

South Africa: Nuclear Power or Bust!

by David Cherry and Ramasimong Phillip Tsokolibane

July 2—A new nuclear power build is on the horizon in South Africa, the leading economy on the African continent, and the only one with an operating nuclear power plant. South Africa's Energy Minister kicked off the procurement process for an additional 2500 MW of nuclear power on June 14. It was a step of utmost importance and urgency for South Africa, and for Africa as a whole, since anti-nuclear and anti-industrial pressures from the dying British neocolonial empire are intense.

South Africa has the only industrialized, full-set economy on the African continent. More than half of all installed electrical capacity in Sub-Saharan Africa is in South Africa. And 95% of the electricity of that half is generated by the South African state monopoly, Eskom, which also sells electricity to South Africa's neighbors.

As a consequence of its industrial clout, South Africa's economic policy decisions are influential throughout the continent, and are therefore important for the entire world.

The LaRouche movement in South Africa, led by one of us, R.P. Tsokolibane, has for years waged a tireless campaign for the South African nuclear program as a key driver for the economic development, not only of South Africa, but of the African continent. The assets of the British empire who oppose it, include many in the current government who have insisted on the policies of the Green Agenda to block development and to force the genocide that accompanies a sharp reduction of energy consumption relative to population size.

The COVID-19 pandemic, which now threatens



The Energy Sector of NEHAWU (the National Education, Health and Allied Workers Union), and allied organizations, march for nuclear in Pretoria, South Africa, October 30, 2018.

mass death in South Africa, has exposed the desperate lack of energy resources needed to fight to preserve life. It may be that this, along with pressure from other African nations that are going nuclear, may have forced President Cyril Ramaphosa to yield to the pro-nuclear forces inside the ruling African National Congress (ANC), and elsewhere in South Africa, and in Africa at large.

This fight is by no means over. The British empire does not give up so easily. But an important corner has been turned toward a sane energy policy that is based on the most dense and reliable energy source.

In early May, Energy Minister Mantashe had informed Parliament that his department was working on a roadmap for this acquisition, and that the procurement process should be complete by 2024. Mantashe said all nuclear options were being explored, and that small modular reactors were definitely among the possibilities. On June 14, his department issued its request for information (RFI) to potential vendors.

Mantashe's appointment as Minister of Energy a



SA DMRE

Gwede Mantashe, South African Minister of Mineral Resources and Energy.

year earlier, in May 2019, marked a certain turn for the better in the Ramaphosa government. He replaced a minister who was interested only in windmills and solar panels, and who actively, and destructively, impeded the work of the government-owned South African Nuclear Energy Corporation.

An important precursor to Mantashe's appointment was a *march for nuclear power* on October 30, 2018, led by the energy sector of NEHAWU, the National Education, Health and Allied Workers' Union. The march was organized around the issue of a foundational government planning document that could lock nuclear energy out—or in. This Integrated Resource Plan (IRP) was undergoing its periodic revision under the supervision of Energy Minister Jeff “Windmill” Radebe.

When the draft IRP had been released for public comment, the unionized nuclear lab technicians, nuclear medicine production staff and others of NEHAWU had submitted their views. But in late October, with the comment period closed, they immediately organized the march across West Pretoria to the Department of Energy, where they *submitted* their demands. The march organizers also included Women in Nuclear/South Africa (WiNSA), the South African Young Nuclear Professionals Society (SAYNPS), and

the Nuclear Industry Association of South Africa (NIASA).

A WiNSA poster demanded,

No to privatization of electricity generation to foreigners! No to job losses! No to IRPs that exclude nuclear! No to killing of nuclear industry! Down with IPPs [independent power producers of mainly wind and solar]! Forward with nuclear medicine! Forward with job creation!

One of the NEHAWU posters read: “Fight Water Scarcity Problem: Include Nuclear Build!” a reference to cheap, nuclear-powered desalination of seawater.

Another: “Did You Know? The cheapest electricity is from Koeberg Nuclear Plant (R0.25/kWh)—Renewables average (R0.80/kWh).”

The event was small—about 200 demonstrators—but seminal. Other public events and television appearances by union people for nuclear have followed.

A Turn Toward Nuclear Power

Finally, six months later, in May 2019, President Ramaphosa sacked Radebe and appointed Mantashe. At that point, the Integrated Resource Plan had still not been finalized. Mantashe immediately began talking about the need for a new nuclear energy build.

Mantashe represents a tendency in the ruling ANC that does not want the state sector taken down, even while many of that tendency had accepted—or even sought—the removal of President Zuma. Mantashe represents those who see the threat to coal from the Green Agenda of the City of London and Wall Street, and wonder where South Africa's large-volume, non-intermittent (baseload) electricity will come from, if burning coal is forbidden. They can see that only nuclear will fill the bill in South Africa, even if they do not understand the absolute necessity for nuclear in any case—with or without abundant coal.

Mantashe added to the draft IRP a requirement for nuclear with a target of 2500 MW. The document also provided for extending the life of the existing Koeberg nuclear power plant. It recognized that coal would con-

tinue to provide 59% of Eskom’s energy generation. It provided for energy generation to supply neighboring countries. The draft was approved by the Cabinet in October 2019. (See box.)

