



**Key Note Address by the Minister of Energy, Ms Dipuo Peters,  
on the Occasion of the High Level Segment of the  
International Youth Nuclear Congress (IYNC)  
Cape Town, 13 July 2010**

Mayor of the City of Cape Town, Mayor Plato  
Director-General of Science and Technology, Dr Phil Mjwara  
CEO of Necsa, Dr Rob Adam  
CEO of the National Nuclear Regulator, Adv Boyce Mkhize  
Chairperson of the National Youth Development Agency, Mr Andile Lungisa  
Areva – Dr Yves Guenon  
University of Pittsburg – Prof Larry Foulke  
Deputy Director: Idaho National Laboratory – Dr Kathryn McCarthy  
Members of the International Youth Nuclear Congress,  
Members of the South African Young Nuclear Professionals,  
Honourable Guests,  
Ladies and Gentlemen,

It gives me great pleasure today to address this congress, which marks the first International Youth Nuclear Congress on African soil.

This is a historic event, and it happens just after yet another historic event, the 2010 FIFA World Cup, the first in Africa. I would like to take this opportunity to congratulate the 2010 FIFA World Cup winners – Spain.

This congress comes a month after South Africa celebrated the Youth Month in June. The celebration of the Youth Month and June 16 is recognition of the role and contribution of the young people of South Africa, some as young as 14 years, to the general struggle for freedom in our country.

This group of the youth paved a way for the education for the youth today.

So you have a lot of opportunities to contribute to the growth of your country. Government has a duty and remains committed to the development of the youth and any initiatives that the young people undertake which contribute to the social, economic and technological growth of South Africa.

The Government and the relevant nuclear stakeholders pledged at the official launch of SAYNPS in 2006 to support the activities of the society and have since supported the growth of this society. I would like to congratulate the South African Young Nuclear Professional Society (SAYNPS) for taking the initiative to bid to host this conference and the IYNC members who trusted the South African Youth with the hosting of the 2010 IYNC.

Your efforts as a collective have borne fruit and hence our presence here today.

The hosting of this Congress:

- will expose the South African nuclear industry to the activities of the IYNC;

- will expose scientists and engineers from the rest of the African continent to the IYNC activities,
- will provide an opportunity for African Young generation professionals to participate in great numbers, and;
- will also enable the young scientists and engineers from Africa to network with other young scientist and engineers from across the globe.

Youth participation in this industry is very important as the long term sustainability of nuclear energy and its applications relies on the youth.

The conference comes at a very essential time for the South African nuclear industry and the global nuclear society. Climate change has put nuclear energy back on the agenda. The urgent need to reduce carbon emissions has led researchers and policy makers to increasingly focus their attention on the potential role of nuclear energy low carbon emissions worldwide and at the same time ensuring security of supply.

Nuclear energy, as part of a balanced energy mix, is seen as a solution to energy of supply and to climate change challenges faced by the world. A lot of countries have showed renewed interest in nuclear energy. Others are considering expansion of existing programmes while others are new nuclear countries.

In 2009 the government of Sweden announced the decision abolish the law banning the construction of new nuclear power plants, a decision that was approved by the Swedish parliament in

June of this year. Prior to that, in 2008, the government of the United Kingdom affirmed the centrality of nuclear energy to the response to energy security and climate change mitigation. Finland has launched work on multiple new reactors that are due to go online within the next decade.

Construction continues in China, South Korea, France and Japan. Preparations are underway in countries such as United Arab Emirates and the United States to enable construction of nuclear power plants. On the African continent we have seen announcements of intentions to build nuclear power plants from countries such as Namibia, Nigeria, Algeria, Egypt and South Africa.

Ladies and Gentlemen,

As many of you are aware, in 2008 the government of South Africa approved the Nuclear Energy Policy.

Currently there is a process underway to ensure proper implementation of this policy in order to realise all the objectives of the policy from energy security to localisation and job creation. This policy calls for the expansion of the nuclear Energy programme in South Africa and for South Africa to be globally competitive in the use of innovative nuclear energy systems to ensure the security of supply as well as playing a role in mitigating climate change by reducing greenhouse gases.

It is my view that there can never be a successful nuclear expansion programme without simultaneously addressing public

perceptions and concerns and that is where international and national organizations such as the IYNC and South African Young Nuclear Professionals Society could play a major role.

Resistance to nuclear energy has been part and parcel of this industry. We all know that the lack of information and knowledge is a primary source of fear in any setting and the nuclear sector is not exempt from this. This is why it essential that there is active participation of the youth around the world in the demystification of nuclear energy applications, be they power generation, medical, agricultural or industrial.

We will have to do more to illustrate these through our communication and ask you as the youth to assist us in this regard. Since May 2009 when I entrusted with the responsibility for energy matters in South Africa, I have been exposed to various facets of the nuclear sector and I have found that at the heart of a successful peaceful nuclear programme is public education and participation.

Countries that have big nuclear programmes have a high percentage of citizens who understand what nuclear energy is, the risks and benefits associated with it and therefore support such programmes.

This congress, and many more like it are the very key to nuclear success, simply because communication on nuclear is a requirement, not a luxury.

One of the important aspects of a nuclear expansion programme is skills development and skills transfer. The fact that the nuclear industry in South Africa is relatively small, therefore it is important that we ensure that we retain the talent that we have in this industry at the moment and we continue to attract, develop and deploy young talent to this industry. The young professionals together with the employers must ensure that there are formalised programmes within organisations to ensure skills development and transfer.

