



ENVIRONMENTAL IMPACT ASSESSMENT

PROPOSED EXTENSION OF THE 756kV HYDRA SUBSTATION (De Aar) AND THE PROPOSED ADDITIONAL 765kV TRANSMISSION POWER LINE BETWEEN HYDRA SUBSTATION AND GAMMA SUBSTATION (Victoria Wes): NORTHERN CAPE PROVINCE

DRAFT MINUTES OF A FOCUS GROUP MEETING

**HELD ON
TUESDAY 14 NOVEMBER 2006
AT 15:00
EMTHANJENI MUNICIPALITY, DE AAR**



ENQUIRIES

BOHLWEKI ENVIROMENTAL (PTY) LTD

Public Participation Process

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YOUR COMMENTS

Your comments on this document would be greatly appreciated. In particular, we request you to verify that your comments during the meeting have been minuted correctly. Please address your written comments to Nicolene Venter or Prashika Reddy at the address given above by not later than **MONDAY, 8 JANUARY 2007**. Please note however that the minutes are not verbatim.

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**DRAFT MINUTES OF THE KEY STAKEHOLDER WORKSHOP
TUESDAY, 14 NOVEMBER 2006
KALAHARI LODGE, KIMBERLEY**

1. WELCOME AND INTRODUCTION

Ms Nicolene Venter from Bohlweki Environmental introduced herself and her role for this proposed project, and welcomed the delegate present at the workshop. She informed the attendees that Bohlweki Environmental had been appointed as independent consultants to undertake the necessary environmental studies and public participation process associated with the proposed project, and introduced the project team present as follows:

- Mrs Carol Streaton, Senior Environmental Advisor: Eskom Transmission
- Ms Rebecca Thomas, Project Manager: Bohlweki Environmental

Apologies were submitted on behalf of Ms Prashika Reddy, Bohlweki Environmental, and Ms Tania Anderson, WESSA, who unfortunately could not attend the Workshop.

The attendance register and apologies received are attached as Appendix A.

Approval of Draft Agenda

The delegate present approved the draft Agenda and no additional points were submitted for discussion.

Conduct of the Workshop

It was agreed that the Workshop would be conducted in the following manner:

- Language of Choice: It was agreed that questions and comments will be raised in English
- Work through the Facilitator
- Focus on issues related to the proposed project
- Equal Participation
- Identify oneself prior to a question
- Wait until Discussion Session to ask questions

Due to the small delegation present at the meeting, it was agreed with the attendees that questions could be raised during and after each presentation.

2. PURPOSE OF THE MEETING

Ms Nicolene Venter explained that the purpose of the meeting was to:

- Provide stakeholders with information regarding the proposed expansion of the 765kV Hydra Substation, located near the town of De Aar, and the proposed additional 765kV Transmission power line between Hydra Substation and Gamma Substation, located south east of Victoria West, in the Northern Cape Province.
- Provide stakeholders an opportunity to comment and seek clarity regarding the proposed project; and

3. BACKGROUND TO THE PROJECT

Ms Carol Streaton, Eskom, introduced the attendees to the nature of bulk electricity supply. The separate divisions within Eskom Holdings (viz. Eskom Generation, Eskom Transmission and Eskom Distribution) were also illustrated.

Electricity is generated at power stations by Eskom's Generation division, mainly being generated in the Mpumalanga area, whereafter it is transported via transmission power lines (765kV, 400kV or 275kV), managed by Eskom Transmission, to transmission substations where electricity is stepped down. Municipalities obtain electricity from these transmission substations and electricity is then distributed to industrial areas and households within their municipal boundaries. From the transmission substations electricity is also stepped down to distribution substations via distribution power lines (132kV, etc), which are managed by Eskom Distribution.

From the distribution substations, electricity is distributed through high-voltage reticulation lines (380/220V). Low-voltage reticulation lines transport electricity from the high-voltage reticulation lines to individual properties/buildings.

