# ANNEXURE J Minutes of key stakeholder meeting







# PROPOSED COAL FIRED POWER STATION AND ASSOCIATED INFRASTRUCTURE IN THE WITBANK AREA, MPUMALANGA

# Stakeholder Meeting

Date	Time	Venue
8 May 2006	11:00 - 13:00	Witbank Protea Hotel

#### Stakeholder Attendees

Johan Badenhorst (JB); Anglo American

I Canadi (IC): Anglo Coal Sharon Clark (SC): BHP Billiton A De Jager (AJ): Eskom

Prudence Dlamini (PD): KSE-Ukhozi

I.P Ensulin (IE): Farmer

Mmisi Fammie (MF): Emalahleni Local Municipality

S Foreman (SF): Anglo Coal R.D. Garwer (RG): Anglo coal Helena Griessel (HGL): KSE-Ukhozi

Hugo Grobler (HGR)

Selby Hlatshwayo (SH): Mpumalanga Department of Agriculture and Land Administration

A. Khotha (AK): Ogies Development Initiative

Patrick Khumalo (PK): Mpumalanga Department of Economic Affairs & Planning

Siphiwe Mahlangu (SM): Mpumalanga Department of Agriculture & Land Administration

M. Mbalathi (MM): Tholulwazi Disabled Centre B. Mtshali (BM): Ogies Development Initiative Krishnambal Naidoo (KN): Ingwe Colleries Ltd Fana Ndlovu (FN): Dynamic Leadership Solutions

Sid Parker (SPk)

S. Parkhouse (SPh): Anglo Coal Koos Pretorius (KP): EEPOG

Owen Pretorius (OP): Air Pollution Association Liaison Committee

Moses Raphesha (MR): Hlakalo Investment Group

Pamela Richards (PR): Witbank Chamber of Commerce & Industry

Thokozile Skosana (TS): Tholulwazi Disabled Centre

Jacobs Siwela (JS): Department of Economic Development & Planning

Gert Smith (GS): Witbank Agricultural Union

Liesl Strydom (LS): Emalahleni Municipality (Environmental)

Malcolm Suttill (MS): Wildlife and Environment Society of South Africa

A M Van Rooyen (AVN) Roodepoortjie Farm Owner

# Eskom Team

Deidre Herbst (DH) Eskom Goodness Ntuli (GN): Eskom Suren Rajaruthnam (SR): Eskom Harry Salzwedel (HS): Eskom Bruce Stroud (BSt): Eskom Tony Stott (TS): Eskom

Juanita Vogel (JV): Eskom (Kendal Power Station) Bongani Simelane (BS): Eskom (Kendal Power Station)

#### **Environmental Team**

Nico Gewers (NG): Eskom

Lindiwe Gaika (LG): Ninham Shand Karen Shippey (KS): Ninham Shand Kamal Govender (KG): Ninham Shand Brett Lawson (BL): Ninham Shand





## 1 WELCOME AND INTRODUCTION

Ms Karen Shippey (KS) welcomed all those present and explained the purpose of the meeting. Mr Brett Lawson (BL) introduced the project team members and noted that Tobile Bokwe the Eskom project manager (EIA) was unable to attend due to a death in the family.

# 2 STRATEGIC OVERVIEW

Mr Tony Stott (TS) presented a strategic overview of electricity supply and demand in the country.

The presentation covered the following points:

- · The role of the governmental strategic energy policy documents was explained
  - DME's Integrated Energy Plan;
  - National Integrated Resource Plan (NIRP); and
- · Eskom's Integrated Strategic Electricity Plan (ISEP).
- The demand requirements and the efforts for demand side management.
- · The renewable energy research and pilot schemes
- The available coal, gas and nuclear technologies
- Three areas have been identified for future coal fired-power station:
  - Lephalale (EIA in progress)
  - Witbank (EIA initiated)
  - Vaal South (EIA to be initiated shortly)
- It was noted that these three projects are not alternatives. To meet the demands in electricity, three new coal-fired power stations would be required in this planning window (2006 – 2014)...

#### 3 SITE SELECTION REPORT

Mr Harry Salzwedel (HS) presented the Eskom Site Selection Report, which described the manner in which the Witbank area and proposed sites were selected for a possible new coal-fired power station.

