53'34.55"E	
14	29° 0'24.19"S	29°53'29.84"E	
End Point	29º69'59.68S	29º52'43.04"E	

Site / Route Alternative 3 (S3):

Number	South	East	
Start Point	29º0'27.55"S	29º53'25.61"E	
1	29° 0'6.75"S	29°52'47.88"E	
2	29° 0'13.92"S	29°52'51.97"E	
3	29° 0'21.29"S	29°52'56.19"E	
4	29° 0'27.90"S	29°53'2.00"E	
5	29° 0'33.67"S	29°53'8.68"E	
6	29° 0'35.33"S	29°53'16.24"E	
7	29° 0'31.92"S	29°53'24.60"E	
End Point	29º69'59.68S	29°52'43.04"E	