Current Network: 2006

An overview of Eskom's current electricity network was presented and the proposed Perseus-Hydra-Gamma Transmission power line was pointed out to the delegate. The slide also indicated the electricity being *imported* from Lesotho through the Cahora Bassa Hydro Project.

Southern Grid Load Forecast

The projected electricity capacity needed between 2006 and 2027, and the projected load (MW) for East London, Karoo and Port Elizabeth was presented. As this proposed project is being introduced to provide electricity mainly for the Coega Development in Port Elizabeth, the chart indicates that by the year 2009 Port Elizabeth's electricity demand will be at 2 000 MW, and still climbing.

2006 – 2009 Servitudes

An overview of the various Servitudes required (substation to substation), and the year required, was presented as follows:

- Mercury (near Orkney) – Perseus (near Dealesville)
(765kV, ± 250km): Servitude required by 2008
- Perseus – Hydra (near De Aar)
(765kV, ± 260km): Servitude required by 2009
- Hydra – Gamma (south east of Victoria West, near Hutchinson)
(765kV, ± 126km): Servitude required by 2009
- Gamma – Omega (near Koeberg)
(765kV, ± 550km): Servitude required by 2009
- Gamma – Grassridge (Port Elizabeth)
(2 x 765kV, ± 310km): **Commissioning** 2009

4. ENVIRONMENTAL ASPECTS OF THE PROJECT

Ms Rebecca Thomas, Bohlweki Environmental informed the delegates that a brief history of Hydra-Gamma1 will be presented as the environmental studies undertaken for Hydra-Gamma1 might only need to be updated/ revised for the Hydra-Gamma2 proposed project for which this EIA is.

Hydra-Gamma1 Project

Project scope of Hydra-Gamma1

The EIA for Hydra-Gamma1 included the construction of a new 765kV Gamma Substation of approximately 1.6km x 800m on the farm Uitvlugfontein near Victoria West. It also included a new 765kV Transmission power line between Hydra Substation and the proposed new Gamma Substation.

The two proposed route alternatives were indicated by means of an overview map and explained to the attendees.

Background

The EIA for the Hydra-Gamma1 project was undertaken during 2004 and 2005 by Bohlweki Environmental, and was conducted in two phases, the Scoping phase and the Impact Assessment phase. As this EIA was conducted for the first 765kV Transmission power line, comprehensive specialist studies were undertaken to assess and address these impacts of this new type of Transmission power line in the area.

The specialist studies undertaken were:

- Geology
- Surface Water
- Soils and agricultural potential
- Flora and Ecology
- Avifauna
- Visual and aesthetics
- Heritage Impacts
- Tourism potential
- Social Environment

Conclusion

A Record of Decision was issued in December 2005 for both the Gamma Substation and the 765kV Transmission power line.

During Eskom's servitude negotiation activity for this approved Hydra-Gamma1 765kV Transmission power line, the increase in demand for electricity in the Port Elizabeth area had already become clear and Eskom negotiated the option for a double servitude with the affected landowners. This second servitude was negotiated during 2006 and was signed by all the affected landowners by October 2006.

New EIA for Hydra-Gamma2

Ms Thomas informed the attendees that to ensure that the project is transparent, mention needs to be made that the project team will approach the Department of Environmental Affairs and Tourism (DEAT), the Competent Authority' for this proposed project, to apply for exemption from a full EIA for Hydra-Gamma2.

Project scope

This EIA includes the proposed extension of the 765kV Hydra Substation that is proposed to be situated adjacent to the existing Hydra Substation on Eskom owned property. The Hydra Substation extension will be approximately 200m x 250m.

The proposed additional 765kV Transmission power line will be constructed parallel to the existing Hydra-Gamma1 765kV Transmission power line for a distance of approximately 130km.

The proposed route alignment, which included a slight deviation, was indicated by means of an overview map and explained to the attendees.

Environmental Scoping Phase

The scoping phase will be based on desktop investigations to identify any potential negative as well as positive environmental impacts. During this phase the identification of the preferred alternative will be made.