Other African nations look to South Africa for leadership and cooperation in nuclear power and nuclear medicine. They are no doubt relieved that a new nuclear build is back on the South African agenda after a hiatus of more than two years.

President Jacob Zuma had had plans for a new build of 9600 MW, but the South African establishment—oriented toward the British financial empire—became more and more hysterical over his commitment to nuclear and to the BRICS association of Brazil, Russia, India, China and South Africa. The establishment’s multiple campaigns succeeded, with international help, in demonizing Zuma, shifting significant forces within the ANC against him, and eventually forcing him from office. His nuclear plans had been the issue much more than corruption.

Yet it is not enough to build new nuclear power plants. Many who appreciate the benefits of nuclear energy do not understand *the fundamental principle that requires a nuclear-driven economy*. It is this: If energy is not generated in sufficient volume and with sufficient efficiency, society’s needs cannot be met, and the population must shrink. When that unhappy condition of “undernourishment” prevails (literally and figuratively), humankind also becomes susceptible to diseases of all kinds. The bugs take over, as now with COVID-19, the preceding epidemics, and foreseeable future epidemics and pandemics unless something is done. In technical terms, energy-flux density has fallen below the existing level of potential relative population-density.¹

1. For the decline of energy-flux density in relation to relative potential population-density, see the Schiller Institute [analysis](#) and plan, *La-Rouche’s ‘Apollo Mission’ to Defeat the Global Pandemic: Build a World Health System Now!*

Mantashe: We Must Build on Coal and Nuclear

South African Energy Minister Gwede Mantashe insists that nuclear and coal must remain as sources of the country’s energy. But that means he has to do battle with “experts” who say that coal-rich South Africa should stop using coal, and that this nuclear-power producing country should abandon nuclear, the cheapest source of electricity. The answer to all of South Africa’s energy needs, they say, lies in windmills and solar panels.

Mantashe crossed swords with these extremists in an unexpected way at the December 17 launch of the International Energy Agency’s “Coal 2019,” coal market report, in Johannesburg, by referring to an historic 19th century genocide in South Africa’s Eastern Cape. Mantashe said he was from the Eastern Cape, where—

one time they were told to kill their cattle because there is wealth coming. That new world has not arrived there, we are starving up to today. So anybody who comes to me and

says destroy what you have, because there is hope—you will battle [with me], because I am informed by this experience.

The background: In 1856, a 15-year-old girl of the Xhosa people, Nongqawuse, emerged as a prophetess and said the ancestors had told her, that if the people would kill all of their cattle and burn their crops, they, the ancestors, would help to sweep all of the white settlers into the sea. Moreover, there would be an abundance of all good things, and no one would lead a life of hardship. Those who did not believe her, were subjected to physical intimidation by the believers. More than 300,000—perhaps 400,000—head of cattle were killed, and cultivation ceased. Famine ensued.

Many survivors streamed to areas occupied by Europeans for food relief and many became wage laborers, while the British obtained control over the depopulated lands—lands they had earlier failed to take by warfare. Many of the Xhosa believe that the British Governor—Sir George Grey, who was well versed in anthropology—was behind the hoax and the genocide.

Mantashe’s message: We must build on what we know will work.

The relationship between these two terms was discovered by Lyndon LaRouche. The energy-flux density of nuclear energy is incomparably greater than that of all previous energy sources.

Among those who *do* understand this, are those oligarchs, who demand wind and solar—feeble sources of energy—and insist upon forcing the abandonment of hydrocarbons and nuclear. They are demanding the elimination of billions of people around the world, and they say so. It is the only way they can save their collapsing, neoliberal system. That is why we [wrote](#), in 2014, soon after President Zuma first announced his nuclear plans,

The British financial empire will seek all possible avenues to disrupt the implementation of South Africa’s nuclear plans and crush the assertion of sovereignty that made those plans possible.

The abundance, efficiency, and reliability of nuclear energy is a necessity for human survival, dignity and progress.²

The Primacy of Physical Economy

The step forward for nuclear, however, is taking place in the context of backward steps in South Africa’s overall energy policy. Eskom, the government electricity monopoly, is being unbundled in preparation for privatization. There must be a mobilization to stop this. Privatization of electricity means the loss of government control over energy policy, and higher electricity prices. That’s why the British imperialists’ press outlets in South Africa were screaming bloody murder when

2. The existing nuclear power plant at Koeberg in South Africa—the country’s cheapest source of energy—with its comparatively small footprint, puts out 18,800 watts per square meter, and the “Sun” never sets! After an upcoming upgrade, that figure will increase by 10 percent. Solar and wind cannot even come close to matching this energy-flux density. The average intensity of sunlight reaching Earth’s surface, *when the Sun is directly overhead*, is about 650 watts per square meter, and then it goes to zero at night—an inescapable fact of life on Earth. But this is the absolute limit of incoming solar power at Earth’s surface. No improvements in photovoltaic technology can collect what is not there. The output from a solar panel to the grid is therefore much less than 650 watts per square meter—much less than one-thirtieth of Koeberg.

