#EndAusterity for a just transition

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Introduction

Despite 2020's record fall in carbon dioxide emissions—largely due to extensive and repeated "lockdowns" of cities, plus dramatic decreases in air travel and the use of motor vehicles—the world is far from making the changes necessary to avert climate catastrophe. The fact that the shutdowns over periods of last year had a marginal effect in the fight against climate catastrophe at best, illustrate the enormity of the task that lies ahead. According to a 2019 report from the World Meteorological Organization "time is fast running out," while Fatih Birol, head of the International Energy Agency (IEA), observes: "*The pandemic and its aftermath can suppress emissions, but low economic growth is not a low-emissions strategy. Only an acceleration in structural changes to the way the world produces and consumes energy can break the emissions trend for good.*"

In addition to ravaging health systems, the Covid-19 pandemic has exacerbated food and housing insecurity, deepened unemployment, and put a spotlight on existing inequalities even as it has made them worse. In South Africa, growing awareness of these problems has brought renewed hope in the possibility of a response to the pandemic crisis that could aim for a "just transition" to a low-carbon economy. Like other countries, South Africa is in desperate need of an energy transition. The South African economy remains disproportionately energy intensive (although it is becoming less so), per capita emissions remain high, and the country is the thirteenth largest contributor to global carbon emissions. This energy and emissions profile reflects the historical and continuing dominance of the country's "minerals-energy complex" ("MEC") which is supported by cheap electricity generated mostly from low-quality coal, while higher quality coal is exported.

Beyond its detrimental ecological impacts, South Africa's MEC is deeply intertwined with the legacy of cheap Black labour in the mines and the formation of racialized capitalism. This structure of South Africa's economy underpins the country's massive inequality, serious health impacts for many thousands of people in mining-affected communities, and the country's disproportionate contribution to global emissions. This is why the shift to renewable energy in South Africa must include measures to ensure a just transition that leaves no worker or community behind, while working to reverse the legacy of mass unemployment and deep socio-economic inequalities.

The Political Economy of South Africa's Energy Crisis

Since coming to power in 1994, South Africa's government has promised "electricity for all" as a critical component in undoing the gross disparities of Apartheid. This commitment has produced a dramatic rise in grid connections, such that more than 80 percent of households were connected to the grid by 2015, up from only 30 percent in 1994. Harder to shift have been the persistent levels of poverty and inequality. South Africa is among the most unequal countries in the world in terms of the "Gini co-efficient" — a global measure of inequality. With current unemployment rate at 43 percent, many (if not most) households cannot afford electricity, even when they are connected to the grid. The introduction of a provision for free basic electricity in 2004 was a step in the right direction, but at just 50KWh per month for poor households that is insufficient to meet even basic requirements.

Making matters worse, South Africa's state-owned power utility, Eskom—which generates over 90 percent of energy consumed in the country—is in deep crisis. Eskom's crisis has multiple dimensions and various causes, both internal and external, including:

(1) The 1980s-era commercialization of Eskom:
The history of Eskom's financial troubles is a long one that has various key aspects in its development. The first being the move towards the commercialization of Eskom in the 1980s. This was quickly followed by the shift to post-Apartheid South Africa and the need to provide electricity to the majority of the country previously excluded, who at the same time are unable to afford the cost of electricity.

(2) Early 2000s corporatization: In 2001 Eskom was corporatized following the Eskom Conversion Act – culminating in the formation of Eskom Holdings Limited in 2002, meaning that Eskom was transformed into a public company. The conversion of the utility in 2002 to a public corporation, forcing it to pay taxes as well as dividends for the first time since its establishment.

(3) The adoption of the World Bank's Full-cost recovery model in a context of mass unemployment and inequality – where the excluded majority are unable to afford rising electricity prices. This partly contributes to Eskom's rising debt, as most municipalities are not in a financial position to pay Eskom for the electricity it distributes.

(4) Underinvestment: The lack of investment in Eskom's infrastructure, related to changes in the energy plan and a government memo that blocked Eskom from building new electricity generation. This was done in order to create space for greater private sector involvement in electricity generation– particularly in the form of renewable energy independent power producers building on the 1998 White Paper on Energy that initially proposed unbundling and for a great private sector role in the energy sector through RE generation. Given political contestation, the move to full privatization was abandoned and Eskom was re-allowed to develop new generation capacity in 2003 and the framework to procure electricity from the RE independent power producers was only introduced in 2011 following the establishment of the renewable energy independent power producer's procurement programme (REIPPPP). Nothing was done until 2005, when the development of Medupi and was initiated. The long period of no additional generation capacity resulted in system failures in the form of rolling black-outs (power-outages) beginning in 2008, which has been implemented intermittently over the years.