This applies to all of you, no matter your country of origin. Meetings such as these are important for the youth to exchange individual and national experiences and challenges and how the challenges can be overcome. All the countries represented here today have different experiences with their nuclear programmes and can share with one another.

The youth should use the training opportunities that are available to them from different sources. In addition to national programmes there are other avenues such as the IAEA's Technical Cooperation Programme.

South Africa has been actively participating as a training provider but also as a training recipient in the Technical Cooperation Programme and the African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology. These programmes contribute to the development of nuclear skills in this country and other African States.

There are a lot of training programs provided by the IAEA to all the Member States.

The training ranges from Post-graduate Educational course aimed at young professionals at graduate level to fellowships for young women pursuing an advanced degree or who have recently graduated to gain practical international work experience.

There can be all these opportunities available but if there is no drive and passion to excel by the youth then the sector will not grow but decline as the current experts retire and pass-on.

- Regional bodies of nuclear regulators and operators such as the: Forum of Nuclear Regulatory Bodies in Africa,
- the Asian Nuclear Safety Network,
- the Ibero-American Network,
- Arab Network of Nuclear Regulators,
- World Association of Nuclear Operators,
- European Atomic Forum etc.

have been established to provide platforms for enhanced regional cooperation, exchange of information, expertise and experience.

The participation of young people in such forums must be enabled and encouraged by those responsible.

As the ANC led Government, we are engaged in a process led by an Inter Ministerial Committee on Energy which was formed to focusing on the development of the Integrated Resource Plan. This is a plan that will guide the building of new electricity generation facilities.

The IRP public participation has commenced and I hope that SAYNPS members have participated in this process. Your inputs and views of the IRP are very important.

I believe I am talking with the new generation of decision makers, regulators, operators, scientists and engineers. The importance of your involvement in this expanding nuclear program cannot be overemphasised.

The development of the Nuclear Energy Implementation Strategy feeds into the Integrated Resource Plan to ensure that the nuclear build programme required is realistic and achievable.

In this strategy, we are looking at key issues on how Government can support and develop the necessary infrastructure required for new build, such as

- Skills development
- Legislation and Regulation
- Industrialisation and Localisation
- Fuel cycle security
- Procurement

At the same time, we are taking into account key lessons learnt from others, and plan for mitigating these risks to ensure success.

At Necsa we have also been doing feasibility studies into front end of the nuclear fuel cycle to ensure security of fuel supply for nuclear new build. In addition, having a locally produced fuel (i.e. from mining to fuel fabrication) will ensure beneficiation of our high natural uranium resources, and would contribute positively to our national balance of payments.

These studies are nearing completion and also feed into the overall nuclear energy policy implementation strategy.

I understand that there are many concerns regarding nuclear construction, cost, and scheduling internationally. The truth is that some nuclear projects are actually completed ahead of schedule, implying that there are lessons to be learnt for us to embark on a successful nuclear build programme.

We also have to accept and understand that building an industry after almost thirty years of dormancy worldwide is going to present challenges. But, once we have surpassed these by commissioning the first reactor, the balance should flow rather seamlessly, as illustrated by many countries.

Our recent success in the international radio-isotope market, where we are currently the world leaders in supply of Molybdenum-99, is a clear indication that we can play amongst the world's best in the nuclear industry. As a result of a world-wide shortage of medical isotopes, NTP Radioisotopes, a subsidiary of NECSA, has managed to increase group sales by over 80% year

on year, and unaudited finances currently show net sales of over R700m for the 2009/10 financial year.

All this thanks to the continued operation of our SAFARI-1 research reactor that has stood the test of time against counterparts internationally which have shut down or been offline due to maintenance.

This brings me to another point.

Our SAFARI-1 research reactor will soon reach the end of its operational life, and we need to plan for its replacement.

In order to do that, we must start today, as it takes around 10 years before we could have another fully operational research reactor from the time a decision is taken.

As you can see, all of these nuclear plans are long term. It is you, the youth who will either be unprepared to continue these plans, or fully equipped to improve and extend them beyond our expectations. That is why your participation is vital for success. I refer not only the youth in South Africa, but to all of you.

As we are approaching women's month in August, South Africans must not forget about the role of women in ensuring that we have the opportunities we enjoy today. These women fought for the rights of women to play a role in transforming our society and to generate sustained economic growth.

I would thus like to say to the young women, the way has been paved for you.

There is nothing that says women cannot make their mark on the nuclear sector. Carpe diem, seize the moment.

I am told that the IYNC is celebrating its 10 year anniversary this year since the first congress in 2000. IYNC has since then grown and continued to work towards achieving its goals and objectives.

I would like to congratulate the IYNC in this great achievement. I also urge you to continue doing the good work that is necessary to ensure that the nuclear sector is sustainable and relevant i.e. career development of your members, public education programmes and the tutoring and mentoring of learners and students.

It is a good thing that the IYNC conferences take place bi-annually, in that way we can get less than two years to work on our challenges and come back and measure our progress. And also to exchange the new innovative ideas to ensure that nuclear energy contributes to the sustainable development of our countries.

I would like to once again say congratulations to the organising committee for coming this far and to extend best wishes for the conference. I hope that the representatives of the different countries will learn a lot from each other and that yet again the objectives this conference will be met.

Please remember that developments in the nuclear sector require the active participation of the youth as you are the future decision makers.

I would like to thank the Department of Science and Technology and the Department of Higher Education as well as the other stakeholders in the nuclear sector, for your continued support of the activities of the youth in the nuclear sector.

Lastly I want to wish you all the best for the rest of your program.

May you have fruitful discussions.

I THANK YOU.