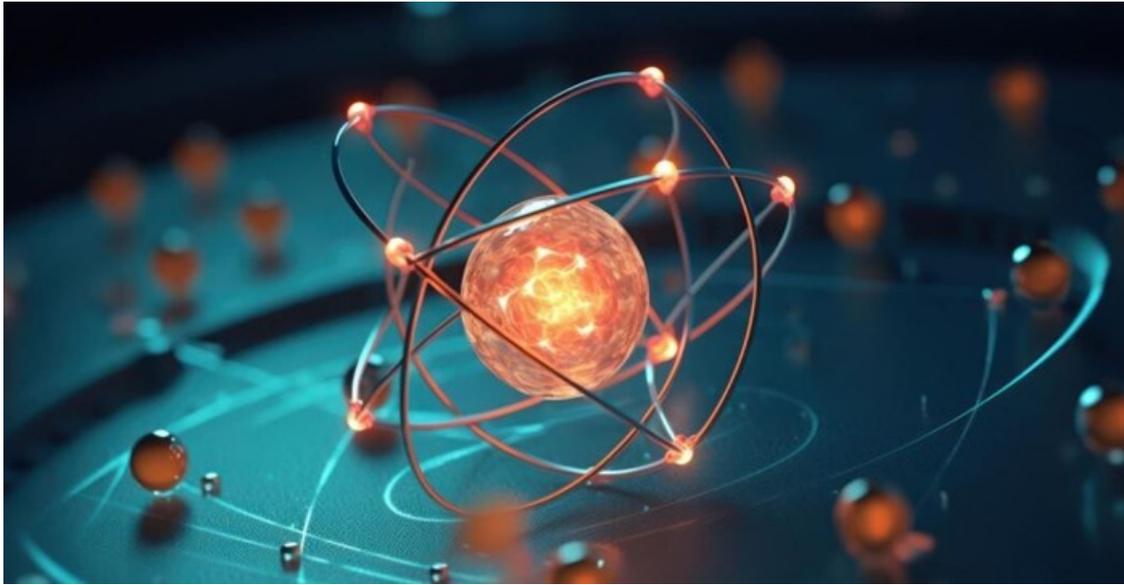


Tackling the toughest questions around nuclear power in SA

 By [Katja Hamilton](#)

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Minister of mineral resources and energy Gwede Mantashe addressed delegates at the Enlit Africa 2023 conference in a keynote speech delivered at the Cape Town International Convention Centre on 17 May.



Source: Freepik.

Mantashe's speech ran parallel with his tabling on 16 May of the Department of Mineral Resources Budget Vote for the 2023/2024 financial year. With this in mind, R8.5bn of R10.7bn has been earmarked for transfers to public entities and municipalities.

In his CTICC address, Mantashe asserted the government's commitment to delivering South Africans universal access to energy sources, which he said includes the procurement of nuclear energy.

To this end, he said two new bills are currently being proposed to be revised and tabled in parliament: the revision of the Electricity Regulation Act and the Integrated Resource Plan (IRP) 2019, both of which will change the landscape of independent power procurement in South Africa.

Given its passing into law, the Electricity Regulation Amendment Bill will clear the path for private-generation projects and

power trading.

"Amendments to the Integrated Resource Plan (IRP) 2019 will outline the just energy transition (JET) issue in detail," Mantashe said. He explained that the general public's current understanding of IRP 2019, as it stands, is that SA's energy sector is moving away from procuring coal-powered energy to renewables.

"The distinction [with the proposed amended IRP 2019] is that SA's energy sector is set to move away from high-carbon emission [power sources] to low-carbon emissions... and we're also talking about nuclear.

'Nuclear is clean energy'

"Nuclear is clean energy, but many South Africans say it is dangerous. In 2024, we will have been running Koeberg [nuclear power station] for 40 years, and in those years we never had a disaster. It is a safe, reliable energy generator; it is very efficient at generating energy and is not costly [when it comes to] decommissioning."



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When the delegates attending Mantashe's keynote address were invited to ask the minister questions, Mantashe remained mute on the subjects of what nuclear power stations are being planned in South Africa and which companies will be funding them. This despite the procurement process for a 2,500MW nuclear new-build programme [due to be completed](#) by 2024, the same year in which the Koeberg nuclear power plant's license ends.

