What does Powerline Construction consist of?

The following general activities are involved with the construction and maintenance of a powerline. A detailed description of activities involved will be given in the Scoping and EIA Reports (Please note that these activities will only be undertaken once environmental authorisation has been obtained):

- Negotiations between Eskom and the Landowner for permission to register a servitude and construct the powerline. These negotiations involves compensation;
- Registering of an Eskom Servitude on all properties demarcated for powerline construction. The servitude width required for a 400KV Transmission line is 55m (27.5m on either side of the powerline);
- Clearing of vegetation within the servitude;
- Construction of temporary access roads, and permanent maintenance roads where required;
- Construction of the towers;
- Stringing of the cables;
- Conductor testing; and
- Annual inspection and maintenance of the powerline and servitude.

What does Substation Construction consist of?

In general, the proposed substation will consist of the following. (Exact details will be provided in the Scoping and EIA Reports):

- Transformers;
- Bus bars;
- Feeder bays;
- Reactors;
- Loop-in and loop-out lines;
- Oil collection dams; and
- Buildings (main substation building, storage buildings, and substation facilities).

Please complete the attached Reply Form to register as an Interested and Affected Party to become involved in this proposed project. Please also attend one of the two Public Meetings to obtain more information regarding the proposed project, to raise your issues and concerns and to view large scale maps to determine whether you could be an affected landowner.

Proposed Construction of the Anderson-Dinaledi 400KV Powerline between the Anderson (located in Broederstroom) and Dinaledi (located in Brits) Substations

Department of Environmental Affairs Project Reference Number: 12/12/20/1567

&

Proposed Construction of the Anderson 400KV Substation

Department of Environmental Affairs Project Reference Number: 12/12/20/1568

Project Overview

Eskom Holdings Limited is proposing the construction of a new 400KV Transmission Line, and a proposed new 400KV Substation as part of their Tshwane Strengthening Scheme Project. The proposed powerline will be approximately 40km in length and will run between the proposed new Anderson Substation, which will be located to the north of the Nuclear Energy Corporation South Africa (NECSA), located in Broederstroom, to the existing Dinaledi Substation which is located approximately 8km North East of Brits. The proposed powerline will be constructed in the following two Municipal Areas: Madibeng Local Municipality (North West) and the City of Tshwane Local Municipality (Gauteng). The proposed substation is earmarked for construction within the Madibeng Local Municipality.

Environmental Consultant

Nemai Consulting have been appointed by Eskom Holdings Limited, as the independent environmental consultant, to undertake an Environmental Impact Assessment (EIA) for this proposed powerline, as well as to undertake an Environmental Impact Assessment for the proposed Anderson 400KV Substation.

Purpose of this Background Information Document (BID):

- To provide Background Information regarding the project;
- To provide details on the Environmental Impact Assessment (EIA) process and phases;
- To inform the general public of their rights and responsibilities regarding participation, and how to become involved;
- To provide the general public with an opportunity to comment or raise issues and concerns regarding the proposed development.

Becoming Involved in the EIA Process:

Kindly complete the attached Reply Form and return it to the relevant representative from Nemai Consulting before the 17th of November 2010:

Sonja van Eden

Nemai Consulting (Social, Environmental and OHS Consultants)
PO Box 1673, Sunninghill, 2157
Tel: (011) 781 1730
Fax: (011) 781 1731
E-mail: sonjavan@nemai.co.za

Nemai Consulting

Public Meeting:

Public Meetings will be held in Brits and Broederstroom. Please attend one of these meetings to obtain more information regarding the projects. The details for these Public Meetings are as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Venue</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>18/10/2010</td>
<td>Hoërskool Brits (Address below)</td>
<td>17:30-19:30</td>
</tr>
<tr>
<td>19/10/2010</td>
<td>Broederstroom (Address below)</td>
<td>17:30-19:30</td>
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</table>

Public Review of the Draft Scoping Report:

The Draft Scoping Report for both the proposed 400KV powerline as well as the proposed Anderson 400KV Substation will be made available for Public Review from the 1st of November 2010 until the 10th of December 2010. Written comments on the Draft Scoping Report should be forwarded to Nemai Consulting by no later than the 10th of December 2010. The Draft Scoping Report will be available for Public Review at the following venues:

<table>
<thead>
<tr>
<th>Venue</th>
<th>Address</th>
<th>Contact No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoërskool Brits</td>
<td>1 Johann Street</td>
<td>012 352 2228</td>
</tr>
<tr>
<td></td>
<td>Brits</td>
<td></td>
</tr>
<tr>
<td>Laerskool</td>
<td>Piet 33, Permea Street,</td>
<td>087 940 0167</td>
</tr>
<tr>
<td></td>
<td>Flora Park</td>
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</tr>
<tr>
<td>Madibeng Community</td>
<td>51 Van Velden Street,</td>
<td>012 318 9318</td>
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<td>Brits</td>
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<tr>
<td>Library</td>
<td>Office Hours:</td>
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<td>Scheemanville Library</td>
<td>Marius Street</td>
<td>012 253 1177</td>
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<td>Scheemanville</td>
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</table>
Background Information

