

**ENVIRONMENTAL IMPACT ASSESSMENT (EIA)**

**EIA: 12/12/20/944**

**FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND  
ASSOCIATED INFRASTRUCTURE**

**RECORD OF PUBLIC OPEN DAYS**

<b>AREA</b>	<b>DATE</b>	<b>VENUE</b>	<b>TIME</b>
Duynfontein	19 February 2008	Koeberg Nuclear Power Station – Conservation Centre	15:00 -19:00
Cape Town	20 February 2008	Vineyard Hotel, Newlands	15:00 -19:00

## OVERVIEW OF PUBLIC OPEN DAYS

The main purpose of the Public Open Days was to reflect back to the public in terms of the following:

- Have we captured issues raised by the public correctly during Scoping?
- Have we understood their issues?
- Have we properly contextualised and interpreted their issues?
- Are the proposed specialist studies eventually going to provide answers to the questions raised by the public?

## FORMAT OF PUBLIC OPEN DAYS

The information displayed at the Public Open Days held in the Northern, Western and Eastern Cape Provinces was similar in nature.

Supporting documentation prepared by ARCUS GIBB included the following booklets:

- Summary of Draft Scoping Report (English and Afrikaans versions).
- Poster booklet (English and Afrikaans versions).
- Draft Terms of Reference for Specialist Studies.
- Receiving environment.

Additional information prepared by Eskom Holdings Limited included the following booklets:

- Nuclear energy - Unleashing Africa's Energy.

The content of the mobile display used at the various Public Open Days can be downloaded from the Eskom's website [www.eskom.co.za/eia](http://www.eskom.co.za/eia) under Nuclear 1 link or requested from the Public Participation Office, ACER (Africa) at [nuclear1@acerafrica.co.za](mailto:nuclear1@acerafrica.co.za) or 086 010 4958.

The Independent EIA Project Team members and Eskom staff were available at various Public Open Days to address questions, comments and concerns that were raised by Interested and Affected Parties.

This document presents a summary record of issues and questions raised at the various Public Open Days. ACER (Africa) has tried to capture and reflect as accurately as possible all issues raised at various public meetings. Should you wish to edit your comments, please advise ACER (Africa) within two weeks of receiving this summary document.

This record has been:

- Compiled by:** ACER (Africa) Environmental Management Consultants  
**Reviewed by:** ARCUS GIBB (Pty) Ltd  
**Accepted by:** Eskom Holdings Limited, Generation and Enterprises Divisions

**RECORD OF ISSUES RAISED AND DISCUSSED**

No	NAME & ORGANISATION	ISSUE/COMMENT/CONCERN	RESPONSE	
1	Ms Zandra Cronje Local Resident	<p>She strongly feels that South Africa does not need this development and Eskom should focus more on demand side management and promoting efficient use of electricity.</p> <p>The Western Cape cannot cope with the influx of people. There are also water issues in the Province (not enough water). The Western Cape is over-developed.</p>	<p>South Africa needs both supply-side and demand side initiatives. On the supply side, studies (by Eskom as well as Government and the National Energy Regulator of South Africa) have shown that South Africa needs to build approximately 40,000 MW of new electricity generating capacity (of all technologies) by 2025. The proposed nuclear power station project forms only one of the new supply side initiatives that are under consideration.</p> <p>Demand side management also forms an integral part of Eskom's and Government's electricity planning strategy. Eskom has committed to achieving a goal of 80,00 MW through energy efficiency and various demand side management initiatives, by 2025</p> <p>Comment noted. These kind of issues will be addressed in the detailed assessment phase of the EIA</p>	KOE BERG