Mantashe did not mention Rosatom Central and Southern Africa's [proposal that SA make use of](#) a fleet of floating small nuclear reactors, which would be commercially available within the next six years or so. Floating nuclear reactors can [provide](#) countries with baseload electricity at a stable price.

When asked to elaborate on Russia's investment in SA's energy sector, Mantashe said: "We want capacity to develop gas and we want government to look at it, and whether the companies [that will be supplying it] are sanctioned or not. We're not focusing in particular on Russian capabilities."

This sentiment is in stark contrast to the sentiment expressed at this week's Brics Academic Forum hosted in Cape Town. Here, Russia's trade partnership with South Africa was highlighted. Vladimir Shubin, principal research fellow of the Institute for African Studies of the Russian Academy of Sciences, called attention in his keynote speech to Russia's investment of \$148m in South Africa's energy sector in 2020.

Nuclear-power procurement

In 2021, Rosatom, said it remains an "interested vendor" as South Africa [restarts](#) its nuclear-power procurement programme.

Rosatom is a state-owned enterprise located in Russia. Its history with SA runs deep.

It had [plans](#) to build nuclear power plants in South Africa six years ago, when a court ruling thwarted its objectives. Leading up to this, grassroots activists [Makoma Lekalakala and Liz McDaid](#) built a broad coalition to stop the South African government's secret nuclear deal with Russia.

On 26 April 2017, the High Court ruled that the \$76bn nuclear power project was unconstitutional - a landmark ruling that protected South Africa from an unprecedented expansion of the nuclear industry and production of radioactive waste.

“ Learn how Makoma Lekalakala, 2018 [#GoldmanPrize](#) winner and director of [@Earthlife_JHB](#), is working for a clean energy future in South Africa and ensuring no one is left behind. [#PrizeWinnersToday](#)

Read more: <https://t.co/x765RsUhdd> [pic.twitter.com/oSSa4RsayP](https://t.co/oSSa4RsayP)— Goldman Prize (@goldmanprize) [October 6, 2022](#) ”

Addressing energy poverty

Mantashe said South Africans need to distinguish energy poverty from energy cleanliness, "and while we must never separate the two, it's important to address both", he said.

"When we talk about unity in South Africa today, everybody, including myself, will complain of load shedding and expect that everything must be resolved quickly. But there's something we never acknowledge, and that is the fact that in 1994 only 34% of South Africans had access to electricity. Today, over 90% of South Africans have access to electricity and that is very close to universal access to electricity.

"In our programme, we aimed to connect 917,000 households to the grid. Today, 673,946 households are connected. The remainder of 243,054 will be connected in this financial year. Notably [though], the single-most challenge we face to address the energy crisis is the grid unavailability. For instance, 3,200MW wind capacity of the 4,200MW procured under Bid Window 6 could not be allocated due to grid unavailability.

"... our Independent Power Producers (IPP) Office [has noted that], grid availability is critical to securing electricity supply in the future. It impacts not only on the public-procurement programmes, but also on private embedded generation initiatives."

“ Imagine a world where the headline "so-and-so bets on nuclear in carbon-neutrality push" would be business as usual. Now this is a worthy global goal! <https://t.co/Fcp3GBd8MR>— Rosatom Global (@RosatomGlobal) [February 10, 2022](#) ”

"Nuclear sits at 40 cents a unit, and renewables at 47 cents a unit," Mantashe said. "Actually, as we stand here today, the lowest-cost energy in South Africa is from nuclear and nobody else can beat that."

Mantashe declared, "Notwithstanding the headwinds of domestic and global factors impacting the performance of the mining and energy industries, I remain steadfast in setting objectives that our department should meet to realise this government's developmental agenda."

In a [media statement](#) last month, Ryan Collyer of Rosatom Central and Southern Africa said 75% of the country's coal fleet is due to be decommissioned by 2050.

"South Africa needs to plan for nuclear now.....sub-Saharan Africa remains a "priority" area and is "actively working" with several African countries "to assist them in reaching their nuclear ambitions".

ABOUT KATJA HAMILTON

Katja is the Finance, Property and Healthcare Editor at Bizcommunity.

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