Location & Alternative Routes

The Dinladi Substation is located on Portion 643 of the Farm Roodekopjes of Zwartkopjes 427 JQ, which is located approximately 1km North East of Dinladi. Two site alternatives are being investigated for the proposed construction of the Anderson Substation. These two site alternatives are being located directly to the north of NEXCA, in Broederstm. Three alternative powerhouse routes have been selected for the powerline to be attached (see map). A 1km buffer area has been placed around each alternative route, which will form the study areas/corridor to be investigated during the Scoping and EIA Phase. During the EIA Phase a preferred study area/corridor will be selected. The Department of Environmental Affairs may authorise the identified preferred corridor, the Department may authorise one of the other corridors, or the Department may request that additional information be submitted in order to make a decision regarding the proposed project. Once DEA authorises a corridor, a walk down survey will be undertaken by suitably qualified specialists in order to determine the exact location of the powerhouse. Please note that powerline will require a 55m servitude.

Several properties are located within the 1km study areas/corridors. A list of all the properties which could potentially be affected by the proposed powerline has been attached to this BID. A list of properties currently affected by the proposed center line (current proposed powerhouse position) has also been attached.

Two site alternatives are being investigated for the proposed Anderson Substation. The footprint of the proposed substation will be 600m x 600m and will include the construction of several loop-in and loop-out lines. The exact location of the proposed loop-in and loop-out lines will only be available once the exact location of the proposed substation has been determined, as the location of the loop-in and loop-out lines are dependent on the location of the feeder bays.

Environmental Authorisation

The Environmental Impact Assessment (EIA) Regulations, 2005 (as amended in terms of Section 24(5) of the National Environmental Management Act (NEMA), Act 107 of 1998) are divided into two Schedules, R 386 and R 387. Schedule R386 defines activities which will trigger the need for a Basic Assessment and R 387 defines activities which trigger an Environmental Impact Assessment (EIA) process. If activities from both schedules are triggered, then an EIA process will be required.

Activities from R386 which will be triggered include Activities 1(m), 1(p) 7, 12, 14, 15, and 20. Activities from R387 which will be triggered include Activities 1(l), 2 and 5. In terms of the activities under R387 the proposed development is subject to a Scoping and EIA Procedure, which entails the following:

- Public Participation Process as described in Regulation 56 of the EIA Regulations, 2005;
- Identification of potential environmental impacts;
- Compilation of a Scoping Report in accordance with Regulation 29 of the EIA Regulations, 2005;
- Compilation of an Environmental Impact Assessment Report in accordance with Regulation 32 of the EIA Regulations, 2005;
- Undertaking of Specialised Studies in accordance with Regulation 33 of the EIA Regulations, 2005; and
- The completion of an Environmental Management Plan (EMP) in accordance with Regulation 34 of the EIA Regulations, 2005.

The final EIA Report will include details on all specialist studies undertaken. This Report will provide sufficient information to facilitate decision-making by the designated Authority.

Authorisation Process

The proposed Environmental Authorisation process will consist of the following phases:

Initial Public Participation Phase

During this phase public participation engagement activities will commence. This will include the compilation of a Background Information Document (BID), Newspaper advertisements (Beeld, the Star, and the Koms mant), site notices and notification letters.

The following parties will be consulted during this phase:
- Relevant Authorities at various levels;
- The owners and occupiers of land adjacent to the site, and within a 100m of the boundary of the site where the activity is to be undertaken;
- The municipal council of the ward in which the site or alternative site is situated and any responsible association that represents the community in the area;
- The municipality which has jurisdiction in respect of any aspect of the activity.

The issues raised during this phase will be collated into a stakeholder database and an Issues and Response Report will be generated.

Scoping Phase

The Scoping Phase brings together the issues identified during public participation, and the planning phases of the EIA. During this phase all issues and comments identified are evaluated, and the "Scope" of further studies is determined.

The Scoping Report will include the following (inter alia):
- Describe the proposed development and reasonable expectations;
- Describe the property on which the activity is proposed, including its location;
- Describe the environment (at a screening level) that may be affected by the activity and the manner in which the physical, biological, social, economic, and cultural characteristics of the environment that may be affected by the proposed activity;
- Identify all legislation and guidelines that have been considered in the preparation of the Scoping Report;
- Describe the environmental issues and potential impacts that have been identified;
- Indicate the methodology that will be adopted in assessing the potential impacts that have been identified, including any specialist studies or specialised processes that will be undertaken;
- Detail the public participation process, including the issues and Response Report; and
- Include all proof of stakeholder engagement.

A Draft copy of the Scoping Report will be made available for public review, prior to finalisation and submission to the Department of Environmental Affairs (DEA).

