

# Questions mount over South Africa's planned nuclear power deal

By [Hartmut Winkler](#)

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Nuclear energy in South Africa is a very contentious issue. The decision on whether to proceed with the construction of a fleet of nuclear power plants is destined to become the financially most far reaching and consequential defining moment of the Jacob Zuma presidency.



Image source: Eskom

There is widespread public mistrust of the nuclear expansion process. Its roots lie in the extraordinary announcement in 2014 that the Russian nuclear agency Rosatom had secured the [rights](#) to build the new South African nuclear plants. The South African government played down the announcement, claiming that it was [inaccurate](#).

But this precipitated a series of [media investigations](#). These uncovered evidence that individuals close to the president and groups linked to the ruling ANC have significant financial interests in the matter.

Civil society organisations are taking government to [court](#) in an attempt to have the deal declared illegal. Their attempts to have details of the Russian agreement released are being resisted. This is likely to strengthen their case, and sway public opinion further.

It appears that those with a stake in the nuclear build are hoping to fast-track the process in the face of growing public opposition. This is evident from revelations that, bizarrely, contracts are being awarded, even though a formal process has not been set in motion by government.

The most recent revelation was that a member of a business family with close links to President Jacob Zuma has been awarded a massive R171 million [tender](#) for a nuclear build programme management system.

The meaning of this is unclear. It has largely confirmed the fears that the nuclear build is being driven for the benefit of the politically connected rather than the national good.

## Burning questions

The debate surrounding the nuclear project centres on three highly contested questions:

- Is the country's future energy generating potential and demand such that an expensive nuclear power station build is effectively unavoidable?
- Can South Africa afford the associated costs and debt, especially in view of massive funding demands in other sectors such as [education](#)?
- If approved, would the nuclear build lead to massive overspends, corruption and beneficiation of [politically connected individuals](#)?

The development of new nuclear power plants with a generating capacity of 9600 MW was initially presented in the Department of Energy 2010-2030 [Integrated Resource Plan](#) for electricity. According to this road map, nuclear would amount to 13% of South Africa's 2030 generating capacity. This is compared to 46% coal, 11% solar and 10% wind.

But this plan is considered [outdated](#), with many making a strong case that improvements in [renewable energy technologies](#) and lower [future energy demand](#) at the very least allow for the nuclear build to be postponed.

Furthermore, given the widely acclaimed early successes of the [Renewable Energy Independent Power Producer Procurement Programme](#), it is difficult to understand why the renewable fraction is not being increased further, and why the national power utility Eskom, under the leadership of Brian Molefe, a [nuclear disciple](#), now [opposes](#) new renewable energy developments.

The promotion of nuclear energy at the expense of renewables bucks global trends. An industrial nation like [Germany](#) is phasing out nuclear power, and has a much higher renewable energy investment than sunny, windy South Africa. [Chinese](#) renewables expansion currently exceeds nuclear development by far.

The nuclear option is expensive. The most realistic cost estimates range from [R650 billion](#) – advanced by nuclear build proponents – to [R 1.2 trillion](#), as determined by the civic watchdog group [OUTA](#). The reported announcement by the CEO of the Nuclear Energy Corporation of South Africa that the nuclear build would merely cost the country [R 1 billion](#) is not considered to be serious.

Opponents of the deal point out that no persuasive cost-benefit analysis has been done. It is furthermore worrying that many recent nuclear construction projects elsewhere in the world have run into huge [cost overruns](#) and delays.

## The ANC's internal nuclear war

The often obscure processes and overhasty developments require an insight into the present machinations within the governing party.

Tensions within the ruling party have escalated to the point where calls for the president's resignation are now [made openly](#). And even [party leaders](#) acknowledge that factions in their ranks are thriving on corruption.

The organisational fracture is equally evident in attitudes towards the nuclear build. Tensions over the issue have been cited as the major reason for Zuma's [dismissal](#) of the financially prudent former Finance Minister Nhlanhla Nene in December 2015.

## The official position

Earlier this year Zuma announced that the nuclear build would proceed [on a scale and pace the country can afford](#). This position has been reiterated in recent weeks by both [Deputy President Cyril Ramaphosa](#) and Energy Minister Tina Joemat-Petterson. But it is not clear what this means in practice, given that scale and pace can be defined in many different ways.

The official process envisages a request for proposals to be issued on 30 September. This was set out in a Ministry of Energy [press release](#) issued on 26 December 2015. It states that:

*“ Any decision to proceed further with a Nuclear NewBuild Programme will therefore only take place after the RFP (request for proposals) process has been completed and a final funding model has been developed, and then referred back to Cabinet for consideration and approval. ”*

The request for proposals invites nuclear plant constructors to issue concrete building and (hopefully) associated costing plans.

If this process is handled in a transparent way the public will be able to scrutinise the financial and other implications, including potential pitfalls. This would enable a far more meaningful analysis of the necessity and affordability of the nuclear build. In particular, the following needs to be clarified:

- The technical details of the proposed reactors. Are they optimal, tested and considered safe?
- Are there signs of associated developments amounting to wasteful expenditure? Alternatively, have critical additional aspects been considered like nuclear waste disposal and plant decommissioning, for example?
- How will cost overruns and delays be dealt with?
- What are the true costs and how will the development be funded? What are the long-term fiscal implications?

But no-one is certain that this ideal scenario [will play itself out](#) because the legitimacy of the procurement process has already been undermined.

Looking ahead, actual construction would need to be preceded by the closure of funding agreements, the settling of legal disputes and further public engagement. This takes time.

In the unlikely event that the nuclear build actually does come to fruition, it will not commence any time soon.

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