ENVIRONMENTAL SCOPING REPORT

FOR THE PROPOSED ESTABLISHMENT OF A THIRD 400kV TRANSMISSION LINE BETWEEN POSEIDON SUBSTATION (near Cookhouse) AND GRASSRIDGE SUBSTATION (near Port Elizabeth), EASTERN CAPE PROVINCE AND THE EXTENSION OF GRASSRIDGE SUBSTATION

DRAFT FOR I&AP COMMENT

28 June 2002

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PURPOSE OF THIS DOCUMENT

Eskom Transmission propose the construction of a third 400 kV Transmission line between Poseidon Substation (located near Cookhouse) and Grassridge Substation (located near Coega, Port Elizabeth) in order to meet the escalating power demands within the greater Port Elizabeth area. This Transmission line is proposed to be constructed within the Eskom servitude currently occupied by the Poseidon-Grassridge 220 kV line. This will necessitate the dismantling of the old 220 kV Transmission line towers, and the erection of new towers capable of supporting the 400 kV infrastructure. It is envisaged that cross-rope suspension-type towers will be utilised, as these are less steel-intensive and have a reduced visual impact. However, in order to accommodate the new Transmission line, a widening of the servitude width will be required.

The Grassridge Substation north of the Coega Industrial Development Zone (IDZ) is proposed to be extended to accommodate the new line bay. This extension work will require additional land adjacent to the existing substation site, and a 'mirror-image' of the existing Substation will be established.

Environmental studies are currently being undertaken by Bohlweki Environmental (as independent consultants), the aim of which are to identify and assess all potential environmental (biophysical and social) impacts associated with the proposed project. These studies are being undertaken in accordance with the Environmental Impact Assessment (EIA) Regulations of the Environment Conservation Act (No 73 of 1989), as well as the National Environmental Management Act (NEMA), No 107 of 1998.

The environmental studies are required to reflect the impacts associated with the project, and provide an assessment of the project in terms of the biophysical, social and economic environments. It is this assessment which aids both the environmental authorities (in this case both the National and the Eastern Cape Departments of Environmental Affairs and Tourism) and the proponent (i.e. Eskom Transmission) in making decisions regarding the future of the project.

The environmental studies for this project will follow a 2-phased approach. *This report* is a product of ***Phase 1***, and reflects identified issues and concerns which are required to be evaluated by specialists and documented within ***Phase 2***.

Phase 1: Issues-based Environmental Scoping Study:

Identification of potential impacts (both social and biophysical) associated with the construction of the proposed Transmission line and extension of the Grassridge Substation. This issues report acts as a discussion document, and comments from I&APs on this report are encouraged.

Phase 2: Environmental Impact Assessment Report:

Further investigation and assessment of all potentially significant environmental impacts (social and biophysical) identified in the Environmental Scoping Study. Mitigation measures are to be recommended, where required.

In accordance with the EIA Regulations, all interested and affected parties (I&APs) must be afforded the opportunity to raise any issues and/or concerns regarding the proposed project, and to ensure that all issues raised are incorporated into the environmental reports. This Environmental Scoping Report aims to identify potential impacts associated with the proposed project and to propose further studies which are required to be undertaken and included within the EIA Report. Comments on this report are, therefore, encouraged and should aim to identify any issues and concerns which have not been included to date. The deadline date for comments on this document is *Monday, 29 July 2002*. All comments should be directed to the public participation consultant detailed below.

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SUMMARY OF WHAT THE ISSUES SCOPING REPORT CONTAINS:

The following information is included within this report:

- an overview of the purpose and need for the proposed project;
- a brief description of the proposed project, including a locality map;
- a brief overview of the EIA process to be undertaken, including the public participation process; and
- a discussion regarding the potential environmental (biophysical and social) impacts and issues which have been identified to date and how these will be investigated by Specialists for evaluation within the EIA Report.

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ACRONYMS AND ABBREVIATIONS

AENP	Addo Elephant National Park
CRS	Cross-rope suspension
DEAT	Department of Environmental Affairs and Tourism
EC DEAET	Eastern Cape Department of Economic Affairs, Environment and Tourism
EIA	Environmental Impact Assessment
ESS	Environmental Scoping Study
ha	Hectares
I&AP	Interested and Affected Party
I&APs	Interested and Affected Parties
IDZ	Industrial Development Zone
kV	Kilovolt
NEMA	National Environmental Management Act
NGOs	Non-governmental Organisations
SANParks	South African National Parks
SIA	Social Impact Assessment

1. OVERVIEW OF THE PROPOSED PROJECT

1.1. Motivation for the Proposed Project

As electricity cannot be stored, power is generated and delivered over long distances at the very instant that it is required. In South Africa, thousands of kilometres of high voltage Transmission lines (i.e. 765 kV, 400 kV and 275 kV Transmission lines) transmit this power, which is predominantly generated at the powerstations located within the Mpumalanga Province, to Eskom's major substations. At these major substations, the voltage is down-rated and distributed to smaller substations all over the country via Distribution lines (e.g. 132 kV, 88 kV and 66 kV lines). Here the voltage is down-rated further for distribution to industry, businesses, farms and homes. In order to maintain a reliable power supply within the entire network, the voltages at all substations are required to be within certain desired limits. If the network is operated at voltages which are below these limits, voltage collapse problems and power outages may be experienced.

In the event of a network being increasingly operated above its design capacity during peak periods, two particular concerns arise:

- energy losses increase significantly along the Transmission line; and
- the voltage drop along the lines increases to a point where supply becomes unstable, and supply on that Transmission line is lost.

1.2. The Purpose and Need for the Proposed Project

The Grassridge Substation (located near the town of Coega, on the outskirts of Port Elizabeth) is the main substation supplying power for distribution to the Greater Port Elizabeth area. This substation is currently supplied with electricity via the Poseidon-Grassridge No 1 400 kV and 220 kV Transmission lines. These existing Transmission lines are presently heavily loaded, and are close to reaching their full capacity of 550 megawatts. A second 400 kV Transmission line between these two substations is to be constructed in the near future within the vacant registered servitude which lies directly adjacent (to the west) to the existing 220 kV Poseidon-Grassridge Transmission line in order to supplement this supply.

However, Greater Port Elizabeth's growing electricity demand, together with the proposed development of the Coega Harbour and associated IDZ is placing an increasing demand on the Transmission network in the Greater Port Elizabeth area. Investigations have shown a

steady 2% per annum average load growth for the Port Elizabeth area, which is predicted to continue, and even elevate. The proposed Coega Harbour and IDZ alone is estimated to require an additional load of 250 megawatts during its initial onset phase. In addition, an aluminium smelter is proposed to be constructed within the Coega IDZ in the near future. This proposed smelter will place an increased demand on the power supply to the Greater Port Elizabeth area, requiring approximately 1 000 megawatts for operating purposes.

The existing Poseidon-Grassridge No 1 400 kV and 220 kV Transmission lines, as well as the proposed Poseidon-Grassridge No 2 400 kV Transmission line do not have sufficient capacity to supply the anticipated additional load without jeopardising the supply to the current customers (including the Port Elizabeth City Council, which supplies other sensitive industrial customers such as the automotive industry).

In order to meet this increasing demand, more power is required to be transmitted to this area for use. It is, therefore, considered a feasible option to upgrade the capacity of an existing line (i.e. the 220 kV) to a higher voltage (i.e. 400 kV), and replace the older infrastructure with new infrastructure. In order to accommodate this new Transmission line infrastructure, the Grassridge Substation north of the Coega Industrial Development Zone (IDZ) is proposed to be extended to accommodate a new 400 kV infrastructure. This extension work will require additional land adjacent to the existing substation site, and a 'mirror-image' of the existing Substation will be established (refer to Figure 1.1).

1.3. Key Project Information

- The Transmission line is proposed to be established within the existing Eskom servitude, and the existing 220 kV Transmission line will be 'recycled' through the construction of this proposed 400 kV Transmission line (refer to Figure 1.1 overleaf).
- The distance between the existing Poseidon and Grassridge Substations is approximately 100 km (as the crow flies).
- The old 220 kV towers will be dismantled, and new towers will be erected. Where feasible, the cross-rope suspension (CRS) tower will be used. These consist of two masts and four guy ropes, and is less visually intrusive than conventional towers (refer to Figure 1.2).
- Use of CRS towers will require a widening of the servitude width in order to accommodate the 400 kV Transmission line towers.
- The bend and strain towers will be self-supporting towers (refer to Figure 1.3).

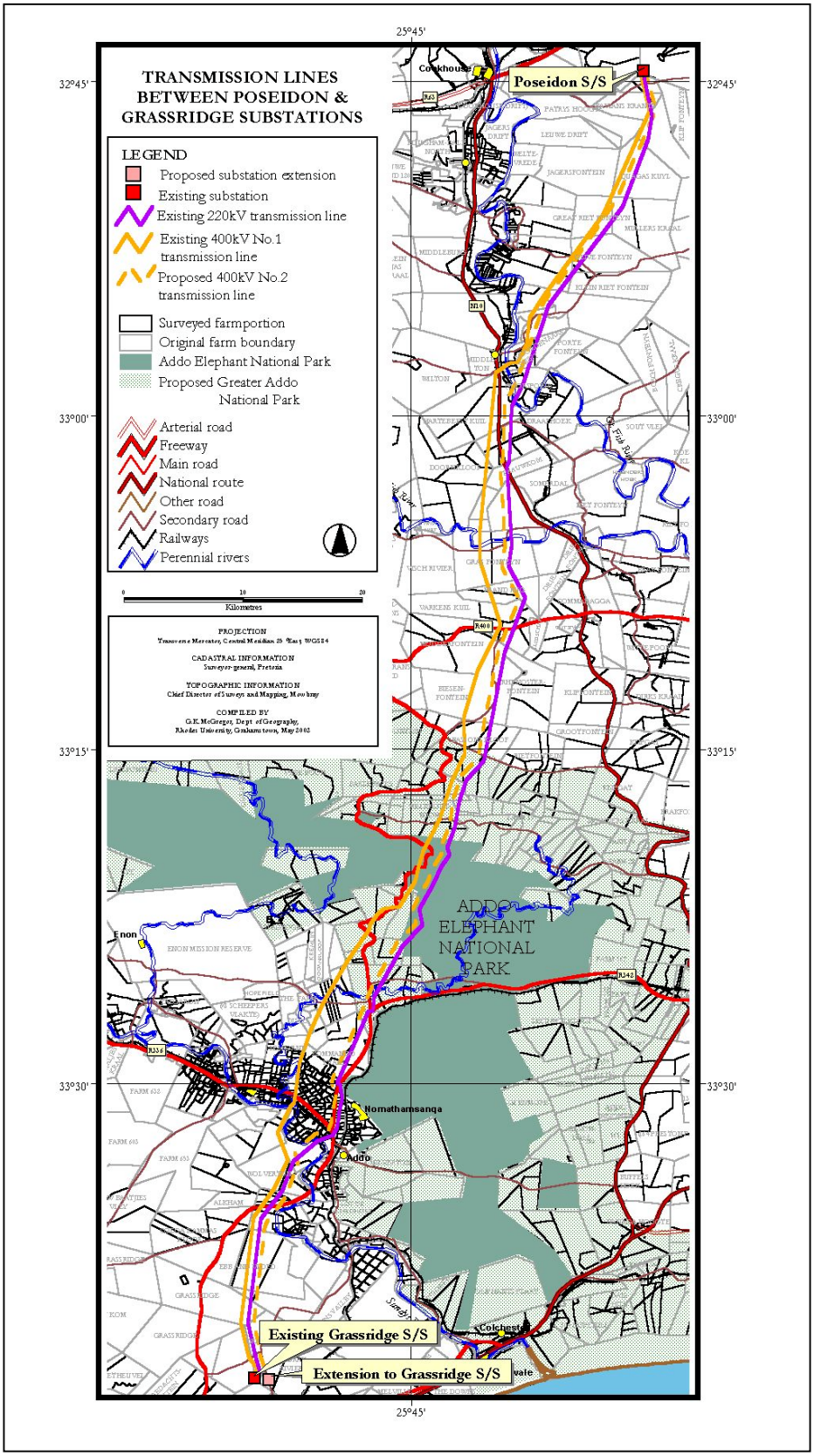


Figure 1.1: Map showing the existing and proposed Transmission lines between the Poseidon and Grassridge Substations, as well as the existing and proposed extension to Grassridge Substation