Environmental Impact Assessment (EIA) Phase

Public Participation

During this phase the general public will be notified of the decision made by DEA regarding the Scoping Report, and will be notified that the EIA phase will commence.

Environmental Impact Assessment

The EIA Report will include:
- A detailed description of the proposed development;
- A description of the need and desirability of the proposed development and the identified potential alternatives to the proposed activity;
- A description of the environment that may be affected by the activity and the manner in which physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed development;
- A summary of the findings of the specialist studies;
- A summary of the methodology used in the assessment, and the significance of potential impacts;
- A detailed assessment of all identified potential impacts, including a comparative assessment of the proposed action and alternative development alternatives;
- Identified mitigation measures;
- Copies of all Specialist Reports will be appended to the EIA Report; and
- Any further information that will assist in decision making by the Authorities.

Specialist Studies

The following specialist studies which may be required as part of the EIA have been identified thus far:
- Geotechnical Assessment;
- Georesources Assessment;
- Groundwater Assessment;
- Hydrological Assessment;
- Aquatic Ecosystem Assessment; and
- Wildlife and Habitat Assessment.

Environmental Management Plan (EMP)

An EMP will be compiled and will include the following information:

- Information on the proposed management or mitigation measures that will be undertaken to address the environmental impacts that have been identified in the EIA report, including environmental impacts or objectives of:
  - Planning and design;
  - Pre-construction and construction activities; and
  - Operation and undertaking of the activity;
- Rehabilitation of the environment; and
- Closure, where relevant.
- A detailed description of the aspects of the activity;
- An identification of the persons who will be responsible for the implementation of the EMP;
- Where appropriate, time periods within which the measures in the EMP must be implemented; and
- Proposed mechanisms for monitoring compliance with the EMP and reporting thereon.

Public Review prior to Submission

Once completed the Draft report including the environmental impact assessment and management programme will be made available for public review. Comments from stakeholders will be incorporated before the Report is submitted to Authorities.

Submission and Decision-making

The Report will be finalised and submitted to the various Authorities for decision-making. Their decision will be provided in a written Environmental Authorisation (EA). Once the EA has been received, an advertisement will be placed in a local newspaper, notifying the public of the EA and where it will be available to view. Public will also be notified of the Appeal Period, and procedure.

Relevant Authorities

The authority responsible for the approval of the proposed development includes:
- Department of Environmental Affairs;
- Department of Water Affairs;
- The National Department of Agriculture;
- The relevant local municipalities.

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Anderson-Dineladi Proposed 400kV Powerline & Anderson 400kV Substation: Nema Consulting (Social, Environmental and OHS Consultants) October 2010
Project Name:
Anderson - Dinaledi

Map Name:
Powerline and Substation location

Date:
34 October 2010
Reply Form:
Proposed Construction of the Anderson-Dinaledi 400kV Powerline between the Anderson and Dinaledi Substations, and the Anderson 400kV Substation in Broederstroom
DEA Ref No: 12/12/20/1567 & 12/12/20/1568

(Complete and return to/Voltooi en stuur aan: Sonja van Eden. This form should be returned no later than the 17th of November 2010)

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<th>Name of organisation/Naam van organisasie</th>
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Comments/Opmerkings:

Any other person/s who you think should be notified of this proposed project:
PROJECT DESCRIPTION AND BACKGROUND

<table>
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<th>Activity</th>
<th>Expected Date</th>
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<td>July 2011</td>
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<td>Landowner Negotiations</td>
<td>August 2011</td>
</tr>
<tr>
<td>Commission of Tenders</td>
<td>September 2011</td>
</tr>
<tr>
<td>Construction Commences</td>
<td>October 2011</td>
</tr>
<tr>
<td>Environmental Control Auditing</td>
<td>October 2011</td>
</tr>
<tr>
<td>Occupational Health and Safety Auditing</td>
<td>October 2011</td>
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</tbody>
</table>

Environmental Authorisation

- The Environmental Impact Assessment (EIA) Regulations, 2006, promulgated in terms of Section 24(3) of the National Environmental Management Act (NEMMA), Act 107 of 1998 are divided into two Schedules, R 386 and R 387. Schedule R386 defines activities which will trigger the need for a Basic Assessment and R 387 defines activities which trigger an Environmental Impact Assessment (EIA) process. If activities from both schedules are triggered, then an EIA process will be required.