The presentation highlighted the following:

- Feasible sites in proximity to coal resources were identified in the Witbank area
- Eskom specialists were used to score site using a range of criteria (incl. proximity to communities, transmission, air quality and water infrastructure)
- Proximity to coal was determined to be technically the most important criteria. The following criteria were deemed to be equal for all areas in the considered region: off mineable resources; sorbent locality; proximity to local communities; transmission; air quality; water resources
- Five sites were scored by each specialist. Two (Sites "East" and "South") were selected for assessment in the EIA process.





#### Questions

Mr Koos Pretorius (KP) queried if site selection was done after coal reserves were identified. HS explained that the selection of sites did indeed depend on the proximity of coal reserves. Only sites in proximity to a sufficient coal supply were considered.

Mr Malcolm Suttill (MS) queried the zero rating that the Site Selection Report attached to air quality. He believed that air quality in the area should have been more seriously considered. Ms Deidre Herbst (DH) explained that the zero rating simply implied that a power station sited anywhere in the vicinity of Witbank would have equal impacts on air quality and hence consideration of air quality impacts did not influence the power station siting. She emphasised that impacts of the proposed power station on air quality would be investigated in detail, and reported on, in the EIA.

MS asked if the EIA will take the wind rose into account. HS responded that it would be dealt with in the EIA process.

# 4 TECHNICAL PRESENTATION

Mr Suren Rajaruthnam (SR) provided a technical overview of the proposed power station. He also discussed some of the technical and process alternatives available.

The presentation highlighted the following aspects:

- · Technical Parameters and Process Flow of Power Stations
- · Typical Power Station Site Layout
- Typical Technology: Coal Handling, Boiler, Turbine, Generator, Transformer and High Voltage Yard, Ash Handling and Water Treatment
- The proposed power station would have (6 x 700 MW) 4200 MW capacity and be pulverised fuel (pf) fired and would be direct dry cooled
- The proposed station would operate as a "supercritical" station which would have the following benefits:
  - Increased efficiency
  - Lower emission levels
  - Lower operating cost
  - Lower water consumption
- Ash dump requirements were outlined. In-pit as well as backashing will be investigated for the proposed station
- All Eskom stations are Zero Liquid Effluent Discharge (ZLED) and waste water will be treated on site and recycled
- Auxiliary cooling provisions were outlined





#### Questions

Mr Gert Smith (GS) was concerned about wind-blown ash polluting topsoil. He also queried the source of water for the proposed power station. HS noted that Eskom has managed to successfully re-vegetate most of their ash dumps with topsoil. He said that he wasn't aware of any specific cases of ash polluting topsoil. HS further responded that water for the proposed power station would be imported from the Vaal River via the Vaal River Eastern Sub-System Augmentation Project (VRESAP) water supplement scheme.

Ms Pamela Richards (PR) asked whether Eskom undertakes any research pertaining to ash recycling. DH responded that Eskom has a research programme that investigates ash utilisation options. At present, some ash is used by the cement industry while a smaller fraction is used in other products.

GS queried the amount of water to be used for cooling. HS responded that the proposed power station would be dry cooled and would use approximately 3.5 million m³ of water per year. This is significantly less than the 50 million m³ of water per year for a wet cooled station. HS added that should Flue Gas Desulpherisation be implemented, water usage for the proposed power station would be in the region of 7.9 million m³ per year.

MS queried whether the proposed pipeline for bringing water to the proposed power station was included in this EIA. BL responded that the full list of activities that trigger the EIA regulations are included in the Background Information Document. He confirmed that this includes the pipeline from a point in the VRESAP scheme to the proposed power station. The impacts of getting the water from the Vaal River to the Witbank region will not be considered in this EIA but were considered in the process that the VRESAP project had been subjected to.

#### 5 FIA PROCESS

BL gave an overview of the EIA process and suggested timetable of the study. The specialist studies proposed to be undertaken as part of the EIA were outlined as detailed in the Background Information Document.

# Questions

GS queried whether air pollution from the proposed power station would be lower than existing stations e.g. Kendal or Duvha power stations. He also asked whether emissions would be measured against international standards. DH responded that with respect to particulates, the proposed power station would produce lower emissions than existing power stations but that with respect to SO<sub>2</sub>, there would have to be a trade off between water usage and amount of SO<sub>2</sub> emitted as significantly more water would be required should the SO<sub>2</sub> be removed. She further commented that the increase in other industrial activities in the area also adds to the ambient SO<sub>2</sub> concentrations. She noted that international standards will be considered. She clarified that the proposed power station would emit less particulates and use less water than the Duvha power station.