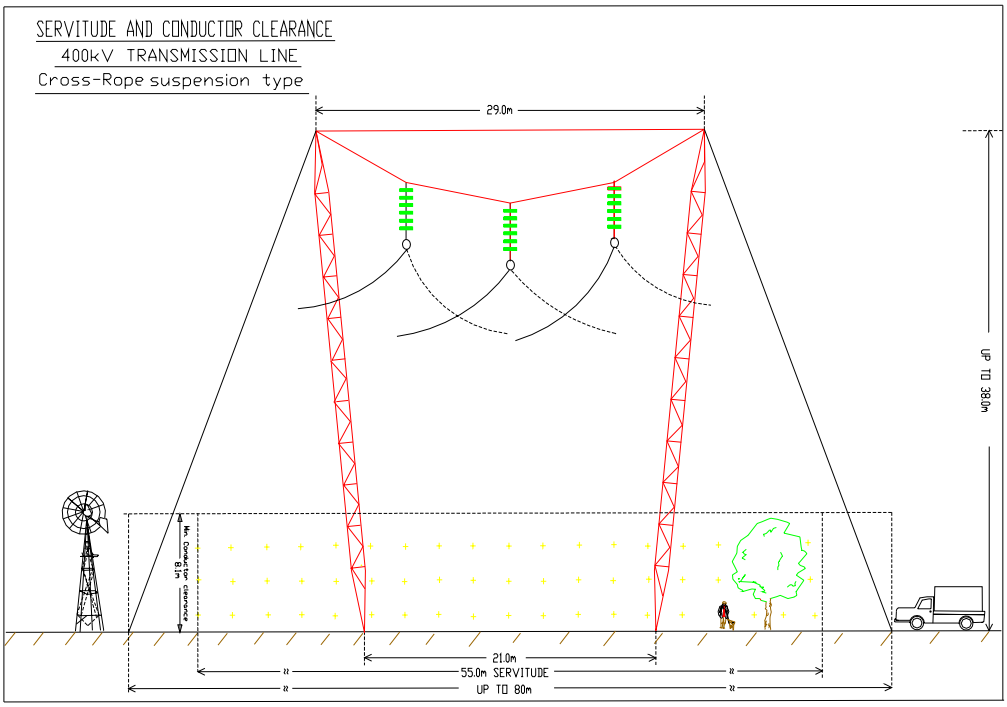


Figure 1.2: Diagrammatic representation of the cross-rope suspension tower

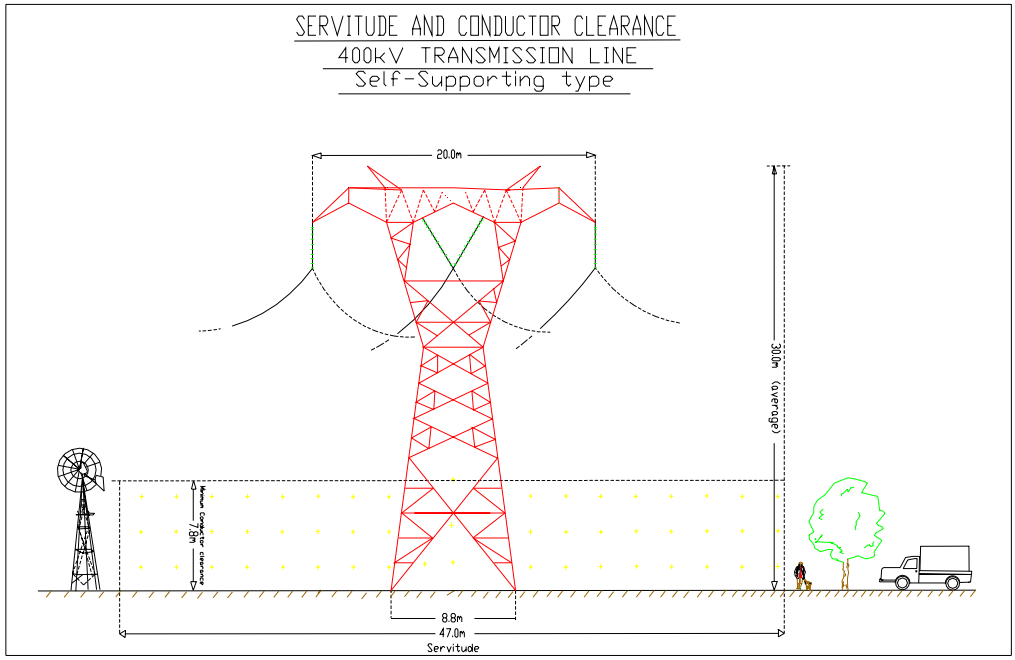


Figure 1.3: Diagrammatic representation of the self-supporting tower

- A 'mirror-image' of the existing Grassridge Substation is proposed to accommodate all new planned infrastructure, and to ensure reliability and robustness of the substation.

- The land beneath the overhead lines can be utilised, as normal, by the landowners. Eskom, however, require that no dwellings or vegetation/crops higher than 4 m occur within the servitude.
- The Grassridge Substation supplies all power to the Greater Port Elizabeth area, as well as the Coega IDZ.
- The total footprint area required for the extension of the substation is estimated at 49 ha (700 m x 700 m). This extension is proposed to be located on the eastern side of the existing substation (refer to Figure 1.4).

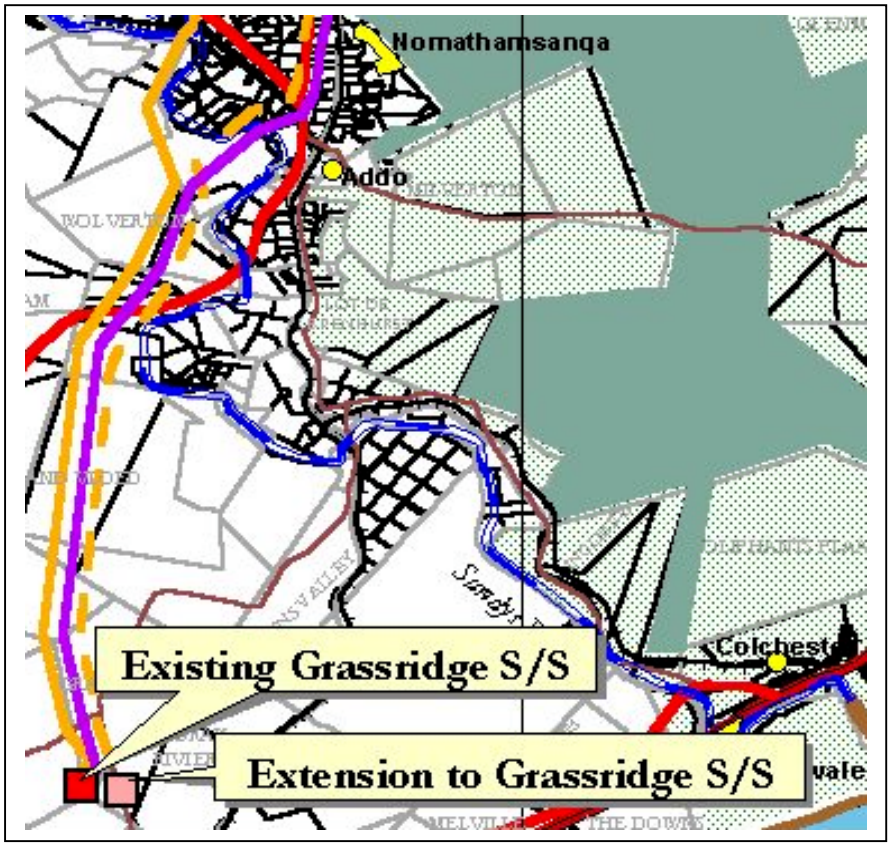


Figure 1.4: The extension to Grassridge Substation is proposed to be located on the eastern side of the existing substation

2. THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

2.1. Approach to Undertaking the Study

An assessment of the environmental impacts of this proposed project is currently being undertaken in accordance with the Environmental Impact Assessment (EIA) Regulations published in Government Notice R1182 to R1184 of 5 September 1997 in terms of the Environment Conservation Act (No 73 of 1989), as well as the National Environmental Management Act (NEMA), No 107 of 1998. In terms of Government Notice R1182 (schedule 1) under this Act, the construction of "facilities for commercial electricity generation and supply" is considered as a listed activity which may have an impact on the environment.

The environmental studies are being undertaken in a 2-phased approach:

2.2. Phase 1: Issues-Based Environmental Scoping Study

A Detailed Environmental Scoping Study was undertaken for the Poseidon-Grassridge No 2 400 kV Transmission line (Bohlweki Environmental, May 2001) to identify issues associated with a new Transmission line within a broader study area. This new Transmission line falls within the same study area considered for this previous study. Therefore, this report formed the basis of the identification of issues associated with the replacement of the existing 220 kV Transmission line with a 400 kV Transmission line between the Poseidon and Grassridge Substations. This existing information was supplemented with specialist and interested and affected party (I&AP) input, where required.

Existing information has been used to identify potential impacts (both social and biophysical) associated with the proposed extension to the Grassridge Substation, and to highlight areas which should be avoided in order to minimise these biophysical and social impacts. A public participation process has been undertaken to identify issues and concerns of key stakeholders and I&APs.

A preliminary investigation of all potential impacts associated with this proposed project has been undertaken, the results of which are included within this issues-based Environmental Scoping Report. Comment from I&APs on this issues report is encouraged in order to ensure that all potential impacts are being considered within the ambit of the study. This report acts as

a discussion document and will add value to the Environmental Impact Assessment Report (Phase 2).

2.3. Phase 2: Environmental Impact Assessment

Information obtained from the Detailed Environmental Scoping Study undertaken for the Poseidon-Grassridge No 2 Transmission line (Bohlweki Environmental, May 2001) will be utilised in the assessment of the potential impacts associated with the proposed new Transmission line. All potential significant environmental impacts (social and biophysical) associated with the proposed extension of the Grassridge Substation identified in the scoping study will be further investigated through specialist studies, and their significance assessed. Mitigation measures will be proposed, where required.

The following characteristics of each of the potentially significant impacts will be identified:

- the *nature*, which shall include a description of what causes the effect, what will be affected and how it will be affected;
- the *extent*, wherein it will be indicated whether the impact will be local, limited to the immediate surroundings or regional;
- the *duration*, wherein it will be indicated whether the lifetime of the impact will be short, medium, long term or permanent;
- the *probability*, which shall describe the likelihood of the impact actually occurring, indicated as improbable, probable, highly probable or definite;
- the *significance*, which shall be determined through a synthesis of the characteristics described above and can be assessed as low, medium or high; and
- the *status*, which will be described as either positive, negative or neutral.

The EIA will aim to adequately investigate and address all environmental issues in order to sufficiently fulfil the Department of Environmental Affairs and Tourism's (DEAT) needs in order to make an informed decision regarding the proposed project. Both the National and the Provincial (Eastern Cape) environmental authorities will review the environmental studies, and together will make final decisions regarding the project and under what conditions the project may proceed.

2.4. Public Participation Process

Emphasis has been placed on a fully-inclusive, open and transparent public participation process and the transfer of information regarding the proposed project to all I&APs. The provision of sufficient and informative information on an on-going basis to I&APs to allow them to participate in the project and offer comments is a cornerstone of this EIA process.

The public participation process commenced at the beginning of the project, together with the environmental studies, and will continue throughout the duration of the project. The process has been implemented in stages in order to ensure effective participation of all I&APs. These 4 stages are detailed below:

STAGE 1:

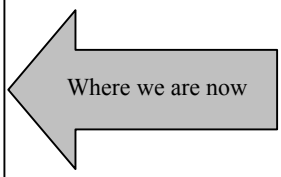
Identification of and consultation with relevant I&APs, & dissemination of information (briefing papers)

May - August 2002

STAGE 2:

All issues and concerns raised to date have been used in the compilation of this Issues Report. This draft issues-based Environmental Scoping Report has been made available for public comment. Comments on this report will ensure that all potential impacts are being considered within the ambit of the study, and will be documented as part of the EIA process within the Environmental Impact Report (Phase 2).

Review period: 28 June – 29 July 2002



STAGE 3:

An Environmental Impact Assessment Report, detailing and assessing all potential environmental impacts, will be drafted. This final report will be made available for final comment by the public prior to being forwarded to the DEAT authorities to assist in decision-making.

August 2002

STAGE 4:

A Record of Decision will be received from the DEAT authorities. All I&APs will be informed of the decision and any specific requirements.

In order to create awareness regarding the proposed project and the public participation process, a number of mechanisms have been used:

2.4.1. Newspaper Advertisements

In terms of the EIA Regulations, the commencement of the EIA process for the project was advertised within the following regional and local newspapers: the Herald, Die Burger and the Somerset Budget (refer to Appendix A). This advertisement outlined the EIA process and requested interested and affected parties (I&APs) to register and become involved in the project. The primary aim of these advertisements was to ensure that the widest group of I&APs possible were informed of the project.

2.4.2. Identification of I&APs

The first step in the public participation process was to identify key stakeholders, including:

- central and provincial government representatives;
- local authorities (e.g. Nelson Mandela Metropolitan Council, Blue crane Route Municipality and Sundays River Valley Municipality);
- farmers unions and associations;
- affected and neighbouring landowners;
- NGOs; and
- community-based organisations.

The I&AP database compiled during the public participation process undertaken for the Detailed Environmental Scoping Study for the Poseidon-Grassridge No 2 400 kV Transmission line (Bohlweki Environmental, 2001) was used as a basis for the identification of I&APs within the study area. In addition, a deeds search was conducted by Eskom in order to identify landowners along the existing 220 kV Transmission line. This I&AP database was updated throughout the duration of the ESS Phase, and is included within Appendix B.

2.4.3. Briefing Paper

A briefing paper for the project was compiled in English and Afrikaans. The aim of this document was to provide a brief outline of the proposed project, provide preliminary details regarding the EIA, and explain how I&APs could become involved in the project (refer to

Appendix C). The briefing paper was distributed to all identified I&APs, together with a comment sheet and map, inviting I&APs to register for the proposed project and submit details of any issues and/or concerns.

2.4.4. Networking Meetings

In order to create further awareness and identify issues of concern the public participation consultant travelled the route of the proposed Transmission line to meet with landowners. Where available, the landowners were personally spoken to and informed about the project and their issues and/or concerns noted. Meetings were also held with key stakeholders in the area, such as local councils, South African National Parks (SANParks), and farmer's associations. In addition, various telephonic discussions were held with I&APs to inform them of the proposed project and to note their initial comments.

2.4.5. Social Issues Trail

All issues and/or concerns raised during the first phase of the public participation process undertaken were compiled into an Issues Trail (refer to Appendix D). This information is incorporated as the core of the scoping of social issues within this Environmental Scoping Report.

2.4.6. Public Review of the Draft Environmental Scoping Report

This is the current stage of the public participation process. The draft Environmental Scoping Report has been made available for public review at strategic public locations within the study area which are readily accessible to I&APs. Feedback received during this review period will be compiled into an Issues Trail and incorporated into the final Environmental Scoping Report, which will be submitted to the environmental authorities for review and acceptance prior to commencing with Phase 2 of the process (i.e. the EIA).

2.5. Legal Considerations

A limited scoping of relevant legislation was undertaken in order to identify any legal issues related to the proposed project. Applicable environmental legislation which must be considered by Eskom during the implementation of the proposed project is summarised in Table 2.1 overleaf.

Table 2.1: Summary of applicable legislation

Legislation	Sections	Relates to
The Constitution Act (No 108 of 1996)	Chapter 2	Bill of Rights
	Section 24	Environmental rights
	Section 25	Rights in property
	Section 32	Administrative justice
National Environmental Management Act (No 107 of 1998)	Section 2	Defines the strategic environmental management goals and objectives of the government. Applies through-out the Republic to the actions of all organs of state that may significantly affect the environment
	Section 28	The developer has a general duty to care for the environment and to institute such measures as may be needed to demonstrate such care
Environment Conservation Act (No 73 of 1989)	Section 2	General policy
	Sections 21, 22, 25, 26 and 28	EIA Regulations, including listed activities
	Section 16	Protected Natural Environments
	Section 17	Management committees in respect of protected natural environments
	Section 18	Special nature reserves
	Section 28A	Exemptions
The National Parks Act (No 57 of 1976)	Section 4	Objectives of national parks
	Section 12	Statutory powers of the SANP
	Section 21	Restriction on entry into or residence in park; prohibition of certain acts therein
	Section 23	Purposes for which permission to enter or reside in a park may be granted
	Section 29	Regulations
The Conservation of Agricultural Resources Act (No 43 of 1983)	Section 6	Implementation of control measures for alien and invasive plant species
National Heritage Resources Act (No 25 of 1999)		Provides general principles for governing heritage resources management throughout South Africa including National and Provincial heritage sites, archaeological and palaeontological sites, burial grounds and graves and public monuments and memorials
Atmospheric Pollution Prevention Act (No 45 of 1964)	Sections 27 - 35	Dust control
	Section 36 - 40	Air pollution by fumes emitted by vehicles
Occupational Health and Safety Act (No 85 of 1993)	Section 8	General duties of employers to their employees
	Section 9	General duties of employers and self employed persons to persons other than their employees

Legislation	Sections	Relates to
Cape Nature and Environmental Conservation Ordinance (No 19 of 1974)		Prohibits the picking of all indigenous plants on public land and nature reserves without a permit
		Identification of rare, endangered or protected plants
White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity		Sets out the government's policy towards and strategy for achieving the objectives of the United Nation's Convention on Biological Diversity, to which South Africa is a signatory
		Defines biological diversity (or biodiversity)
All relevant Provincial regulations, Municipal bylaws and ordinances		

3. ENVIRONMENTAL ISSUES IDENTIFIED

The Poseidon and Grassridge Substations lie approximately 100 km apart (as the crow flies), and are separated by a varying landscape ranging from open agricultural areas in the north, through the mountainous Zuurberg down towards the coastal plain. The study area falls within the Eastern Cape Province, and extends from Cookhouse in the north, through the Golden Valley, Middleton, Kommadagga, Ann's Villa, over the Zuurberg in the vicinity of the Addo Elephant National Park (AENP), past Paterson in the east, Colchester in the south, and to the Grassridge Substation near Coega.

