ENVIRONMENTAL IMPACT ASSESSMENTS

ESKOM BRAAMHOEK 400KV TRANSMISSION POWER LINE AND SUBSTATION INTEGRATION & CONSTRUCTION AND UPGRADE OF ACCESS ROADS

for the Eskom Braamhoek Pumped Storage Scheme

KEY STAKEHOLDER WORKSHOP PROCEEDINGS

Should participants who attended the workshops, request any changes to these proceedings, please do so in writing within two weeks of receipt.

VENUE: Ladysmith Royal Hotel, Royal Buttery Room
DATE: 30 November 2004
TIME: 10h00 – 12h30

AGENDA

1.	Welcome	Facilitator
2.	Introductions	Facilitator
3.	Purpose of workshop	Facilitator
	3.1 Structure of the workshop	
4.	EIA process	Facilitator
	4.1 Legal requirements and environmental authorities	
	4.2 Public participation process	Johan van der Walt, ACER
	4.3 Discussion	All
5.	Project description and background	Deidre Herbst, Eskom
	5.1 Project need and strategic planning	
	5.2 Discussion	All
4.	Project description – Transmission Integration	Stuart Dunsmore, PBAI
	4.1 Study area	
	4.3 Preliminary identification of issues	
	4.5 Discussion	All
5.	Transmission line construction and Eskom research	Carol Streaton, Eskom
6.	Project description – Roads	Jaana Ball, BCJV
	5.1 Study area	
	5.2 Preliminary identification of issues	
	5.3 Discussion	All
7.	Open discussion session	All
8.	Way forward	Facilitator
9.	Thanks and closure	Facilitator

1. REGISTRATION

The attendance registers are attached as Appendix 3. Representation included organisations such as local and district municipalities, national and provincial government departments of land, water, agriculture, environment, education, health, arts and culture, farmers associations, conservation authorities, private landowners and traditional leaders.

2. WELCOME, INTRODUCTION AND APOLOGIES

2.1 Welcome and introduction

The Facilitator, Ms Karin Bowler, welcomed all those present and thanked the stakeholders for their participation in the Environmental Impact Assessment (EIA) processes for the proposed 400 kV Transmission Power Line and Sub-station Integration and the Construction and Upgrade of Access Roads for the Eskom Braamhoek Pumped Storage Scheme. She then introduced the project teams.

Construction and Upgrade of Access Roads EIA Project Team (present)

Name	Organisation
Deidre Herbst	Eskom: Generation Division
Frans Louwinger	Eskom: Generation Division
Vincent Kanyongolo	Eskom: Generation Division
Jaana-Maria Ball	Braamhoek Consultants Joint Venture
Robert Gibson	Braamhoek Consultants Joint Venture
Dave Montgomery	Braamhoek Consultants Joint Venture

Transmission Power Line and Sub-station Integration EIAs Project Team (present)

Name	Organisation
Carol Streaton	Eskom: Transmission Division
Mamokete Mafumo	Eskom: Transmission Division
Moses Mahlangu Stuart Dunsmore	Margen Industrial Services PBA International

Public Participation Team (present)

Name	Organisation
Johan van der Walt Bongi Shinga	ACER (Africa) ACER (Africa)
Debbie McKirdy	ACER (Africa)

2.2 Apologies

The following apologies were received:

Name	Organisation
Mr James Perkins	Department of Water Affairs and Forestry
Mr Neil Tolmie	National Roads Agency – Eastern Region
Mr HW Jonker	Ukhahlamba Local Municipality
Mr T Wessels	Skeurklip Conservancy
Mr Deon Coetzee	Middelpunt Wetland Trust
Mr TVO Chetty	Department of Housing
Mr John Dini	SA National Biodiversity Institute
Mr M Lindsay	Ithala Development and Finance Corporation Ltd
Mr TE Netshithothole	Dept of Environmental Affairs and Tourism
Mr Anthony Robinson	Free State Dept of Minerals and Energy
Mr Gabriel Tlhapi	South African Heritage Resources Agency
Mr SW van Zuydam	Winterton Irrigation Board

