

Nuclear must form part of SA's energy mix to meet growing demand **28th JANUARY 2016**

There is currently a heated debate in the public discourse about nuclear proliferation and government's announcement that it will proceed with a nuclear build programme. Media coverage about whether nuclear power is the right solution for South Africa is extensive.

Is nuclear power the right solution for South Africa? According to some nuclear industry experts, this is the wrong question to ask. Knox Msebenzi, managing director for the Nuclear Industry Association of South Africa (NIASA) says, "Nobody in nuclear is saying that we should only be focusing on nuclear; we are saying that South Africa needs an energy mix where nuclear forms part of that mix. In that diversified portfolio of energy assets, 17.8GW has been allocated to renewables and only 9.6GW will be allocated to nuclear. We are saying that South Africa needs an optimum mix and we must not put all our eggs into one basket."

Nuclear power development brings with it the opportunity for South Africa to become skilled and competent as a nation in certain technological developments that aren't found with other forms of energy. Spinoff benefits to having a thriving nuclear industry include the opportunity to increase the already successful nuclear medicines industry. The treatment of cancer and the training and skilling of nuclear engineers and scientists are major areas to benefit from this.

Another benefit of using nuclear power is that, unlike renewables, nuclear power is reliable and can be dispersed no matter what the weather conditions. It can provide base-load power to the grid, where renewables are far less reliable in terms of output.

"Coal provides base-load power but it has the disadvantage of high carbon emissions. Gas also provides base load power but our domestic supplies of it are not yet exploited economically. If one considers the cost of fuel required to produce power; gas is the most expensive, followed by coal then nuclear. Per KW hour generated, the component of fuel to get a unit of power is a lot higher than in the case of nuclear," says Msebenzi.

Msebenzi agrees that all technologies have potential risks. Safety is therefore paramount. "The National Nuclear Regulator is a very active and robust regulator. The safety of South Africa's nuclear power plants is governed by legislation, which is governed by the nuclear regulator. Safety comes first and we cannot let the fears of what happened elsewhere, brought on by a tsunami, stop us from advancing as a nation, and providing our people with electricity," says Msebenzi.

South Africa is sometimes compared to Europe when it comes to questions about why a nuclear build programme has been chosen. "But South Africa cannot compare itself to Europe's economies that are highly industrialised and have 100% electricity penetration, some of whom have taken

political decisions to decommission their nuclear power plants. Our economic structure and needs are entirely different and we need access to large amounts of base-load power to boost our economy.”

Msebenzi admits that a nuclear build programme will be capital intensive; which is why it is critical to get the right funding with low interest rates. “The financing model is critical. Government’s Renewable Energy Independent Power Producer’s Procurement Programme is a world class one with excellent financing models, and so can the nuclear build programme be.”

“There is a school of thought which estimates that 70 percent of the nuclear build programme will be sourced locally in value. It will reinvigorate the nuclear industry, boost skills, create whole new industries and therefore create employment. The nuclear build programme can also be viewed as a regional power plan that will see South Africa supplying cheap electrical power to the region,” Msebenzi concludes.

The question about whether nuclear power is the right solution for South Africa will be debated at length during the **Nuclear Forum** session which forms part of the main Africa Energy Indaba conference. To listen to South Africa’s most prolific nuclear industry experts, and find out what opportunities are unfolding in the nuclear industry, register to attend the Africa Energy Indaba Nuclear Forum and come and make your voice heard.

www.africaenergyindaba.com

PRESS RELEASE ENDS

More about the Africa Energy Indaba

The Africa Energy Indaba is the World Energy Council (WEC) African regional event and as such the event receives global recognition as the foremost event for energy professionals operating in Africa, wanting access to the growing African energy sector.

The 8th annual Africa Energy Indaba will be held on the 16 - 17 February 2016 in Sandton, Johannesburg, South Africa. Host to 11 African Energy Ministers and many energy luminaries, the event is set to provide access to key energy decision makers in Africa. The event comprises a number of conferences and an exhibition to showcase energy products and services to meet Africa's energy demands.

The African energy sector requires USD 40 billion worth of investment annually with a production capacity requirement of 7,000 megawatts per year to meet the demand required to ensure energy access to all Africans. This presents a major opportunity for companies to explore business opportunities in the African energy sector.

Africa Energy Indaba 2016 conferences will include:

- 3rd IPP & PPA Conference
- 8th Africa Energy Indaba Conference
- Africa Gas Forum
- World Bank Global Tracking Framework Report Launch
- 3rd IFC ESCO Conference
- World Energy Council Scenarios & Resources Workshops
- 2nd Women in Energy Conference

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