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2	Ms Zandra Cronje Local Resident	<p>She suggested that Eskom puts pressure on Municipalities to update their building regulations and bylaws. This will force industry to take modern technology into account so that developments can make use of energy efficient systems, e.g. using solar panels, overhangs, isolation, etc.</p> <p>There should be an incentive system that would be designed to encourage people to save electricity by using energy efficient systems.</p>	<p>Comments noted. Eskom does engage with Municipalities on energy efficiency and demand side management. However Eskom cannot force Municipalities to change their regulations and by-laws.</p> <p>The Department of Minerals and Energy (DME) is currently investigating incentives to promote renewable energy. The regulatory framework to facilitate these incentives will be developed by the National Energy Regulator of South Africa. Eskom also runs an intensive Demand Side Management programme to encourage energy efficiency and conservation. Eskom has committed to achieving a goal of 8,000 MW through energy efficiency and various demand side management initiatives, by 2025.</p>	KOEBERG
3	Mr Martin Halvorsen West Coast Biosphere	What would be the footprint of the quarries?	The EIA studies are currently underway. The Civil Engineering requirements for the proposed nuclear sites still need to calculate the quantities of aggregate that would be required.	KOEBERG
4	Mr Martin Halvorsen West Coast Biosphere	<p>Suggested that Eskom should consider the use of locally registered trucks to transport the aggregate. Trucks damage the roads and the Western Cape government does not have money to repair the roads.</p> <p>If Eskom uses local services, e.g. trucks, this will ensure that licence fees do not go to another province.</p>	<p>Suggestion of using Western Cape registered trucks noted for inclusion in the contractors' agreements.</p> <p>Comment noted.</p>	KOEBERG

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5	Mr Martin Halvorsen West Coast Biosphere	<p data-bbox="533 244 1218 268">What will the exclusion zone be for the Duynefontein site?</p> <p data-bbox="533 767 1305 826">One of the advantages of a Nuclear Power Station is biodiversity conservation (as we have seen at Koeberg).</p>	<p data-bbox="1330 244 2119 722">For the proposed Nuclear 1 power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones of less than 16 km. The NNR will however determine the emergency plan requirements and the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs. If the proposed Nuclear 1 power station is built on the Duynefontein site, the exclusion zones required for the existing Koeberg nuclear power station would still be in place (these zones currently are a first zone up to approximately 5 km from the power station, within which no further development may take place, and a second zone from 5 km up to approximately 16 km from the power station, within which limited development may take place)</p> <p data-bbox="1330 767 1525 791">Comment noted.</p>	KOEBERG
6	Mr Martin Halvorsen West Coast Biosphere	With regards to wind farms, will studies be done around the routes of bird migrations in the area? He is not against development, but is concerned about the balance between biosphere and man.	Eskom to pass this information to the team responsible for the wind energy studies.	KOEBERG
7	Mr John Jones Local Resident	He suggested that the information notices be placed in the Easy Ads that are delivered to houses from Tableview to the Melkbos area.	Suggestion noted by ACER (Africa), for future advertising requirements.	KOEBERG

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8	Dr Daphne Timm Local Resident	<p>Why does Eskom not promote photovoltaic systems?</p> <p>The best thing that ever happened in South Africa was load shedding. All residents in Cape Town need to reduce their energy consumption. Foreigners should not be building their 2nd, 3rd and 4th houses, etc. in South Africa as they waste a lot of South African power.</p> <p>The design of modern buildings should be encouraged to consider and use methods to save energy.</p>	<p>It is Eskom's stance that ALL of the primary energy resources in or available to South Africa, including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Eskom is continually researching and investigating the potential to implement various alternative generating technologies. There are a number of issues that need to be taken care of when looking at the options for electricity generation; these include cost, lead time for construction, environmental impact, and operating characteristics relative to peaking and base load power generation. Eskom's primary focus is on generation technology that produces power in the megawatt range. Regarding solar energy, Eskom is investigating a 100 MW concentrated solar power (CSP) station in the Northern Cape. An environmental authorisation for the proposed CSP station was received in September 2007.</p> <p>Comments noted.</p> <p>Comment noted</p>	