3. PURPOSE OF WORKSHOP

The primary objectives of this meeting were as follows:

- Provide stakeholders with an overview of the proposed developments by Eskom.
- Provide stakeholders with an overview of potential issues and concerns regarding the proposed developments.
- For stakeholders to raise additional issues that should be evaluated to reduce negative and enhance positive impacts.
- Provide an opportunity for stakeholders to comment, ask questions and raise issues to be addressed by Eskom and the EIA Project Teams.
- Conduct constructive debate and discussion.

4. EIA PROCESS

The Facilitator presented and discussed the objectives and importance of the EIA process in which the following sections were covered:

4.1 Legal requirements and environmental authorities

Regulation 1182 promulgated in terms of Section 21 of Environmental Conservation Act, Act 73 of 1989, specifies a number of activities, which may have a detrimental effect on the environment. The proposed developments are all listed activities and may not be undertaken without authorisation from the Minister of Environmental Affairs and Tourism.

The relevant authority for the proposed developments is the National Department of Environmental Affairs and Tourism (DEAT). The decision is subject to comment by respective Provincial Authorities i.e. KwaZulu-Natal Department of Agriculture and Environmental Affairs (KZN DAEA) and Free State Department of Tourism, Environmental and Economic Affairs (FS DTEEA).

4.2 Outline of EIA process

A detailed EIA approach and the process being followed for the proposed developments were outlined and discussed.

4.3 Public Participation Process

The objectives and principles of the Public Participation Process, roles and responsibilities of stakeholders and opportunities for participation were presented and discussed. Mr Johan van der Walt briefly outlined the activities planned for the process.

The summary of the information presented is provided in Appendix 4. The issues raised and discussed following the Facilitator's presentation are summarised in Appendices 1 -3.

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5. PROJECT DESCRIPTION: 400 KV TRANSMISSION POWER LINE AND SUB-STATION INTEGRATION EIAS

Mr Stuart Dunsmore (EIA Project Leader, PBA International) presented the description of the proposed 400 kV Transmission Power Lines and Sub-station Integration EIAs. The following sections were covered in his description:

- Study area and proposed corridors.
- Alternatives.
- Preliminary identification of issues.

The summary of the information presented is provided in Appendix 4. The issues raised and discussed following Mr Dunsmore's presentation are summarised in Appendices 1 -3.

6. TRANSMISSION LINE CONSTRUCTION AND ESKOM RESEARCH

Ms Carol Streaton (Public Participation Advisor, Eskom: Transmission Division) presented the description of transmission line construction and current Eskom research.

The sections contained within the presentation are as follows:

- Generic description of transmission lines (cross rope suspension and bend/strain towers).
- Construction activities.
- Infrastructural components.

The summary of the information presented is provided in Appendix 4. The issues raised and discussed following Ms Streaton's presentation are summarised in Appendices 1 -3.

7. PROJECT DESCRIPTION: CONSTRUCTION AND UPGRADE OF ACCESS ROADS EIA

Ms Jaana-Maria Ball (EIA Consultant, Braamhoek Consultants Joint Venture) presented the description of the proposed Construction and Upgrade of Access Roads EIA. The following sections were covered in her description:

- Study area.
- Alternatives.
- Preliminary identification of issues.

The summary of the information presented is provided in Appendix 4. The issues raised and discussed following Ms Ball's presentation are summarised in Appendices 1 -3.

8. WAY FORWARD

The Facilitator summarised the issues raised at the workshops as captured in Appendix 1. She stated that these issues were crucial to the EIA process and that they had been recorded and would be included in the Draft Scoping Report, which would be distributed for public review. She added that the Draft Scoping Report would indicate how issues raised had been addressed. It was further confirmed that the Draft Scoping Report would be available at public venues on CD as well as hard copies.

