

Eskom Holdings Limited

Eskom Transmission Division

Neptune-Poseidon 400 kV Power Line

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT



BACKGROUND INFORMATION DOCUMENT

SCOPING PHASE



April 2009



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1. PURPOSE OF THIS DOCUMENT

The purpose of this Background Information Document (BID) is as follows:

- It serves as an introduction and description of the proposed Neptune-Poseidon 400 kV power line project;
- It provides an overview of the environmental assessment process;
- It provides notification to potential Interested and Affected Parties (I&APs), and allows them the opportunity to comment on the proposed project.

According to GN No. R. 385 (2006), "Interested and Affected Party" means an interested and affected party contemplated in section 24(4)(d) of the National Environmental Management Act (No. 107 of 1998), and which in terms of that section includes –

- any person, group of persons or organisation interested in or affected by an activity; and
- any organ of state that may have jurisdiction over any aspect of the activity.

2. BACKGROUND & INTRODUCTION

Increased demand for a reliable electricity supply in the Southern Grid has necessitated that Eskom Transmission improves the reliability and capacity of the transmission network into the area. The East London area, which is supplied from Pembroke and Neptune substations, is presently unfirm since a Delphi – Neptune 400kV line N-1 contingency during peak would result in exceedance of the Poseidon – Pembroke 220kV line emergency rating of 360MW.

There is a further need to reinforce the network to ensure network security under N-1 contingency together with the quality and reliability of supply to customers. These network reinforcements are required to mitigate existing network constraints and also to increase network capacity to cater for forecasted load growth in the East London area.

Subsequent to the network analysis based on regulatory standard, the least economic cost network solutions to Eskom Holdings, which will mitigate existing Distribution voltage regulation problems and the Transmission network security in the East London Customer Load Network (CLN) were identified. This network solution would have to meet the following minimum requirements:

- Improve reliability of the existing East London Transmission network (N-1 presently and N-1-1 beyond 2010).
- Improve East London network voltage regulation.
- Create additional Transmission network capacity to supply the increasing electricity demand in the Southern Grid.

Based on the analysis of the possible Distribution and Transmission alternatives to mitigate existing and foreseen network constraints, the **Neptune-Poseidon 400 kV power line** project was identified as the preferred option as part of the greater East London Strengthening scheme.

The phased-in approach of the greater East London Strengthening Scheme will be adopted to ensure that no future N-1 contingency in the Cape or Eastern Grid corridor

will result in voltage collapse in the Transmission network. All Transmission network deficiencies in the East London will be mitigated until at least 2020 by commissioning all proposed project of this scheme, provided that the proposed Generation and East Grid 765kV integration goes ahead as planned. This project will also have an added advantage of supporting the voltage constrained Eastern Grid network until East Grid 765kV is commissioned.

3. PROJECT DESCRIPTION

Refer to accompanying locality map (overleaf) for the discussion to follow.



View along vacant servitude

The project will entail the construction of a new 400kV line of approximately 191km length between the existing Neptune (near East London) and Poseidon (near Cookhouse) substations. The proposed alignment is situated within the

existing vacant Eskom servitude between the aforementioned substations.

The substations will also be expanded and upgraded to accommodate the new line.

In addition, two turnings of approximately 5km each, will be constructed from the proposed Neptune-Poseidon line to the existing Pembroke substation site.