The specialist studies undertaken during the Hydra-Gamma1 EIA will be updated and/or revised during the scoping phase. However, environmental aspects that will be considered during the environmental scoping phase are:

- Biophysical
- Social

Updated specialist studies

The following specialist studies will be considered to establish whether any changes had taken place between 2005 and 2006:

- Soils and Agricultural Potential
- Flora and Fauna
- Heritage Impacts
- Tourism Impacts
- Socio Economic Impacts

Revised specialist studies

The following specialist studies will take into consideration the cumulative impacts:

- Avifauna
- Visual Impacts

Summary of the EIA process

The following outline the steps of the EIA process for this proposed project:

- Application: Submitted to DEAT and received approval in October 2006
- Environmental Scoping Study: Currently at this phase of the process and is planned to be conducted during October and November 2006. It is envisaged that the draft Environmental Scoping Report (ESR) will be made available for public review, and simultaneously to DEAT as well as the Northern Cape Department of Tourism, Environment and Conservation (NCDTEC), from end November 2006 until mid January 2007 (45 days).
- Plan of Study for EIA: It is envisaged to submit the Plan of Study for EIA to DEAT by March/April 2006
- Environmental Impact Assessment: Should the Plan of Study for EIA be accepted by DEAT, the project will enter the impact assessment phase and it is envisaged that it will take place during February and March 2007. The draft Environmental Impact Report (EIR) will be made available for public review, and simultaneously to DEAT and NCDTEC, from March to April 2007 (30 days).
- Record of Decision: It is envisaged that the Record of Decision might be issued by May 2007.

It was mentioned that the public participation process will continue throughout the EIA process.

5. PUBLIC PARTICIPATION PROCESS

Ms Nicolene Venter informed the delegate that to ensure that there is a clear understanding of what public participation is and what it is not, the following to be noted:

What is a public participation process?

- A communication tool to inform stakeholders of a proposed project; and
- A communication tool to receive and integrate the comments of stakeholders into the relevant phases of a proposed project

What a public participation process is not?

- It is not a public relations exercise; and
- It is not a means to satisfy grievances, but rather to record comments and concerns

Summary of the public participation process

- EIA process advertised: The EIA process was advertised in the following newspapers:
 - De Aar Echo (Afrikaans): 10 November 2006
 - Citizen (English): 10 November 2006
 - The Messenger (Victoria Wes)(English): 10 November 2006
 - Rapport (Afrikaans) 12 November 2006
- Background Information Document: Distributed to I&APs who responded to advertisements as well as those identified during the identification process.
- Identification of and Consultation with I&APs: This is an ongoing process throughout the EIA and includes telephonic consultation, etc.
- Focus Group Meetings / Stakeholder Workshop: The process is currently in this phase where meetings are conducted with e.g. local authorities, environmental bodies, provincial authorities, etc.

- Comment and Response Report and the draft Environmental Scoping Report (ESR) available for public review: All comments/concerns/issues received from I&APs will be captured in the Comment and Response Report that forms part of the draft ESR. As mentioned during the EIA Process Summary, it is envisaged that the draft ESR will be made available for public review from end November 2006 until mid January 2007 (45 consecutive calendar days).

6. TECHNICAL DETAILS

Negotiation process

According to Eskom's Negotiation Guidelines, the following Negotiation Process will be followed:

- After completion of the EIA, negotiator has a corridor of 500m and within that a proposed alignment to be negotiated.
- Eskom appoints an independent registered valuator.
- The negotiation process begins by visiting the landowners.
- Servitude against the property is registered at the Deeds Office.

