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July 16<sup>th</sup> 2008

Arcus Gibb (Pty) Ltd  
GIBB House  
359 Rivonia Boulevard  
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Dear Ms Ball and Mr. Liversage

Thank you for your response of June 27<sup>th</sup> 2008 on our DSR comments, however we wish to make it perfectly clear that many aspects of the DSR fall short of expectations, particularly in view of the proposed billions of public funds that are at risk of being unwisely invested by Eskom in a technology that will adversely encumber all existing and hundreds of future generations, with unacceptable and avoidable risks and costs.

We would like to stress that your responsibility as consultants must be directed entirely towards the public's best interests, particularly so in this case, where the applicant is, via the state, owned entirely by the public. The government is merely acting in a caretaker role over Eskom and may not be allowed by you as Independent Consultants, to foist its nuclear aspirations upon the general public through Eskom, nor, to bring pressure to bear in any manner upon your organization to slant this EIA process towards a pre determined nuclear outcome.

To ensure that full accountability towards the general public for this EIA is taken seriously by your company, we request that you supply written assurances from you, your colleagues and in particular your board of directors as follows:

- a. that your company will act within the framework of statutory, fiduciary and legal corporate governance principles while conducting this EIA, and
- b. that your company executives acknowledge and accept that the public intend to hold your board of directors personally and fully accountable should they fall short of their mandate and duty of independence in this matter that is entrusting the expenditure of billions of rands of public funds to the integrity and competency of this EIA process.
- c. That public meetings will engage the public in a manner that provides a full & clear picture of all the negative aspects of the proposed nuclear expansion programme and the potential health and safety risks of all affected parties, the environment and any other problems identified during this EIA process and that misleading or false claims, such as are contained in your response to our comments, do not occur again.

- d. We request your companies unequivocal confirmation that this process is *not* predetermined and that the EIA of Nuclear 1 is *not* a facade and, if that is indeed so, we trust you will kindly revisit and revise false assumptions and incorrect assertions claimed about the “no go option” in the DSR.

Re your responses to our comments on the DSR, numbered 1 – 8:

- 1.1 The response was not satisfactory. Insurance liability risks (and costs to insure such risks), need to be carried by Eskom, not, as is the case at present, borne 99% by the general public, who are as you concede, unable to insure against nuclear risks.

This cost and associated risks must be quantified as part of the operational costs and quantified at an appropriate level. We will approach the NNR in this regard to ensure that the public is adequately protected with at least an appropriate amount of liability insurance arising from the operation of existing nuclear power stations. The correct and adequate amount of liability insurance **MUST** form part of the cost analysis and should already have been assessed by Eskom. We would appreciate sight of the existing Koeberg third party liability insurance policy, which we understand falls woefully short of adequate in terms of sum insured.

- 1.2 Your response does not undertake to supply the information requested. Please also add the following under that section “Cost overruns are both expensive and to be expected for construction of nuclear power plants. What provision amount has been made to quantify this financial risk? Kindly ensure that this risk is included under direct cost estimates together with inflationary escalation cost estimates over the next 10- 15 years.”

You state that Eskom is “In the process of developing a *business case* for Nuclear 1 ...” This is somewhat bizarre planning on the part of the state owned monopoly. If Eskom does not already have a *business case* for nuclear power generation, this entire process is premature and a waste of public funds and time. If Eskom does have a *business case* for Nuclear 1, we request a copy by return. If Eskom does not yet have a *business case*, when do you estimate that it will be available for comment? You go on to say that prior to a final decision being made, a thorough evaluation of all costs associated with construction and operation of the plant will be considered. Once again this is unreasoned planning. It is imperative that Eskom conducts a full financial analysis now of comparative generation costs and options. Only if that analysis strongly indicates that nuclear is, in each significant aspect, preferable over all other generation options, should this EIA process recommence.

If, as you appear to indicate, only at the end of this EIA process, will the viability of nuclear power be determined, Eskom may well find, after several years of futile assessments, as we assert to be the case, that nuclear power is too expensive, carries too high a risk profile, and that better, safer, cleaner and

environmentally compatible alternative power is available to meet the demands and is capable of generating power within a far shorter timeframe.

- 1.3 Eskom has made grossly inadequate financial provision for dealing with radioactive waste, security and storage at Koeberg. The amount of R2 billion provided for by Eskom is at least R60 billion short of adequate decommissioning costs based on realistic UK audit provision equivalents (R1.1 trillion in total). Eskom must provide responsibly and adequately for existing decommissioning costs; good corporate governance dictates that they should not attempt to procure further nuclear facilities as these costs will then even further unfairly burden the general public for current and future generations. Indeed Eskom should not be permitted to continue embarking on any future nuclear power planning until it has provided adequately for its past and current nuclear clean up and has at least deposited the required R60 billion per existing site and further R60 billion per proposed site, in trust accounts to safeguard the public interest.
- 1.4 Comment not addressed adequately. Kindly confirm that the issues raised will be assessed and compared objectively.
- 1.5 Comment not addressed adequately. Kindly confirm that the issues raised will be assessed comprehensively and compared objectively and further will not exclude costs of government subsidies, NNR, short and long term waste related costs.
- 1.6 You state that “the provision (of R2 billion) will be used for decommissioning of the station **as well as the management and final disposal of spent fuel**” this is clearly inadequate for decommissioning costs alone, being around 3 000% less than UK audit requirements (see also 1.3 above)
- 1.7 Eskom has no guarantee of attracting the required skills to adequately staff even the existing nuclear facilities; developing local skills do not guarantee that these newly skilled personnel will be retained in SA. The on going safety and security of nuclear facilities, the surrounding areas at risk, the safety of the general public, our tourists and business visitors all depend absolutely on the ability of Eskom to maintain adequate numbers and competent standards of personnel. Eskom must show beyond doubt that it can give an *absolute guarantee* that better than existing staffing levels are achievable over at least the next 40 years, if not all existing nuclear facilities should be decommissioned as soon as practical and no future facilities should be considered.  
The implications of glossing over this issue should not be underestimated as the potential of **a local Chernobyl disaster can not be dismissed even under the very best of circumstances**. Lack of skills such as currently exist in SA, together with two aging nuclear reactors, currently place the entire City of Cape Town at risk.
- 1.8 Comment not addressed adequately.
- 1.9 This response is not addressed adequately and is factually incorrect. Hundreds of thousands of sustainable unskilled & semi skilled jobs will be lost if nuclear power is preferred over a mix of renewable energy. This is, not only an