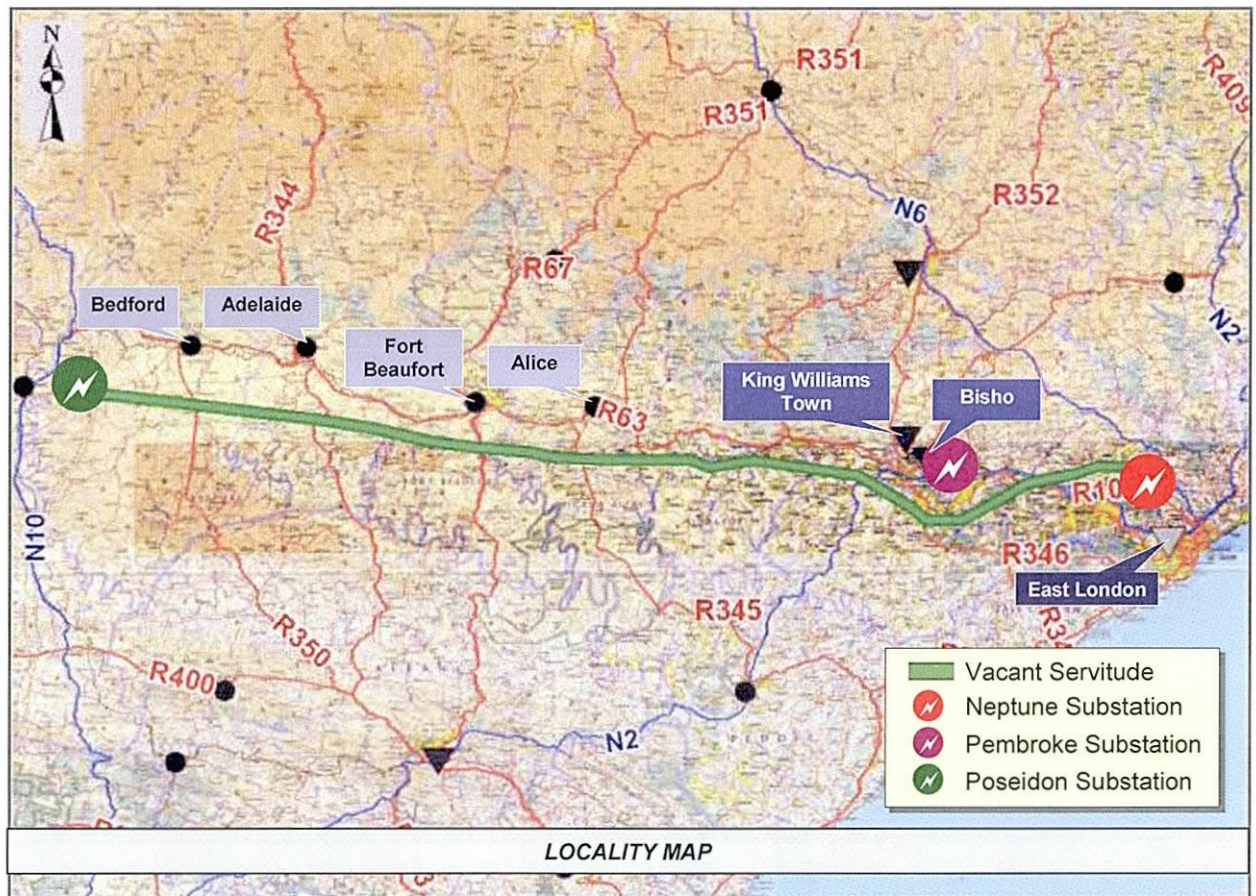
4. ENVIRONMENTAL ASSESSMENT

4.1 Process

The Neptune-Poseidon 400 kV power line project requires authorisation in terms of the National Environmental Management Act (No. 107 of 1998), which will be undertaken in accordance with the Environmental Impact Assessment (EIA) Regulations (Government Notice No. R385, R386 and R387). Nema Consulting was appointed by Eskom as the independent Environmental Assessment Practitioner to undertake the EIA.

An Application was submitted to the Department of Environmental Affairs and Tourism (DEAT) in February 2009 to undertake a Scoping and EIA process.