- Substitution: Activities from R386 which will be triggered include Activities 1(a), 1(b), 7, 12, 14, and 15. Activities from R387 which be triggered includes Activities 1(a), and 10(i). In terms of the activities under R387 the proposed substitution is subject to a Scoping and EIA Procedure, which entails the following:

- Follow-up: Activities from R386 which will be triggered include Activities 1(a), 1(b), 7, 12, 14, 15, and 20. Activities from R387 which be triggered includes Activities 1(b), 2 and 5. In terms of the activities under R387 the proposed development is subject to a Scoping and EIA Procedure, which entails the following:

ENVIRONMENTAL AUTHORISATION - NEMAI

RELEVANT LEGISLATION

- National Environmental Management Act (Act 107 of 1998)
- Environmental Impact Assessment Regulations, 21 April 2006
- Environmental Conservation Act (Act 73 of 1989)
- Environment Conservation Act, 1989 (Act No. 73 Of 1989), Section 16 (f): Magaliesberg Protected Natural Environment
- National Heritage Resources Act (Act 25 of 1999)
- National Environmental Management: Biodiversity Act (Act 10 of 2004)
- National Environmental Management: Protected Areas Act (Act 57 of 2003)
- The National Veld and Forest Act (Act 101 of 1998)
- The Gauteng Ridges Guideline Policy
- Environmental Management Framework for the Magaliesberg Protected Environment, 2009

Scoping Phase

1. Appoint Environmental Assessment Practitioner
2. Application Form
3. Public Participation (04 October 2010 - 17 November 2010)
4. Environmental Screening & Determine Specialist Studies
5. Scoping Report
6. Public Review
7. Submit Scoping Report
8. DEA Review Report
End of Scoping Phase

EIA Phase

9. Public Participation
10. Undertake Specialist Studies
11. Prepare EIA Report
12. Public Review or EIA Report
13. Submit EIA Report to DEA
14. GOARD Review of EIA Reports
15. Notify Interested and Affected Parties

2011/08/02
SCOPING PROCESS TO DATE

1. Appoint Environmental Assessment Practitioner
   - Environ-Appointed Environmental Consulting

2. Application Process
   - EIA Application Forms Submitted to DEA on 31/07/2009
   - DEA issued Reference Numbers on 30/07/2009

3. Public Participation
   - Meetings with various mining companies held on various dates (September 2009)
   - Meetings with stakeholders from the Magaliesberg Protection Association (MPPA) in July 2009
   - Placement of Advertisements in Local and Regional Newspapers
     - The Star - 03/10/2009
     - The Rekord - 02/10/2009
     - Kempton - 07/10/2010
   - Placement of Site Notices from 01/10/2010 - 12/10/2010

SCOPING PROCESS TO DATE

3. Public Participation
   - Distributing of Background Information Documents to all land owners directly affected by the proposed centre line and substation: 01-10-2010-12-10-2010
   - Placement of Flyers in post boxes:
     - Hartbeespoort Post Office (2000 post boxes) - 12/10/2010
     - Brits Post Office (3000 post boxes) - 12/10/2010 and
     - Broadway Post Office (920 post boxes) - 12/10/2010.

4. Environmental Scoping & Determine Specialist Studies
   - Sensitive Environmental Features
     - Vegetation
     - Riparian Zone
     - Fossilised Dunes (Gauteng)
   - Vegetation Assessment
     - Fossilised Dunes Assessment (Gauteng)
   -mine
     - Environmental Impact Assessment (B&G & R)
     - Social Impact Assessment (B&G & R)
     - Economics Impact Assessment (B&G & R)

Other Specialist Studies
- Geothermal & Geotechnical Investigation (B&G)
- Visual Impact Assessment (B&G & R)
- Heritage Impact Assessment (B&G & R)
- Fossilised Dunes Assessment (B&G & R)
- Fossilised Dunes Study (Information from previous studies to be considered)
- Social Impact Assessment (B&G & R)
- Economic Impact Assessment (B&G & R)

Legend
- Vegetation:
  - Blue: Senescent
  - Brown: Riparian Zone
  - Green: Fossilised Dunes
  - Red: Fossilised Dunes (Gauteng)
  - Yellow: Vegetation
- Geology:
  - Blue: basement
  - Brown: Basement Thrombolite
  - Black: Basement Dolerite
  - Gray: Basement Gneiss
- Water Bodies:
  - Blue: rivier
  - Gray: Stream
- Land Use:
  - Blue: Urban
  - Green: Agriculture
  - Orange: Industrial
  - Brown: Other
- Other:
  - Green: Existing Site
  - Red: New Site

Key Stakeholder Consultation
- Gauteng Environmental Consulting
- Magaliesberg Protection Association
- Hartbeespoort Environment & Heritage Association
- Various Mines
SCOPING PHASE WAY FORWARD

5. Scoping Report
7. Submit Scoping Reports to DEA (15 December 2010)
8. GDMD Review Report (90 day review)

End of Scoping Phase

CLOSING

DISCUSSIONS

WAY FORWARD
TSHWANE STRENGTHENING SCHEME

PROJECTS:
1. ANDERSON DINALEDI 400kV POWERLINE
   DEA REF NO: 12/12/28/3567
2. ANDERSON 400kV SUBSTATION AND ASSOCIATED SECONDARY INFRASTRUCTURE
   DEA REF NO: 12/12/28/1558

