

# DAVID AND GOLIATH:

## Lessons from the South African Nuclear Court Case



It might read like a thriller, but the lessons to be learned from South Africa's extraordinary nuclear case story are both chilling and encouraging. It tells of a David and Goliath battle – between a state determined to ignore its own constitutional protections so that it could secure the country's biggest ever procurement; and civil society organisations equally determined to hold the state to its own constitutional guarantees. The underdogs won! But not before the saga had cost six Cabinet Ministers their jobs, and billions of taxpayers' money had been wasted. And it's not over. At the time of writing, the nuclear deal has once again lurched zombie-like from the grave – and once again, NPOs are returning to court to challenge it.

The history of the nuclear case reveals how, even with extensive provisions for public participation and legal instruments assuring access to information in place, civil society and senior state officials were unable to deter the Zuma administration from their headlong pursuit of this path. It was only once the High Court ordered that

their plan for nuclear power was unconstitutional and unlawful that the project was halted. Its traces linger in present-day government policy – and are resurfacing at the time of writing this.

Fortunately, litigation was launched in the nick of time. The Court's decision changed the course of South African economic history.

Practical deficiencies in the theoretical protections offered by our Constitution, particularly regarding access to information and access to justice, made it necessary to turn to litigation as a last resort. A particularly serious episode in the litany of corruption and state capture, the deal would have been devastating to South Africa's economy, future development and sovereignty if it had not been stopped by the Court.

The Court decided on the nuclear case at a time when South Africa was experiencing the aftermath of the arms deal, where obviously wasteful expenditure amounting to billions of rands could not be

The underdogs won.



stopped by civil society protests, and that efforts to ignore it or nor put right afterwards – at huge cost to a nation facing all the challenges of transformation after apartheid. Fortunately, in the nuclear case, litigation was launched in the nick of time. The Court's decision changed the course of South African economic history.

This epic narrative teaches some vital lessons to South Africa and the continent as a whole. It highlights the role and importance of South Africa's Constitution, which was specifically designed, among other things, to protect the country from profligate spending and unsustainable development projects. It shows, however, that the Constitution needs not just to be admired, but implemented,

and that efforts to ignore it or bypass it need to be challenged – especially when the state itself rides rough-shod over constitutional guarantees.

In addressing the nuclear deal, civil society tried in vain to participate in the decision-making procedures on a matter crucial to the country's future. In the end, there was no choice but to resort to the High Court. In recent attempts to revive the nuclear deal, it seems that the state has once again evaded public decision-making processes specifically provided for by the Constitution, even in the knowledge that these omissions led to the judgment against it in 2017.

In its 2017 judgment, the Court not only vindicated the concerns raised

by the two civil society organisations (Earthlife Africa and SAFCEI) that challenged the nuclear deal; it showed how environmental and economic issues are interconnected. The case shows that it is vital that we have both access to information and to justice in enabling public participation in decision-making – all of

which are indeed provided for in the Constitution, but which had to be enforced by the Court in this case.

The court highlighted what we already know -- new nuclear power procurement has not been established as a viable option through just and constitutional decision-making.

## Ten Reasons Nuclear Energy isn't an Option for Africa

Nuclear power is often touted as a “greener”, cleaner source of energy, especially when compared to coal-fired power stations, which generate significant air pollution and have a huge carbon footprint. There is no doubt that coal-fired plants are bad for the environment and people around them, but nuclear energy is not a suitable alternative or solution to our growing energy crisis. This is why:

- The costs are exorbitant, and are passed on for generations to future taxpayers.
- African economies are saddled with unmanageable debt as a result.
- International funding agreements compromise sovereignty and thus national security.
- The sector's history of secrecy enables corruption and gives political elites undue clout.
- Lack of transparency often violates constitutional guarantees and evades legal oversight.

