

ANNEXURE P

Issues Trail

ISSUES TRAIL

ENVIRONMENTAL IMPACT ASSESSMENT: PROPOSED COAL FIRED POWER STATION IN WITBANK GEOGRAPHICAL AREA			
SUMMARY OF ISSUES AND CONCERNS RAISED VIA WRITTEN COMMENTS			
No.	Individual	Organisation	Issue or Concern
1	Ian Schoor		<p>Fire protection must be included in the technical design</p> <p>Technical design of any Eskom power station includes fire protection measures. This becomes part of the User Requirement Specification (URS) resulting in this aspect being built-in in the station designs. Fire protection is also important from a risk management and insurability perspective.</p>
2	H.D. Skhosana	Department of Land Affairs	<p>1. Should the proposed development have any impact on the land rights of workers tenants or other occupiers currently residing, the Department of Land Affairs must be included in the process.</p> <p>Noted. The extent to which workers or tenants will be affected will be determined during the Environmental Impact Assessment Phase at which point the Department will be further involved where required.</p>
3	Sharon Clark	BHP Billiton	<p>1. Figure 1 (April 2006 Background Information Document) indicates that site B falls within the current or planned Klipspruit mining area. How will this development impact on the mining operation?</p> <p>Since the dissemination of the original BID, a revised site selection process was undertaken, which resulted in two new sites (Site X and Site Y – please refer to Annexure I for the latest BID and to Figure 1 of the Draft Scoping Report) being identified. Accordingly, the Klipspruit mining area will not be impacted on by the proposed power station.</p> <p>2. There is already a concern about air pollution in the highveld. What will be done to minimise the emissions of the new power station especially SO₂ emissions?</p> <p>Air quality was considered in the site selection process (please refer to Annexure A of the Draft Scoping Report) where a range of potential sites outside the areas of poor air quality were identified by the air quality specialist. In addition to this, the EIA Phase will consider several air pollution abatement technologies to reduce emissions from the proposed power station. Please refer to Section 3.3.5 of the Draft Scoping Report in this regard. A specialist air quality study, comprising air quality modelling, will be undertaken as part of the EIA, to determine what the likely emissions would be and how they would impact on health and how they would compare to the proposed national standards. The results of this study will be presented in the Environmental Impact Report. This Scoping Phase allows you the opportunity to comment on the draft Terms of Reference of the air quality study – please refer to Section 5.3.1 of the Draft Scoping Report.</p>

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			<p>3. Given the locations of both sites, especially site B to the N12, how will dust from the ash dumps be controlled so as not to affect the visibility in the area?</p> <p>Response</p> <p>Site B, as described in the original BID, is no longer a consideration in this EIA process. However, with respect to dust suppression measures, Eskom would monitor dust from the ash dump sites and implement appropriate dust suppression initiatives, e.g. dust suppression through water sprinklers. These initiatives are effective in preventing dust blow-offs from ash dumps in normal conditions. Furthermore, the ash dumps will be rehabilitated as each section of the ash dump is completed resulting in the exposed area being limited.</p>
			<p>4. What source of water will be used for the new power station? Water is already scarce.</p> <p>Response</p> <p>The Vaal River Eastern Sub-System Augmentation Project (VRESAP), a DWAF-co-ordinated project, will transfer water from another catchment area, into the region. VRESAP will increase the volume of water supplied to the existing Kendal power station (via existing water pipelines) from which point a new water supply pipeline would have to be constructed to transport water to the proposed power station. DWAF have confirmed that there will be sufficient water available for this power station.</p>
			<p>5. What water conservation techniques will be implemented if there are any?</p> <p>Response</p> <p>Eskom's philosophy with regard to water management commits all power stations to a "zero liquid effluent discharge" plant i.e. once in the system, water would not be discharged from the power station to the natural environment. Low-quality process water from the power plant is cascaded down for other uses, such as dust suppression on the ash dump. The water specialist study in the EIA would also recommend various water conservation measures, which will be included in the Environmental Management Plan, which ultimately will be developed into a comprehensive water management plan for the power station. A computer-based water balance will also be developed, giving on-line reading in terms of how much water enters the system, how much is used where, and what losses in the system, and to inform management action...</p>