Public Meeting:
Monday, 18 October 2010

DISCUSSION ITEMS
1. Welcome and Introduction - Nema
2. Electricity Generation / Transmission / Distribution - Nema/Eskom
3. Project Description, Background and Motivation - Nema/Eskom
4. Environmental Authorisation - Nema
5. Project Progress to Date - Nema
6. Discussions - All
7. Way Forward - Nema/Eskom
8. Closing - Nema

WELCOME & INTRODUCTION

PURPOSE OF MEETING

PROJECT TEAM

Facilitator
Salomon Plaatjie

Prepared by
Archibald Malphubungane
Eskom Land and Rights

Isita Chauke
Eskom Land and Rights

Solomon Tsila
Eskom Land and Rights

Tinoyi Maburane
Eskom Land and Rights

Sonja von Eden
Nema

ELECTRICITY GENERATION/TRANSMISSION/DISTRIBUTION

BACKGROUND
- Eskom generates, supplied and distributes electricity via a network called the "Grid".
- The amount of electricity being fed into the grid must always match what the customers are taking out. (This varies not just from day to day, but even minute to minute).
- As electricity demand increases, more power stations and substations (transmission and distribution) must be brought into play.
- Electricity supply should be consistent and reliable - therefore "a quality product", as much of the electricity and electronic equipment we use depends on voltage and frequency remaining accurate and constant.

RULES OF THE MEETING

- QUESTIONS TO RELATE TO PROJECT AT HAND
- OPPORTUNITIES FOR SEEKING CLARIFICATION AT END OF PRESENTATIONS
- ADDRESS PROJECT TEAM THROUGH FACILITATOR
- IDENTIFY YOURSELF BEFORE ASKING A QUESTION
- CELL PHONES OFF, PLEASE
- PLEASE SIGN THE ATTENDANCE REGISTER
**ELECTRICITY GENERATION/TRANSMISSION/DISTRIBUTION**

- **ELECTRICITY TRANSMISSION**
  - Electricity is then sent from the power stations to the load centres via high voltage power lines;
  - As electricity leaves the power station, the electricity is boosted by a step-up transformer to voltages such as 132,000 volts (132 kV) or 400 kV or 765 kV;

**PROJECT DESCRIPTION AND BACKGROUND**

- **WHAT DOES THE PROJECT INVOLVE**
  - Eskom Holdings Limited is proposing the construction of a new 400 kV Transmission Line, and a proposed new 400 kV Substation as part of their Tshwane Strengthening Scheme Project.

**ELECTRICITY DISTRIBUTION**

- **ELECTRICITY DISTRIBUTION**
  - When the electricity reaches its destination (which is a substation near a load centre), it is "stepped down" to voltages used for distribution to customers.

**PROJECT DESCRIPTION AND BACKGROUND**

- **WHERE WILL THIS PROJECT TAKE PLACE**
  - **Proposed Powerline**
    - The proposed powerline will be approximately 40km in length;
    - Will run between the proposed near Anderson Substation, which will be located to the north of NECUA, located in Bendor/Kroon, to the existing Shannon Substation which is located approximately 40km North-East of Boksburg.
    - The proposed powerline will be constructed in the following two Municipal Areas: Magaliesberg Local Municipality (North West) and the City of Tshwane Local Municipality (Gauteng);
    - Two route route alternatives with a line study area and proposed deviations are being considered.

**PROJECT DESCRIPTION AND BACKGROUND**

- **WHERE WILL THIS PROJECT TAKE PLACE**
  - **Proposed Substation**
    - The proposed substation is earmarked for construction within the Magalies Local Municipality. Two site alternatives (Site A and Site B) have been identified based on Geotechnical Suitability and will be investigated during the Feasibility and EIA Phase;
    - These two sites are located on the following properties:

  - **Site 1** is located on:
    - Portion 82 of the farm Weldeka 567 J2;

  - **Site 2** is located on:
    - Portion 82 of the farm Weldeka 567 J2;
    - Portion 83 of the farm Weldeka 461 J2; and
    - Portion 25 of the farm Weldeka 883 J2.
**PROJECT DESCRIPTION AND BACKGROUND**

**WHAT WILL THE PROPOSED FOOTPRINT BE?**
- Proposed 400kV Powerline
  - The proposed powerline requires a corridor width of 55m (27.5m on either side of the powerline).
  - On a terrain with a generally flat topography a powerline can span over a maximum distance of 400m (therefore generally pylons are spaced 400m apart, depending on the location of the bend points, topography and sensitive areas).
  - Type of pylons used is dependent on:
    - Bend points; and
    - Topography.

**PROJECT DESCRIPTION AND BACKGROUND**

**WHAT WILL THE PROJECT TAKE PLACE**
- Proposed Substation (Continue)
  - Proposed Substation and Associated Secondary Infrastructure
    - The footprint of the proposed substation will be 600m x 600m.
    - It will include the construction of several loop-in and loop-out lines.
    - The exact location of the proposed loop-in and loop-out lines will only be available once the exact location of the proposed substation has been determined, as the location of the loop-in and loop-out lines are dependent on the location of the feeder bays.
    - A safety area of 50m is required around the substation within which no development may take place.