- The short- and long-term environmental impacts are extensive: the cost of managing and storing lethal waste and decommissioning ageing plants will burden future governments and taxpayers.
- Nuclear energy is not technically appropriate for countries with small, unstable and constrained grids – in order to operate safely, nuclear power stations themselves rely on a stable supply of power. Loadshedding would render them white elephants.
- The pace of construction is slow, cannot be rushed (for safety reasons) and worldwide, often runs behind schedule. In best-case scenarios, it would be decades before nuclear power stations could come on-stream – and we need power now.
- Nuclear plants require enormous amounts of water to run safely; many African countries (starting with South Africa) are water-stressed, and at risk of acute shortages.
- Nuclear energy sidelines much cheaper, more immediate and sustainable options for generating power, including from renewable sources. These can be implemented within a few years or even months, with costs shrinking as technologies develop. They are also a rapidly growing sector for job creation.

The reasons nuclear energy is not a solution to the African continent's needs are clear, but to expand on some of them in the South African context:

### Exorbitant cost

Nuclear energy procurement is mind-bogglingly expensive. It involves long-term commitments and would need to be supported by (more) significant debt – to the extent that our children's children would be saddled with this enormous burden. Given the state of the South African economy,

already indebted beyond a level that Treasury officials regard manageable, a nuclear deal would come with far-reaching implications for the nation's fiscus, already staggering under the load of Eskom's debt for other large projects.

### **Threat to state sovereignty**

This would leave the state no choice but to rely heavily or solely on foreign funding – as laid out in the proposed funding options for the nuclear deal. This level of indebtedness to a foreign power would almost certainly impinge on national sovereignty.

### **Secrecy, corruption and political sway**

The problems of unmanageable debt and the threat to sovereignty, already tangled, become even more of a knot when we look at the shroud of secrecy that so often characterises any aspect of nuclear governance, including procurement.

It is all too easy for the state to evade accountability on nuclear plans: the hazardous nature of nuclear energy generation, and historic ties to the military and nuclear weapons are used to justify denying public access to information, along with claims of commercial confidentiality. So information is withheld on cost effectiveness and feasibility; and access to independent reviews, international input, and safety studies is denied.

This same secrecy creates an environment conducive to corruption and undue influence on political elites. It is significant that the Zondo Commission of Inquiry into State Capture focused on the attempt by the Zuma regime to push through the procurement of Russian nuclear energy. Historical support from Russia, then part of the USSR, for the anti-apartheid struggle meant that Putin's regime appeared to be a preferred source.

This shows how the lack of transparency in decision-making about nuclear power gives it an advantage in policy choices. Political agendas, information that influences administrative decision-making, and administrative decisions are hidden from scrutiny. If ever revealed, the process of procurement is potentially too far evolved to be stopped politically or even legally, as happened with South Africa's arms deal. So secrecy can have a

dire impact on political accountability and rationality, as well as our constitutional rights to just administrative action.

Access to information and just administrative action are fundamental rights enshrined in the Constitution. Public participation is provided for in environmental law and legislation governing energy planning and procurement, as well as several other statutes. But challenging a refusal of access to information is time-consuming and costly. The government invariably claims that information about nuclear energy procurement sought through the Promotion to Access of Information Act (PAIA) is commercially confidential, and withholding it is justified in terms of this Act: one more way that secrecy tramples the public's right to know.

### **Environmental impact**

The environmental impacts of nuclear energy are extensive: from the generation of radioactive air and water emissions to the production of high-level waste, which requires completely safe storage and management. Ageing plants need to be maintained and eventually decommissioned (once again, at vast long-term cost). Threats to the environment and public safety are likely to become even more challenging if economic constraints lead to cost-cutting in the future.

### **Safety concerns**

Any nuclear power station itself requires a uninterrupted, stable supply of electricity. Shut-downs compromise the safety and operational function of these stations, which become huge white elephants during power outages. It is technically difficult, time-consuming, costly and sometimes downright dangerous to bring them back onstream after power interruptions. They are not suitable energy sources for small and unreliable national grids.

### **Suppression of sustainable options**

A government determined to pursue nuclear options might not give consideration to far less expensive, safer, more immediate and renewable options ideally suited to local climate conditions (such as sunshine hours per day). Such projects can also offer employment and stimulate the economy.

## But How Did We Get Here? The Chain of Events

South Africa has always had a rather murky history regarding nuclear issues, both during and after apartheid. The apartheid regime followed a secret nuclear weapon research and development programme, which was cancelled in 1989.