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4	Jacobs Swela	Department of Economic Development & Planning	<p>1. The process used to identify and invite I&APs to the May meeting was not transparent, as only a few stakeholders knew about the meeting.</p> <p>2. The focus is only confined to people living in and around Witbank whilst the proposed project will affect and benefit all inhabitants of the province.</p>	<p>The key stakeholder meeting held on 8 May focussed only on authorities, landowners and directly affected parties and was by invitation only. Members of the public were notified of the commencement of the EIA process through media adverts in the local, regional and national press. They were encouraged to register as I&APs and provide contact details of others who may have an interest in the project. The first public meetings will be held in early September and all registered I&APs will be notified. Media adverts in local papers will also advertise the meetings.</p> <p>In order to try and engage as broad a spectrum of public as possible, the proposed project was advertised in national, regional and local newspapers and everyone interested in or affected by the proposed project was invited to engage with the process.</p>
5	Eric Ndhlovu Makhubela	Witge Community Leader	<p>1. We are happy about this proposed project as it will help in alleviating poverty in the Witge area and unemployed people will get jobs.</p> <p>2. The project will also help in uplifting our economy and we would like to be kept informed about the progress of this proposed development.</p>	<p>Noted. A specialist socio-economic study will investigate the potential impacts that the proposed power station would have on the local socio-economic environment.</p> <p>Noted. Your organisation is registered on our database and will continue to receive project information via the EIA process.</p>
6	MI Suttill	Wildlife & Environmental Society of South Africa	<p>1. The Site Selection was done on 5 possible locations but the site weighting applied had reduced this to two locations. Calculations for the weightings should be published for all sites.</p>	<p>A revised site selection process has been undertaken, and the identification and screening of sites as well as the selection of two alternative sites is described in detail in the Site selection Report (please refer to Annexure A of the Draft Scoping Report).</p>

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		<p>2. Detailed investigation into the direct, indirect and cumulative impacts on the environment as a result of the proposed action necessary.</p> <p>It is unacceptable, in such a major project which involves large open cast mining expansions, that all possible environmental impacts are not examined in a total integrated system. If one comprehensive study assessment is done e.g. land rehabilitation after mining etc, a totally different siting may result.</p>	<p>Comment noted. This EIA will, as far as possible, consider cumulative impacts, e.g. cumulative impacts from an air quality and traffic/transport perspective. In addition, notwithstanding the fact that the mine EIA will be submitted to the Department of Minerals and Energy for decision-making (while the power station EIA will be submitted to DEAT), the power station EIA will, wherever possible, refer to and incorporate information from the mine EIA, in an effort to cover cumulative impacts between the two proposed developments.</p>
		<p>3. There seemed to be a doubt concerning water supply for the removal of sulphur products. Can we be assured that in this new power station, sulphur will be removed?</p>	<p>The location of the coal resource is fixed (adjacent to the decommissioned Wilge power station). The alternative sites for the proposed power station were determined via a rigorous site selection process, presented in Annexure A.</p> <p>A specialist air quality study will model potential impacts on the ambient air quality. The study will also compare potential sulphur emissions (as well as other emissions) to the South African national air quality standards. A key deliverable of the study would be to propose mitigation measures to minimise potential health impacts. The air quality study will inform Eskom's decision on measures to reduce sulphur (and other) emissions.</p> <p>The trade off between water consumption and sulphur emissions will be examined in detail in the EIA Phase of this process. Once again this will help to inform Eskom's decision on sulphur reduction technologies.</p> <p>As far as water supply for the removal of sulphur is concerned, Eskom will be applying to authorities for the prerequisite volume of water, including that to be used in sulphur removal processes, should a decision be made in this regard.</p> <p>Options for reducing emissions are described in Section 3.3.5. You may also comment on the draft Terms of Reference for the air quality study, outlined in Section 5.3.1 of the DSR.</p>