**PROJECT DESCRIPTION AND BACKGROUND**

**HOW WILL THE ACCESS BE OBTAINED?**
- Substation: Access to the proposed substation will be obtained via the existing farm access road / through the construction of an Eskom maintenance road.
- Powerline: Access to the proposed powerline will be obtained via existing main roads, farm roads and the Eskom maintenance road to be constructed within the 55m corridor area.

**PROJECT DESCRIPTION AND BACKGROUND**

**WHY IS THIS PROJECT NECESSARY?**
- The construction of the proposed 400kV Powerline, as well as the proposed 400kV Substation is required as part of the Tshwane Strengthening Scheme in order to strengthen the existing grid to ensure a constant and reliable electricity supply to the consumer.

**PROJECT DESCRIPTION AND BACKGROUND**

**HOW WILL THIS PROJECT BE UNDERTAKEN**
- Identification of requirements to strengthen the existing grid by Eskom Grid Planning.
- Identification of a proposed solution (Tshwane Strengthening Scheme).
- Desk top demarcation of the proposed new Transmission Powerline and Substation;
- Field verification and final proposed demarcation of proposed new Transmission Powerline and Substation;
- Environmental Authorisation Application (Approvals to be Obtained);
- Detailed design of proposed powerline and substations;
- Negotiations with affected landowners
- Tendering and implementation of Tenders
- Construction Monitoring
- Environmental Control Auditing
- Occupational Health and Safety Auditing
PROJECT DESCRIPTION AND BACKGROUND

WHAT WILL THIS PROJECT TAKE PLACE

<table>
<thead>
<tr>
<th>Activity</th>
<th>Expected Dates</th>
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<tbody>
<tr>
<td>Environmental Authorisation</td>
<td>June 2011</td>
</tr>
<tr>
<td>Final design</td>
<td>July 2011</td>
</tr>
<tr>
<td>Landowner Negotiations</td>
<td>August 2011</td>
</tr>
<tr>
<td>Commissioning of Tenders</td>
<td>September 2011</td>
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<tr>
<td>Construction Contracts</td>
<td>October 2011</td>
</tr>
<tr>
<td>Environmental Control/Auditing</td>
<td>October 2011</td>
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<tr>
<td>Occupational Health and Safety Auditing</td>
<td>October 2011</td>
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</tbody>
</table>

Environmental Authorisation

The Environmental Impact Assessment (EIA) Regulations, 2005, promulgated in terms of Section 24(5) of the National Environmental Management Act (NEMAct), Act 107 of 1998 are divided into two Schedules: S 385 and S 387. Schedule S385 defines activities which will trigger the need for a Basic Assessment and S 387 defines activities which trigger an Environmental Impact Assessment (EIA) process. If activities from both schedules are triggered, then an EIA process will be required.

- **S385:** Activities from S385 include: 1(a), 1(b), 7, 12, 14, 15, and 16. Activities from S387 which are triggered include Activities 1(a), and 1(b). In terms of the activities under S385, the proposed activities is subject to a Scoping and EIA Procedure, which entails the following:

- **S387:** Activities from S387 which are triggered include Activities 1(a), 1(b), 7, 12, 14, 15, and 20. Activities under S387 which are triggered include Activities 1(b), 2, and 5. In terms of the activities under S387, the proposed development is subject to a Scoping and EIA Procedure, which entails the following:

ENVIRONMENTAL AUTHORISATION - NEMA!

Scoping Phase

1. **Scoping Phase:** Scoping Phase
   - Appointment of Environmental Assessment Practitioner
   - Application Form
   - Public Participation (26 October 2016 – 17 November 2016)
   - Environmental Screening & Determine Specialist Studies
   - Scoping Report
   - Public Review
   - Submit Scoping Report
   - DEA Review Report
   - End of Scoping Phase

RELEVANT LEGISLATION

- National Environmental Management Act (Act 107 of 1998)
- Environmental Impact Assessment Regulations, 21 April 2006
- Environmental Conservation Act (Act 73 of 1989)
- Environmental Conservation Act, 1989 (ACT No. 73 Of 1989), Section 16 (2): Magaliesberg Protected Natural Environment
- National Heritage Resources Act (Act 25 of 1999)
- National Environmental Management: Biodiversity Act (Act 10 of 2004)
- National Environmental Management: Protected Areas Act (Act 57 of 2003)
- The National Veld and Forest Act (Act 131 of 1998)
- The Geotong Ridge Guideline Policy
- Environmental Management Framework for the Magaliesberg Protected Environment, 2009