The Environmental Scoping Study (ESS) identifies the potential positive and negative environmental (biophysical and social) impacts associated with the proposed Poseidon-Grassridge No 3 400 kV Transmission line and the extension to Grassridge Substation. A number of issues for consideration have been identified by the environmental team and/or raised by I&APs during the consultation process to date. This chapter serves to outline these potential environmental impacts associated with the project prior to the implementation of mitigation measures (i.e. measures to reduce or avoid impacts). It is those issues which are anticipated to have a moderate to high impact which will be further investigated by specialists and detailed within the EIA Report.

3.1. Issues relating to Climate and Atmospheric Conditions

3.1.1. Precipitation

Mean annual rainfall within the study area ranges from approximately 318 mm to 624 mm. The wettest and driest years on record were 1 068 mm (Port Elizabeth, 1968) and 248 mm (Addo, 1990), respectively. Mean monthly rainfall in the study area ranges from 84 mm (March, Somerset East) to 12,1 mm (June, Cookhouse). The highest rainfall in 24 hours (429 mm) was recorded on the 1 September 1968 in Port Elizabeth. The mean number of rain days per annum ranges from 112 in Port Elizabeth, to 73 at Addo. The maximum number of rain days occurred at Somerset East (140 days) and the least at Addo (59 days).

3.1.2. Temperature

Mean annual air temperatures in the study area ranges from 18,35°C to 17,2°C. Mean monthly maxima range from a high of 29,3°C in February (at Addo) to a low of 19,2°C in

June (at Somerset East). In contrast, mean monthly minima range from a high of 17,9°C in January and February at Port Elizabeth to a low of 5,2°C in July at Addo. The highest temperature (45,5°C) was recorded on the 8 February 1987 at Addo and the lowest (-3,8°C) on the 15 June 1970 at Somerset East.

3.1.3. Relative Humidity

The mean annual Relative Humidity at 14h00 is highest in Port Elizabeth (60%) and lowest in Somerset East (39%). Relative Humidity is normally highest in summer and lowest in winter. The most humid months are February and March (64%, Port Elizabeth) and the least humid in July (33%, Somerset East). Similarly cloud cover reaches a maximum (4,3/8 at 14h00, Addo) in summer and a minimum in winter (2,5/8 at 14h00, Somerset East).

3.1.4. Evaporation

Mean monthly evaporation has a strong impact on the moisture deficit, which in turn plays an important part in determining vegetation distribution patterns and plant-animal interactions. Mean annual evaporation ranges from 2 041,8 mm at Somerset East to 1 664,3 mm at Addo. Somerset East also has the greatest annual moisture deficit (-1 471,8 mm), while Port Elizabeth has the lowest (-1 122,3 mm). Mean monthly evaporation is highest in summer (257,6 mm, January, Somerset East) and lowest in winter (66,0 mm, June, Addo).

3.1.5. Wind

The predominant wind directions in Port Elizabeth are from the south-west and south-east, with most winds offshore in winter and onshore in summer (Anon., 1965). Summer is characteristically more windy than winter, with October to February regarded as the "windy season" (Louw, 1976). The maximum reported wind speed at Port Elizabeth for the period 1943-1973 was 21,0 m/s, with a maximum gust up to 38,4 m/s (Anon, 1974). The highest corresponding values for a return period of 100 years are 23,0 m/s for maximum wind speed and 42,7 m/s for a maximum gust (Anon, 1974). In the Port Elizabeth-Uitenhage area approximately 55% of wind greater than 3,3 m/s comes from a south-south-westerly to west-north-westerly direction and a further 30% from the south-east to east-north-east sector (Louw, 1976).

3.1.6. Extreme Weather Conditions

Somerset East experiences the most thunderstorms per annum (approximately 23) and Port Elizabeth the least (approximately 14). Thunderstorms are the most common in late summer, particularly March, at Somerset East (approximately 4,0), Addo (approximately 2,5) and Port Elizabeth (approximately 2,5) and least common in mid-winter (approximately 0,2; June, Somerset East). Although uncommon, hail may occur at any time of the year, but with a greater tendency to occur more often in the summer months. Snow is a very rare occurrence, but has been reported at Somerset East on 3 September 1853 and 9-10 July 1988. Fog is most prevalent at Somerset East (71 times per annum) and least at Addo (22 times per annum). At Somerset East, fog is most common in summer, while at Addo and Port Elizabeth it is most common in winter.

3.1.7. Potential Impacts

The local climate is expected to have very little impact on the conductors or tower structures, and substation components but may cause small variations in the transmission of electricity. An increase in temperature has been associated with a drop in capacity in Transmission lines (Skea, 1997).

Any towers located on floodplains would be at risk from flood waters in flood conditions, which would scour away sediment from around the base of the towers. However, this is unlikely to pose any real threat to the overall stability of the Transmission line. The effects of the flood waters will be of low intensity and significance, unless a tower is located close to an active channel where a real risk that the tower could be undercut and collapse exists. This can easily be avoided by ensuring that towers are erected well away from river banks and stormwater drainage areas.

High wind speeds may also cause some stress to the components of the Transmission line or substation, and it is necessary to ensure that the sideways movement or swing of the conductors caused by the maximum gust which can be expected in the next 100 years does not exceed the required breaking strain of the structures.

Levels of pollution within the atmosphere may present operational problems to the Transmission line and substation infrastructure. Oxidation and subsequent corrosion of metallic components may occur with time, but is considered to be of low significance as the design of the infrastructure takes this into account.

3.1.8. Recommendations

The study area traverses both the Mediterranean-like climate of the Port Elizabeth area, as well as the summer rainfall region in the hinterland, subject to some modification induced by the Zuurberg mountain range. Extreme weather phenomena are unlikely to pose a threat to the Transmission line in this area, although secondary effects, such as flood conditions associated with high rainfall may present problems to the structural stability of the line. Localised impacts (such as salt corrosion) on Transmission infrastructure within 10 km of the coast will require mitigation measures to be implemented. With the adoption of mitigating measures to alleviate the threat posed by lightning to the transmission of electricity, no negative impacts are anticipated from this phenomenon.

Potential impacts associated with climate and atmospheric conditions on the Transmission line and substation infrastructure are not anticipated to be significant ands can be successfully mitigated. Therefore, no detailed studies will be required to be undertaken within the EIA.

3.2. Issues Relating to Soils and Erosion

3.2.1. Topography

The topography within the study area is deeply dissected in the Zuurberg mountains, but becomes subdued in the south near the Coega River Mouth and along the lower reaches of the Sundays River. Much of the area between the Zuurberg mountains and the coast at Grassridge lies between 150 m and 250 m above mean sea level.

3.2.2. Soils

The soils within the study area are typical of those from dry arid areas, and appear to be closely associated with both the underlying geology and topography. From the Poseidon Substation to the foot of the Zuurberg mountains, the soils are rich in carbonates, often cutanic and have an over-riding clastic texture. Exceptions occur on the steep slopes below the Poseidon Plateau, where the soils are rocky and variable in character, and the area below the substation itself, which have a cutanic horizon; in the immediate vicinity of Eureka, west of Kommadagga, where the soils are red, well-drained, deeper than 300 mm and have a high base status; and on the floodplains of the Little and Great Fish Rivers is underlain by undifferentiated soils within fluvial sediments (De Corte *et al.*, 1987).

The lower slopes of the Zuurberg are covered by soils with a cutanic character and Red B horizon, while the upper north-facing slopes are covered in rocky soils of variable character. For a short distance on entering the mountain-land, the study area crosses red eutrophic soils in the upper catchment of the Krom River. As the topography of the Zuurberg reduces in height towards the south, there is a concomitant increase in the lime content of the soils. On the southern footslopes of the Zuurberg mountains, the Red Apedal B horizon persists, and the soils take on a cutanic character, which is not present at higher elevations (De Corte *et al.*, 1987).

At Wolwekop, the study area descends into a tributary valley of the Sundays River for a short distance, with undifferentiated soils similar to those associated with its main channel at Addo, before traversing well-drained soils with Red Apedal B horizons. These soils are more than 300 mm deep, but still have a high base status (De Corte *et al.*, 1987). From Wolwekop to the railway station at Lendlovu, the study area crosses calcic soils similar in structure to those between Grassridge and Koega Kamma (De Corte *et al.*, 1987). From the edge of the Sundays River floodplain at Addo to Koega Kamma, the study area traverses well-drained sandy soils with a Red Apedal B horizon. These soils have a high base status and are less than 300 mm deep. The Sundays River floodplain is underlain by undifferentiated soils within fluvial sediments, similar to those found in the same environment in the Little and Great Fish Rivers floodplains. The southern section of the study area between Koega Kamma and Grassridge traverses a coastal plain rich in fossil marine deposits. This calcareous material has contributed to the widespread occurrence of carbonates within the soil profiles of the area (De Corte *et al.*, 1987).

3.2.3. Geology

The oldest sequence of rocks in the area belongs to the Palaeozoic Cape Supergroup, which in turn can be divided into the Table Mountain, Bokkeveld and Witteberg Groups of decreasing age. These sediments are overlain by the Karoo Sequence, which is comprised of the Ecca and Beaufort Groups. The Dwyka Formation separates the Cape Supergroup and the Karoo Sequence. These sediments underlie the Uitenhage Group and Tertiary to Recent deposits associated with pedogenic and marine processes. Pelitic rocks with subordinate sandstones and quartzites of the Cape Supergroup, within an eroded anticline, form the resistant spine of the Zuurberg Range. These sediments are separated from the more recent Jurassic and Cretaceous sediments of the Uitenhage Group by the Jurassic basalts, tuffs and breccias of the Zuurberg Group. The sediments of the Uitenhage Group decrease in age towards the coast

from the conglomeritic Enon Formation to the fine grained muds and subordinate sandstones of the Kirkwood and Sundays River Formations.

The study area north of the Fish River is underlain by mudstones and sandstones of the lower Beaufort Group. In the far north of the study area, a limited number of dolerite dykes are evident. Between the Fish River Valley and the northern flank of the Zuurberg, the study area crosses a syncline dominated by the sandstones of the Ecca Group and an anticline dominated by the shales of the upper Witteberg Group.

In the southern portion of the study area, a small section of the highly fossiliferous limestones and conglomerates of the Tertiary Alexandria Formation is traversed west of Olifantskop. The lower Sundays River has cut into these sediments and has laid down extensive deposits of river gravels on the southern bank, the remnants of which now form low level fluvial terraces (e.g. Soetgenoeg).

3.2.4. Potential Impacts

The severity of slopes along the route are important to determine as they may result in the exclusion of the placement of the line in certain areas. In addition, soil stability along the route could impact on the erosion potential, which would affect environmental management practices which would be required to be implemented during construction, operation and maintenance (i.e. along access roads).

The erosion risk within the study area is largely limited to slopes greater than 20°, although accelerated erosion may occur on any un-vegetated slopes. The existing Poseidon-Grassridge 220 kV Transmission line only has one tower which is constructed on slopes of such a steep nature, despite the route crossing the rugged Zuurberg mountains. As far as possible, construction is to be avoided on the sites with slopes greater than 20°. If no other sites are available, great care should be taken that the construction site is not left denuded of vegetation for any length of time. Immediately after erection of the towers, disturbed areas should be re-vegetated with appropriate species as soon as possible. In addition, sufficient supports and re-enforcement must be introduced to the site for stability. Great care should also be exercised in the construction and maintenance of the access/service road to these sites, as it is likely to pose a very high erosion risk in the future. Ideally, the steep sections of any service/access road should be paved to mitigate against the erosion hazard.

3.2.5. Recommendations

Potential impacts associated erosion risk are not anticipated to be significant ands can be successfully mitigated. Therefore, no detailed studies will be required to be undertaken within the EIA.

3.3. Issues relating to Agricultural Land and Agricultural Potential

Agricultural practices within the study area include the following:

- *Irrigation Land:*
  Several cultivated lands on commercial farms along the Sundays, Little Fish and Great Fish rivers have been identified. Irrigation methods in these areas may include centre pivot operations.

- *Natural Rangeland:*
  Agricultural production from natural rangeland in the region has changed significantly in the past 10 years, resulting in important changes in land-use. Many commercial farmers in the succulent thicket originally focussed their efforts on goat (Angora and Boer) and ostrich farming. Changes in the mohair and ostrich markets have affected their margins, and there has been a dramatic change to game farming in the succulent thicket.

- *Grazing Land:*
  Where agricultural practices have not been altered on rangelands occurring within the study area, grazing activities are still undertaken.

- *Citrus Farming:*
  Citrus farming has been identified as the major agricultural activity which is currently being actively undertaken in the area surrounding Addo, and within the Sundays River Valley.

3.3.1. Potential Impacts

The potential impact on agricultural land and agricultural potential associated with the Transmission line is anticipated to be localised and restricted to the tower positions. The existing 220 kV Transmission line has an existing impact on agricultural practices. With the

replacement of the 220 kV infrastructure with CRS towers, it is anticipated that this existing impact could be minimised, as the members of the CRS tower have a smaller footprint than the self-supporting towers currently used. As this impact is anticipated to be of low significance, no additional detailed studies are required to be undertaken.