Negotiations:

- Individual contract being drawn up between Eskom and affected landowner
- Servitude compensation – discussed market related and realistic compensation
- Affected landowner signed option to register a servitude
- Exercise the option-contract
- Servitude Registration with Deeds Office
- Payout with interest – once of payment to affected landowner
- Environmental Management Plan (EMP) for construction/maintenance phase are enforced
- Environmental Control Officer appointed by Eskom to ensure that the construction company adheres to the EMP

Environmental Control Officer (ECO)

The ECO is appointed by Eskom prior to construction, and his duties include:

- Negotiation of access road
- Liaison between contractor, landowner and Eskom
- Ensures that the conditions of the EMP are met
- Ensures that the special conditions are upheld

Relocation

It was noted that in certain instances, it might be necessary to relocate people if their houses fall within the proposed servitude area and there is no way for the proposed Transmission power line to avoid the houses.

Overview of Transmission line building practices

Overhead or underground:

A brief overview was presented in relation to The National Grid Example at the Goring Gap (United Kingdom). The excavation activities for a 400kV underground cable require close to double the servitude clearance during construction, which have a detrimental affect on vegetation.

Gates

Should gates along the registered servitude be required, negotiations with the affected landowner will take place to discuss the position and type of gate(s) required.

Access Roads

Access roads are constructed where the need is identified, and in some instances the need for a two-track road is needed.

Erosion Control

Care is taken during the construction of access road and towers to address or limit any erosion that might occur.

Aviation Spheres, Bird Guards & Flapper products

Aviation spheres (red/white/yellow balls) are attached to Transmission power lines, where identified, to ensure that these power lines are easily identified and noticed by pilots of light aircrafts, crop sprayers, etc.

Bird guards (spikes) are attached above the insulators to prevent bird droppings on the insulators, as that is the main cause for power failures.

To prevent birds flying into Transmission power lines, bird flappers are attached to the sections where birds' flight paths has been identified. These flapper products provide movement that is easily recognisably by birds. Continuous research is taking place to ensure that these products are as affective as possible.

Clearance for stringing

It is imperative that the conductors does not touch the ground during stringing at this will damage the conductors, which is a costly activity. During the operational and maintenance period the area underneath the conductors are kept clear of any vegetation that could damage the conductors, especially during a veld fire.

Bush clearing

If vegetation is low enough, vegetation needs only to be cleared at those areas where the towers are to be constructed. Vegetation should not pose a threat to the operation of the power line, it is sometimes sufficient to clear the tower footing areas and a strip of approximately 8m wide for stringing purposes. It may not necessary to clear the entire servitude width depending on the type of vegetation.

Low risk trees

An example of what is mean by a low risk tree, which will not be removed from the servitude, was shown. These are trees that are low enough not to pose a threat to the operation of the power line

Archaeological and Historical Sites

Should any sensitive sites, such as archaeological sites, that were not found during the EIA process, are found during construction, construction is to cease until the site has been assessed by a relevant specialist and the authorities have been notified. Mitigation measures will then be implemented and if needed, the line will be re-routed to avoid the sensitive area.

Construction Camps

Should construction workers not be able to be accommodated in a town nearby, construction camps are generally erected to accommodate workers during the construction of a power line. The landowner, the environmental consultant and power line contractor together agree on an appropriate site for the construction camp. Proposed construction camps will be assessed by ecology specialists prior to the establishment of such a construction camp. Preference is given to sites where services such as sanitation are available.

Construction Methodology

Using photographs, typical construction techniques such as on-site construction, the construction of tower foundations, etc were illustrated. It was explained that towers are constructed onsite. Where holes have not been filled with concrete for the anchor ropes, these holes will be covered with strong steel mesh to ensure the safety of the surrounding communities and animals.

Substation Construction

The outlay, groundwork and construction of a substation were illustrated, and it was mentioned that fire walls are constructed between each transformer to prevent the spreading of fire should one of the transformers catch fire.

7. DISCUSSION SESSION

7.1 Proposed Route and Route Alternatives

7.1.1 *Mr Mvandaba* asked where the proposed Hydra-Gamma2 765 kV Transmission line will be situated.

