energy

Department:
Energy
REPUBLIC OF SOUTH AFRICA

KEYNOTE ADDRESS BY THE MINISTER OF ENERGY,

MS DIPUO PETERS,

AT THE OPENING OF THE NECSA VISITORS CENTRE,

3 February 2011,

11h00

Chairperson of the Necsa Board of Directors, Mr Manne Dipico
Members of the Necsa Board
CEO of Necsa, Dr Rob Adam
Heads of Necsa Subsidiaries
Honourable guests
Special welcome to the pupils from (Name of School)
Necsa staff members
Ladies and gentlemen

It is an honour for me to be given this opportunity to be part of this august launch of this world-class facility. I would like to congratulate Necsa on this successful project and for starting the year and the decade on such a high note. It really is 20-elevation for you!

This Visitors Centre will be one of the few places where enthusiastic, talented, and curious young minds will get closer to

the cutting-edge of nuclear science research and development. It will be a platform where they would launch themselves into a lifelong ambition to pursue nuclear science, as a means to improve the quality of life of all South Africans, and humanity in general.

We should not underestimate the importance of that first impression on a curious young mind which is hungry for knowledge and discovery. I hope that some of you listening to me here today will be inspired to one day make an addition or two to this visitors centre by exhibiting an invention or discovery that all South Africans would be proud of.

During the days of apartheid, and in my time as a young person in search of a career, such opportunities simply did not exist. It pains me to remember how many generations of our fore fathers and mothers fought for our freedom so that some of us could stand on this very soil today, at the front of one of the cutting-edge nuclear facilities in the world. To me this is an historic moment, where besides opening a visitors' centre, I am opening a world of opportunity that generations before you have struggled and sacrificed for.

My dear boys and girls, you have the opportunity of becoming the future nuclear artisans, technicians, engineers, scientists, and decision makers of our country. I encourage you to grab this opportunity with both hands. It is the least gratitude we can show to those who sacrificed their lives to get us here today.

For those people who are against nuclear, the sheer fact that thousands of lives are saved annually through medical isotopes produced just a stone throw away from where we are, is surely a

justified reason to continue our endeavours to purse nuclear science and technology for peaceful use.
By the way South Africa is currently the world leader in production of these medical isotopes, and we have played a pivotal role in alleviating the global shortfall over the last two years.

New materials, such as stronger metals for automobiles, aircraft, machinery, and high capacity hard disc drives, improved silicone processors, all pay their thanks to nuclear technology, as you will discover in this visitors centre.

The Sterile Insect Technique (SIT), which I encourage you to read about, is instrumental in our very own agricultural industry. Based on irradiation techniques, it allows for the control of insect populations, providing us with high quality fruits, free of insect infestations or insecticides. It also enables our farmers to export fruit to international markets bringing us valuable foreign exchange.
I have been privileged to see grapes, apples, oranges, clementines, and other deciduous fruit on the shelves of stores in Europe and Asia, labelled "**Produce of South Africa**". Can you believe that something as delicate and perishable as a fruit being speedily transported thousands of kilometres to be enjoyed by those who yearn for a delicious bite of nature's best. Wow that fills us all with such pride, that our produce is amongst the world's best, thanks to nuclear technology. These are just a few applications of nuclear technology in our daily lives. Our draft Integrated Resource Plan 2010 indicates nuclear power as a feasible option for generation of more than 10% of our electricity

mix by 2030. That is enough power for 10 million South African homes, or around 10 Giga Watt electric. This build programme will create around 10 000sustainable direct jobs and more than four times that amount of indirect jobs will also be created for 70 years.

We are not alone in this race to secure a future in nuclear energy. Construction continues in China, India, Pakistan, Russia, Japan, South Korea, Finland and France. Preparations are also underway in the United States of America (USA) and the United Arab Emirates (UAE) to enable the construction of nuclear power plants. On the African continent, intentions to build nuclear power plants have been made by countries such as Namibia, Nigeria, Algeria and Egypt.

In the future, once we have a large and established nuclear programme, Necsa will play a pivotal role in beneficiating the raw uranium ore (which we have been blessed with) by transforming it into high technology fuel assemblies to power these nuclear reactors. Not only will we use this locally, we will export these assemblies as completed products, instead of selling our raw uranium abroad for developing other economies at the expense of our own, or worst still, re-importing the finished product that was made with our natural resources. The front-end of the fuel cycle is one of Necsa's key mandates, and I encourage you to watch this space for more on this going forward.

But coming back full circle, none of this would be possible without the specialised skills and knowledge of nuclear technology that rests within the minds of our people. Here Necsa plays another

pivotal role, as the nuclear research and development centre for South Africa. Training programmes for artisans, technicians, engineers, and scientists depend on exposure to “ON THE JOB” training. Our research reactor SAFARI-1 provides just the basis for such development. It is from research reactors that the basics of nuclear science and engineering can be understood and applied to much larger power reactors, such as the Koeberg Nuclear Power station in Koeberg.

Even the development of improved materials, and technology for power reactors to extend their lifetimes, improve efficiency, and safety, all start with basic studies that research reactors can provide. Our research reactor is approaching the end of its life, and planning towards its replacement is currently in progress. Once again, watch this space.

Nuclear power has further benefits for us as South Africans.

- For one it would enable us to deal effectively with climate change, as nuclear power is understood to be one of the key sources of energy for carbon dioxide release reduction.
- Secondly, it would add to the stability of our electricity grid, by deploying plants along our coast where coal and gas reserves are inadequate to deal with the growing electricity demand in those regions.
- Thirdly, the balance of energy mix in our system would reduce our reliance on coal improve energy security in general, allowing us to leverage better pricing when some resources prices shoot through the roof.

Let us also pay respect to the challenges of nuclear power such as nuclear waste. We have to ensure that we prevent this from becoming a burden for generations to come by using the **Polluter Pays Principle** to charge the users of today for the envisaged long term cost of dealing with this waste.

International best practices on dealing with this waste will be used as some countries such as the United States and France produce over 100 times the volumes of waste that we do, and learning from them would help us deploy the much talked about solutions quicker.

I also want this and many other such Visitors Centres to deal with the largely negative emotional stigma attached to nuclear energy. This has been mostly inherited from activities of generations past and some who still continue to use this valuable energy source as a bargaining tool with innocent people's lives and the future of humankind.

We must embrace the words:

*"**Atoms For Peace**" as famously used in a* speech by former US President Dwight Eisenhower at the UN General Assembly in December 1953.

That historic moment led to the establishment of the International Atomic Energy Agency, and ultimately the goal of peaceful use of nuclear energy as we see in the world today. We are proudly the first and only country to have developed and **voluntarily given up our nuclear weapons**.

That brings me to another point on why this ground we stand on is famous internationally. The **Pelindaba Treaty**, officially known as

the African Nuclear-Weapon-Free Zone treaty, whose final text was adopted here June 1995. South Africa was then confirmed as the host of the African Commission on Nuclear Energy at the first conference of the state parties in November last year. It would therefore be fitting for Necsa to host the Secretariat of this critical organisation.

Rob, I hope you have or plan to exhibit on this treaty as well as the full text displayed in this centre - bright and clear for all to read!

I have visited Science Parks in other countries such as South Korea and I am happy to say that this Visitors' Centre is on par with the best. However, I hope that this is just the beginning, and that such centres will mushroom to other communities around every single nuclear installation in our country.

Once again, my congratulations to the Necsa team on the establishment of this Visitors Centre.

I THANK YOU.