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7	Thokozile Skhosana	Tholulwazi Protective Workshop	<p>1. As a disabled organisation with at least 1% people with disabilities, we need support from big companies and we would like to work with you.</p>
			<p>Response</p> <p>Eskom Employment Equity Policy stipulates that Eskom aims to create an environment that leverages diversity, a culture comfortable for all, where diversity is valued, managed & integrated into the mainstream of business life to ensure respect for all as reflected in the spirit of our country's Constitution.</p> <p>The policy goes further to state [without committing to percentage] that people with disabilities shall be given preferential treatment in employment opportunities and that the workplace shall be adjusted to accommodate them in line with the business' Disability Equity Policy.</p> <p>Noted. You are registered on the database and you will continue to receive project information.</p>
8	Lana Ignatovic		<p>1. Our interest is from a construction point of view, and I would appreciate if you could e-mail me any future update.</p>
9.	AJ Hans Boer	South African Wind Energy Association	<p>1. Regarding Eskom and the South African commitments to the Kyoto Protocol, what authority or entity in South Africa is responsible to manage and reduce Eskom's carbon emissions in line with the national commitment?</p>
			<p>Climate Change issues are co-ordinated via the National Committee on Climate Change. National DEAT is the lead authority. South Africa, as a developing country, has no commitments under the Kyoto Protocol to reduce its carbon emissions as yet. However, South Africa has developed a response strategy for climate change. It is available on the DEAT web site, www.environment.gov.za. Through the diversification of technologies for generating electricity such as wind, solar thermal, gas and nuclear, Eskom will in the long term contribute to a reduction in South Africa's carbon emissions.</p> <p>In 2005 Eskom emitted approximately 247 million tonnes of CO₂</p>
			<p>2. What is the current Eskom carbon balance?</p>

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			<p>3. What is the planned carbon balance for the proposed new Witbank power station?</p> <p>The proposed power station would be coal-fired and accordingly would result in a proportionate increase to Eskom's total carbon output. The amount of additional carbon dioxide likely to be emitted by the proposed power station will be calculated taking into account the amount and quality of coal which will be burned. Such calculations will form part of the air quality assessment to be included in the EIR.</p> <p>This information will be made available during the finalisation of the Draft Scoping Report.</p>
			<p>4. What is the planned 20 year Eskom carbon balance according to the ISEP plans?</p> <p>As a developing country, South Africa has no commitments under the Kyoto Protocol to reduce its carbon emissions. South Africa's carbon emissions are likely to increase however, the carbon intensity may reduce through the diversification of technologies for generating electricity such as wind, solar thermal, gas and nuclear. Hydropower supplied by countries north of South Africa may also in the longer term contribute.</p>
			<p>5. How do these plans support the South African commitments towards the Kyoto Protocol, specifically in terms of the reduction of carbon emissions?</p> <p>Eskom's renewable energy strategy supports the South African Government's White Paper on Renewable Energy. Eskom is committed to investigating and evaluating the options for the diversification of the energy mix over time (including renewable energies). All renewable energy resources available in South Africa are currently being evaluated for their applicability to Eskom. A number of research demonstration facilities continued to be operated as part of Eskom's renewable energy research programme. These included the operation of Africa's first wind energy demonstration facility in the Western Cape, which was opened in 2003.</p>
			<p>6. According to the ISEP, what proportion of the Eskom's generation capacity and capital budget is earmarked for the construction of non-carbon emitting generation capacity and when?</p> <p>In addition Eskom has recently initiated the necessary EIA for the potential construction of a 100MW concentrated solar thermal plant in the Northern Cape. For more information on this specific EIA, please visit www.bohlweki.co.za.</p>