(5) Eskom debt denominated in foreign exchange: The loans to invest in heavy carbon emitting dinosaurs – Medupi and Kusile – have a large proportion of the debt denominated in foreign currency, adding to the burden, given the weak Rand.

(6) Rising prices of coal: Expensive coal contracts with windfall profits, signed in the name of promoting Black ownership in the coal industry; and dramatic increases in the price of low-quality coal, upon which Eskom depends to generate electricity.

Corruption at Eskom has only exacerbated the utility's structural crisis. The extent of this corruption is only starting to be exposed following various investigations. One of these investigations, undertaken by the Special Investigative Unit (SIU), has revealed that 5,452

officials failed to submit their declarations of interest—more than 10 percent of employees at the group.

The structural problems and entrenched corruption within Eskom and the state have led to rising tariffs for users, in order to make up for falling revenues and service Eskom's debt costs. Most recently a further 15 percent tariff increase was approved for 2021/22. But rising tariffs also lead customers increasingly to go "off grid," further eroding revenues from users in what has been the "utility death spiral." The situation is exacerbated by the fact that, even before pandemic, South Africa's demand for electricity was flat or even falling.

Liberalization, a False Solution for the South African Energy Crisis

Many critics blame the crisis in the country's power sector on Eskom's status as a publicly owned monopoly, routinely taking for granted that this means corruption, mismanagement and maladministration are inescapable.[1] But these arguments fail to consider the political-economic factors that are undermining public utilities around the world, especially as they have become increasingly commercialized under neoliberalism and the World Bank's "full cost recovery" (FCR) model.

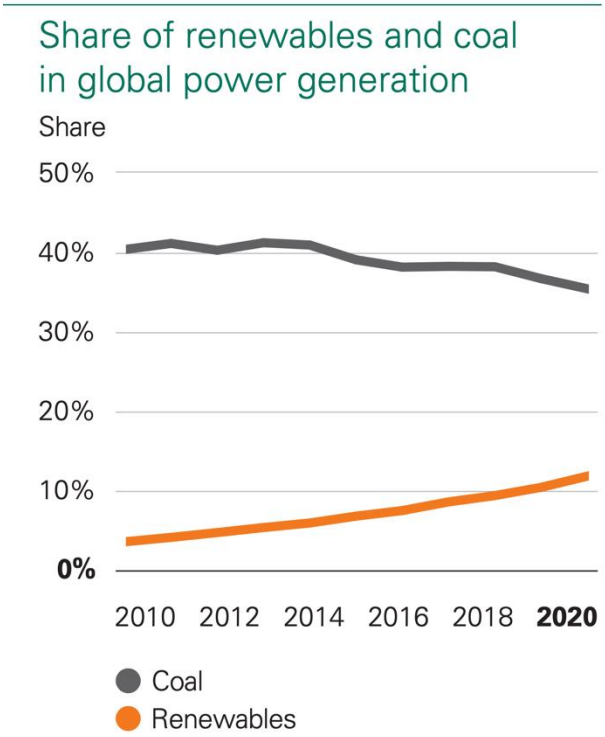
The FCR model is based on the notion that the full cost of providing electricity should be covered by charges to end users. The validity of this model is rarely if ever questioned, despite the World Bank's own 2019 report acknowledging that the commitment of public utilities to a mission of providing universal service and 100 percent electrification, will result in a failure to reach the "full cost recovery" benchmark. Compounded by the other factors described above, this model lies at the core of Eskom's financial problems. Flowing from this combination of factors, the distance between Eskom's revenue and outlays has widened in recent years, leading to neglected maintenance, outsourcing of skills and services, leading to declining levels of capacity and further financial woes. It is in face of on-going financial challenges, coupled with the latest round of load shedding, that has led to the recent announcement by President Ramaphosa to increase the maximum level for private embedded generation up to 100MW being received with much adulation.

It has especially been seen as a step forward - in terms of addressing the urgent load-shedding problem and as a means to put South Africa on a path to decarbonisation. In reality this is a means to accelerate the role of the private sector in energy generation. Eskom CEO, Andre de Ruyter makes this clear when he says that the shift to increase private embedded generation to 100MW is "the precursor to the development of a new electricity supply industry in South Africa, which is going to be driven by far greater market dynamics" and that "the Eskom unbundling, or restructuring, is very much part of that, as the formation of a separate transmission company should act as a catalyst to enable significant additional private sector investment in generation capacity."