The Facilitator requested stakeholders to:

- Assist the Project Team by indicating the boundaries of their farms, properties, areas of special interest that may be affected by the proposed developments.
- Submit written comment to the Public Participation Office.
- Review the Draft Scoping Report.

9. THANKS AND CLOSURE

The Facilitator thanked stakeholders and the project team for their input and participation in the process and closed the meeting.

APPENDIX 1

RECORD OF ISSUES RAISED AND DISCUSSED AT THE WORKSHOP

GENERAL ISSUES

NOTE: Should you as a participant at the meeting not agree to the way in which ACER has captured your issue, please do not hesitate to provide your requested changes in writing within two weeks of receiving this document.

Stakeholder	Comment	Response
Mr Philip Gavin Drakensberg Tourism Association	There are two other Pumped Storage Schemes in the pipeline at the moment. Is it proposed that they be located in the Drakensberg area and will they impinge on the Braamhoek plans in future?	*Deidre Herbst.* There will be one Pumped Storage Scheme in Steelpoort. This project already has a positive Record of Decision. The other Pumped Storage Scheme will probably be in the Pietermaritzburg area or in Lesotho. These two possibilities are currently in the pre-feasibility phase of investigations.
Mr Alf Lees Ladysmith and District Farmers Association	How many megawatts will the Pumped Storage Scheme produce, once operating?	*Frans Louwinger.* The Braamhoek Pumped Storage Scheme will produce 1332 MW
Mr Angus Burns Ekangala Grassland Trust	An extensive faunal survey has been conducted which could be of great benefit for both components of study. This information is available freely to both project teams. Please contact me for further information.	Comments noted with thanks.
Mr Ivor Hoareau Department of Water Affairs and Forestry (DWAF)	DWAF has concerns regarding the licensing process for the two storage facilities. We are also concerned about the impacts on water resources in the area. Dams require prior written approval in each instance.	Comments noted with thanks.
Mr Vincent Matabane Department of Environmental Affairs and Tourism (DEAT)	DEAT is present at the meeting to observe, not to issue a Record of Decision. The necessary applications have been lodged and the respective Plans of Study for Scoping have been accepted. DEAT encourages all stakeholders to raise issues at this early stage so that when the EIA documentation is reviewed, all the facts are incorporated. Also, stakeholders must make sure that comments have been captured correctly and addressed adequately.	*Karin Bowler*. This is line with roles and responsibilities within the framework of the law. DEAT has the responsibility to ensure that due process has been followed within the EIA processes.

Mr George Galloway Skeurklip Conservancy and Farm Owner	What about evaluations and rates payable on land that will be utilised by Eskom for the project?	*Angus Burns.* There is an option that exists where landowners can register land with minimal use as "conservation land". The farmer can still use the land, however, he/she is exempt from taxes, in terms of the Protected Areas Act (Act N^0 57 of 2003).

APPENDIX 2

RECORD OF ISSUES RAISED AND DISCUSSED AT THE WORKSHOPS

ISSUES PERTAINING TO THE 400 kV TRANSMISSION POWER LINES

NOTE: Should you as a participant at the meeting not agree to the way in which ACER has captured your issue, please do not hesitate to provide your requested changes in writing within two weeks of receiving this document.

