

4. SCOPE OF ENVIRONMENTAL INVESTIGATIONS

4.1. Approach to the Study

An assessment of the environmental impacts of this proposed project was 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 the Environment Conservation 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 EIA process followed for this project is described below.

4.2. Authority Consultation

The relevant authorities required to provide input to the proposed project were consulted from the outset of this study, and have been engaged throughout the project process. These included the National Department of Environmental Affairs and Tourism, who act as the lead authority for the project as the proposed corridors pass through a national park (i.e. the AENP), and the Eastern Cape Department of Economic Affairs, Environment and Tourism (DEAET) based in Port Elizabeth. Authority consultation included the following activities:

- Submission of an application for authorisation in terms of Section 22 of the Environment Conservation Act (No 73 of 1989).
- Submission of a Plan of Study to undertake the environmental studies.
- Consultation with Authorities regarding the project, and the receipt of Authority approval of the Plan of study.
- Submission of the Issues Report for comment.
- Discussions with Authorities regarding the corridor alignment alternatives.

4.3. Legal Considerations

As both proposed corridors for the establishment of a new 400 kV Transmission line pass through the AENP, a proclaimed National Park, it was necessary to determine the implications for this proposed development in terms of the National Parks Act (No 27 of 1976).

4.3.1. Eskom's Existing Rights

The initial portions of the Addo Elephant Park were proclaimed in 1931. This proclamation did not include the land on which Eskom secured options to transmit electricity during 1975. The South African National Parks (SANP) was thus not involved in the granting of Eskom's existing rights, and purchased the land concerned for the purposes of extending the Addo Elephant National Park (AENP) subject to all existing rights (including Eskom's servitude).

Although the National Parks Act (No 57 of 1976) empowers any Minister with an interest in the proclamation of the park in question to object to the proclamation of a park, or to impose conditions subject to which the park may be proclaimed, no conditions relating to the provision of bulk electricity supply across the AENP were imposed by any Minister. Eskom's existing rights pertaining to electricity supply across the Park are accordingly legitimate and can be exercised subject to the limitations imposed by public and/or private law.

The existing servitude is, however, narrower than the ideal width for the establishment of a 400 kV Transmission line using CRS towers and, therefore, new rights will be required to be negotiated along its length. In addition, a new servitude will be required to be obtained for those portions where the corridors do not follow existing servitude. This is not considered to be problematic where the corridors lie outside of the proclaimed Park. Where corridor 1 crosses the National Park, Eskom hold existing servitude rights for a width of 26 m. Towers can be designed to accommodate these width restrictions. Where corridor 2 crosses the proposed GANP, Eskom hold no rights, and these would be required to be negotiated in line with the National Parks Act.

In view of the fact that the land on which the new rights will be required forms part of a National Park (or are earmarked to form part of a National Park), the South African National Parks (SANP), in its capacity as manager and custodian of the country's national parks, must grant such rights. However, in managing the national parks, the SANP must operate within the statutory powers conferred by section 12 of the National Parks Act.

In terms of the section 12(1) of this Act, the SANP *must* exercise all the powers conferred by section 12 with a view to achieving the objectives outlined in section 4 and must accordingly disallow any activities in the parks that cannot be reconciled with the objectives listed in section 4, which states the following:

“The objective of the constitution of a park is the establishment, preservation and study therein of wild animals, marine and plant life and objects of geological, archaeological, historical, ethnological, oceanographic, educational and other scientific interests and objects relating to the said life or the first-mentioned objects or to events in or the history of the park, in such a manner that the area which constitutes the park shall, as far as may be and for the benefit and enjoyment of visitors, be retained in it’s natural state.”

The power granted by section 12(7) to “temporarily lease or in any other manner make available any land, building, structure or other facility which has been acquired or erected in terms of this Act to another person for the purposes and on the conditions agreed upon with that person” suggests that the SANP may enter into an agreement with Eskom in terms of which the necessary rights to land may be made available. However, before the SANP can invoke the provisions of this section, they must test their proposed agreement with Eskom against the provisions of section 4. Section 4 does not include any non-conservation objectives, so the consequent conclusion is that the SANP may not grant any new rights (including servitudes) to Eskom for the purposes of the proposed Transmission lines across the AENP, or areas earmarked for inclusion within the GANP, or any other projects which do not fall within the ambit of section 4.

Therefore, Eskom is required to consider alternative solutions for the establishment of the proposed new 400 kV Transmission line through the AENP or the GANP where they do not hold any servitude rights. Such alternatives could include:

- *Corridor 1:*
 - * The development of a tower design which would be accommodated within the existing servitude width.
 - * Recycling of an existing Transmission line servitude together with the currently un-used servitude to increase the total available width. This option, however, holds major disadvantages in terms of reliability of supply for the consumer, as previously discussed in Section 3.4.

- *Corridor 2:*
 - * Use of the existing Spoornet servitude in the vicinity of Colchester for those portions where practical. The existing Spoornet servitude is, on average, only 20 m in width. Use of this narrow Spoornet servitude would regardless render several portions of the Transmission line which would need to traverse the AENP and proposed GANP without valid servitude rights.

- * Application to Parliament for the de-proclamation of a portion of the National Park for the issuing of Eskom with servitude rights. This application requires a 2/3 majority in Parliament to be passed.

The optimal solution will only be finalised once a preferred route alignment has been established.

4.3.2. Other Applicable Legislation

Other applicable environmental legislation which must be considered by Eskom during the implementation of the proposed project are summarised in Table 4.1 below.