EIA Phase

1. **Public Participation**
2. **Undertake Specialist Studies**
3. **Prepare EIA Report**
4. **Public Review or EIA Report**
5. **Submit EIA Report to DEA**
6. **GDA Reviews of Reports & Decisions**
7. **Notify Interested and Affected Parties**
**SCOPING PROCESS TO DATE**

1. Appointed Environmental Assessment Practitioner
   - Eskom Appointed Nemo Consulting

2. Application Form
   - EA Application Forms Submitted to DEA on 31/07/2009
   - DEA Issued Reference Numbers on 30/07/2009

3. Public Participation
   - Meetings were held with various mines (September 2009) and representatives from the Magaliesberg Protected Natural Environment (MPNE) (July 2009)
   - Placing of Advertisements in Local and Regional Newspapers
     - The Star: 06/10/2009
     - The Rekord: 01/10/2009
     - Kimberley: 07/10/2009
   - Placing of Site Notices from 04/10/2010-12/10/2010

**SCOPING PROCESS TO DATE**

4. Environmental Screening & Determine Specialist Studies
   - Sensible Environmental Features
   - Recommendations as to the need for specialist studies
   - Water Parameters
   - Vegetation
   - Vegetation Assessment (S & T)
   - Vegetation Assessment (G & T)
   - Visual
   - Visual Assessment (G & T)
   - Visual Assessment (S & T)
   - Socioeconomic
   - Socioeconomic Assessment (S & T)

**SCOPING PROCESS TO DATE**

5. Public Participation
   - Distributing of Background Information Documents to all land owners directly affected by the proposed centre line and substations 20/09/2009-12/10/2009.
   - Placing of flyers in post boxes:
     - Hartbeespoort Post Office (100 post boxes) - 20/09/2009;
     - Brits Post Office (300 post boxes) - 13/10/2009, and
     - Strydomshoek Post Office (50 post boxes) - 13/10/2009.

**SCOPING PROCESS TO DATE**

6. Authority Consultation
   - City of Tshwane: Environmental Department
   - City of Tshwane: Town Planning Department
   - Madibeng Local Municipality: Environmental Department
   - Madibeng Local Municipality: Town Planning Department
   - Department of Water Affairs
   - Provincial Heritage Resources Agency - Gauteng
   - North West Provincial Heritage Resources Authority
   - Department of Minerals and Energy

7. Key Stakeholder Consultation
   - Prof. Gerhard Venter (Vulture Nesting Areas)
   - Magaliesburg Protection Association
   - Hartbeespoort Environment & Heritage Association
   - Various Mines
SCOPING PHASE WAY FORWARD

5. Scoping Report
6. Public Review (1 November 2010 to 16 December 2010)
7. Submit Scoping Reports to DEA (16 December 2010)
8. ODARO Review Report (90 day review)

End of Scoping Phase

CLOSING

DISCUSSIONS

WAY FORWARD
TSHWANE STRENGTHENING SCHEME

PROJECTS:
ANDERSON DINALEDI 400KV POWERLINE
DEA REF NO: 10/35/20/1567

ANDERSON 400KV SUBSTATION
AND ASSOCIATED SECONDARY INFRASTRUCTURE
DEA REF NO: 32/12/20/1568

Public Meeting:
Monday, 16 October 2010

DISCUSSION ITEMS
1. Welcome and Introduction - Nemai
2. Electricity Generation / Transmission / Distribution – Nemai/Eskom
3. Project Description, Background and Motivation - Nemai/Eskom
4. Environmental Authorisation – Nemai
5. Project Progress to Date - Nemai
6. Discussions - All
7. Way Forward - Nemai/Eskom
8. Closing - Nemai

WELCOME & INTRODUCTION

PURPOSE OF MEETING

PROJECT TEAM

Facilitator
Solomon Planar

Proprietor
Architect Malakhayone:
Eskom Land and Rights

Justice Chakae:
Eskom Land and Rights

Solomon Tsilo:
Eskom Land and Rights

Sr. Lakiesha Raphukule
Eskom Land and Rights

Environmental Assessment Practitioner
Sonja van Eden

Eskom

Eskom

Eskom

Eskom

Eskom

Eskom

RULES OF THE MEETING

QUESTIONS TO RELATE TO PROJECT AT HAND

OPPORTUNITIES FOR SEEKING CLARIFICATION AT END OF PRESENTATIONS

ADDRESS PROJECT TEAM THROUGH FACILITATOR

IDENTIFY YOURSELF BEFORE ASKING A QUESTION

CELL PHONES OFF, PLEASE

PLEASE SIGN THE ATTENDANCE REGISTER

ELECTRICITY GENERATION/TRANSMISSION/DISTRIBUTION

BACKGROUND

- Eskom generates, supplies and distributes electricity via a network called a "grid".

- The amount of electricity being fed into the grid must always match what the customers are taking out. This varies not just from day to day, but from minute to minute.

- As electricity demand increases, more power stations and substations (transmission and distribution) must be brought into play.

