

Nuclear power will help lower emissions, diversify energy mix

South Africa intends to introduce nuclear power that will help to lower carbon emissions, Energy Minister Dipuo Peters said on Tuesday, adding that it would be done safely.



(Image: GCIS)

"If we are serious about diversification towards a low carbon economy, we cannot belittle the role that natural gas and nuclear power can play in the realisation of that 2030 low carbon energy vision," said Peters, speaking at the Africa Energy Indaba on Tuesday.

South Africa was in the process of finalising the Integrated Resources Plan 2010 to 2030 when the Fukushima nuclear accident occurred. The IRP envisages 9,600 MW additional nuclear capacity by 2030.

The IRP is a 20-year projection on electricity supply and demand. The plan is to be reviewed soon.

Following the accident, South Africa, through the National Nuclear Regulator (NNR), needed to find assurance in terms of safety of existing installations and safety re-assessments of Safari 1 research reactor and Koeberg nuclear power station were done.

In June, the NNR announced that the country's nuclear installations could withstand natural events.

"The safety of nuclear facilities is of paramount importance to the safety of workers, the environment and residents. Since the accident all nuclear installations safety assessment will be closely monitored by regulators," explained the minister.

South Africa is a member of the International Atomic Energy Agency (IAEA) and had signed up for stress tests to ascertain whether its reactors were vulnerable to natural causes like tsunamis. As a member of the agency, the country had several milestones it must meet.

Last week, the agency ended their peer review mission to South Africa. The agency had never before visited a country with an existing nuclear program.

"We need to ensure that energy security is pursued as a catalyst for economic growth and prosperity throughout the continent," said Peters.

Under the Renewable Energy Independent Power Producers (REIPP) procurement programme the department is about to enter window 3 having already selected bidders for a total of 2,614 MW to be added to the country's power grid by 2016.

South Africa wants to procure 3,625 MW of renewable energy through this process.

According to the IRP 2010, about 42% of electricity generated in South Africa is required to come from renewable resources.

To date, the department has installed 335,000 solar water systems out of a target of 1 million by the end of 2014.

The minister spoke to the need of having young people on the continent be equipped with knowledge and skills in the energy sector and in areas of engineering and science.

"Partners in the private sector should collaborate with government in finding solutions to address the brain drain," she said.

Peters also made reference to stoppages at Eskom's Medupi plant in Limpopo. The challenges, she said, were due to not having the requisite skills and having to import labour in a sea of unemployment and poverty.

Interruptions at the construction site of Medupi have serious implications for energy supply security, she said.

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