Koeberg, currently the only nuclear power plant on the African continent, was constructed by a French company between 1978 and 1985. It's worth noting that by 1997, although nuclear energy from the plant comprised only about 3% of the national primary energy supply, and about 5% of the country's electricity, the nuclear industry was receiving a major portion of the Department of Minerals and Energy's budget.

Although the White Paper on Energy Policy of 1998 was cautious about committing to more nuclear energy, asserting that there was sufficient generation capacity, and that other energy sources were available, in the same year the government

embarked on an expensive Pebble Bed Modular Reactor (PBMR) nuclear project. This proposed a high-temperature gas-cooled reactor (HTGC), despite numerous failed attempts to develop this technology for commercial power generation elsewhere in the world during the previous fifty years. Already resorting to the veil of secrecy that would characterise the government stance on nuclear energy, Eskom claimed that its studies – never made public – “showed considerable technical and commercial merit for the PBMR technology as a future source of base load energy in South Africa”. The state utility initially claimed that PBMRs would be available to order commercially by 2004, and that it would export more than a thousand units over the following two decades. However, a detailed feasibility study in 2002 put the estimate at ten units per year.

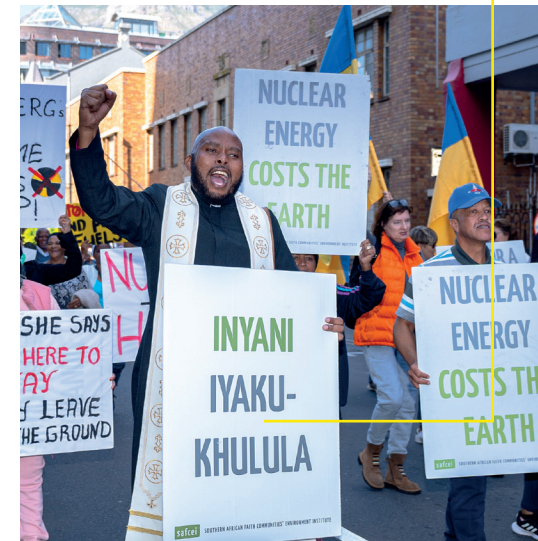
In 2002, the U.S. Nuclear Regulatory Commission raised concerns about the safety of PBMR technology, including the tendency of pebbles

to overheat. Regardless, Eskom obtained an environmental authorisation in 2003 for the construction, commissioning, operation, maintenance and decommissioning of a demonstration model PBMR, to test its techno-economic viability, after a lengthy environmental impact assessment (EIA) process. During this process, Eskom refused to disclose key reports about feasibility and safety of the reactor, and public participation was restricted, with no means to make submissions directly to the decision-maker. By 2004, with costs escalating and delays commonplace, the PBMR's four investors – BNFL, Exelon, Westinghouse and IDC – withdrew, leaving Eskom the only source of funding. The government allocated significant funding to the project at the end of 2004, despite its declining commercial prospects.

This environmental authorisation was successfully challenged in 2005 by the environmental NGO Earthlife Africa at the Western Cape High Court. The court ruled that it was unfair and unlawful for the public to have been denied an opportunity to comment to the decision-maker on

new documents added to the EIA after the initial comment period. The ruling was not appealed by the state.

With cost and time estimates escalating out of control and with no financing partners, by 2007, the PBMR project was in its death throes. The first commercial orders were not expected to be possible before 2030, and no customers existed. When the project was finally terminated for legal and cost reasons in March 2010, the total wasted investment was R9.214 billion; it was estimated that a further R30 billion would have been required to bring the project to commercial status.



## The (Very Expensive) Lessons Learned from the PBMR Debacle:

- Constitutional rights can only be ensured by strong institutions of accountability and access to information.
- Key institutions, notably the National Nuclear Regulator (NNR), failed to prevent fruitless and wasteful expenditure and promote safety; it would appear they cannot be guaranteed to act as watchdogs.
- Secrecy enabled a narrative of economic optimism that was not based on verifiable facts – one result was a massive waste of public funds in an already struggling economy.
- Opportunities were lost to invest in lower risk, cheaper and reliable options such as energy-efficient renewables.
- These lessons must be driven home, especially given that the demise of the project was greeted by even more extravagant and weakly justified plans for nuclear power.