Ms Rebecca Thomas informed the attendees that the proposed Hydra-Gamma2 is situated between the Hydra Substation, 10km south of De Aar And Gamma Substation, south-east of Victoria West, near Hutchinson. The Hydra Gamma2 power line will run parallel to the approved Hydra Gamma1 765 kV Power line. Ultimately, Hydra Gamma2 will be a continuation of the 765 kV power line from Perseus Substation.

7.2 Fauna and Flora Impacts

7.2.1 *Mr Faas* enquired what action will be in place should plants or trees be affected by the proposed Transmission power line.

Ms Thomas explained that should red data plant species be identified within the study area, and those species cannot be relocated, the final route alignment would have to be aligned to avoid those species.

7.2.2 *Mr Alexander* enquired what the status of the vegetation will be after the expansion of the Hydra Substation and will that site be rehabilitated.

Ms Thomas replied that the vegetation at the substation site will be permanently removed, and were possible any indigenous species will be relocated within the nearby vicinity. She explained that in order for the construction of the substation site to be approved, the ecological studies need to show that the vegetation at that site is either in abundance elsewhere, such that the population of that species will not suffer, or alternatively the vegetation can be relocated elsewhere to ensure the survival of the species.

7.3 Communication Issues

7.3.1 *Mr Faas* enquired whether the landowners along the Hydra-Gamma2 proposed route are informed/aware of the proposed project.

Ms Thomas informed the delegates that all the landowners are informed of the proposed Hydra-Gamma2 project. After the Record of Decision was received for Hydra Gamma1, Eskom's Lands and Rights went to negotiate the servitude. During these negotiations, Eskom informed the landowners' that a second 765 kV power line is required between Hydra and Gamma and proceeded to negotiated the second servitude at the same time.

7.3.2 *Mr Faas* proceeded to ask whether the landowners were aware of the Environmental Impact Assessment (EIA) process, which is now being undertaken.

Ms Thomas replied that during the double servitude negotiations, the Lands and Rights negotiator informed al the effected landowners that the EIA process was still to follow and would be undertaken, as the Department of Environmental Affairs and Tourism (DEAT) require this. During the negotiations he further explained that the landowners would have a further opportunity during that EIA process to raise any concerns they may have with regards to the two proposed 765kV power lines.

7.3.3 *Mr Faas* informed the project team that there is a farming community situated on the southern side of the existing Hydra Substation, and commented that they will have to be consulted.

Comment noted.

7.4 Servitude Issues / Impacts

7.4.1 *Mr Alexander* enquired whether the landowners still have the right to use the land where a Eskom servitude has been registered.

Ms Thomas replied that the land beneath Eskom power lines still belongs to the landowners and Eskom has the right to transmit electricity within that servitude and the right to perform maintenance on the power line within that servitude. Depending on the activities e.g. low crop, cattle farming, etc farming can still take place within the servitude beneath the power line.

7.5 General Comments and Issues

7.5.1 *Mr Faas* enquired what will the distance of the closest house be to the proposed Hydra-Gamma2 Transmission power line.

Ms Thomas informed the delegates that this information is not currently known and that feedback will be provided within the draft Minutes of the meeting.

Post meeting note:

40m From the centre line of the power line.

7.6 Social Impacts

7.6.1 *Mr Alexander* enquired whether there will be any Electro Magnetic Field (EMF) radiation from the 765 kV Transmission power line.

Ms Thomas informed the attendees that according to EMF studies undertaken for Transmission power lines, EMF radiation is highest at the centre point of a Transmission power line, and decreases in intensity as you move away from the centre point. The studies have indicated that the effects experienced by EMF's are zero outside the power line servitude. She further explained that the EMF studies will form part of the Environmental Scoping Report.

7.6.2 *Mr Faas* raised a point that numerous people living within close proximity to power line transformers had complained about headaches and migraines.

Ms Thomas explained that the health effects associated with transformers are a lot more severe than those associated with the actual power lines and power line towers.

7.6.3 *Mr Mvandaba* enquired whether this project would make use of local labour during construction of the line as well as that of the expansion of the Hydra Substation. He informed the project team that although the project is being proposed to extend the electricity network for the country, Eskom's social responsibility needs to be visible by ensuring that the community also benefit from this proposed project, if the community are not benefiting during the construction phase or the possible employment during the operational phase of the substation.