Windbreaks (i.e. a row of trees planted with the aim of reducing wind exposure of citrus orchards) are used extensively by the citrus farmers within the study area. As the operation and reliability of a Transmission line can be adversely affected by trees and shrubs interfering with the line, the height of trees below overhead lines is restricted. As the height of the windbreak determines the size of the orchard protected, a reduction in the height of the windbreaks reduces their effectiveness and can have an impact on the success of these orchards. Therefore, the construction of a Transmission line across citrus farms could result in the limitation of the height of trees planted for windbreaking purposes, should these be in the path of the proposed line. This will impact significantly on the productivity of the citrus farm. This issue should be taken into consideration when determining the final alignment of the proposed line. This issue has been raised by various I&APs along the proposed route, and should be addressed within the EIA and during the final negotiation process, which is to be undertaken by Eskom Transmission. Alternative methods of wind protection can also be investigated.

The extension of Grassridge Substation may potentially result in the loss of agricultural land and agricultural potential.

3.3.2. Recommendations

A detailed study will be required to be undertaken within the EIA in order to assess the significance of the potential impacts on agricultural potential and agricultural practices during the construction, operation and maintenance phases. This study will include an assessment of:

- A detailed study of the current use and agricultural potential of the proposed substation site
- The agricultural potential at the proposed substation site and the potential impacts which the proposed extension of Grassridge Substation could have on this potential.

Once potential impacts have been identified and their significance assessed, appropriate mitigation measures will be recommended which could alleviate the identified potential

negative impacts. Site-specific mitigation measures should be included within an Environmental Management Plan (EMP), particularly in those areas in which citrus farms are present.

3.4. Issues Relating to Terrestrial Vegetation

A wide range of vegetation types can be distinguished within the study area, including Bonteveld, Valley Bushveld (including Mesic Succulent Thicket, Xeric Succulent Thicket and Tall Succulent Thicket), Afro-Montane Forest, Grassy Fynbos, Arid Savanna, Grassy Dwarf Shrublands and Grassland.

Xeric Succulent Thicket, which occurs in the section of the Transmission line route through the Addo Elephant National Park (AENP) is considered to be highly sensitive and is not known to recover easily from disturbance.

3.4.1. Potential Impacts

Potential impacts which may be associated with the recycling of the Transmission line infrastructure and the extension of Grassridge Substation include the disturbance of vegetation, potential impacts on Red Data and/or sensitive species, and veld degradation at tower positions and at the substation site during the construction phase unless precautions are taken to prevent this. The vegetation occurring in some areas along the proposed route is considered to be highly sensitive and is not known to recover easily from disturbance. Therefore, this impact has the potential to be significant.

3.4.2. Recommendations

Detailed studies of the vegetation at the proposed tower positions and substation site will be required to be undertaken as part of the EIA in order to assess the significance of the potential impacts associated with the recycling of the Transmission line infrastructure and the extension of Grassridge Substation on vegetation during the construction, operation and maintenance phases. This study will include an assessment of:

- The sensitivity of the vegetation within the study area.
- The conservation value of the veld types recorded within the study area, including their current state of degradation and the potential for the veld to recover after disturbance.

- The potential impacts on sensitive, protected or Red Data species, the habitats where these may occur and the identification of areas where disturbance should be minimised.
- The potential for alien species to re-colonise the area after disturbance, and the mitigation measures to be put in place to minimise this from occurring.

Once potential impacts have been identified and their significance assessed, appropriate mitigation measures will be recommended which could alleviate the identified potential negative impacts. Site-specific mitigation measures should be included within an EMP.

3.5. Issues Relating to Terrestrial Fauna

The study area is considered to be rich in biodiversity and habitat as a result of the topographic and botanical diversity. The current distribution of terrestrial fauna within the study area has historically been influenced by human interference and habitat disturbance or destruction.

3.5.1. Mammals

Although the smaller mammal species (in particular the insectivores, bats and rodents) have been less impacted upon by human activities, habitat change as a direct consequence of human intervention remains a threat for species, particularly those with limited distribution ranges or specific habitat requirements.

Those species which have retained viable populations outside of protected areas include those animals associated with dense woodlands, such as kudu, bushbuck and bushpig. Such habitats are found primarily in the thickets south-east of the Zuurberg mountain belt, and in forested valleys and thicket within the mountain range. The remoteness of much of the mountain fynbos, as well as its low agricultural potential has limited impacts on large mammal species, such as the grey rhebok and grysbok. However, these species tend to occur in relatively low densities.

The more arid, karroid area to the north-west of the mountain belt has been extensively utilised for livestock grazing. Those indigenous terrestrial fauna species which still occur naturally are species which may have benefited directly from this land use, such as the medium-sized carnivores (e.g. the black-backed jackal and caracal), and the smaller, low density ungulates, such as the grey duiker and grysbok. Larger herbivores, such as the eland, red hartebeest and black wildebeest only occur where they have been reintroduced.

3.5.2. Herpetofauna

The herpetofauna (reptiles and amphibians) of the Eastern Cape is rich in species. Reptiles which occur in this area include tortoises, lizards and snakes. Endemic species, such as Tasman's girdled lizard and the southern dwarf chameleon, are both likely to occur within the study area and would be restricted to the densely wooded vegetation in the Algoa region.

3.5.3. Potential Impacts

The potential exists for impacts on large and small terrestrial fauna, including mammals, reptiles and amphibians at tower positions and as a result of the proposed extension of Grassridge Substation. Potential impacts could include the disturbance of habitats, impacts on sensitive faunal species, potential restrictions to animal movements and fragmentation or destruction of habitats.

3.5.4. Recommendations

Specialist studies will be undertaken as part of the EIA in order to assess the significance of the potential impacts at tower positrons and associated with the extension of the Grassridge Substation and associated infrastructure on terrestrial fauna during the construction, operation and maintenance phases. This study will include an assessment of:

- The sensitivity of terrestrial fauna which may occur at the proposed substation site.
- The potential impacts on sensitive or endangered species which may occur at the substation site, the habitats where these may occur and the identification of areas where disturbance should be minimised.

Once potential impacts have been identified and their significance assessed, appropriate mitigation measures will be recommended, which could alleviate the affect of identified potential negative impacts.

3.6. Issues Relating to Avifauna

The avifauna of the study area has been well documented, and was surveyed systematically during fieldwork for the Atlas of Southern African Birds. In addition, a revised Red Data Book for South African birds has recently been published (Barnes, 2000). More than 300 bird species have been recorded within the study area.

3.6.1. Potential Impacts

As a result of their size and prominence, electrical infrastructures constitute an important interface between wildlife and Man. Negative interactions between wildlife and electricity structures take many forms, but two common problems in southern Africa are electrocutions and birds colliding with the earthwire and/or conductors (Van Rooyen, 2002). Other problems include electrical faults caused by bird excreta when roosting or breeding on electricity infrastructure, and disturbance and habitat destruction during construction and maintenance activities.

- *Collisions:*

  The most likely potential impact on birds associated with the construction of the proposed Poseidon-Grassridge No 3 400 kV Transmission line is anticipated to be as a result of collisions. Collision sensitive bird species (i.e. birds which have a history of collisions with overhead powerlines) which occur in the study area include, *inter alia*, large raptors (such as the Cape Vulture), White Storks, Flamingos and Secretary Birds. However, the existing 220 kV and 400 kV Transmission lines have an existing impact on avifauna in the study area, and resident birds will most likely have become accustomed to the existing lines and learnt to avoid them. Therefore, the impact associated with the construction of the proposed 400 kV Transmission line is anticipated to be of low significance.

- *Electrocutions:*

  Large birds of prey are most commonly electrocuted on powerlines. As a result of the replacement of the existing 220 kV Transmission line infrastructure (which makes use of self-supporting towers) with new infrastructure (i.e. CRS towers for the majority of the route), it is anticipated that the potential occurrence of electrocutions within the study area will be effectively reduced due to the large clearances and lack of perching space on the CRS tower. Therefore, a positive impact is anticipated.

- *Potential Impacts associated with the Extension of Grassridge Substation:*

  The existing Grassridge Substation imposes a permanent impact on the surrounding area. Therefore, some degree of habitat disturbance is anticipated at the proposed substation site. No significant new impacts are expected to occur as a result of the operation of the extension to Grassridge Substation, although impacts are expected to occur during the construction period due to localised disturbance of the area.

3.6.2. Recommendations

In order to adequately assess the potential impact on avifauna as a result of the extension to the Grassridge Substation, specialist studies will be undertaken as part of the EIA. This study will include an assessment of:

- The sensitivity of avifauna which occur in the area surrounding the proposed substation site.
- The potential impacts on sensitive, rare, endangered species or Red Data species which occur in the area, the habitats where these species may occur and the identification of areas where disturbance should be minimised.
- The potential impacts of substation infrastructure on flight paths and habitats, as well as feeding areas.
- Potential behavioural impacts of avifauna, particularly during the construction phase.

Once potential impacts have been identified and their significance assessed, appropriate mitigation measures will be recommended which could alleviate the identified potential negative impacts. Site-specific mitigation measures should be included within an EMP.

3.7. Issues Relating to Aesthetics and Visual Impact

The study area is considered to be visually diverse due to the varying landscape characteristics and different vegetation types.

The existing 220 kV and 400 kV Transmission lines which transmit power between the Poseidon and Grassridge Substations, form a corridor which crosses the northern leg of the AENP for an approximate 5 km distance, and skirts the western extremity of the AENP in the vicinity of Addo town. These lines impose an existing visual impact on the study area. The existing 220 kV Transmission line has been in the area since the 1970s, and the existing 400 kV Transmission line since the 1990s.

The N10 is the primary route providing access to Cradock in the north from the coastal centres. In addition, the N10 connects Middelton (in the north of the study area) and Paterson (in the east of the study area) with the National Route 2 (N2). The N2 is a major traffic artery providing tourist access to the Garden Route. This N2 route passes past Colchester and

Sundays River in the south of the study area. Views from these public routes are impacted on where introduced infrastructure is located close to, or crosses the road.

3.7.1. Potential Impacts

Any change in a local view through the introduction of a new development in the line-of-sight can be considered as a visual impact. Visual impacts are subjective, and are usually considered most significant when the development is not of a similar nature to other developments in the area, or is readily viewed from areas of public access, paths, roads and view points, or in areas which are characterised by significant natural features.

- *Impacts associated with the Proposed new Transmission line Infrastructure:*
  The existing Poseidon-Grassridge 220 kV and 400 kV Transmission lines present an existing visual intrusion on the local area. In addition, it is proposed that the proposed Transmission line would be constructed using CRS towers for the majority of the route. These towers are smaller, less steel-intensive, and less visually intrusive than those towers of the existing Transmission lines. Therefore, it is not anticipated that the visual impact associated with construction of the proposed Poseidon-Grassridge No 3 400 kV line within the 220 kV Transmission line servitude will be significant.

- *Impacts associated with the proposed Extension to Grassridge Substation:*
  The existing Grassridge Substation presents an existing visual impact on the local area. Therefore, the visual quality of the area is already impacted upon. However, the extension of this existing substation is anticipated to potentially add significantly to this visual impact, as this infrastructure is steel-intensive and considered to be visually intrusive.

3.7.2. Recommendations

In order to assess the significance of the potential visual impact associated with the extension of Grassridge Substation, specialist studies will be undertaken as part of the EIA. This study will make use of computer generated images to define the area of visual impact and assess the potential impacts of overhead powerlines and tower design. Once potential impacts have been identified and their significance assessed, appropriate mitigation measures (e.g. the use of topography and the lie of the land where possible) will be recommended which could alleviate the identified potential negative impacts.

3.8. Issues Relating to Heritage Sites

A number of archaeological sites were identified within the Detailed Environmental Scoping Study undertaken for the proposed Poseidon-Grassridge No 2 400 kV Transmission line (Bohlweki Environmental, 2001).

3.8.1. Potential Impacts

The construction of the proposed Transmission line and extension of Grassridge Substation could potentially impact on heritage sites which are located in the area. These sites must, therefore, be identified and either avoided or removed prior to construction commencing.

3.8.2. Recommendations

Once the final location for tower erection has been determined along the proposed Transmission line route, a detailed heritage survey should be undertaken in order to ensure that potential impacts on heritage sites are minimised.

In order to identify any sites which may be potentially impacted on, a desk-top investigation will be undertaken as part of the EIA to identify any heritage sites which could be impacted on by the construction, operation or maintenance of the proposed extension to Grassridge Substation. The frequency of archaeological and fossil site occurrences on the proposed substation site will be noted and the relative importance of the potential occurrences will be documented. The potential impact of construction activities being undertaken within an area of site occurrences will be assessed and recommendations will be made regarding actions to be taken in the event of a site being discovered and/or disturbed. Site-specific mitigation measures should be included within an EMP.

3.9. Issues Relating to Impacts During Construction

Impacts during construction could potentially include impacts from dust, noise, traffic, waste, soil erosion, water pollution and an influx of workers into the area with associated security risks. As part of the EIA, the significance of the potential construction impacts associated with the proposed powerline and associated infrastructure will be assessed. Appropriate mitigation measures will be recommended in order to alleviate the affect of the identified potential negative impacts.

3.10. Issues Relating to the Social Environment

The northern portion of the study area to the south of the Poseidon Substation up to the northern boundary of Zuurberg mountains includes centres such as Cookhouse, Golden Valley and Middleton. This area is characterised by small stock, cattle and sheep farming, crop farming and cultivated lands, as well as ostrich farming in places.

The central area of the study area includes the Zuurberg mountain range, the AENP and other areas proposed to be included within the proposed GANP. South of the Zuurberg mountains lies the town of Addo. Addo is well known for its citrus farming, tourism (predominantly from the AENP) and various small-scale game farms and resorts. Small stock farming also occurs within the Addo area. Paterson lies to the east of this central portion of the study area, and has developed mainly around farming activities, with the two primary employers for the area being East Cape Agriculture Corporation and Bulkop.

The southern portion of the study area includes the area around the Grassridge Substation, which is earmarked to be included within the proposed Coega IDZ and Port. The small town of Coega falls within this area. Activities that take place in the area are small stock farming, pig farming and industrial activities (including La Farge and PPC). To the east of Grassridge is Colchester/Sundays River. Colchester is a small resort town that has developed along the banks of the Sundays River within the valley.