Table 4.1: 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

Legislation	Sections	Relates to
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
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		

4.4. Environmental Investigations

The environmental studies were undertaken in 2 phases:

- Phase 1: Issues-Based Environmental Scoping Study
- Phase 2: Detailed Environmental Scoping Study

4.4.1. Phase 1: Issues-Based Environmental Scoping Study

Existing information was used to identify and highlight potential impacts (both social and biophysical) associated with the construction of the proposed new 400 kV Transmission line between the Poseidon and Grassridge Substations. A preliminary investigation of these potential impacts was undertaken, the results of which were included within an issues report. This report was made available for public review and comment in order to ensure that all potential impacts had been identified for consideration within the ambit of the detailed scoping study. This report acted as a discussion document, the aim of which was to add value to the Detailed Environmental Scoping Report (Phase 2).

4.4.2. Phase 2: Detailed Environmental Scoping Report

All potential environmental impacts (social and biophysical) identified in the issues report were further investigated within this phase of the study, and their significance evaluated. Potential mitigation measures are proposed, where appropriate. This phase included an overview of the broader study area, as well as an evaluation of the suitability of the proposed two corridor alternative alignments.

The following characteristics of each of the potentially significant impacts were identified:

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

The Detailed Environmental Scoping Study aims 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) DEATs will have the opportunity to review the environmental studies, and together will make final decisions regarding the project and under what conditions the project may proceed.

4.5. Public Participation Process

The public participation process commenced at the onset of the project, together with the environmental studies, and has continued throughout the duration of the project. The process was implemented in stages in order to ensure effective participation of all I&APs:

- *Stage One:* Identification of and consultation with all relevant stakeholders, I&APs and landowners.
- *Stage Two:* Communication strategy developed and information distributed (e.g. the briefing papers) to all relevant stakeholders and landowners.
- *Stage Three:* Public Information Sessions, to provide an opportunity for interaction between I&APs and the project team, as well as the dissemination of project-related information.
- *Stage Four:* Distribution of an issues-based Environmental Scoping Report to the public for comment.
- *Stage Five:* Distribution of a Detailed Environmental Scoping Study report, which details all potential environmental impacts, to the public and environmental authorities for comment.

The Issues Report (Phase 1) acted as a discussion document, and was made available for public comment after the Public Information Sessions. Those public places where the report was made available for public review are listed in Appendix A. I&AP comments received on this report provided input into, and were documented as part of the EIA process within the Detailed Environmental Scoping Report (Phase 2). This final report is the document available for both the relevant authorities to assist in decision-making, as well as for final comment by the public.

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

a) Newspaper Advertisements:

Advertisements were placed in the Herald, Die Burger and the East Cape Weekender, outlining the EIA process and providing I&APs the opportunity to register their interest in the project. Advertisements were placed in these same newspapers inviting I&APs to attend the Public Information Sessions (see Appendix B).

b) Networking Meetings:

In order to create further awareness and identify issues of concern, meetings were held with individual landowners within the study area, where possible. Landowner's issues and concerns were noted and each was personally invited to attend the Public Information Sessions. In addition, key stakeholders and I&APs (e.g. representatives from local associations, councils etc) were consulted and provided opportunities to raise

concerns.

c) Briefing Paper:

A briefing paper was produced (in both English and Afrikaans), and distributed to I&APs within the study area. Postal boxes in Cookhouse, Middleton and Golden Valley were used to distribute these to as many I&APs as possible. The briefing paper provided background information on the project, as well as a locality map indicating the extent of the study area and the existing 400 kV and 220 kV Transmission lines.

d) Database and Deeds Search:

A database of landowners within the study area and other I&APs was compiled. Details of landowners were obtained from a deeds search previously conducted by Eskom, as well as data obtained from the Department of Home Affairs. Details of other I&APs were added to the database as these persons registered their interest, or became involved in the EIA process. The database compiled is attached as Appendix C.

e) Other Meetings:

As key stakeholders, South African National Parks (SANP) representatives have been consulted throughout the project process. Formal meetings were held in September 2000 and February 2001 where alternate alignments were discussed. By request, an additional meeting was held with Citrus Farmers in Addo who would be directly impacted on by the proposed corridor 1 Transmission line. Additional meetings were held with the Kommadagga Farmers Association, and additional consultations were held with representatives of the Eastern Cape Agriculture Union, Paterson TLC and Sundays River/Colchester Ratepayers Association.

4.6. Study Team

Eskom Transmission Group appointed Bohlweki Environmental as independent consultants to undertake comprehensive environmental studies required to assess all potential impacts associated with the proposed project in order to obtain the necessary authorisation for the establishment of a 400 kV Transmission line between the Poseidon and Grassridge Substations.

Bohlweki Environmental appointed a number of specialists to undertake the necessary specialist work:

- Dr J Binnemann of the *Albany Museum, Grahamstown* – Archaeology.
- Dr A Boshoff of the *Terrestrial Ecological Unit* of the University of Port Elizabeth – Assessment of impacts on terrestrial fauna.
- Dr M Cohen of *CEN Integrated Environmental Management Unit* – Ecological overview.
- Dr A Craig of *Rhodes University* – Assessment of impacts on avifauna.
- Dr B de Klerk of the *Albany Museum, Grahamstown* – Palaeontology.
- Mr H Holland of *Rhodes University* – GIS mapping and visual assessment.
- Mr P Illgner of *Rhodes University* – Geotechnical assessment.
- Ms G McGregor of *Rhodes University* – GIS mapping and visual assessment.
- Mr M Msutu of *Sandy and Mazizi Consulting* – Public participation.
- Dr A.R. Palmer of the *Agricultural Research Council (ARC)* – Assessment of impacts on vegetation and agricultural potential.
- Ms S Wren of *Sandy and Mazizi Consulting* – Public participation and Social Impact Assessment.
- Mr J van Staden of the *Agricultural Research Council (ARC)* – External review of ecological studies.