- Electricity supply should be consistent and reliable - therefore "in quality product", as much of the electricity and electronic equipment we use depends on voltage and frequency remaining accurate and constant.

ELECTRICITY GENERATION/TRANSMISSION/DISTRIBUTION

ELECTRICITY GENERATION

- Eskom produces electricity at power stations:

  - Most of the power stations in South Africa are grouped near coal mines in Mpumalanga and the Northern Province. (Note: not all power stations use coal.)

  - The Big "'loop" terms are implemented in Europe, the Western Cape and New Zealand.)
ELECTRICITY
GENERATION/TRANSMISSION/DISTRIBUTION

- Electricity is transmitted from the power stations to the load centers via high voltage power lines.
- As electricity leaves the power station, it is boosted to voltages such as 132,000 volts (132 kV) or 400 kV or 765 kV.

PROJECT DESCRIPTION
AND BACKGROUND

- Eskom Holdings Limited is proposing the construction of a new 400 kV Transmission Line and a new 400 kV Substation as part of their Tobane Strengthening Scheme Project.

ELECTRICITY
GENERATION/TRANSMISSION/DISTRIBUTION

- Electricity distribution:
  - When the electricity reaches its destination (which is a substation near a load centre), it is "stepped down" to voltages used for distribution to customers.

PROJECT DESCRIPTION
AND BACKGROUND

- Where will this project take place:
  
  - Proposed Powerline:
    - Will run between the proposed new Anderson Substation, which will be located to the north of NCMA, and the existing Dolek Substation which is located approximately 10 km North East of Brits.
    - The proposed powerline will be constructed in the following two Municipal Areas: Malambe Local Municipality (North West) and the City of Toelwe Local Municipality (Limpopo).
    - Two main routes alternative each with a similar study area and proposed deviations are being considered.

PROJECT DESCRIPTION
AND BACKGROUND

- Where will this project take place:

  - Proposed Substation:
    - The proposed substation is earmarked for construction within the Malambe Local Municipality. Two site alternatives (Site A and Site B) have been identified based on Geotechnical/Seismicity and will be investigated during the Scoping and EIA phases.
    - These two sites are located on the following properties:

      Site 1 is located on:
      - Portion 82 of the Farm Waldeck 567 (J)

      Site 2 is located on:
      - Portion 82 of the Farm Waldeck 567 (J)
      - Portion 69 of the Farm Waldeck 491 (K)
      - Portion 25 of the Farm Waldeck 491 (K)
PROJECT DESCRIPTION AND BACKGROUND

WHAT WILL THIS PROJECT TAKE PLACE
- Proposed Substation (Continued)

PROJECT DESCRIPTION AND BACKGROUND

WHAT WILL THE PROPOSED FOOTPRINT BE:
- Proposed 400kV Substation and Associated Secondary Infrastructure
  - The footprint of the proposed substation will be 600m x 600m;
  - It will include the construction of several loop-in and loop-out lines;
  - The exact location of the proposed loop-in and loop-out lines will only be available once the exact location of the proposed substation has been determined, as the location of the loop-in and loop-out lines are dependent on the location of the feeder bay;
  - A safety area of 3km² is required around the substation within which no development may take place.

HOW WILL ACCESS BE OBTAINED:
- Substation: Access to the proposed substation will be obtained via the existing farm access road / Through the construction of an Eskom maintenance road;
- Powerline: Access to the proposed powerline will be obtained via existing main roads, farm roads and the Eskom maintenance road to be constructed within the 3km servitude area.

WHAT WILL THE PROPOSED FOOTPRINT BE (Construction details):
- Proposed 400kV Powerline
  - The proposed powerline requires a servitude width of 55m (27.5m on either side of the powerline);
  - On a terrain with a generally flat topography a powerline can span over a maximum distance of 40km (therefore generally pylons are spaced 40km apart, depending on the location of the bend points, topography and sensitive areas);
  - Type of Pylon used is dependent on:
    - Bend points;
    - Topography.

WHY IS THIS PROJECT NECESSARY
- The construction of the proposed 400kV Powerline, as well as the proposed 400kV Substation is required as part of the Tshwane Strengthening Scheme in order to strengthen the existing grid to ensure a constant and reliable electricity supply to the consumer.

HOW WILL THIS PROJECT BE UNDERTAKEN
- Identification of requirements to strengthen the existing grid by Eskom Grid Planning;
- Identified of a proposed solution (Tshwane Strengthening Scheme);
- Desktop demarcation of the proposed new Transmission Powerline and Substation;
- Field verification and final proposed demarcation of proposed new Transmission Powerline and Substation;
- Environmental Authorisations Application (Approval to be Obtained);
- Detailed design of proposed powerline and substation;
- Negotiations with affected landowners
- Commissioning of Tenders
- Construction Commences
- Environmental Control Auditing
- Occupational Health and Safety Auditing