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10	Jeff Scrooby	Petronet	<p>The information regarding the pipeline has been received and will be taken cognisance of when the detailed impacts of the proposed power station are examined in the EIA Phase.</p>
11	Morris Ryan	Malala Vuka Industrial Services CC	<p>A specialist air quality study will model potential impacts on the ambient air quality as well as potential impacts on local communities. The study will also compare potential emissions from the proposed power station to the South African national air quality standards. A key deliverable of the study would be to propose mitigation measures to minimise potential impacts on ambient air quality and on local communities. The air quality study will inform Eskom's decision on measures to reduce emissions.</p>
12	Andrew C Dickman		<p>Options for reducing emissions are described in Section 3.3.5. You may also comment on the draft Terms of Reference for the air quality study, outlined in Section 5.3.1 of the DSR.</p> <p>There are three alternatives with respect to ash disposal (please refer to 3.3.4). The potential impacts of all three alternatives will be assessed in detail in the EIA Phase. In particular, it is proposed to investigate the potential impacts on groundwater resources and potential visual impacts.</p> <p>You may comment on the Terms of Reference for the groundwater study and visual impact study in Sections 5.3.6 and 5.3.3, respectively.</p>

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			<p>2. Concerned about the air quality resulting from power station chimney stacks</p>
			<p>A specialist air quality study will model potential impacts on the ambient air quality as well as potential impacts on local communities. The study will also compare potential emissions from the proposed power station to the proposed South African national air quality standards. A key deliverable of the study would be to propose mitigation measures to minimise potential impacts on ambient air quality and on local communities. The air quality study will inform Eskom's decision on measures to reduce emissions.</p>
			<p>Options for reducing emissions are described in Section 3.3.5. You may also comment on the draft Terms of Reference for the air quality study, outlined in Section 5.3.1 of the DSR.</p>
13	Mrs Swart	Mpumalanga-Department of Health	<p>1. Potential for air and water pollution and its effect on the local community must be assessed</p>
			<p>Noted. The potential air quality and water resource impacts of the proposed power station will be assessed as part of the EIA Phase. You may comment on the relevant specialist Terms of Reference in Chapter 5 of the DSR.</p>

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14	Liezel Strydom	Emalahleni Council	<p>1. The air in the area is already very polluted by household and industrial burning methods. Existing monitoring cannot really determine what additional pollution would be added to the air quality problem. The effect of the power station on air quality is critical and monitoring must be implemented.</p>
			<p>Response</p> <p>A specialist air quality study will model potential impacts on the ambient air quality as well as potential impacts on local communities. Eskom has been monitoring near the existing Kendal power station for many years and installed a monitoring station on the old Wilge site earlier this year. The results from the model will be validated with the monitoring data as well as take into consideration existing pollution levels. The study will also compare potential emissions from the proposed power station to the proposed South African national air quality standards. A key deliverable of the study would be to propose mitigation measures to minimise potential impacts on ambient air quality and on local communities. The air quality study will inform Eskom's decision on measures to reduce emissions.</p> <p>Options for reducing emissions are described in Section 3.3.5. You may also comment on the draft Terms of Reference for the air quality study, outlined in Section 5.3.1.</p> <p>Eskom will monitor emissions from this power station, as part of the Operational Environmental Management Plan.</p>
			<p>2. The cumulative effect of this power station on air quality and the environment must be considered. Air pollution does not have boundaries and is spread across the entire area.</p>
			<p>In modelling potential impacts on ambient air quality, the specialist air quality study would take into consideration cumulative impacts.</p>