PR asked how many skilled and unskilled employees would be employed by the proposed power station. HS responded that typically there would be about 650 people employed, most of whom would be skilled or professionals. HS noted that there would be an additional 300 to 500 positions for unskilled workers for all services such as cleaning and catering etc. Eskom's policy is that such services are contracted from BEE companies. During construction it is anticipated that up to 7 000 people would be temporarily employed.

# 6 PUBLIC PARTICIPATION PROCESS

KS described the Public Participation Process and indicated where and when Interested and Affected Parties (I&APs) would be able to provide input into the EIA process. The presentation explained the phases of the public engagement as described in the Background Information Document. The next steps are as follows:

- The Draft Scoping Report to be drafted
- Executive summary and notification of public meetings will be sent to registered I&APs and advertised in local press
- Public meetings in Witbank and Phola in early July 2006

#### 7 DISCUSSION

Mr Owen Pretorius (OP) noted his concern about air quality and queried the standards against which SO<sub>2</sub> and NO<sub>x</sub> emissions would be measured. He also queried whether ambient air quality was being measured at the proposed sites. DH responded that since South Africa does not have any legislated emission standards, SO<sub>2</sub> and NO<sub>x</sub> will be compared with World Bank standards. Monitoring stations to measure ambient air quality have been placed in the vicinity of the proposed sites. DH also noted that Eskom will continue to review the data from the monitoring station at the Kendal power station as well as from the regional monitoring stations.

KP was concerned that any new monitoring stations at the proposed sites would be in place for too short a period to get an accurate indication of ambient air quality. He further queried whether cumulative effects would be included in the assessment. DH responded that there has been a monitoring network in operation for the past 20 years. Air quality impacts at the proposed sites will be predicted via an air quality model. She said that this model is as accurate as is technically possible. In response to KP's query regarding cumulative impacts, DH noted that the modelling included cumulative impacts.

KP asked whether the EIA reports would be posted to I&APs KS explained that, given the anticipated size of the reports and the costs associated with posting a copy to each I&AP, the report would be made available on the Eskom website and at local public libraries. She added that, if necessary, a CD containing the reports in electronic format could be posted to I&APs who request it.





KP was concerned about the fact that the final EIR would be submitted to the environmental authority without the public having the opportunity to see it. He noted that this was found to be unacceptable in the Pebble Bed Modular Reactor (PBMR) court case. BL responded that the legislated EIA process does not require the final EIR to be reviewed by the public before submission. However, the principles of disclosure and making information available, would be adhered to in the process. With respect to the PBMR court case, TS explained that the court noted that the public has the right to submit comment to the decision maker. KS confirmed that the final EIR would be made available (on the Eskom website, public libraries, etc) and any comments on the final EIR could be sent directly to the environmental authority.

PR asked about the land ownership of the proposed power station. KS responded that the land is either owned by the state or privately by farmers or mining houses. She asked that anyone with information about landowners or affected individuals provide the information to the Environmental team to assist in ensuring that all interested and affected people were able to participate.

It was mentioned that a number of people living in the area have no access to the internet and don't even have a postal address and the question was posed how they would receive information. KS stated that the first step in the public participation process was to publish media adverts in English, Afrikaans, Pedi and Zulu. These adverts were placed in local, regional and national papers. KS added that the database from Kendal Power station and information from the deeds office was used in the compilation of the stakeholder database for this project. She said that if necessary, individuals would be visited to inform them of the project.

MS asked whether the water pipelines in the area and the mining activity would be considered in this EIA. BL stated that impact assessments and approvals for the mining will be undertaken by the mining houses. BL noted that the Witbank area has a number of planning initiatives and requirements i.e. Integrated Development Plans and Spatial Development Frameworks, which would guide strategic decisions around mining and water resources in the region. He commented that EIA is a statutory requirement at project level therefore a strategic overview of water resources in the region and/ or mining in the region was inappropriate during a project-level EIA process. BL confirmed that the current Power Station EIA will reflect on other related EIAs being undertaken in parallel to it e.g. the power station EIA will reflect on the EIA being undertaken for the proposed coal mine to provide coal for the power station. He said that the EIA study will include a pipeline to the proposed power station from an existing pipe point provided by the Department of Water Affairs and Forestry. DH mentioned that in Lephalale, the mining EIA was being undertaken slightly after the power station EIA. Where there were cumulative impacts like air quality and water impacts, Eskom had ensured that the results of the power station EIA were reflected in the mining EIA.