Back to the drawing board. One result was the development and circulation of a Nuclear Energy Policy in 2007 and 2008. Public participation and comment took place, with the consensus by independent experts that the policy was vague, ill-conceived, and hopelessly unrealistic and over-optimistic. It nevertheless played a role in shaping the National Energy Act, passed in 2008.

In March 2011, the Minister of Energy gazetted the Integrated Resource Plan for Electricity 2010–2030 (IRP 2010). Although the IRP 2010 said South Africa could meet its future electricity capacity requirements without additional nuclear power, it added that this would “increase risk to security of supply”, and for that reason a fleet of nuclear reactors was the DoE’s policy choice. The IRP was “policy

adjusted” to ensure that nuclear would supply 9,600MW of electricity, and to push for the country’s electricity mix to be 23% nuclear.

The public commented extensively on the draft IRP document. However, these submissions were ignored. There was no socio-economic impact study, the cost of nuclear power was grossly underestimated, and the cost of decommissioning and managing spent nuclear fuel waste was not taken into account.

The policy-adjusted IRP was adopted by Cabinet in 2011 and used to justify the planned procurement of a fleet of nuclear reactors. This while independent economic studies on energy, including renewables, were ignored. The Zuma government energy resource policy processes were routinely adjusted to suit a pro-nuclear agenda.

Civil society organisations made submissions in 2012 to the medium-term budget process, arguing that a feasibility study would be necessary before large sums of money could be spent on nuclear procurement. Meanwhile, sustainable energy opportunities were being lost,

immense costs were being incurred, and the country’s energy crisis was worsening.

In September 2014, South Africans woke up to the news that the government had entered into an Intergovernmental Agreement with Russia (the Russian IGA) that laid the foundation for the procurement of a fleet of nuclear reactors – up to five nuclear power plants. When public protests ensued, the DoE and Nuclear Energy Corporation of South Africa (NECSA) “clarified” that the agreement was not a procurement deal, but a country-to-country framework agreement, and that there were similar agreements in place with other countries.

Taxpayers, who would have to foot the trillion-rand bill, were only able to view an unofficial version of the agreement leaked to the press. A PAIA request to access the agreement failed, and the agreement was made public only two years later when quietly tabled in Parliament. The State Law Advisor had informed government that this far-reaching and binding international agreement with Russia

required approval in terms of Section 231(2), yet it was tabled under Section 231(3) – in which administrative agreements are tabled. This meant it could evade both public scrutiny and parliamentary approval. On being challenged, the DoE argued that a parliamentary approval process was unnecessary for a “co-operative agreement”.

A series of press statements suggested that the actual procurement process would start in the second quarter of 2015 and be completed by the end of 2015. Meanwhile, in 2014, the DoE hosted various nuclear vendor parades with Russia, China, USA, Canada and Japan. Alarmed at these developments, Earthlife Africa and SAFCEI wrote to the Minister of Energy in early 2015 through Adrian Pole Attorneys, expressing concerns relating to the Russian IGA and the nuclear procurement process; no reassurances of substance were forthcoming. In June 2015, Earthlife Africa and SAFCEI asked for information about whether there was a Section 34 determination (the legislation that allows for the Minister of Mineral Resources and

Energy, along with the National Energy Regulator of South Africa to “determine” a need for expanded electricity capacity), but received no response.

The plaintiffs argued that “the decision to proceed with procuring these nuclear power plants (the so-called nuclear fleet), and to have concluded such procurement in the next few months, has occurred without any of the necessary statutory and constitutional decisions having been lawfully taken.”

Also in 2015, Finance Minister Nhlanhla Nene refused to sign a document he suspected would amount to a Treasury guarantee for the Russia-South Africa nuclear deal, because Treasury had no information on the financial implications of the project. Treasury assessed the best- to worst-case scenarios for the nuclear programme and presented a technical report to Cabinet on the disastrous financial implications, which would significantly impact government debt.

Nene was removed from his position in December 2015.

In October 2015, Earthlife Africa and SAFCEI launched a case in the High Court challenging the Minister of Energy and Eskom’s unlawful and unconstitutional nuclear procurement. The plaintiffs argued that “the decision to proceed with procuring these nuclear power plants (the so-called nuclear fleet), and to have concluded such procurement in the next few months, has occurred without any of the necessary statutory and constitutional decisions having been lawfully taken.” The tabling in Parliament of three IGAs, including the Russian IGA, was challenged as unconstitutional, and the court was asked to declare as unlawful two Section 34 determinations and the DoE procurement process.