Stakeholder	Comment	Response
Mr Alf Lees Ladysmith and District Farmers Association	I am concerned that the Majuba-Venus #2 power line is the only option being considered for the connection to the National Grid. Why is the Majuba-Venus #1 line not under consideration as well? I already have three power lines through my farm, and I do not want another one, as would be the case with this proposed route.	*Stuart Dunsmore.* Majuba-Venus #1 runs through an area that is more densely populated than the Majuba-Venus #2 line. Also, new ground will have to be broken for the construction of the turn-in. It is, thus, anticipated that the Majuba-Venus #1 line will be less favourable. However, a final decision has not been made, and alternatives will be considered in the EIA.
Mr Louis van Wyk Emnambithi/Ladysmith Municipality	The differences between overhead and underground transmission line alternatives have not been made clear. Have these alternatives been investigated? Underground power lines have short-term impacts, whilst overhead power lines have long term impacts (particularly visual impacts). The area under consideration is pristine in terms of tourist attractions.	*Carol Streaton.* There are various reasons for transmission lines not to go underground. These include: ▪ To place a 400kV transmission powerline underground would typically involve digging a trench of a three-lane road and 1½ metres in depth to accommodate up to 12 separate cables. ▪ Cost implication – it costs approximately R1,5 million per kilometre to construct an overhead transmission line, the underground costs 20 times more i.e. more than R20 million per kilometre. ▪ The impact on vegetation when clearing the servitude. ▪ Development above the cable route is severely restricted because of the need to protect the cables from damage and for permanent access to be available to carry out repairs when necessary. ▪ Excavation of land for cable installation is much more disruptive to landowners and the land than overhead lines.

Stakeholder	Comment	Response
		▪ To avoid root damage to cables, no trees or hedges are allowed to grow over or near cables and no excavations can be made below 0.5m in the vicinity of the cable. ▪ Additional land and space is required because the transmission of high-voltage electricity generates a great deal of heat. The conductors have to be well spaced out to allow for natural cooling to avoid overheating. ▪ If conductors are underground they need to be surrounded by oil for cooling. Overhead lines are directly cooled by the surrounding air.
Mr McEdward Murimbika Institute for Natural and Cultural Resources	During the cultural impact assessment (specialist study) there is only a 50% chance of finding resources prior to construction. During construction, there is a concern that cultural heritage resources will be discovered. Are these circumstances planned for in the Environmental Management Plan (EMP), i.e. chance find situations? Procedures need to be outlined clearly in the EMP.	*Stuart Dunsmore.* The siting of strain towers or cross rope suspension towers can be planned to avoid sites of cultural significance. Towers can easily be relocated to avoid grave sites, middens, stonewalls, etc. Places of cultural significance will be identified during Scoping. eThembeni Cultural Heritage will conduct the specialist assessment for the study area and Amafa aKwaZulu-Natali will also be involved in screening studies. There are many battlefields and other areas which should be identified. The site for the sub-station will need to be investigated by the specialists. The EMP for construction will deal with cultural resource issues. Contractors should be trained and this should be included in the EMP. *Carol Streaton.* During construction, if some artifact is uncovered, the archaeologist will be brought on site. The Contractor will have to wait for the go-ahead before construction continues. It is not difficult to move the tower footing. Eskom will protect all sites that are identified up front.
Mr George Galloway Skeurklip Conservancy and Farm Owner	Will a visual impact assessment be conducted for the power lines? Will bird life be taken into consideration?	*Karin Bowler.* The visual impact of power lines is a contentious issue and it is always subjective. Cave Klapwyk and Associates are the visual specialists in this EIA. *Stuart Dunsmore.* The visual impact depends on who can see the power lines and how pristine the area is. Power lines always constitute a medium-high impact. The proposed power line will be constructed adjacent to an existing line, which is a better option visually. Alternatives will be taken into consideration, including eco-tourism, archaeological-cultural landscape, etc. Stakeholders must review the Draft Scoping Report and Visual Impact Assessment carefully and provide comment.

APPENDIX 3

RECORD OF ISSUES RAISED AND DISCUSSED AT THE WORKSHOPS

ISSUES PERTAINING TO THE CONSTRUCTION AND UPGRADE OF ACCESS ROADS

NOTE: Should you as a participant at the meeting not agree to the way inwhich ACER has captured your issue, please do not hesitate to provide your requested changes in writing within two weeks of receiving this document.