Note: The DEAT Reference Number allocated to Neptune-Poseidon 400 kV power line is: **12/12/20/1439**



The activities that form part of the proposed project for which authorisation is required include the following:

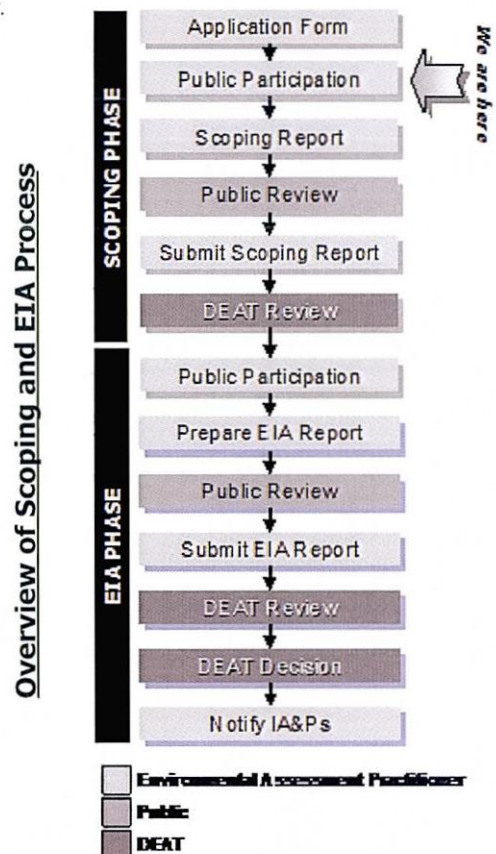
Government Notice No. R. 387 (April 2006):

- 1(c) The above ground storage of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 1,000 m³ at any one location or site, including the storage of one or more dangerous goods, in a tank farm.
- 1(l) The construction of facilities or infrastructure, including associated structures or infrastructure for the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more.
- 2 Any development activity, including associated structures or infrastructure, where the total area is, or intended to be, 20 hectares or more.

Government Notice No. R. 386 (April 2006):

- 12 The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).
- 14 The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission.
- 15 The construction of a road that is wider than 4 meters or that has a reserve wider than 6 meters, excluding roads that fall within the ambit of another listed activity or which are access roads less than 30 metres long.
- 20 The transformation of an area zoned for use as public open space for a conservation purpose to another use.

An overview of the Scoping and EIA process is shown below.



4.2 Specialist Studies

At this stage the following specialist studies have been identified:

- Ecological Study;
- Heritage Impact Assessment;
- Agricultural Potential Study;
- Visual Impact Assessment; and
- Socio-economic Study.

Additional studies may be identified as the EIA process unfolds.

4.3 Public Participation

The public participation process that is currently underway entails the following:

1. Developing a database of I&APs, including landowners, stakeholders, authorities and the general public;
2. Notifying I&APs through the placement of notice boards and newspaper advertisements (local and regional newspapers), and distributing the BID;
3. Convening public and authorities meetings to allow for project-related discussions;
4. Granting I&APs the opportunity to review the Scoping as well as the Environmental Impact Assessment Reports (to be completed later on in process); and
5. Advertising the environmental decision in the local newspapers and notifying all registered I&APs of the decision.

In order to ensure that you are registered as an I&AP, please submit your name, contact information and interest in the project by completing the attached Reply Form. The time period for returning the Reply Form to Nema Consulting and registering as an I&AP is from:

17 April 2009 – 25 May 2009

I&APs are encouraged to participate in the process in order for concerns to be addressed and included in the Scoping and EIA reports.

Initially, a public meeting will be held with all major role-players and I&APs during the Scoping phase to discuss the project. The details of the public meeting are as follows:

05 May 2009			
Area:	Nqonqweni / Rini	Area:	Zwelitsha
Venue:	Nqonqweni Primary School	Venue:	OR Tambo Hall, Zone 1
Time:	10h00	Time:	16h00

06 May 2009			
Area:	Debe Valley	Area:	Alice
Venue:	Nqushwa Municipality Community Hall, ERF 313 Main Road	Venue:	Alice Town Hall, Main Street
Time:	10h00	Time:	16h00

07 May 2009			
Area:	Adelaide	Area:	Bedford
Venue:	Midgley's Hotel, Market Square	Venue:	Bedford Town Hall, Donkin Street
Time:	10h00	Time:	16h00

During the EIA phase a public meeting will be convened to present *inter alia* the findings of the specialist studies and the progress of the environmental assessment. The details of the second public meeting will be communicated later on in the process.

5. CONTACT DETAILS

For any queries pertaining to the project, please contact the Environmental Assessment Practitioner below:



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Thank you for your participation