economic tragedy, it is a matter of preventable human rights abuse to deprive the struggling class of their right to work.

RE can compete with NP and is entirely suitable for required energy generation. RE is preferable in all important issues mentioned in the draft scoping report namely cost, lead time, environmental impact and operating characteristics. It is false to imply that RE can not provide both base load and peaking power.

1.10 Comment not adequately addressed and not factually correct. Chernobyl is a well known case of people dying and becoming ill from living close to a nuclear power station. There are many other documented cases of health problems associated with routine nuclear emissions and various other nuclear accidents.

2 The response to this comment was evasive and did not address the issues advanced which inter alia requires our updated comparison of cost of RE v/s nuclear at the end of the EIA prior to submission of the ROD.

There is a strong possibility of legal challenges to this process if this is not addressed adequately.

3 Peer reviews are not acceptable unless they are conducted by independently appointed experts. Your approach appears to be one of ensuring that peer reviews are conducted on the basis of known outcomes for the proponents by pre appointing experts to do peer reviews. Your invitation that NGO's may appoint their own experts takes no cognisance of the fact that NGO's may not have the financial ability to pay for peer reviews, certainly these reports would be difficult if not impossible to conduct within the public comment period. A minimum period of 6 months would be required if you will not agree that independently appointed peer reviews should take place.

The time required to assess the high number of studies in the EIA will also mean that the time allowed for public comment will need to be increased to a minimum of 120 days, preferably 6 months.

We further request that funding is made available to NGO's for peer reviews to be undertaken by independent qualified experts in particular where the peer review is to be conducted by nuclear proponents or those with vested interests in the nuclear industry directly or indirectly.

4. Thank you for your response

5. This response is factually incorrect, wholly inadequate and unacceptable.

6 This response is factually incorrect specialist studies that state that "nuclear power produces "little" (hardly a scientific term) GHG of the entire life cycle including mining and enrichment" are either not well informed or deliberately misleading. GHG are only part of the pollution problem, others such as the impacts of radon gas and increased radioactivity of the region; these emissions require further studies by independent specialists.

You quote from UK White Paper on Nuclear Power that “CO2 emissions from nuclear wind generated electricity is the similar to nuclear” please provide scientific evidence of that if you are relying on such a statement to advocate nuclear. However, even were it to be true, wind power does not produce any radioactive emissions at all, and as such nuclear can not be favorably compared with wind, to do so is deliberately misleading or sadly lacking in fundamental knowledge.

Your closing statement under 6 “As nuclear power production produces fewer emissions than other large scale forms of energy production it will not exacerbate climate change” is factually incorrect. Please take independent advice from an expert.

- 7 The responsibility and cost of cradle to grave waste needs to be adequately quantified. Insofar as this responsibility relates to impacts of radioactive waste that will endure and remain dangerous for thousands of years, an actuarial assessment is required to ensure that these vast amounts are paid into a trust account solely for the benefit of the public, who will bear both the risk and the cost of securing and storing radioactive waste for an indefinite period into the future.

Eskom must detail precisely how it proposes to fund such amounts and how these amounts will be secured and invested in order to keep pace with the escalation in costs of security and storage.

8. The DSR is factually incorrect in the assertion that “at present the technology available is not advanced enough and can not produce sufficient amounts of power to meet the current electricity demand specifically as base load option”  
The bald statement that “For this (the above quoted) reason it is not feasible to consider these alternatives any further.” is unacceptable and will, if not adequately addressed, form yet another of the many fatal flaws identified in the EIA process.

IF your assertion was correct, which it is not, rapid advancements and cost reductions in RE technologies make a compelling case for retaining the “No go option” during this entire process. If not, it appears that Eskom is indirectly saying that they bear no responsibility towards the public, and that nuclear is the only option on the table irrespective of the EIA outcome. Should the latter be so we remind you that the public will collectively be spending many hours on this EIA process, we do not intend to again engage in a futile exercise for no payment, as happened with the PBMR; we therefore would appreciate candour in your response.

9. New point  
Education, as opposed to indoctrination, of the general public is a pre requisite of a meaningful public participation process. Please confirm that you will provide a balanced and independent education process and a schedule of how you intend to conduct this aspect of the EIA.

We trust that you will understand that while you may perhaps consider our remarks to be harsh, we have been involved with various nuclear EIA public processes and have been bitterly disappointed at the lack of objectivity of the process. We trust this failure will not be repeated.

Sincerely  
Robert C H Garbett  
Christine T Garbett  
and on behalf of  
The Karee Trust  
Wat Props Pty Ltd  
Pelindaba Working Group