Stakeholder	Comment	Response
Mr Bradley Gibbons Wildlife and Environment Society of SA	The N3 is proposed to be upgraded from Warden to the De Beers Pass. How will this affect the Braamhoek developments? Would the developments affect the positioning of the access roads?	*Dave Montgomery.* Current thinking is that the upgrade will only be done in about 2019. However, we have taken the N3 upgrade into consideration in our planning and design, but it does not affect the project. A road system develops and interchanges will have to be constructed at a later date to accommodate the new road. The Braamhoek project will also be taken into account during the N3 upgrade planning and design. *Robert Gibson*. Construction of the access roads will commence in 2007. The Braamhoek scheme will be finalised in 2011/2012. We, thus, have to plan accordingly, without the upgraded N3. *Frans Louwinger.* When the N3 is built, the possibility of interchanges will be considered. *Andrew Dhebideen (N3TC*). Construction of the N3 will only commence in 10 years time. We would need to talk to Eskom about the possibility of constructing interchanges.
Mr George Galloway Skeurklip Conservancy and Farm Owner	Will the access roads near the upper reservoir be surfaced? I was not informed that there would be a construction camp near the upper reservoir. Construction will require a large workforce with many people residing in the construction camp. Will the roads be upgraded before 2007? What exactly is meant by 'upgrading'? Surfaced roads would improve farming activities and tourism potential.	*Karin Bowler*. Yes, the access roads will be surfaced. *Jaana Ball*. There is a certain amount of geotechnical material that will need to be stored at the upper reservoir. The main construction camp will be located at the lower reservoir site. *Deidre Herbst*. It currently takes approximately 3 hours to drive between the upper and lower reservoir sites. Eskom only received the request last week to store material at the upper site, and we still need to identify a site to accommodate a Geotechnical Team of 15-20 people.

Mr George Galloway Skeurklip Conservancy and Farm Owner (Cont.)		*Frans Louwinger* . The EIA process will take approximately one year. Detailed design will take approximately 6 months. Construction will commence during 2007. *Dave Montgomery.* Due to the road construction only starting in 2007 some roads may still be gravel by the time the construction of the BPSS commences i.e. time constraints may not allow all roads to be surfaced in time, but eventually they will all be surfaced)
Mr George Galloway Skeurklip Conservancy and Farm Owner	Have the sites for gravel (borrow) pits been identified?	*Dave Montgomery.* This has not yet been finalised. Aerial photography will enable engineers to identify suitable locations. This will form part of the EIA. *Jaana Ball*. Eskom is currently liaising with the Department of Minerals and Energy (DME) in this regard. Also, erosion has been identified as a major problem on site, which will have to be taken into account during the Geotechnical Studies, construction and rehabilitation. *Deidre Herbst.* A baseline study has been conducted on site. The erosion situation is much worse than anticipated, therefore, Eskom have put extra measures in place to ensure that erosion can be mitigated. *Vincent Kanyongolo*. Eskom is aware that mitigation measures are driven by DME and the EMPR will identify mitigation measures for rehabilitation.
Mr Dumisane Nkabinde Dee Dee Enterprises	Will the access roads go through the normal tender process? Where are the Free State stakeholders and were they invited to the Key Stakeholder Workshop. Also, the Department of Transport and the Provincial Roads Agency.	*Deidre Herbst.* There will be open competitive tendering and the process can only commence once a Record of Decision has been issued (approximately 18 months from now). *Dave Montgomery.* We have had discussions with Free State and KZN authorities. All the stakeholders mentioned were invited to the Key Stakeholder Workshop.
Mr George Galloway Skeurklip Conservancy and Farm Owner	Will the roads be for public use?	*Dave Montgomery.* The access roads will be built and upgraded by Eskom. The roads will then be handed over to the Regional Roads Department for maintenance and public use.
Mr George Galloway Skeurklip Conservancy and Farm Owner	Will a visual impact assessment be conducted for the project?	*Jaana Ball.* Yes, a visual impact assessment will be conducted by Mr Alan Cave from Cave Klapwyk & Associates.

APPENDIX 4

INFORMATION PRESENTED AT THE KEY STAKEHOLDER WORKSHOPS

APPENDIX 5

ATTENDANCE REGISTER