Ms Thomas replied that this issue is noted and that a response regarding this matter will be sourced from Eskom and it will also be submitted to the Social Specialist for assessment and included within the Environmental Scoping Report.

Post-meeting note:

7.6.4 *Mr Faas* requested that the market value of the proposed project, including the expansion of the substation be forwarded to Emthanjeni Municipality.

Request noted, information will be obtained from Eskom and will be formally communicated to Emthanjeni Municipality.

7.6.5 *Mr Alexander* enquired what benefit Emthanjeni Municipality will gain from the proposed expansion of the Hydra Substation and the proposed construction of the Transmission power line. He informed the project team that Emthanjeni Municipality's existing infrastructures is 60 years old and is in need of upgrading.

Ms Thomas replied that this comment is noted and a response regarding this matter will be sourced from Eskom and it will also be submitted to the Social Specialist for assessment and included within the Environmental Scoping Report.

Post-meeting note:

7.6.6 *Mr Mvandaba* informed the project team that in terms of the commitments made between Eskom and the Government to ensure that all communities receive free basic services, in this case electricity, he would like to make the following comments and submit the following questions:

- What role is Eskom playing regarding the above-mentioned commitment in terms of infrastructures?
- Emthanjeni Municipality purchase bulk electricity from Eskom for its residents and communities, but there is no return benefits from Eskom.
- What will the communities benefit from this proposed project to gain the community's buy-in into the whole process?
- There needs to be co-operation from both Eskom and Emthanjeni Municipality to ensure a successful project.

Ms Venter drew the attendee's attention to the fact that from a legal and process perspective, the EIA process is there to ensure that sufficient and clear information regarding a proposed project is provided to interested and/or affected parties to participate informatively. The EIA, and specifically, the public participation process, is not a process to obtain communities or residents 'buy-in' into a project, but to obtain their comments and concerns relating to a proposed project, especially during the scoping phase, to ensure that it is addressed during the impact assessment phase of the project.

7.7 Technical Impacts

7.7.1 *Mr Faas* enquired whether the newly proposed expansion of the Hydra 765 kV Transmission substation will be similar to the existing substation.

Ms Thomas replied that, after construction, the Hydra substation will be approximately double its current size. The extended Hydra Substation infrastructure will be similar to that of the existing Hydra Substation.

7.8 Construction Issues / Impacts

7.8.1 Mr Faas enquired when it is envisaged for construction to start.

Ms Thomas replied that should the Competent Authority issue a positive Record of Decision, construction is proposed to begin during May 2007.

8. CLOSURE AND THE WAY FORWARD

Ms Venter informed the delegate that all comments and concerns raised during the workshop had been minuted, and would also be included in the Comments and Response Report that forms part of the draft ESR.

The way forward is:

- Distribution of the draft Minutes of the Workshop, also to those who submitted apologies.
- Availability of the draft Environmental Scoping Report (ESR) for public review and the authorities
- Comments received from the public on the draft ESR will be incorporated into the final ESR, which will be submitted to DEAT for consideration, as well as NCDTEC for comment.
- The public consultation process will continue through the EIA process of the proposed project.

The projected project timeframes are as follows:

- | | |
|--|---|
| • Draft ESR available for public review | End November 2006 |
| • Public review period for the draft ESR | End November 2006 until Mid January 2007 (45 consecutive calendar days) |
| • Submission of final ESR to DEAT (and NCDTEC) | End January 2007 |

Ms Venter requested the attendees to please read carefully through the draft minutes to ensure that his comments, concerns and issues raised have been captured correctly as Minutes are considered a legal document. It was also requested that he submit his comments/changes on the draft Minutes in writing to Bohlweki Environmental within the allocated timeframes.

The meeting closes at 16:30.

APPENDIX A
ATTENDANCE RECORD