



PROPOSED WIND ENERGY FACILITY EIA PROCESS

RECORD OF FOCUS GROUP MEETING

NAMAKWA SANDS MANAGEMENT TEAM, KOEKENAAP

Held on
Thursday 26 July 2007,
Namakwa Sands, Koekenaap

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**FOCUS GROUP MEETING:
NAMAKWA SANDS MANAGEMENT TEAM, KOEKENAAP**

Venue: Namakwa Sands, Koekenaap

Date: Thursday, 26 July 2007

Time: 14:00

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, the process facilitator for the proposed Eskom Wind Energy Facility Public Participation Process opened the meeting. He provided an overview of the project and the process that lead up to the current phase of the environmental impact assessment process. He then introduced the core team present from Eskom and Savannah Environmental.

- » Nico Gewers - Chief Environmental Advisor - Generation Environmental Management
- » Morore Mashoa - Chief Engineer - Division Client Office. Acts as the client for Generation.
- » Kubentheran Nair - EIA project manager from Eskom Generation
- » Bessie Mabondza – Eskom Project Manager
- » Karen Jodas – Savannah Environmental, undertaking the EIA for the project
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project

MEETING ATTENDEES

The Namakwa Sands meeting was conducted for the management and specialist team who manage the mining operations and plant at Koekenaap.

- » Marius Vlok, Namakwa Sands
- » Liezel Gerber, Namakwa Sands
- » Dave Devine, Namakwa Sands
- » Jasper Esterhuyse, Namakwa Sands
- » Natasha Schlettwein, Namakwa Sands
- » Frans Huisamen, Namakwa Sands
- » Riaan Mouton, Namakwa Sands
- » Elana Van Zyl, Namakwa Sands
- » Cliff Timlin, Namakwa Sands
- » Alet, Fabricius, Namakwa Sands
- » J van Niekerk, Namakwa Sands
- » JC Kerr, Namakwa Sands
- » Nico Gewers – Eskom Generation
- » Kubentheran Nair – Eskom Generation
- » Bessie Mabondza – Eskom Projects

- » Morore Mashao – Eskom Generation
- » Karen Jodas – Savannah Environmental
- » Shawn Johnston – Sustainable Futures ZA

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

A formal presentation was delivered to the attendees. This presentation covered the following:

- » A strategic overview of Eskom's current initiatives and future generation plan (presented by Nico Gewers);
- » A overview of the Regional Assessment and Environmental Assessment Processes (presented by Karen Jodas);
- » A technical overview of the proposed Wind Energy Facility (presented by Morore Mashao).

The detailed information and presentations delivered by Nico Gewers, Karen Jodas and Morore Mashao are attached for reference.

After completing all the presentations, the facilitator opened the floor for points of clarification and questions.

DISCUSSION SESSION

The following questions were raised:

- » *What is the difference in performance between the 3 different turbines at Kliphuewel?*
Performance is very similar, with the pitch control systems performing better in low wind speed conditions
- » *What is the unit cost difference compared to nuclear or coal power? What is the difference in cost to the end-user/ consumer?*
The cost of electricity is regulated. This forms part of Eskom's budget allocation through NERSA. There will be no additional costs to the customers as a direct result of this facility.
- » *What are the expected noise levels from an operating turbine?*
Experience has shown at Kliphuewel that no additional noise was added to the environment - they are spaced far enough apart not to add cumulatively.
- » *What is the effect of the plant on birds?*
The recorded industry standard of bird fatalities is ~0.1 birds per turbine per annum. An avifauna study is being undertaken as part of this EIA in order to assess the potential impact for this facility.
- » *What is the life span of the plant?*

20 years design life, which can be extended through regular maintenance and possibly refurbishment of the turbines.

- » *What is the utilisation factor anticipated for the plant?*

Early to mid twenties – probably approx 26%.

- » *What is the effect of fog on the plant and the plant on the environment with regards to the fog?*

No effect of fog on the plant, as the plant is designed for a marine pollution type environment. There may be condensation against the turbines, which could create a small micro-climate at each turbine position.

- » *How would dust effect the operation of the facility? Namakwa Sands operations creates dusty conditions.*

Dust would not have an impact at all. Dirt may, however, build up on the turbines and may cause discolouring. The experience at Klipheuwel has shown that no aerodynamic effects occur as a result of dusty conditions.

- » *Namakwa Sands are currently prospecting on Geelwal Karoo. If Namakwa Sands mine this area, could this impact on the facility? The mine is restricted in that mining cannot be undertaken within 100m of a structure.*

- » *There is proposed mining activities that is being planned along the coast, which is the farm that borders the proposed site, please take that into account when undertaking the studies.*

- » *Who currently owns the land on which the proposed site lies? What are Eskom's options if this land is not made available?*

The site is made up of 3 farms, each of which is currently privately owned. These landowners have been contacted and the project discussed with them.

- » *How many people would be required to complete this project?*

It is estimated that a construction crew will comprise approximately 15 people. There may be more than one crew on site at a time, depending on the phase of the project. The crew will consist of skilled and semi-skilled labour.

- » *What is the total footprint of this plant?*

It is estimated that the facility would require a broader area of 25km², within which all infrastructure would be accommodated with the necessary spacing requirements.

- » *The roads are going to need to be upgraded. Which road is going to be used? Will it be the current Koekenaap road or a new road?*

The existing road between Koekenaap and the site will be used to access the site. The National and Provincial roads will be used in transportation of the components. The identification of the preferred access roads to be used for the project is part of the transportation study for the project. The EIA will highlight potential impacts, and will ensure consultation with all relevant roads engineers and departments.

- » *When will the footprint in terms of a layout be available?*

A layout (or the micro-siting exercise) can only be finalized once the actual turbines have been selected (through the commercial process, expecting to end early next year). A practical layout could consist of a square formation of about six rows of turbines in an east to west type layout.

- » *What are the effects of abnormal wind conditions on the turbine? This should also be considered since the dust, which is quite gritty may cause damage to the turbines.*
Abnormally high winds and/or gusty conditions would result in the turbines shutting down automatically. Turbines operate in dusty conditions in, for example North Africa and Egypt, and so Eskom do not expect problems from dust.
- » *Would the plant be decommissioned or would the life of the plant be extended?*
The life of the plant would most probably extended through upgrading equipment, but this would be a commercial decision at the time.
- » *What is the cost of 1 turbine?*
Euro 1000 per installed kW i.e. roughly R20 Million for a 2MW turbine.
- » *Namakwa Sands has 13 years worth of wind data, and if Eskom wants it, they would consider releasing it.*
- » *Bird studies should include data for longer than 12 months, especially migratory routes and ground breeding species.*
- » *If the sites does not work out, Namakwa Sands has other options for Eskom in terms of available land.*
- » *What are the security measures that will be implemented for such plant?*
The site will be fenced. Each steel tower is locked and provides a bulletproof environment.
- » *There is a concern from the farmers regarding livestock poaching. Namakwa Sands has been actively involved with the community in the provision of fences, 2-way radios, policing vehicles etc.*

WAY FORWARD AND CLOSURE

Mr Johnston thanked everybody for their participation and questions. The attendees were informed that the next steps in the EIA process are:

- » distribution of notes from the meeting;
- » release of the draft Scoping Report for public review and comment;
- » notification of the public meeting; and
- » hold the public meeting in August 2007.

The meeting was closed at 16h00.