3.10.1. Potential Impacts

Stakeholders have identified a number of issues of concern associated with the proposed construction of the Transmission line and extension of Grassridge Substation. In summary, these include (refer to Appendix D for a full list of issues raised):

- potential impacts on vegetation (particularly the Zuurberg fynbos),
- the implementation of bird guards along the line length,
- unnecessary cutting of important trees in the area,
- erosion within the servitude and at tower positions,
- the implementation of adequate rehabilitation measures after construction activities have been completed,
- visual impacts associated with towers and substation infrastructure (particularly where these intrude on the horizon),

- impacts during recycling activities particularly in sensitive areas (especially with regards to potential impacts associated with the removal of the existing tower infrastructure),
- issues regarding the alignment of the proposed 400 kV Transmission line through citrus farming areas, and
- issues regarding the maintenance of the existing line, particularly with regards to unauthorised access to properties, poaching, the loss of game livestock through open gates, littering, and veld degradation as a result of maintenance activities. These issues must be addressed within the EMP.

3.10.2. Recommendations

Specialist studies (as discussed above) will be undertaken as part of the EIA to assess the significance of these potential impacts and to recommend appropriate mitigation measures which should be implemented in order to alleviate potential negative impacts. In addition, a Social Impact Assessment (SIA) will be undertaken in order to assess the potential impacts associated with the proposed project on the social environment.

4. RECOMMENDATIONS AND THE WAY FORWARD

The desk-top Environmental Scoping Studies undertaken for the Scoping Report have not identified fatal flaw issues within the proposed Transmission line or substation site. However, a number of potentially significant issues have been highlighted, and require further investigation within an EIA in order to assess their significance, and to determine the need for the implementation of mitigation measures in order for the overall project to be environmentally sustainable. It is, therefore, recommended that additional, more comprehensive studies be conducted for the proposed Transmission line and substation site within an EIA.

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APPENDIX A:
EXAMPLE OF ADVERTISEMENT PLACED AT THE BEGINNING OF THE EIA PROCESS

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

PROPOSED 400 kV TRANSMISSION LINE BETWEEN POSEIDON SUBSTATION (near Cookhouse) AND GRASSRIDGE SUBSTATION (near Port Elizabeth), AND EXTENSION OF GRASSRIDGE SUBSTATION, EASTERN CAPE PROVINCE

Notice is given in terms of Regulation 4(6) of the Regulations published in Government Notice No R1183 under Section 26 of the Environment Conservation Act (No. 73 of 1989) of Eskom Transmission Group's intent to carry out the following activities:

- **The establishment of a 400 kV Transmission line in the Eastern Cape Province between Poseidon Substation (located near Cookhouse) and Grassridge Substation (located near Coega, Port Elizabeth), a distance of approximately 100 km. The Transmission line is proposed to be established within the existing Eskom servitude, and the existing 220 kV Transmission line will be replaced by this proposed 400 kV Transmission line.**
- **The extension of the existing Grassridge Substation in order to support the 400 kV Transmission line infrastructure.**

Bohlweki Environmental, as independent consultants, is to undertake the necessary environmental studies and public participation required for the proposed project. In order to ensure that you are registered as an interested and/or affected party, please submit your name, contact information and interest in the matter to:

Ingrid Snyman at **Bohlweki Environmental**
PO Box 11784, Vorna Valley, MIDRAND, 1686
Tel: (011) 805 0250
Fax: (011) 805 0226
E-mail: bohlweki@pixie.co.za
Website: www.eskom.co.za/grassridge

OMGEWINGSIMPAKSTUDIE PROSES

VOORGESTELDE 400 KV TRANSMISSIELYN TUSSEN POSEIDON SUBSTASIE (NABY COOKHOUSE) EN DIE GRASSRIDGE SUBSTASIE (NABY PORT ELIZABETH), EN UITBREIDING VAN DIE GRASSRIDGE SUBSTASIE, OOS-KAAP PROVINSIE

Kennis geskied hiermee ingevolge Regulasie 4(6) van die regulasies gepubliseer in die Staatskoerant Nr. R.1183 kragtens Artikel 26 van die Wet op Omgewingsbewaring (Wet No. 73 van 1989) van die voorneme van die Eskom Transmissie Groep om die volgende aktiwiteite uit te voer:

- **Die oprigting van 'n 400 kV Transmissielyn in die Oos-Kaap Provinsie tussen die Poseidon Substasie (naby Cookhouse) en die Grassridge Substasie (naby Coega, Port Elizabeth), oor 'n afstand van ongeveer 100 km. Daar word voorgestel dat die Transmissielyn binne die bestaande Eskom serwituut opgerig word en dat die bestaande 220 kV Transmissielyn deur die voorgestelde 400 kV Transmissielyn vervang word.**
- **Die uitbreiding van die bestaande Grassridge Substasie ten einde die 400 kV Transmissielyn se infrastruktuur te akkommodeer.**

Bohlweki Environmental, as onafhanklike konsultante, sal die nodige omgewingsstudies en openbare deelname wat vir die voorgestelde projek vereis word, onderneem. Om te verseker dat u as 'n Belanghebbende en/of Geaffekteerde Party geregistreer word, versoek ons u om u naam, kontak besonderhede en belang by die projek aan die ondergenoemde te verskaf:

Ingrid Snyman at **Bohlweki Environmental**
Posbus 11784, Vorna Valley, MIDRAND, 1686
Tel: (011) 805 0250
Faks: (011) 805 0226
E-pos: bohlweki@pixie.co.za
Webwerf: www.eskom.co.za/grassridge

APPENDIX B:
I&AP DATABASE

APPENDIX C:
BRIEFING PAPER

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

FOR THE PROPOSED CONSTRUCTION OF A 3RD 400 kV TRANSMISSION LINE BY REPLACING AN EXISTING POWERLINE BETWEEN POSEIDON AND GRASSRIDGE SUBSTATIONS, EASTERN CAPE PROVINCE, AND THE EXTENSION OF GRASSRIDGE SUBSTATION

BRIEFING PAPER
May 2002

WHAT DOES THIS DOCUMENT TELL YOU?

This document aims to provide you, as an interested and/or affected party (I&AP), with background information regarding this project proposed by Eskom Transmission, as well as information regarding the environmental studies to be undertaken. It further indicates how you can become involved in the project, receive information, or raise issues which may concern and/or interest you. The sharing of information forms the basis of the public participation process and offers you the opportunity to become actively involved in the project from the outset. Public participation plays an important role in the undertaking of environmental investigations, as I&AP input ensures all potential issues are considered within the study.

WHAT DOES THE PROJECT ENTAIL?

Eskom Transmission propose the construction of a third 400 kV Transmission line between Poseidon Substation (located near Cookhouse) and Grassridge Substation (located near Coega, Port Elizabeth). This Transmission line is proposed to be constructed within the Eskom servitude currently occupied by the Poseidon-Grassridge 220 kV line (see map). This will necessitate the dismantling of the old 220 kV Transmission line towers, and the erection of new towers capable of supporting the 400 kV infrastructure. It is envisaged that cross-rope suspension-type towers will be utilised, as these are less steel-intensive and have a reduced visual impact. Use of these towers will, however, require a widening of the servitude width by 18m in order to accommodate the anchor cables.

The Grassridge Substation north of the Coega Industrial Development Zone (IDZ) will be extended to accommodate the new line bay. This extension work will require additional land adjacent to the existing substation site, and a ‘mirror-image’ of the existing Substation will be established.

WHY IS AN ADDITIONAL LINE NEEDED?

Greater Port Elizabeth's growing electricity demand, together with the proposed development of the Coega Harbour and associated IDZ is placing an increasing demand on the current energy supply infrastructure to the Greater Port Elizabeth area. In order to meet this increasing demand, more power is required to be transmitted to this area for use. It is, therefore, considered a feasible option to upgrade the capacity of an existing line (i.e. the 220 kV) to a higher voltage, and replace the older infrastructure with new.

KEY PROJECT INFORMATION

- The Transmission line is proposed to be established within the existing Eskom servitude, and the existing 220 kV Transmission line will be 'recycled' through the construction of this proposed 400 kV Transmission line.
- The distance between the existing Poseidon and Grassridge Substations is approximately 100 km (as the crow flies).
- The old 220 kV towers will be dismantled, and new less visually intrusive towers will be erected.
- Where feasible, the cross-rope suspension (CRS) tower will be used. These consist of two masts and four guy ropes, and is less visually intrusive than conventional towers.
- Use of CRS towers will require a widening of the servitude width by 18m in order to accommodate the anchor cables.
- The bend and strain towers will be self-supporting towers.
- The land beneath the overhead lines can be utilised, as normal, by the landowners. Eskom, however, require that no dwellings or vegetation/crops higher than 4 m occur within the servitude.
- The Grassridge Substation supplies all power to the Greater PE area as well as the Coega IDZ.
- A 'mirror-image' of the existing Grassridge Substation is proposed to accommodate all new planned infrastructure, and to ensure reliability and robustness of the substation.
- The total footprint area required for the extension of the substation is estimated at 49 ha (700 m x 700 m). This extension is proposed to be located on the eastern side of the existing substation.

ENVIRONMENTAL STUDIES

Eskom Transmission have appointed Bohlweki Environmental, as independent consultants, to undertake environmental studies to identify and assess all potential environmental impacts associated with the proposed project. The assessment is being conducted in accordance with the EIA Regulations in terms of the Environment Conservation Act (No 73 of 1989), as well as the National Environmental Management Act (NEMA), No 107 of 1998. As part of these environmental studies, all I&APs will be actively involved through a public participation process.

The environmental studies will follow a 2-phased approach:

Phase 1: Environmental Scoping Study

Existing information and the inputs of I&APs will be used to identify and evaluate potential impacts (both social and biophysical) associated with the proposed replacement Transmission line and the extension to the Grassridge Substation. Use will be made of the Detailed Environmental Scoping Study undertaken for the Poseidon-Grassridge No 2 400 kV Transmission line (Bohlweki Environmental, 2001), as this project falls within the study area considered for this previous study.

Phase 2: Environmental Impact Assessment

Environmental impacts (social and biophysical) identified in the scoping report will be further investigated and their significance assessed. This phase will include an assessment of the Transmission line alignment and substation site. Mitigation measures will be proposed, where required.

PUBLIC PARTICIPATION PROCESS

A public participation process will be implemented in stages in order to ensure effective participation of all I&APs:

Stage One: Initial identification of and consultation with all relevant stakeholders and landowners (May – June 2002)
Stage Two: On-going consultation with I&APs (May – August 2002)
Stage Three: Draft Environmental Scoping Report for comment (July 2002)
Stage Four: Draft Environmental Impact Assessment Report for comment (August 2002)

Stages three and four will allow for a 30-day public review period by I&APs, prior to the environmental reports being finalised and submitted to the environmental authorities for decision-making.

WHAT IS YOUR ROLE?

If you consider yourself an I&AP for this proposed project and/or your property is traversed by the existing 220 kV Transmission line, we urge you to make use of the opportunities created by the public participation process to become involved in the process and raise those issues and concerns which affect and/or interest you, and about which you would like more information. Your input forms a key element of the environmental impact assessment process and we would like to hear from you.

By completing and submitting the accompanying registration form, you automatically register yourself as an I&AP for this project, and are ensured that your concerns or queries raised regarding the project will be noted.

COMMENTS AND QUERIES

Direct all comments, queries or responses to Bohlweki Environmental:

PO Box 11784, Vorna Valley, Midrand, 1686

Ingrid Snyman

Phone: (011) 805 0250

Fax: (011) 805 0226

E-mail: bohlweki@pixie.co.za

SPECIALISTS

Bohlweki Environmental's study team comprises a number of specialists in order to comprehensively identify and assess significant issues:

- *Dr Mike Cohen* of CEN IEM – general ecology
- *Dr Tony Palmer* of the Agricultural Research Council – botany
- *Dr Adrian Craig* of Rhodes University - ornithologist
- *Dr Johan Binneman* of the Albany Museum – archaeology
- *Henry Holland* of Rhodes University – visual impact
- *Ingrid Snyman* of Bohlweki Environmental – social

www.eskom.co.za/grassridge.htm

REGISTRATION FORM

PROPOSED 400 kV TRANSMISSION LINE BETWEEN POSEIDON SUBSTATION (near Cookhouse) AND GRASSRIDGE SUBSTATION (near Port Elizabeth), AND EXTENSION OF GRASSRIDGE SUBSTATION, EASTERN CAPE PROVINCE

Kindly complete this registration and comment sheet in detail and return it to the following persons before June 2002

Ms Ingrid Snyman of **Bohlweki Environmental**
PO Box 11784, Vorna Valley, 1686 **Telephone:** 011-805 0250
E-mail: bohlweki@pixie.co.za **Fax:** 011-805 0226

Title: …….. **Initials:** …… **First Name:** ……

Surname: ……

Organisation (if applicable): ……

Capacity (e.g. Chairperson, member, etc): ……

E-mail: ……

Telephone (work): …… **Telephone (Home):** ……...

Cellular Phone: …… **Fax:** ……...

Physical Address (if you are farming, please state the farm name, farm number and portion number, as well as the type of farming activity being undertaken):

……

……

Town (or nearest town): …… **Code:** ……

Postal Address: ……

Town: ……... **Code:** ……...

1. What is your main area of interest with regards to the proposed project?

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2. Do you have any issues, comments and/or concerns regarding the proposed project which you feel should be addressed by the EIA process?

   YES/NO If "yes", please list your main areas of concern in point form:

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3. Are there additional role-players whom we should involve in the process?

   YES/NO If yes, please state their contact details:

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Please add more pages if necessary

OMGEWINGSINVLOEDSTUDIE PROSES

VIR DIE VOORGESTELDE KONSTRUKSIE VAN 'N 3e 400 kV TRANSMISSIELYN DEUR DIE VERVANGING VAN 'N BESTAANDE KRAGLYN TUSSEN POSEIDON EN GRASSRIDGE SUBSTASIES, OOS-KAAP PROVINSIE, EN DIE UITBREIDING VAN DIE GRASSRIDGE SUBSTASIE

INLIGTINGSDOKUMENT
Mei 2002

WAT BEHELS HIERDIE DOKUMENT?

Die inligtingsdokument het ten doel om u, as 'n Geïnteresseerde en/of Belanghebbende Party in te lig rakende die voorgestelde projek wat deur Eskom Transmissie voorgestel word, en om ook aan u inligting rakende die Omgewingsstudies wat onderneem word, te verskaf. Dit sal vervolgens aan u verduidelik word hoe u by die projek betrokke kan raak, inligting kan ontvang en aspekte van belang en kommer kan uitlig. Die openbare deelname proses is gebaseer op die uitreiking en inwinning van inligting. Hierdie proses verskaf ook aan u die geleentheid om vanaf die begin van die proses aktief by die projek betrokke te raak. Openbare deelname speel 'n belangrike rol in die onderneming van die omgewingsstudies, aangesien Geïnteresseerde en Belanghebbende Partye se insette verseker dat al die moontlike aspekte van belang tydens die studie in ag geneem word.