Energy-flux density, in watts per square meter, is the bottom line. Nuclear has other major advantages, as discussed in an [EIR interview](#) with South African nuclear physicist Dr. Kelvin Kemm in 2018.

Eskom was created, in the 1920s.

A new ANC document—not a government document, but of the ruling party—released May 22 and titled, “[Economic Reconstruction](#),” meaning reconstruction after COVID-19, indicates that the party is moving, in parallel with the break-up of Eskom, toward a program for shutting down coal in favor of windmills, solar power, biomass, and bio-ethanol. The document, which refers to “the agreed restructuring of Eskom,” also calls for a shift in household energy use away from electricity, in favor of home cooking and heating with natural gas and liquefied petroleum gas. Nuclear is politely ignored, as if it did not exist.³

While this “Economic Reconstruction” document was issued under ANC auspices, it would be wrong to underestimate the influence of the government’s Sustainability Task Team that President Ramaphosa appointed in December 2018. Most of its members were greener than cucumbers. Prominent among them was Sir Mick Davis, the multimillionaire mining baron, who was CEO and Treasurer of Britain’s Conservative Party at the time!

What kind of “reconstruction” is this, that is neither timed to fight COVID-19, nor meets the baseload energy requirements to defend against a potential next pandemic? It won’t be done by retreating from electric power. The baseload energy needed for a national health system that is sufficient to support the dignity of every citizen, is quantified in a recent Schiller Institute study, *LaRouche’s ‘Apollo Mission’ to Defeat the Global Pandemic: Build a World Health System Now!*⁴

The entire operation is poorly concealed under the claim that there will now be a “massive infrastructure build.” ANC Treasurer-General Paul Mashatile, in comments on June 4, said the plan is to spend \$20.5 billion on projects such as rails and ports, broadband, water and sanitation, and housing; to direct the investment of South African pension funds into these proj-

3. The three power bases of any ANC government—the ANC itself, COSATU (the Congress of South African Trade Unions), and the South African Communist Party—appear to have closed ranks around this mass murder-suicide pact in an Alliance Framework Document that is apparently not public.

4. A link to this document is provided in footnote 1, above. See also the article on nuclear power by Paul Gallagher in this issue. A closely related document, focusing on rebuilding the U.S. and the world economy as a whole, is [The LaRouche Plan To Reopen the U.S. Economy: The World Needs 1.5 Billion New, Productive Jobs](#).



Members of National Education, Health and Allied Workers Union prepare for the October 30, 2018 march in Pretoria, South Africa.

ects; and to increase the powers of the Presidency to make it all possible.

Mashatile and a colleague took a few days of Home Leave this month to report on the ANC plan to their superiors at the Royal Institute of International Affairs (Chatham House), a leading, world center of Malthusianism.⁵ Chatham House is doubtless pleased to see that South Africa has largely turned away China’s offers of investment and cooperation.

President Ramaphosa held a seemingly related, first annual Sustainable Infrastructure Development Symposium of South Africa on June 23, to unveil “an infrastructure pipeline from six priority sectors.” The numbers were different, but the concept was much the same. Ramaphosa spoke of 276 projects requiring a

5. Arnold Toynbee, Director of Studies at Chatham House for decades, was not expressing a merely personal opinion when he wrote, “we may perhaps conclude that it would have been better for our descendants if metallurgy had never been invented, and if Man, after having attained the Neolithic [New Stone Age] level of technology, had not succeeded in raising himself higher in terms of technological achievement ... mankind’s numbers and material wealth would, no doubt, today be only a fraction of what they actually are.” (Toynbee, *Mankind and Mother Earth*, Oxford University Press, 1976, p. 44.)

total investment of \$130 billion. With so many projects to be funded with so little money, the question is, whether even a single one of them is national in scale. (Ramaphosa’s own off-mike comment during the symposium: “We need more money!”)

Here we are faced with contradictions. The Integrated Resource Plan, approved by the Cabinet months ago, indicates that coal will provide 59% of the energy produced by Eskom, and that there will be a new nuclear build. The ANC’s “Economic Reconstruction” document, however, while silent on privatization, asserts that Eskom is being “restructured”—the whole purpose of which is the often denied privatization. The doc-

ument implies that coal is on its way out, and it knows nothing about a new nuclear build. It expresses concern about high energy prices, but prescribes feeble and unreliable energy sources that are known to result in even higher prices. It seems to be going in the direction of a not-so-massive infrastructure build, whether referred to by Mashatile or Ramaphosa, but its energy proposals would be unable to support such a build.

The irony is that this heap of contradictions is but a mole hill. The now rapidly unfolding world economic collapse and the imminent pandemic of hunger will change everything. The impending financial [blowout](#)—of which the events of 2008 were but a rehearsal in the small—will change everything. In unpredictable ways. The catastrophe may bring governments back to *physical economy*, not money values, as the measure of economic health—if we don’t have the wisdom to spare the world much suffering, by recognizing this principle sooner.