Ms Liesl Strydom (LS) asked how long the baseline data would be accumulated for at the proposed sites and how the potential impacts of the proposed power station on ambient air quality would be determined. She also asked whether new air quality standards or the previous guidelines would be used to assess the proposed station's emissions. DH stated that new standards would be used. She re-iterated that monitoring from last 20 years has validated the air quality model that





the consultants, Airshed, would be using. Therefore, while Eskom does not have a long period of baseline monitoring at the proposed sites, Airshed's model would provide reliable results.

LS asked where the monitoring stations were located and if this information would be made available to the public. DH responded that monitoring stations are at the Kendal Power Station and the decommissioned Wilge Power Station. Results of the model would be made available to the public.

OP asked if there would be additional monitoring prior to the new power station being constructed. DH stated that there would be. BL mentioned that the Terms of Reference for all the specialists would be included in the Scoping Report and therefore available for public review.

PR repeated his question regarding where water for the proposed power station would be obtained. BL responded that it would be water from the Vaal dam transported via the VRESAP Scheme.

SH asked who would pay for transporting water from the Vaal River to the power station. SR stated that Eskom would be responsible for these costs. TS explained that VRESAP was being run by TCTA (TransCaledon Tunnel Authority) and that funding will be recovered from Eskom and SASOL over a 20 year period. SH noted that reclaiming mine water might be a cheaper option. Mr Sid Parker (SPk) commented that the pipeline would have spare capacity for Middelburg and Witbank.

OP raised a concern that, in light of global warming and increased CO2 in the atmosphere, nuclear power stations were being overlooked. He wanted to know how the timeframe for constructing a coal-fired power station compared to that of a nuclear power station. TS explained that nuclear power stations like Koeberg need considerable amounts of water for cooling and consequently tend to be located along the coast. Government and Eskom are looking to expand nuclear energy generation. However the timeframe for additional electricity generation (by 2010) is too short for a new nuclear power station to be built. Nuclear power stations take about 10 – 12 years to be built and coal fired power stations take about 48 months. Eskom therefore needs to use the resource that is available i.e. coal. HS commented that the Accelerated and Shared Growth Initiative South Africa (ASGISA) may affect the timeframe within which additional capacity would be required and could therefore influence the choice of generation technologies selected.

OP asked whether electricity saving measures will be implemented across the country. TS responded that the Western Cape was a priority and that electricity saving measures will continue till the end of winter this year. Electricity demand management will be rolled out to the rest of SA thereafter.

GS noted that Witbank is perceived to have significant air pollution and that fuel is more expensive in the interior of the country. He asked whether, given the fact that Witbank would experience the negative impacts of the proposed power station, the area would be able to get cheaper electricity





from Eskom or other incentives. TS explained that Eskom's macro economic studies indicate that power stations have significant local economic spin offs. He said that de-mothballing power stations, for example, would contribute about R1 billion to the economy. GS responded that there did not appear to be any significant direct benefit for local farmers.

PR asked whether night storage heaters, such as used in Europe, could be implemented in South Africa. HS explained what night storage heating comprises. Europe uses a time-of-use tariff and during low rate times when electricity is cheaper, energy is stored in water which is then circulated and used for central heating. Time-of-use tariffs are not currently employed in South Africa. HS noted that solar energy panels are more appropriate in South Africa, where sunshine is abundant and central heating is not needed. TS commented that time-of-use tariffs were currently being used by the larger industrial concerns. In order to implement the same system for home users, the home metering system would have to be changed. He indicated that this was being investigated.

PR suggested that the mothballed power stations should be re-instated rather than new power stations being constructed. TS responded that this option had already been considered in their planning and new power stations were still required.

OP asked if the de-mothballed power stations would meet the air quality requirements. DH responded that Eskom would implement technology to reduce the particulates i.e. air filters OP further queried whether SO<sub>2</sub> would also be reduced. DH explained that there would be no additional control of SO<sub>2</sub> at any of the de-mothballed power stations.

#### 8 CLOSURE

KS explained the way forward and thanked everyone for attending. The meeting was closed at 13:15