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9	Local Resident Newlands Public Open Day	Suggested that studies be done to investigate power generation using natural gases, e.g. hydrogen, etc.  Why does Eskom not have a pilot plant using hydrogen for power generation?	Eskom is continually researching and investigating the potential to implement various alternative generating technologies. Eskom has, and continues to investigate the use of natural gas. Unfortunately natural gas is not available in sufficient quantity in South Africa to be used for power generation. Eskom is however engaged with neighbouring countries to determine the feasibility of natural gas power stations (for example with natural gas from potential gas fields in Namibia and Mozambique, as well as imported liquid natural gas).  In areas where Eskom does not actively conduct research, it belongs to several international organisations, through which it tracks international development on power generating technologies. Note that there are no power stations internationally that directly use hydrogen to generate electricity in the same way that natural gas is used. Research and development is however being undertaken in the use of hydrogen in fuel cells to generate electricity. Eskom is monitoring the progress of this research and development.	NEWLANDS
10	Local Resident Newlands Public Open Day	She would like to know if daylight saving would make a difference towards managing energy demand?	Studies undertaken by the CSIR and Eskom have shown that daylight saving will not necessarily save energy. Daylight saving would shift the periods of peak demand to slightly different times, and may thus reduce the absolute peak demand. However the total amount of energy consumed across the different time zones is unlikely to decrease.	NEWLANDS
11	Local Resident Newlands Public Open Day	Would it be possible for factories/industries to work at night in order to level off the peak demands?	Before this can be implemented, there are a number of factors, which would need to be considered, including socio-economics. Eskom does not have a mandate to dictate procedures for the operation of industries and/or factories.	NEWLANDS

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12	Local Resident Newlands Public Open Day	<p>Concerned about the insurance issues particularly in a worst-case scenario.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Do insurers offer cover against damage arising from a nuclear accident?</li> <li><input type="checkbox"/> Is Eskom able to offer any insurance in the case of an occurrence of a nuclear accident?</li> <li><input type="checkbox"/> What would the limit of the insurance liability be?</li> <li><input type="checkbox"/> Is there any documentation available on the insurance policy for public scrutiny?</li> </ul>	<p>The National Nuclear Regulator Act, 47 of 1999 and associated regulations make provision for 3rd party liability and compensation in the event of nuclear damage. In terms of section 30 of the Act, the holder of a nuclear installation licence is, whether or not there is intent or negligence on the part of the holder, liable for all nuclear damage caused by or resulting from the relevant nuclear installation. The holder of the nuclear installation licence is required to provide financial security to meet this requirement.</p> <p>The level of financial security is determined by the National Nuclear Regulator and is published in regulations issued by the Minister of Minerals and Energy.</p> <p>The NNR Act and the relevant regulation (Government Notice 581 of 7 May 2004) can be downloaded from the NNR website <a href="http://www.nnn.co.za">www.nnn.co.za</a></p>	NEWLANDS
13	Local Resident Newlands Public Open Day	Would the insurance for people living near Nuclear Power Stations be increased as more nuclear power stations are being built?	Refer to response provided on 12 above.	NEWLANDS
14	Local Resident Newlands Public Open Day	Can traces of uranium be found in the air?	Traces of uranium are not normally found in the air, except possibly during mining operations.	NEWLANDS

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15	Local Resident Newlands Public Open Day	What is contained in the plume that is released into the sea?	<p>Annual Authorised Discharge Quantities of radioactive gases and liquids are set by the National Nuclear Regulator (NNR) for each nuclear facility. These radioactive gases are released into the sea and into the atmosphere. The impact of such releases, in terms of the radiation exposure to members of the public is determined. The National Nuclear Regulator (NNR) sets the limit of exposure arising from operations at nuclear installations.</p> <p>The NNR Annual report details the radioactive isotopes that are released from nuclear installations and the compliance with the limits for radiation exposure. These Annual Reports are tabled in Parliament and are available off the NNR website <a href="http://www.nnr.co.za">www.nnr.co.za</a></p>	NEWLANDS
16	Local Resident Newlands Public Open Day	<input type="checkbox"/> What management system will be used, both for conventional and radioactive waste? <input type="checkbox"/> Will the EIA cover waste management?  <input type="checkbox"/> Who will be responsible for the costs associated with waste management?  <input type="checkbox"/> Concerned about the transport of nuclear waste, what if there is an accident?	<p>For the proposed Nuclear 1 power station, Eskom intends to follow the same practices for the management of radioactive waste as is currently done at Koeberg nuclear power station, and under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations. Similarly, the management of conventional waste will be in compliance with the relevant legislation and regulations. This will be further dealt with in the Environmental Impact Report.</p> <p>Eskom will be responsible for the associated costs, as is currently the case with waste management arising from Koeberg nuclear power station.</p> <p>The transportation of nuclear waste is dealt with under section 4.9.4 of the Draft Scoping Report (DSR). The transportation of radioactive waste is also performed under the regulatory control of the National Nuclear Regulator and in accordance with international standards.</p>	NEWLANDS