WAT BEHELS DIE PROJEK?

Eskom Transmissie stel die oprigting van 'n derde 400 kV Transmissielyn tussen die Poseidon Substasie (naby Cookhouse) en die Grassridge Substasie (naby Coega, Port Elizabeth) voor. Daar word beplan dat die Transmissielyn in die bestaande Eskom serwituut opgerig word waar die bestaande Poseidon-Grassridge 220 kV lyn tans is (sien kaart). Dit sal dus nodig wees om die ou 220 kV Transmissielyn torings te verwyder, en dit met nuwe torings te vervang wat die 400 kV infrastruktuur kan akkommodeer. Daar word oorweeg om kruisdraadspanningstorings te gebruik, aangesien dit uit minder staal bestaan en 'n kleiner visuele impak tot gevolg het. Die gebruik van hierdie torings, vereis egter dat die bestaande serwituut met 18m wyer gemaak moet word om die anker kabels te akkommodeer.

Die Grassridge Substasie noord van die Coega Industriële Ontwikkelingssone (IOS) sal uitgebrei word om die nuwe lyn te akkommodeer. Die uitbreiding sal addisionele grond langs die bestaande substasie area benodig en 'n spieëlbeeld van die bestaande substasie sal opgerig word.

HOEKOM IS 'N ADDISIONELE LYN NODIG?

Die groeiende elektrisiteitsbehoefte van die groter Port Elizabeth, tesame met die voorgestelde ontwikkeling van die Coega Hawe en meegaande Industriële Ontwikkelingssone (IOS), plaas 'n toenemende vereiste op die bestaande energieverskaffingsinfrastruktuur in die groter Port Elizabeth area. Ten einde aan hierdie groeiende behoefte te voldoen, moet meer krag na dié area gestuur word. Die opgradering van die kapasiteit van die bestaande lyn (220 kV) na 'n hoër stroomspanning en die vervaning van die ou infrastruktuur word dus as 'n praktiese opsie beskou.

Sleutelinligting rakende die projek:

- Daar word voorgestel dat die Transmissielyn in die bestaande Eskom serwituut opgerig word en dat die bestaande 220 kV Transmissielyn "herwin" word deur die oprigting van die voorgestelde 400 kV Transmissielyn.
- Die afstand tussen die bestaande Poseidon en Grassridge Substasies is ongeveer 100 km (soos die voël vlieg).
- Die ou 220 kV torings sal afgebreek word, en met torings wat 'n kleiner visuele impak het, vervang word.
- Waar prakties moontlik sal kruisdraadspanningstorings opgerig word. Dit bestaan uit twee maste en vier ankerkabels, wat minder visuele impakte tot gevolg het as die gebruiklike torings.
- Die gebruikmaking van kruisdraadspanningstorings vereis dat die serwituut wydte met 18m vermeerder moet word om die anker kabels te akkommodeer.
- Die hoekige oorspanningstorings, sowel as die ankertorings sal self-ondersteunend wees.
- Die grond onder die oorhoofse lyn kan steeds, soos altyd, deur die inwoners gebruik word. Eskom vereis egter dat daar geen wooneenhede of plantegroei/gewasse hoër as 4m binne die serwituut ontwikkel word nie.
- Die Grassridge Substasie verskaf al die krag na die groter PE area, sowel as die Coega IOS.
- Die totale voetspoor area wat vir die uitbreiding van die Grassridge Substasie benodig word is ongeveer 49 ha (700 m x 700 m). Die uitbreiding word aan die oostekant van die bestaande substasie voorgestel.

OMGEWINGSSTUDIES

Eskom Transmissie het Bohlweki Environmental, as onafhanklike konsultante aangestel om die omgewingsstudies te onderneem om sodoende die moontlike omgewingsimpakte van die projek te identifiseer en te ondersoek. Die ondersoek word ingevolge die Omgewingsimpakregulasies van die Omgewingsbewaringswet (No. 73 van 1989), sowel as die Nasionale Omgewingsbestuurswet (No. 107 van 1998) onderneem. As deel van die omgewingsstudies word 'n openbare deelname proses

onderneem wat alle Geïnteresseerde en Belanghebbende Partye die geleentheid gun om aktief aan die proses deel te neem.
Die omgewingsstudies volg ‘n benadering wat op twee fases gebaseer is:

Fase 1: Omgewingsbestekopnamestudie
Bestaande inligting tesame met die insette van G&BP sal gebruik word om moontlike impakte (beide sosiale en bio-fisiese) wat met die voorgestelde vervanging van die Transmissielyn en die uitbreiding van die Grassridge Substasie geassosieer word te identifiseer en te evalueer. Inligting vanuit die in-diepte Omgewingsbestekopnamestudie wat vir die Poseidon-Grassridge No. 2 400 kV Transmissielyn onderneem is (Bohlweki Environmental 2001) sal ook gebruik word, aangesien dié huidige projek in dieselfde studie area val as die vorige studie.

Fase 2: Omgewingsinvloedstudie
Omgewingsimpakte (sosiaal en bio-fisiese) wat deur middel van die Bestekopname Verslag geïdentifiseer is, sal verder ondersoek en in terme van belangrikheid ontleed word. Die fase sluit ‘n ondersoek oor die voorkeur Transmissielyn se belyning en substasie terrein in. Maatreëls wat die impak kan versag, sal waar nodig, aanbeveel word.

OPENBARE DEELNAME PROSES

‘n Openbare deelname proses sal in fases geïmplementeer word om die effektiewe deelname van alle Geïnteresseerde en Belanghebbende Partye te verseker:

Fase Een: Aanvanklike identifisering en beraadslaging met alle relevante rolspelers en grondeienaars (Mei - Junie 2002)
Fase Twee: Voortsetting van beraadslaging met G&BP (Mei – August 2002)
Fase Drie: Omgewingsbestekopname Verslag sal vir kommentaar beskikbaar gestel word (Julie 2002)
Fase Vier: Voorlopige Omgewingsinvloedstudie Verslag sal vir kommentaar beskikbaar gestel word (Augustus 2002)

Fases drie en vieer maak voorsiening vir ‘n openbare 30-dae evalueringsperiode deur Geïnteresseerde en Belanghebbende Partye voordat die omgewingsverslae gefinaliseer word en aan die omgewings owerhede voorgelê word vir oorweging en besluitneming.

WAT IS U ROL?

Indien u, uself as ‘n Geïnteresseerde en Belanghebbende Party vir die voorgestelde projek beskou, en/of as u eiendom deur die bestaande 220 kV Transmissielyn gekruis word, versoek ons u om van die geleenthede, wat deur die openbare deelname proses gestel word, gebruik te maak om by die

proses betrokke te raak en om kwessies en kommer uit te lig, en om aan te dui watter addisionele inligting u verlang. U insette ten tye van die proses vorm ‘n sleutelaspek van die omgewingsstudies en ons sal graag van u wil hoor.

Deurdat u die aangehegte registrasievorm voltooi en voorlê sal u outomaties as ‘n Geïnteresseerde en Belanghebbende Party geregistreer word. U kommer en vrae sal dus ook tydens die projek genotuleer word.

KOMMENTAAR EN VRAE

Rig u kommentaar, vrae en antwoorde aan Bohlweki Environmental:

Posbus 11784, Vorna Valley, Midrand, 1686

Ingrid Snyman

☎ Telefoon: (011) 805 0250

Faks: (011) 805 0226

E-pos: bohlweki@pixie.co.za

SPESIALISTE

Die projekspan van Bohlweki Environmental bestaan uit ‘n aantal spesialiste wat die belangrike kwessies identifiseer en in-diepte ondersoek:

- *Dr. Mike Cohen* van CEN IEM – algemene ekologie
- *Dr. Tony Palmer* van die Landbounavorsingsraad – plantkunde
- *Dr. Adrian Craig* van die Rhodes Universiteit – voëlkundige
- *Dr. Johan Binneman* van die Albany Museum – argeologie
- *Henry Holland* van die Rhodes Universiteit – visuele impak
- *Ingrid Snyman* van Bohlweki Environmental – sosiale

ESKOM

REGISTRASIEVORM

BOHLWEKI

Voltooi asb. die registrasie- en kommentaarvorm in detail en besorg dit aan die volgende persone voor die einde van Julie 2002

Me Ingrid Snyman van **Bohlweki Environmental**
Posbus 11784, Vorna Valley, 1686
E-pos: bohlweki@pixie.co.za
Telefoon: 011-805 0250
Faks: 011-805 0226

Titel: …….. **Voorletters:** …… **Noemnaam:** ……

Van: ……

Organisasie (indien van toepassing): ……

Hoedanigheid (bv. Voorsitter, lid, ens.): ……

E-pos: ……

Telefoon (werk): …….. **Telefoon (Huis):** ……...

Sellulêre Telefoon: …….…….. **Faks:** ……

Fisiese adres (indien u 'n plaas het, verskaf asb. u plaasnaam, plaasnommer en gedeelte nommer, sowel as die tipe boerderyaktiwiteite wat u op die plaas onderneem):

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Stad (of naaste dorp): ……..…….. **Kode:** ……..……

Posadres: ……

Stad: ……... **Kode:** ……..……...

4. Wat is u hoofbelang met betrekking tot die projek?

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5. Het u enige kwessies, kommentaar en/of kommer rakende die voorgestelde projek wat u voel ten tye van die Omgewingsinvloedstudie proses aangespreek moet word?

   JA/NEE Indien "ja", lys asb. puntsgewys u kommentaar:

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6. Is daar enige addisionele rolspelers wat u voel ons by die proses moet betrek?

   JA/NEE Indien ja, spesifiseer asb. die kontakdetails:

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U is welkom om nog bladsye aan te heg indien nodig

APPENDIX D:
SOCIAL ISSUES TRAIL

SOCIAL ISSUES TRAIL

Issue/Comment	Raised By
General Environmental Impacts	
The existing access roads should be used.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs Mr. and Mrs. Lunn: Biogenesis CC.: Ann's Villa - Bassonskloof Portion 2
An environmental officer should oversee the process and the EMP should be completed before the tender process starts.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
The CDC support development, but emphasise that development should result in the least negative environmental impacts. Appropriate mitigation measures should, therefore, always be implemented.	Dr. P. Inman: Coega Development Corporation (Pty) Ltd
From an environmental impact perspective, the impacts associated with the upgrading of the line are limited.	Mr. W. Stewart & Mr. B. Reeves: WESSA
The contractors damage the veld extremely, and erosion underneath the lines is problematic.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
The environmental impacts should be minimised as far as possible.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
Vegetation	
There are some sensitive plant species surrounding the Grassridge Substation (Bontveld) and the EIA needs to address this issue.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
Disturbance of the thicket would lead to an encroachment of grasses and bushes. Care should be taken to avoid this.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
It is expected that it would be easier to re-establish the plants in the area to the south of the Zuurberg Mountains, than in the area to the north of the mountains.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
Mature trees should not be removed where possible.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
The farmers in the Kommadagga area will oppose the removal of big trees, especially the "Wilde Pruim" as this type of tree supply the animals with food during dry periods.	Mr. D. Jordaan: Blue Crane Route Municipality
Previously a number of trees were removed with the construction of the powerlines. This should not happen again as the "Wilde Pruim" and the "Ghwarrie" are good sources of food for the animals.	Mrs. I. Sampson & Mr. E. Sampson: Owners Portion of T'Zoetgeneugd

Issue/Comment	Raised By
The animals also eat the "Bitter Sanie" and "Num-num" and these should, therefore, be conserved.	Mrs. I. Sampson & Mr. E. Sampson: Owners Portion of T'Zoetgeneugd
The area can be classified as a "change-over area" and one should take note that the veld does not recover after the ecology has been disturbed.	Mr. and Mrs. Lunn: Biogenesis CC.: Ann's Villa - Bassonskloof Portion 2
The Zuurberg fynbos is sensitive and should be dealt with accordingly	Mr. W. Stewart & Mr. B. Reeves: WESSA
Only the necessary trees should be cut. The "Pruim" trees are very old and should not be damaged.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
The trees should be kept, especially the "Pruim" trees. These trees are hundreds of years old and do not grow easily.	Mr. J.J. Kritzinger: Varken's Kuil 269 Portion 1: Glen Roy & Spitskop Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun) Mr. Meyer: T'Zoetgeneugd
No vegetation should be disturbed or destroyed.	Mr. J.J. Kritzinger: Varken's Kuil 269 Portion 1: Glen Roy & Spitskop
There are some sensitive plant species in the area. The consultants are referred to the "Bontveld ecosystem functioning and rehabilitation after strip mining" compiled by Mr. Justin E. Watson.	Mr. J. van Heerden: PPC
There should be no or limited clearing of the servitude as the bush do not rehabilitate easily. There would most probably be no need to clear the servitude as the vegetation do not grow tall. Plants should only be removed if there are any fire hazards.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
The existing towers should be lifted and flown out of the area to limit any impact on the vegetation.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
The rehabilitation of the sites is vital.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
The main concern would be the destruction of the habitat during construction.	Mr. J. Ramondo: Coega Development Corporation (Pty) Ltd
The Bontveld around Grassridge has some rare plant species e.g. the rare Helichrysum.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
Fauna	
Several sitings of the rare Albany Adder have occurred in the area.	Mr. J. van Heerden: PPC
The towers should be made "elephant friendly".	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services

Issue/Comment	Raised By
The Addo Elephant National Park is planning to release more elephants in the vicinity of the construction area early in 2003. This might coincide with the construction period	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
The construction period would not affect the livestock and the property owner therefore have no preferences when this should take place.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd
The power lines next to the fences negatively impact on the fences. If more electricity would be introduced in that area it would increase the problem. It seems as if the electricity influences the animals as they act strangely when in the vicinity of these fences, especially in damp conditions.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
The proposed cross rope suspension towers are problematic as the animals would run into the anchor cables.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
Eskom must protect the game during the construction period. The animals would be startled if construction workers shout at each other and they would then run into the fences.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
The power lines make game capturing by helicopter problematic and dangerous.	Mr. A. Knott: Farm 148: Klipfontein
The anchor cables should be marked to avoid animals running into these structures	Mr. A. Knott: Farm 148: Klipfontein
The power lines could have an impact on livestock and their breeding habits.	Mr. A. Knott: Farm 148: Klipfontein
The Bontveld around Grassridge has some rare reptiles.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
Erosion	
Where erosion takes place, the management of the servitude area by the farmer (e.g. overgrazing) should also be investigated.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
Eskom do not maintain the roads, which leads to erosion.	Mr. A. Raubenheimer: Quaggaskuyl Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge
Eskom should not use heavy machinery after the rains as this permanently damaged the veld and resulted in erosion.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
Visual Impact	
Small deviations should be considered e.g. along a road, to lessen the visual impact of the lines.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
Due to the fact that there is already a line, the visual impact of the higher towers would not be that negative.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
The powerline situated close to the house is not disturbing.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd