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15	JPL Cloete		<p>1. It is problematic that another mega project is being considered near the Kendal Power Station in terms of risk management, coal provision, heavy traffic and pressure on the road infrastructure especially with the heavy coal trucks driving past the Kendal mealie silos.</p>	<p>In terms of risk management, a risk study is proposed to be undertaken in the EIA Phase to consider potential risk that the proposed power station would pose to local communities. You may comment on the Terms of Reference for the risk study in Section 5.3.7 of the DSR.</p> <p>Coal for the proposed power station would be sourced from an existing coal resource adjacent to the decommissioned Wilge power station. An EIA for the proposed coal mine is currently underway.</p> <p>In terms of impacts on traffic and road infrastructure, a traffic impact study has been proposed to assess potential cumulative impacts of the proposed power station and develop mitigation measures to minimise potential impacts. You may comment on the Terms of Reference for the traffic study in Section 5.3.12 of the DSR.</p>
			<p>2. The flow of workers from Phola is less than from Wilge</p>	<p>Noted. The number and source of workers will depend on the amount and type of work created as a consequence of the proposed power station. Eskom will run a process parallel to this EIA process to identify and source labour within the local communities.</p>
			<p>3. It is inefficient from an electricity generation perspective to build a "dry station" such as at Matimba next to Kendal which has a completely different structure.</p>	<p>Comment noted. Detailed technical evaluation is carried out to determine the risks and benefits of such a decision.</p>
			<p>4. The environmental impact of the heating on the atmosphere from the cooling structure should be investigated. Especially with two power stations in such close proximity.</p>	<p>Comment noted. Studies conducted to determine the effect of one power station on another, have indicated that the thermal plume from the heat exchangers never reaches the ground level (the principle of "hot air always rises". It stays buoyant and further dissipates in to the atmosphere. Mixing in the atmosphere also takes place rapidly, further reducing the impact. The IEA Phase will consider the potential impacts associated with the emission of hot flue gases</p>

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			5. The farm Rooдеpoortjie does not have any coal on it.	Noted. Coal for the proposed power station will be sourced from an identified coal resource adjacent to the decommissioned Wilge power station.
			6. It is a puzzle where the necessary water will be coming from.	The Vaal River Eastern Sub-System Augmentation Project (VRESAP) will bring water into the region. VRESAP, a DWAF-co-ordinated project, will increase the volume of water supplied to the existing Kendal power station (via existing water pipelines) from which point a new water supply pipeline would have to be constructed to transport water to the proposed power station.
			7. The Wilge site (Site A) gives access to the Coal reserves of Kendal, Balmoral and from Ogies to Wakefield as well as the Kromdraai coal Mine Complex.	Please note that two new alternative sites have been identified. These sites (Site X and Site Y) are illustrated in Figure 1 of the Draft Scoping Report.
			8. The Wilge Site (Site A) is in walking distance of Phola and is more accessible from the roads than the Kendal option (Site B). An upgraded road between Wilge and Phola would be a good thing.	Please note that two new alternative sites have been identified. These sites (Site X and Site Y) are illustrated in Figure 1 of the Draft Scoping Report.
			9. There is not any Coal mining vehicle traffic on the Wilge Road (portion of the R545) but there is temporary traffic between Klipspruit Coal Mine and Rietspruit.	Noted. Coal would be transported to the proposed power station via overland conveyor. Traffic as a result of the coal mining per se will be addressed as part of the EIA for the coal mine that is currently being undertaken.
			10. Coal reserves closer to Witbank of a higher quality and therefore expensive.	Noted. A coal resource in close proximity to the decommissioned Wilge power station has been identified as the fuel source for the proposed power station.
			11. Mist and fog formation in the Witbank area and specifically on the N12 across from Blackhill is significant. The fog/smog is made worse by mine dust particles which hang in the air. This relates directly to traffic accidents and deaths in the area. The N4 between Balmoral and Witbank is not as beset by smog and pollution.	Measures to reduce particulate emissions from the proposed power station will be considered in the EIA Phase. Dust emitted from the ash dump, and measures to reduce this potential impact, will also be considered.
			12. The old Witbank road via Blackhill is rapidly degrading and for the past 10 years there have been pothole signs along the road. The Kendal workers are required to use this road. Eskom should repair and upgrade this road.	The impact of this project on roads will be considered. Eskom will liaise with the relevant road authorities on this issue.

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			<p>13. The geology south of Kendal changes and is not suitable for development</p> <p>Please note that two new alternative sites have been identified. These sites (Site X and Site Y) are illustrated in Figure 1 of the Draft Scoping Report.</p>
			<p>14. When will Eskom build a coal railway line to Lekwe to stop the degradation of the roads caused by the heavy coal vehicles?</p> <p>Eskom does not currently transport coal via road from the Witbank area to Lekwe. Road transport of coal may indeed be occurring along this route, but not for Eskom power stations.</p>