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17	Local Resident Newlands Public Open Day	What will be the radius/emergency planning zone around the Nuclear Power Station?	<p>The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed Nuclear 1 power station.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed Nuclear 1 power station, Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will, however, determine the extent of the required zone based on a safety assessment of the design of the proposed Nuclear Power Station and the proposed site and environs.</p>	NEWLANDS
18	UCT Student Newlands Public Open Day	<p>Eskom's priority should be to ensure that every single home has energy efficiency infrastructure.</p> <p>How intensive are Eskom's campaigns in promoting use of energy efficiency infrastructure?</p>	<p>Eskom's mandate is set by legislation. In terms of the legislated mandate, Eskom does not have the authority over building regulations. Government departments, including Local Authorities and Regulators have this authority. Eskom therefore promotes improvements in the utilisation of electricity and promotes and implements energy efficiency and demand side management programmes. Eskom has a target of saving 3,000 MW by 2012 and 8,000 MW by 2025 through these programmes. 8,000 MW would be equivalent to avoiding the construction of two large coal-fired power stations.</p>	NEWLANDS

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19	Local Resident Newlands Public Open Day	How is the labour sourced for Vaalputs in Namaqualand?	Vaalputs is owned, operated and managed by Necsa on behalf of the State, in terms of a licence issued by the National Nuclear Regular. Eskom is not involved in the sourcing of labour for Vaalputs. Information about Necsa is available off their web site <a href="http://www.necsa.co.za">www.necsa.co.za</a>	NEWLANDS
20	UCT Student Newlands Public Open Day	He understands that Eskom also supplies Botswana. How much electricity does Eskom export to Botswana?	In the 2006/7 financial year Eskom exported 13,589 GWh to neighbouring countries and imported 11,483 GWh, a net difference of 2,106 GWh exported, which was less than 1% of the total electricity on the Eskom system. Eskom will continue to import electricity up to a maximum related to the reserve margin requirements. There are numerous projects in South and Southern Africa that are being investigated, planned or are in progress that would impact whether South Africa is a net importer or exporter. It is anticipated that South Africa will become a net importer of electricity.	NEWLANDS
21	Local Resident Newlands Public Open Day	Is it true that bids have been sourced from Areva and Westinghouse? He heard from the media that it could cost approximately R 120 billion to build Nuclear 1. Can Eskom confirm these figures?	Eskom has issued Requests for Negotiations to two potential suppliers, namely Areva and Westinghouse. Only once these negotiations are completed will the cost of the proposed power station be known.	NEWLANDS
22	Ms Liz McDaid Greenhouse Connection	<p>She feels that information that is given to the general public is misrepresented. Information should be factual and the public should know both the advantages and disadvantages of Nuclear Power.</p> <p>She would raise her concerns/comments at the Key Stakeholder Meeting in Durbanville. She is using the POD as a preview session in preparation for the Key Stakeholder Meeting.</p>	Comments noted. Eskom has stated that the information it disseminates is factual.	NEWLANDS

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23	Ms Liz McDaid Greenhouse Connection	How much does it cost Eskom to build a 765 kV line per kilometre?	Costs are dependent on a number of contributing factors including the design of the lines and associated infrastructure (pylons, substations, protection systems, etc), the costs of the components and materials from the suppliers, the nature and accessibility of the terrain where the infrastructure must be installed, etc. It is therefore not possible to provide an exact cost per kilometre. An average cost is in the order of 1 - 2 million rand per kilometre.	NEWLANDS
24	Ms Liz McDaid Greenhouse Connection	South Africa has the highest sunshine levels in the world. The World bank is going to install 5,000 MW using solar energy. This is, however, not a significant load if one considers it at a world scale.	Comment noted. It is Eskom's stance that all of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.	NEWLANDS