Issue/Comment	Raised By
The towers to be used should be as aesthetically pleasing as possible to limit any negative visual impacts	Dr. P. Inman: Coega Development Corporation (Pty) Ltd
The 132 kV towers inside the IDZ area should be similar to the cross rope suspension towers proposed for the No. 2 and No. 3 400 kV lines to ensure consistency in the design and to limit any negative visual impacts	Dr. P. Inman: Coega Development Corporation (Pty) Ltd
Eskom should not place towers on high lying areas and should keep off the skyline	Dr. P. Inman: Coega Development Corporation (Pty) Ltd
Power lines have negative visual impacts.	Mr. and Mrs. Lunn: Biogenesis CC.: Ann's Villa - Bassonskloof Portion 2
The new towers seem to be bigger and taller than the old type of towers.	Mr. A. Knott: Farm 148: Klipfontein
The new towers seem to have less of a visual impact.	Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift)
Eskom should keep off the horizon and try and stay in the valleys, although this would also impact on the vegetation in the valleys.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
The main concern is the visual impact.	Mr. J. Ramondo: Coega Development Corporation (Pty) Ltd
Avifauna	
There are currently problems with huge birds sitting on the towers. The new cross-rope suspension towers where the conductors would hung from the cable could make a difference. If the cables are thicker than the existing ones it would be make it more visible and less collisions are expected.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
A study of the impact on birds would have to be undertaken as part of the EIA.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
There are Blue Cranes, Grey Herrons and numerous eagles and raptors in the area. The proposed power lines could have a negative impact on these birds.	Mr. and Mrs. Lunn: Biogenesis CC.: Ann's Villa - Bassonskloof Portion 2
There could be a change in the animal community structures due to the power lines, as perching on the towers assist some type of birds to establish wider ranges. No formal studies, however, have been undertaken regarding this issue.	Mr. W. Stewart & Mr. B. Reeves: WESSA
It seems as if the new proposed towers (Cross rope suspension towers) are more bird friendly as the birds would not be able to easily sit on those towers	Mr. W. Stewart & Mr. B. Reeves: WESSA
Birds (e.g. Gompou and Cape Vultures) fly into the powerlines.	Mr. P. van Niekerk: Klipfontein

Issue/Comment	Raised By
The towers should be "bird-friendly".	Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift)
Bird nests should not be disturbed.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
The Bontveld is a good habitat for the Stanley's Buzzard, Blue Crane and Secretarybird, which are all prone to collisions with power lines. Anti-bird devices should therefore be put up in these areas.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
Impact on the Citrus Farming Activities	
Should the line not move to the eastern side of the railway, it should stay on the same alignment as the existing 220 kV line to avoid any shifting of the windbreaks.	Mr P. Swanepoel: Headington: Kommandokraal Estate 113: Portion 92
The power line must be moved to ensure the minimum impact on the citrus orchards. It would have the least impact on the orchards if it traverses on the side of the orchards and not in the middle.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113
The impact of the line on the windbreaks makes it problematic to have such a line in the citrus orchard.	Mr. F. Thijssen: Dalmonick: Kommandokraal Estate 113 Portion 14 & 15
The towers in the citrus orchards makes irrigation and spraying (water) problematic.	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116
The power line negatively affects the windbreaks. If citrus farmers do not have proper windbreaks, poor quality food would be produced, resulting in negative financial impacts.	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
The southerly and south-westerly winds are the most damaging to the citrus. More damage would occur if there would be a wider servitude, as it would form a tunnel.	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
The citrus farmers must export 50% of their harvest otherwise they would suffer some losses. It is therefore important that they do not get wind damage on their fruit. If they do not have proper windbreaks they would not achieve a 50% export rate.	Mr G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
Extension of the Grassridge Substation	
The EIA should investigate whether the extension of the Grassridge Substation to the east of the existing substation is the best alternative.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
Eskom must have detailed negotiations with PPC as the extension of the Grassridge Substation would be on PPC's property.	Mr. J. van Heerden: PPC

Issue/Comment	Raised By
Decommissioning And Construction	
The old poles and cables need to removed and should not be left on the properties.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
Construction and maintenance vehicles should keep to the agreed tracks and servitudes.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
An environmental officer should be on-site to monitor the decommissioning and construction process.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
The foundations of the old towers should be removed, but if blasting would be needed to remove these towers, it might be better to leave the foundations as is. The EIA should investigate this and the property owners should give their comments regarding this issue.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
During the construction period the power cannot be switched off as the irrigation farmers along the Fish River rely on a continuous supply of power. Dairy farmers are also negatively affected if there are power outages.	Mr. D. Jordaan: Blue Crane Route Municipality
The property owner would like to obtain cables to supply electricity to the other house as well as to the houses of the workers.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd
The construction should preferably not take place during the picking season (April to September).	Mr P. Swanepoel: Headington: Kommandokraal Estate 113: Portion 92
No citrus trees should be damaged during the construction phase.	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
No bulldozers should be used during the construction period.	Mr. J.J. Kritzinger: Varken's Kuil 269 Portion 1: Glen Roy & Spitskop
Eskom should ensure proper supervision of the contractors during the construction period.	Mr. G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
The continual presence of construction workers on the properties is a source of concern.	Mr. K. Viljoen: Rhenosterfontein (Middelfontein)
The construction should preferably not take place during February and March, as the ewes would have their lambs during that time.	Mr. K. Viljoen: Rhenosterfontein (Middelfontein)
There are some underground pipes on the property where the line is and Eskom should take note of that so that those pipes are not damaged during the construction phase	Mr. Mike Reed: Manager: Monterey Farm: Moordenaarsdrift & Dagbreek

Issue/Comment	Raised By
The farmers would like to make use of the old towers and Eskom do not have to remove those. If the farmers are not allowed to use these old towers, then Eskom should remove it from the properties.	Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift) Mr. A. Raubenheimer: Quaggaskuyl
Eskom would have to make use of the private roads on the property during the construction period and must therefore discuss this issue with the property owner.	Mr. A. Raubenheimer: Quaggaskuyl
One responsible person should be present during the construction period. This person should have a cellular telephone so that the property owners could easily contact this person if they have complaints. This individual should be in the area to inspect any damages and solve the problems immediately.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
Sanparks would like more information regarding the construction methods.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
An On-site Management Plan is critical.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
Eskom should not make use of a helicopter during the construction period as the startled game would run into the fences.	Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge
Alignment of the Powerline	
If the 220 kV line would be upgraded to a 400 kV line, the towers should be moved to the east of the railway line (in the Addo area).	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116 Mr. F. Thijssen: Dalmonick: Kommandokraal Estate 113 Portion 14 & 15 Mr G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
The powerline should be moved to the east of the railway line, as it would then not affect the citrus orchards.	Mr P. Swanepoel: Headington: Kommandokraal Estate 113: Portion 92
The upgraded line could also be erected next to the road (Addo area).	Mr P. Swanepoel: Headington: Kommandokraal Estate 113: Portion 92
The powerline should be moved to the eastern side of the railway line, although it is not clear whether the No. 2 400 kV line, as well as the No. 3 kV line (upgrading of 220 kV line) would fit in the available area.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113
There is a railway servitude on the western side of the road. If the line would be placed within the railway servitude (far enough from the railway line), there should not be any impact on the magnetic fields.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113

Issue/Comment	Raised By
Due to the lucern fields on the eastern side of the railway line, it is expected that the power line would have the least impact if constructed in that area.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113
Eskom should inform the property owners of the final alignment of the No. 2 400 kV line.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113
Eskom must propose alternative alignments otherwise the property owners would refuse the construction of the line.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113
The property owners receive no benefits from the additional electricity requirements of the Coega harbour development, but they still have to make the sacrifices. It is therefore more logical to construct the power line through the Addo National Park, than to negatively impact on valuable agricultural land.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113
The proposed No. 3 400 kV line, as the No. 2 400 kV line should be moved to the eastern side of the railway line. There are no citrus trees in that area, but only lucerne and it would therefore be less problematic	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
There is some infrastructure along the railway line and one could therefore view it as an area with services.	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
He would like to expand his farming activities on an area of the property, but cannot continue until it has been decided where the new power lines would be.	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
The powerlines should be moved to the eastern side of the road to miss the entire Wolverton farm.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
There is a private road to the Grassridge Substation on the farm Grassridge 227. The powerline crosses this road and the towers should, therefore, not be lower than the existing ones as huge trucks make use of this road	Mr. J. van Heerden: PPC
The citrus on the western side or the railway line are affected by the existing 220 kV power lines. There are lucern on the eastern side of the railway line and it would therefore affect your property if the power line would be moved to the eastern side of the railway line, although it would have less of an impact on the farming activities than the existing line which traverses the citrus orchards.	Mr. D. Bouwer: Kommandokraal Estate 113: Lonetree
You are planning to use additional centre pivots in the lucern fields. Powerlines would hamper the use of these centre pivots.	Mr. D. Bouwer: Kommandokraal Estate 113: Lonetree
The 220 kV line could also be moved to an area adjacent the canal.	Mr. D. Bouwer: Kommandokraal Estate 113: Lonetree
If there would be two lines to the east of the railway line, the majority of the property would be occupied by powerlines.	Mr. D. Bouwer: Kommandokraal Estate 113: Lonetree
It would be suitable if the line could be moved to the eastern side of the farm.	Mr. Mike Reed: Manager: Monterey Farm: Moordenaarsdrift & Dagbreek

Issue/Comment	Raised By
The No. 2 400 kV line might cross an old house and barn and Eskom should either re-align the power lines or compensate the property owner accordingly.	Mr. A. Raubenheimer: Quaggaskuyl
Eskom just inform the property owners of the alignment of the power line and expect them to be satisfied with the alignment. With the construction of the previous 400 kV line Eskom did not want to move some towers to avoid the "Pruim" Trees.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
SANParks would like to know where the actual servitude is to enable them to establish what the impact on the vegetation would be and where degraded areas could be used for tower placement.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
SANParks must be consulted before the alignment has been finalised. A 3-D modelling and site inspection by helicopter would assist them to determine the impacts.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
No problem with the upgrading of the powerline, as long as it is not constructed nearer to his house.	Mr. P. Schneider: Die Vlakte (Paauwkom)
Tower Positioning	
It is assumed that the new towers would not be placed on the exact area where the other towers were. This would therefore lead to an additional impact.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
It is important to investigate the detailed positioning of the towers. Plant specialists and archaeologists should be part of these investigations.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
The property owner has no preferences in terms of the tower positioning.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd
It would be preferred if the new towers could be erected to the west of the existing line.	Mrs. I. Sampson & Mr. E. Sampson: Owners Portion of T'Zoetgeneugd
The property owner would not have a problem with the upgrading of the power line if the same towers would be used. The anchor cables of the proposed cross rope suspension towers would occupy more space on the property and would therefore have a negative impact on the property due to it being nearer to the house.	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116
Six to eight additional trees could be planted in the area occupied by the tower.	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116
The anchor cables and towers cannot be placed next to a fence and would therefore be placed in the centre of the citrus orchards. The anchor cables are problematic.	Mr L. Roux: Phina Estate: Kommandokraal Estate 113
The tower placements should be in the same place, if the line cannot be moved to the railway line	Mr. F. Thijssen: Dalmonick: Kommandokraal Estate 113 Portion 14 & 15

Issue/Comment	Raised By
The anchor cables of the proposed cross rope suspension towers would be problematic as there are trees where these cables would be.	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
The area underneath the anchor cables could not be used.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
The location of the masts in relation to the canal system, as well as the movement along the canals should be taken into account.	Mr. H. du Plessis: Sundays River Irrigation Board
Future Planning	
Aspects relating to the critical stage would be jointly planned with representatives of the NMMC and Eskom.	Mr. M. Roote, NMMC: City Electrical Engineer's Department: Planning Engineer
The study should take note of the new proposed 132 kV line routes.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
The overall impact of the development in the Port Elizabeth area and associated infrastructure should be investigated at a strategic level.	Mr. A. Struwig: Department of Economic, Finance and Environmental Affairs
The proposed project could affect the activities of the engineering department of the Blue Crane Route Municipality during the construction (decommissioning) period, as some distribution lines cross the 220 kV line. The engineering department is responsible for the maintenance on those distribution lines. When the details regarding the project have been finalised Eskom should contact Mr. Jordaan to discuss the technical issues.	Mr. D. Jordaan: Blue Crane Route Municipality
Financial and Economic Impacts	
The proposed project and other developments in the Port Elizabeth area were supported as it would benefit the local economy.	Clr. M. Xego: Nelson Mandela Metropolitan Council: Constituency Co-ordinator
The property owners do not receive any benefits from the lines being on their properties. The owners receive a "once-off" amount, but still has to pay a basic monthly charge as part of the electricity account. This amount must be suspended.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd
I have received no benefit from the powerline on the property as the previous owner received the compensation. Eskom should give the property owners a monthly compensation.	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116
The price per hectare proposed by Eskom negotiators is ridiculous.	Mr. A. Knott: Farm 148: Klipfontein
All property owners should be equally dealt with in terms of compensation.	Mr. A. Raubenheimer: Quaggaskuyl
Property owners lose some income if foreign hunters do not shoot anything as a result of the behaviour of the Eskom workers.	Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge

Issue/Comment	Raised By
Safety of Workers and Impact on Health	
The cables hang lower in hot weather conditions, which is a safety hazard for the workers. The cables could also break and hurt the workers.	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116
Mrs. Whittle indicated that she gets spots on her skin due to continuously working underneath the power lines.	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116
If the Eskom workers just access the property without prior notification, the hunters could accidentally shoot them.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2 Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark)
Had problems in the past with Eskom workers just entering the property without notification. There is no protocol for communication between Eskom and the farmers. This must be improved as the workers could get hurt if hunting takes place on the property.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Security	
Due to security being a problem, the Eskom workers should report to the farmers' houses before working on the power lines.	Mrs. I. Sampson & Mr. E. Sampson: Owners Portion of T'Zoetgeneugd Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
Security is a problem and the owners should therefore be informed if Eskom workers would be working on the property.	Mr. K. Viljoen: Rhenosterfontein (Middelfontein)
Future Developments	
The extension of the Addo National Park should be taken into account. The GANP should be carefully looked at, as the area should be conserved, due to the enormous tourism potential it might have	Mr. M. Roote, NMMC: City Electrical Engineer's Department: Planning Engineer
If the entrance to the Addo National Park could move it would limit the negative impacts on the park.	Mr. M. Roote, NMMC: City Electrical Engineer's Department: Planning Engineer
The EIA must estimate how long into the future the planned power lines would meet the demand of the area. Only then would one be able to determine whether this development would cater for the long-term electricity requirements of the area or whether it is just a short-term solution and more transmission lines may be required in the near future.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
If more transmission lines would be required, a more strategic approach is required (SEA) and the future servitudes need to be determined soon.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation

