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Dear Tristen Taylor

RE: ESKOM EIA CONCERNS FOR THE PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE (DEA Ref. No: 12/12/20/944)

Comment 1:

Re: Supplementary Information regarding the EIA for Nuclear-1 and No-Go Option

Dear Arcus Gibb,

Since the final deadline for submissions to the Nuclear-1 EIA (June 2011), recent official information has come to light regarding the lack of a no-go option as stated in the EIA. Namely, the National Planning Commission, under Minister Manuel, has charted a No-Go Option in its plan (Nov. 2011) and has called for a further rethink of nuclear power. This is vital information for the EIA to consider; in fact, the EIA cannot ignore a no-go option when presented by a government entity, especially one engaged in planning for South Africa's future.

In Chapter Four of the plan, it states (pg. 147):

Re-assess the desirability of nuclear power investments

According to the Integrated Resource Plan, more nuclear energy plants will need to be commissioned from 2023/24. Although nuclear does provide a viable base-load alternative, South Africa needs a thorough investigation on the implications of nuclear energy, including its costs, safety, environmental benefits, localisation and employment opportunities, uranium enrichment, fuel fabrication, and the dangers of weapons proliferation.

South Africa will face major challenges in financing the capital costs of a nuclear fleet. Nuclear plants involve massive, lumpy investments (given that a single unit can now be as large as 1 600 MW). It will also be extremely challenging to build the institutional and skills base for running new-generation nuclear plants. All possible alternatives need to be explored, including the use of shale gas, which could provide reliable base-load and mid-merit power generation through combined cycle gas turbines. Developing nuclear power plants requires long lead times. A maximum of one year remains to agree on a decision-making process for new nuclear investments.

And on page 143:

Explore gas as a viable alternative to coal (and nuclear)

Substituting gas for coal will help cut South Africa's carbon intensity and greenhouse gas emissions.

Possibilities include coal seam methane, shale gas resources in the Karoo basin and imports of liquefied natural gas. Experiments are under way to assess the potential for using methane gas associated with coal deposits. Underground coal gasification technology is also being developed. These resources and technologies could make a significant contribution to South Africa's energy needs, while reducing greenhouse gas emissions and carbon intensity...

A global market has developed for liquefied natural gas imports, the prices of which are increasingly delinked from oil prices. With South Africa needing to diversify its energy mix, liquefied natural gas imports and the associated infrastructure could provide economic and environmentally positive options for power production, gas-to-liquids production (at Moss gas) and use of industrial energy.

Whatever the merits of gas as an energy source may or not be, the National Planning Commission clearly thinks that it is a possible no-go option. **We must, quite clearly add, that we do not support the use of natural gas, fracking or coal seam methane, but rather endorse the renewable energy alternatives as no-go options, as indicated in our submission.** Therefore, the EIA must include this and other no-go options based on renewable energy (as presented in a variety of submissions to Arcus Gibb on Nuclear-1, including but not limited to Earthlife Africa Jhb and Greenpeace Africa's), and, if it doesn't, Arcus Gibb could rightfully be described as not putting all the relevant information before the decision-maker.

Response 1:

Your comment is noted.

The environmental application for Nuclear-1 is for a nuclear power station and the Nuclear-1 EIA process is not a strategic level review of potential power generation alternatives. Strategic review of the power generation alternatives was the function of the IRP.

As with these previous instances of power station EIAs (e.g. those constructed at Mossel Bay and Atlantis, and the Medupi and Kusile coal fired power stations currently under construction), the scope of the Nuclear-1 EIA is restricted to a specific power station on a specific site or sites within a defined geographical area. It cannot reasonably be expected that each application for a power station must revisit strategic government decisions that have been taken on the mix of generation technologies that are necessary to meet South Africa's electricity needs. Government has, through a consultative process, already taken a decision on the mix of generation technologies required to supply South Africa's future electricity needs for the next two decades. The conclusion of the IRP 2010 process is that 9,600 MW of nuclear generation must form a part of the mix of generation technologies.

Environmental Impact Assessment, as a project-specific tool of environmental management, is not the appropriate vehicle to consider the broader strategic issues of what resources need to be employed, in what proportions, to provide in South Africa's energy security.

Yours faithfully
for GIBB (Pty) Ltd



The Nuclear-1 EIA Team