In response, the DoE relied on the 2010 IRP to justify its procurement, even though by 2015 this was already far out of date. Earthlife Africa and SAFCEI contended that the IRP was insufficient. They argued that before a nuclear procurement process for new power stations (new generation capacity) could

take place, the Minister of Energy and National Electricity Regulator of South Africa (NERSA) had to make a determination that such new capacity was needed. This had to be done through a procedurally fair public participation process, as provided for by Section 34 of the Electricity Regulation Act. The DoE had failed to clarify whether a Section 34 determination had ever been made. In fact, one had been made in 2013, but was only gazetted in 2015 as a result of the case being brought. Earthlife Africa and SAFCEI then amended their case and asked the Court to set aside the determination and any procurement pursuant thereto because it had not been made in a transparent and participatory way. The DoE and Eskom argued that the IRP 2010 was enough to justify their conduct.

The court case was set down for hearing on 13 December 2016. However, on the first day of the hearing, Eskom presented the court with a fresh Section 34 determination, which made Eskom rather than the DoE the procurer. The hearing had to be delayed to give the

plaintiffs an opportunity to respond, and they did so by challenging the lawfulness of both the 2013 and 2016 Section 34 determinations. The case was adjourned to February 2017, with judgment handed down in April 2017. The court ruled that both Section 34 determinations were unconstitutional and unlawful because of the lack of public participation, and were to be set aside. The judgment was not appealed.

Top DoE officials were not deterred. Determined to make the nuclear deal happen, they had presented unsubstantiated and wildly optimistic projections to Parliament in 2016. However, in 2017, Finance Minister Malusi Gigaba ignored glowing reports on nuclear energy by the DoE, and confirmed Treasury concerns that insufficient information was available to make informed decisions.

Nevertheless, Eskom announced in November 2017 that if a revised IRP showed that the nuclear programme could go ahead, it would begin the tender process immediately. This announcement came just as the Minister of Finance had stated that South Africa would not have

the money for a major nuclear build programme for at least the next five years, while other statements suggested that the Minister of Energy was fast-tracking the finalising of a revised IRP. Earthlife Africa and SAFCEI returned to court and sought an interdict to stop the procurement. Undertakings were then made by the Minister of Energy and Eskom that no further steps would be taken towards the procurement of new nuclear generation capacity without a lawful Section 34 determination.

**A much more immediate solution is a low-carbon, sustainable, fair, inclusive and affordable energy transition – to renewable energy.**

In 2019, a new IRP was published that provides for new nuclear power (2,500MW) “at a pace and scale the country can afford”. Eskom has indicated that to date, South Africa cannot afford new nuclear power plants. Yet, the state is once again pushing for a nuclear deal.



## The Need for a “Just Energy Transition”

Nuclear energy is not the answer to South Africa’s energy woes and cannot be a part of a just energy transition – a shift towards sustainable, renewable forms of energy that do not come at the expense of human well-being, health and safety. A much more immediate solution is a low-carbon, sustainable, fair, inclusive and affordable energy transition – to renewable energy.

These would include options that are cheap, that can be speedily implemented (from a few years to months only), involve sustainable technology, and are able to operate flexibly and independently while generating much-needed power.

They could be put in place without heavy reliance on stable energy grid infrastructure. Energy options that take advantage of local conditions and opportunities (including solar, wind, and hydro-electric projects) should be explored. None of these options are perfect, but in combination, they can offer a “buffet” of energy options. Even small amounts added to the national grid make a difference in preventing power blackouts.

Renewable energy resources also have the potential to create jobs while helping to protect the environment and preserve it for future generations.





## SOUTHERN AFRICAN FAITH COMMUNITIES' ENVIRONMENT INSTITUTE

SAFCEI (Southern African Faith Communities' Environment Institute) is a multi-faith environmental justice organisation committed to supporting faith leaders and their communities in Southern Africa to increase awareness, understanding and action on eco-justice, sustainable living and climate change.



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