Issue/Comment	Raised By
Attitudes Towards Eskom and Issues related to Eskom's Management and Workers	
The farmers in the area are of the opinion that promises were made in the past which were not kept. This creates a negative perception towards Eskom and their activities.	Mr. D. Jordaan: Blue Crane Route Municipality
Eskom still owes money for the temporary line on the property. Mr. Boshoff of Eskom contacted him in this regard in February 2001, but since then he had no feedback regarding this matter.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd
Had numerous problems due to the behaviour of Eskom workers.	Mrs. I. Sampson & Mr. E. Sampson: Owners Portion of T'Zoetgeneugd Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge
Hhave experienced problems with contractors and/or Eskom workers who left the gates open and cut the fences	Mr. F. Thijssen: Dalmonick: Kommandokraal Estate 113 Portion 14 & 15
When Eskom previously erected the distribution line on the landowner's property, some sensitive plant species (e.g. cycads) were illegally removed and some game was lost.	Mr. J. Lunn: Biogenesis CC.: Ann's Villa - Bassonskloof Portion 2
The requirements for the contractors should be stricter and Eskom should ensure that the contractors meet the requirements and regulations.	Mr. and Mrs. Lunn: Biogenesis CC.: Ann's Villa - Bassonskloof Portion 2
It does not help to provide comments as the contractors and Eskom would continue their activities irrespective of complaints lodged.	Mr. and Mrs. Lunn: Biogenesis CC.: Ann's Villa - Bassonskloof Portion 2 Mr J. Truter: Varken's Kuil; Brand Rug (Verdun)
Eskom had a servitude for an additional transmission line, but a distribution line was then built in this servitude. Now Eskom wants another servitude for the No. 2 400 kV line.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
Have experienced numerous problems with the Eskom workers and contractors. Locks have been cut and gates have been broken. There were specific problems with the contractors responsible for the installation of the bird guards and those responsible for the fibre optic cables.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
The Eskom workers are unreliable and based on their malpractices one could assume that they would also poach the game.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
Has lost a lot of game due to Eskom's negligence.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
An Oryx has died underneath the line, but he does not have proof that it was due to Eskom's negligence.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2

Issue/Comment	Raised By
Requested Eskom to install cattle grids to ensure that no game would be lost.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
Proposes that the boundary should be moved as it would make the maintenance of the power lines easier and the game would then not run into these fences when startled.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
Eskom do not keep their promises and just do as they please.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
Was not informed that Eskom would install the fibre optic cables. Eskom only called and indicated that they needed his signature.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Was never informed that Eskom would install the fibre optic cables and did not sign any documentation to give his approval. Eskom only has the right to provide electricity.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
The optic fibre cables were installed on the wrong towers.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Farmers feel that it is useless to provide inputs as the regulations are not adhered to	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Had numerous problems with the Eskom workers, especially when the optic fibre cables were installed. He lost Springbok and have submitted a claim in this regard to Eskom. If Eskom does not settle this he would take legal action. In addition, some materials that were used were left in the veld	Mr. A. Knott: Farm 148: Klipfontein
Previously all the cattle were found on the neighbour's farm after Eskom workers left the gates open.	Mr. A. Knott: Farm 148: Klipfontein
Eskom should not put the blame on the contractors, as Eskom is still responsible for the contractor's activities.	Mr. A. Knott: Farm 148: Klipfontein
Eskom workers litter (especially plastic bags) and usually do not close the gates. This should not take place during the construction phase of the project.	Mr. A. Knott: Farm 148: Klipfontein
The plastic bird guards came off the towers and these are now lying in the veld. The cattle could eat these and Eskom must rectify the problem.	Mr. A. Knott: Farm 148: Klipfontein
Eexperiences problems with Eskom workers because they leave the gates open and litter (especially plastic bags) in the veld. Some flocks got mixed up.	Mr. P. van Niekerk: Klipfontein
Had some animal theft and losses and thinks that the Eskom workers are to blame. He cannot, however, accuse Eskom if he does not catch them with the animals	Mr. P. van Niekerk: Klipfontein
Approximately two months ago Eskom started the construction of a distribution line on the property, but they left the foundations open. Animals could fall into these holes. Although Eskom were requested to rectify the problem, nothing has been done	Mr. P. van Niekerk: Klipfontein

Issue/Comment	Raised By
Not willing to agree to a wider servitude as Eskom do not keep their promises.	Mr G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
Eskom do not take the comments and inputs of the property owners into account, but just try to save costs.	Mr G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
Eskom must find some solution that would be acceptable to all the property owners.	Mr G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
Waiting for documentation from Eskom, but had not reply.	Mr G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
Eskom must show respect for the farmer's property and should not damage any trees.	Mr G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
He does not have respect for Eskom and does not want to co-operate with them due to the behaviour of the Eskom workers on the property.	Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark)
It is difficult to communicate to Eskom as they do not attend to queries and complaints. He had no response regarding his complaints.	Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark)
Eskom think it is their right to access the property at any time and wherever they want to. This attitude is unacceptable.	Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark)
Dot want the Eskom workers on the property and would make it as difficult as possible for them.	Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark)
Some springbuck has been shot on the neighbour's property. This could therefore also take place on other farms. The game, especially the Springbuck, has decreased in numbers. The Springbuck in the camp where the power line is do not reproduce as the game in the other camps. This cannot be a coincidence.	Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift)
The Eskom workers create a poor image of Eskom and this should be attended to.	Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift)
The Springbuck in the vicinity of the powerline do not breed as well as the other game on the farm. The impression is therefore created that the Eskom workers either steal or shoot these animals. A dead Kudu and Springbuck have been found on the property after the Eskom workers were on the property. No one else have access to the property.	Mr. A. Raubenheimer: Quaggaskuyl
The property owners cannot prevent Eskom to construct the line.	Mr. A. Raubenheimer: Quaggaskuyl
Before he would give his approval to Eskom to upgrade the line, he wants an agreement stipulating that the contractors would financially reward the farmers for the damage if they do not keep to the regulations.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)

Issue/Comment	Raised By
It is impossible for the farmers to determine specific enforceable conditions. The property owners therefore have no bargaining power.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
Eskom should not force the property owners to agree to the power lines. Previously they constructed the distribution line to appease the property owners and to obtain their consent.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
The property owners are aggressive due to their previous experiences with Eskom workers. The trespassers then do not understand the property owners' behaviour towards them.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
The needs of the property owners should be taken into account and should be acknowledged.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
Eskom are changing previous agreements without the consent of the property owners. This is unfair and could be viewed as violation of the contract.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun)
There are no individual at Eskom who can be contacted or where complaints can be lodged.	Mr. J. Truter: Varken's Kuil; Brand Rug (Verdun) Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge Mr. Meyer: T'Zoetgeneugd
Would like to obtain a copy of the contract indicating the rules and regulations that need to be adhered to.	Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge
Planning to place a register at the farmgate that should be completed by Eskom workers before entering the property. This would also stipulate the rules and regulations that need to be adhered to. If this is not completed it would be viewed as unauthorised entry to the property and these individuals would then be accused.	Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge
Would like to obtain a copy of the contract between the property owner and Eskom as he never received such a contract. The previous owner also indicated that he did not have a copy.	Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge
Eskom cut a fence to construct an anchor cable. The fence was not repaired and game was lost due to that. He has lodged a complaint, but had no feedback in this regard.	Mr. Meyer: T'Zoetgeneugd
Eskom blame the sub-contractors for the unwanted activities.	Mr. Meyer: T'Zoetgeneugd
Property owners should be informed when Eskom workers would be on the property.	Mr. Meyer: T'Zoetgeneugd
The power outages experienced in the area are problematic for their dairy farming activities.	Mr. C. Botha: Voorspoed
Management and Maintenance of Powerline Servitudes	
Problems have been experienced in the past with the servitude maintenance	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation
Usually, the bush were cleared underneath the lines for fire breaks, but the forest areas in the kloof should be carefully dealt with. Eskom should not unnecessarily cut through the thicket.	Dr. P. Martin: Nelson Mandela Metropolitan Council: Parks Department: Manager Nature Conservation

Issue/Comment	Raised By
Contractors leave plastic and other rubbish in the veld. Animals could eat some of these and the situation therefore creates numerous problems for the farmers.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd
He would prefer if the entire servitude and the area around the anchor cables would be cleared.	Mrs. I. Sampson & Mr. E. Sampson: Owners Portion of T'Zoetgeneugd
Previously a tower on the property caught fire.	Mr S. Minnie: Owner of Ebb & Vloed and Portion of T'Zoetgeneugd
Would like to fence off the powerlines and servitude area on the property so that the animals do not come near these lines.	Mrs. I. Sampson & Mr. E. Sampson: Owners Portion of T'Zoetgeneugd
The area underneath the lines is not kept clear and weeds grow abundantly.	Mr I. Whittle: IVCA: Kommandokraal Estate 113: Portion 116
Clearing of the servitude should be limited.	Mr. W. Stewart & Mr. B. Reeves: WESSA
The game is afraid of helicopters and run into the fences if Eskom make use of helicopters. A claim has been submitted to Eskom in this regard, but he received no feedback yet.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
Eskom workers do not drive on their roads, but across the veld.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2 Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift) Mr. P. Krantz: T'Zoetgeneugd: Kudu Ridge Mr. Meyer: T'Zoetgeneugd
The Eskom workers enter the property through the private gate and locks have been cut to access the neighbour's property.	Mr L. Bekker: Redcliff Boerdery Trust: Wolverton 130 Portion 2
The Eskom workers do not undertake maintenance, as they cannot get through the river to access the area underneath the lines. They then use the private roads.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Eskom should use the necessary machines and maintain their roads and servitudes without damaging the environment.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Private gates have been locked with Eskom's locks and he could not get enter the camp.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Once the Eskom workers locked the gate and the sheep were without water.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Eskom should not damage the veld and should not use bulldozers to clean the servitude.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek
Has an agreement with Eskom that they can use some of the private roads. Eskom workers still travel across the veld and do not make use of the roads.	Mr. A. Knott: Farm 148: Klipfontein

Issue/Comment	Raised By
The Eskom workers do not stay on the roads, but drive through the veld. They do not know where pipes are and they break these when they drive over it.	Mr. P. van Niekerk: Klipfontein
Eskom's workers and contractors should not move around the properties without some assistance because they do not know the area and where infrastructure are e.g. pipes. The large trucks could easily damage this infrastructure.	Mr. G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
It is expected that the farmers should trim the wind breaks, but they do not have the necessary equipment to do so. It should therefore still be Eskom's responsibility to maintain the trees in the servitude.	Mr. G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
Previously, contractors have almost cut the trees to the ground. Luckily he could stop them before they did that, although some trees were still cut in half.	Mr. G. Fourie: Kommandokraal Estate 113: Maureen (Porte Rico)
The workers who move around on the property without consent, as well as the vehicles are disturbing.	Mr. K. Viljoen: Rhenosterfontein (Middelfontein)
The Eskom workers drive through the veld and do not make use of their roads. The gates are not locked, but luckily he has not lost animals due to this yet.	Mr. K. Viljoen: Rhenosterfontein (Middelfontein)
The workers are arrogant and drive on the private roads. There are no roads underneath the pylons. In some places there were roads on steep hills which were not maintained and led to erosion.	Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark)
No maintenance of the roads is undertaken.	Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark) Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift)
Eskom workers usually enter the property on weekends and specifically on Sundays. Previously they kept on hooting at the gate while he had guests until he had to drive there to assist them to get into the property.	Mr. Collin Phillips: Great Riet Fonteyn 160 (Thornpark)
He does not experience any problems with Eskom workers who undertake the maintenance	Mr. Mike Reed: Manager: Monterey Farm: Moordenaarsdrift & Dagbreek
Had problems with fences that shorted, but this has been resolved.	Mr. Mike Reed: Manager: Monterey Farm: Moordenaarsdrift & Dagbreek
If problems are experienced with the roads, the farmers should be informed about this so that something could be done to solve the problem. The Eskom workers should not just drive through the veld.	Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift)
The Eskom workers leave the gates and locks open. The owner then has to close and lock those after they have left. If this continuous to happen the farmers would force the Eskom workers to collect a key from their houses and deliver it after they have completed their work.	Mr. A.J.P. Louw: Dassiekop (Mullerskraal) Mr. F. Ungerer: Gedagtenis (Oude Smoordrift)

Issue/Comment	Raised By
The workers drive on private roads and cut the farmer's locks. The inside gates on the farm have now also been locked to prevent them to make use of the private roads and gates without consent.	Mr. A. Raubenheimer: Quaggaskuyl
Eskom workers leave the gates open and a neighbour has lost Springbuck.	Mr. J. van Aardt: Baviaanskrantz
Entry to the Addo National Park for those undertaking the maintenance would have to be organised via the Parks Board.	Dr. Michael Knight & Dr. Guy Castley: South African National Parks: Scientific Services
Public Participation and Communication	
It was suggested that all the councillors and ward committee representatives in the NMMC area be contacted. A joint meeting between with the representatives of the Sundays River Valley Municipality (Addo), representatives of the Blue Crane Route Municipality (Somerset East and Cookhouse), the councillors of the NMMC, the 54 ward committees, civic organisations and representatives of the relevant provincial departments should be held in Port Elizabeth. Representatives of Wildlife Organisations should also attend. Representatives from the various areas should be transported to Port Elizabeth via bus.	Clr. M. Xego: Nelson Mandela Metropolitan Council: Constituency Co-ordinator
The hunting season continues until the end of July and the project team might have problems in contacting these farmers	Mr. D. Jordaan: Blue Crane Route Municipality
The road between Cookhouse and Middleton would be upgraded during the next 20 months and the road between Cookhouse and Cradock are closed on Tuesday and Thursday mornings, but has to be re-opened after 14:00. This should be taken into account when consulting property owners	Mr. D. Jordaan: Blue Crane Route Municipality
The comments, as stated in your previous letter submitted for the No. 2 400 kV line, are still applicable.	Mr. K. Finnemore: Rosedale Farm: Kommandokraal Estate 113 Portion 164
Eskom must contact the farm owners to indicate when they would visit the property.	Mr. M. Gowar: Bassonskloof 319 & Draaihoek