

Tshwane

Lynnwood Corporate Park
Block A, 1st Floor, East
Wing
36 Alkantrant Road
Lynnwood 0081
PO Box 35007
Menlo Park 0102

Tel: +27 12 348 5880
Fax: +27 12 348 5878
Web: www.gibb.co.za

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

ENVIRONMENTAL IMPACT ASSESSMENT (EIA: 12/12/20/944)

**COMMENTS ON
DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT**

(Volume – IRR 144) 1 - 31 January2013)

Issues have been received from the following stakeholders:

No	Name	Organisation
1	Bruce Munnings	Interested and Affected Party

No	Date	NAME & ORGANISATION	ISSUES/COMMENTS	RESPONSE
1	Monday, 14 January 2013 11:33 Email	Bruce Munnings (Interested and Affected Party)	<p>There are in my opinion more suitable electricity generation options than a relatively large nuclear power plant at Thuyspunt (sic) for which the transmission lines are required. One of the options are small modular nuclear reactors for which major transmission lines will not be required as the relatively smaller generators are located closer to the load and are in some instances considerably safer (www.thorium100.com and http://www.nrc.gov/reactors/advanced.html). Other options include natural gas fired generators http://www.eia.gov/naturalgas/ which are more suited to peak power generation when renewables are not available compared to large nuclear power plants.</p>	<p>Your comments are noted.</p> <p>Your assertion about small modular reactors is correct. However, these reactors are in their early development phase and have not been proven for commercial power generation yet. South Africa has championed the PBMR reactor project development for this purpose, but unfortunately the project has been discontinued. As indicated in Chapter 5 of the Revised Draft EIR Version 2, in order for Eskom to achieve its objective of providing reliable power to all sectors of South African society, it requires reliable sources of power generation that will supply a consistent base load that can be efficiently integrated into the existing South African power network. Only certain electricity generation technologies are presently commercially available, although not necessarily financially viable in South Africa, based largely on the availability of resources (fuel) and geographical constraints.</p> <p>The then DEAT's approval of the Final Scoping Report and the Plan of Study for EIA for the Nuclear-1 EIA accepted that different power generation technologies such as renewables do not need to be investigated in the EIA phase of the Nuclear-1 EIA.. It needs to be emphasised that nuclear power is not being pursued as an alternative to any form of renewable power generation or to the exclusion of any other power generation technology. All forms of power generation have an appropriate role in the mix of generation alternatives. No technological alternative for power generation can be assumed to be ideal for all purposes in all circumstances, and their application is dependent on their characteristics. The relative contributions of different generation technologies have been determined by the Integrated Resource Plan (IRP) 2010, based on the needs of the South African energy market.</p> <p>Your comment about gas-fired generators is noted. As you indicate, gas-fired generators are only suitable for peak power. This is because their fuel costs in the South African market are very high compared to other forms of generation. According to figures in the IRP 2010, the Levelised Cost of Electricity (LCOE) for an Open Cycle Gas Turbine plant is R 2,866.00 / MWh, compared to between approximately R 400 and R 530 / MWh for coal and nuclear. The purpose of nuclear power is not to provide peak power at times when renewables are not</p>

No	Date	NAME & ORGANISATION	ISSUES/COMMENTS	RESPONSE
				available – it is to provide base load power, as clearly indicated in the Environmental Impact Report.

Yours faithfully



for GIBB (Pty) Ltd
The Nuclear-1 EIA Team