Central to the wide-ranging support for the announcement relates to the idea that investments in renewable energy will inevitably rise as the cost of renewable energy continues to fall. This is a misconception based on notions that the falling costs of renewable energy will reach a

[1] See, for instance, https://theconversation.com/corrupt-state-owned-enterprises-lie-at-the-heart-of-south-africas-economic-woes-79135; https://www.sowetanlive.co.za/opinion/columnists/2018-11-06-ending--eskom--monopoly-only-way-to-cheaper-energy/; https://www.news24.com/citypress/business/eskom-was-doomed-to-fail-its-core-problem-its-monopoly-20190207;

'tipping-point' where the cost of renewables will fall below the costs of energy for fossils fuels, inevitably leading to a shift in investment with increased levels of investment being directed to renewables, and in this way decarbonization is inevitable. Lessons from international energy trends indicate that this may not be the case, and that contrary to perceptions, the world is not on the path to decarbonization.



The latest BP Statistical Review of World Energy (2021) estimates that in 2020 the share of renewable energy (wind, solar as well as geothermal, biomass and other) as a percentage of total energy generation had increased to 11.7%

Renewable energy (solar and wind) as a percentage of total energy consumed increased by 25% between 2019 and 2020 – from 3.6% to 4.5%. This is largely due to the decline in total energy consumed in 2020. Global energy demand declined by approximately 4.5% in 2020

It is true globally that the "Levelized Cost of Electricity" (LCOE)—which reflects project costs, and not bidding prices, over the lifetime of the wind farm or solar array—have fallen dramatically since 2009. In the case of solar photovoltaics (PV), prices have dropped by 88 percent and 69 percent for wind. There are, however, several problems with "tipping point" or "least cost option" arguments. The fundamental problem is that the bidding prices or the LCOE does not reflect all of the costs associated with renewable energy. There are additional "system costs" that may include balancing costs (adjustments of dispatchable power plants that respond to short-term variability) and collector stations and other grid costs (that can include additional transmission). These could add 10 to 15 percent over and above the costs of a unit of installed wind and solar capacity.[2]

Perhaps most importantly for private investors, lower bidding prices also mean narrower profit margins. The anticipated falling level of profits reduces returns on investment, and thereby disincentivizes private sector investment in renewables. This is how to make sense of reports like the one from Bloomberg New Energy Finance (BNEF) in mid-2018 that indicated investment in renewables had fallen to a four-year low, followed by a report a year later by the United Nations Environment Programme (UNEP) and BNEF that indicated that investment in renewables had fallen 11 percent in 2018, to $188.3 billion.[3] Therefore, statements such as

[2] International Energy Agency (IEA). Getting Wind and Sun onto the Grid: A Manual for Policy Makers. Technical report, 2017

[3] Frankfurt School-UNEP Centre/BNEF. 2019. Global Trends in Renewable Energy Investment 2019, http://www.fs-unep-centre.org (Frankfurt am Main)

this one from the IEA should come as no surprise: "As things stand, the world is not set for a decisive downward turn in emissions…".

When looking at changes to fossils fuels compared to wind and solar as percentage of primary energy production its evident that there is little change in relation to the global energy mix – see graph above.[4] Instead, based on current trends, there is an expansion in global energy production with an expansion in energy generated both from fossil fuels (particularly gas) and from renewables coming from solar PV and wind. This indicates that solar PV and wind is not displacing fossil fuels in the global energy mix, corroborating the trends taking place in investment.

Similarly, for all the hype around the rise in renewable energy and the unfolding transition, it's astonishing that renewable energy made up approximately 5 percent of total energy consumed in 2020[5]. While most people around the world agree that a dramatic shift in the global energy mix from fossil fuels to renewable energy is more urgent than ever in order to avert ecological destruction, this transition is stalled. At the core of the failure internationally is the limits of a for-profit model for developing a renewable energy industry. State subsidies for the private sector renewable companies may be a way to ensure high enough returns on investment but at the expense of undermining the arguments related to the lowest cost.

Can Private Renewable Energy and a State-Owned Eskom Coexist?

Just as the private renewable energy sector internationally has reached an impasse in terms of its contribution to the global energy mix, the REIPPPP could face a similar fate. A clearer look at the roots of Eskom's fiscal crisis and international energy trends indicates that Eskom's divisionalisation and the related expansion of the REIPPPP will potentially exacerbate South Africa's energy crisis rather than help to resolve it, and deepen the country's already dire unemployment rate.

Given long-lasting impacts of trade liberalization, independent power producers (IPPs) will tend to rely on importing the infrastructure and technology required to reduce input costs associated with developing a renewable energy industry locally. This is already happening. In 2019 a locally owned solar panel manufacturing company filed a petition with South Africa's International Trade Administration Commission demanding a 10 percent customs tariff be placed on all imports of crystalline silicon photovoltaic (PV) modules. The general manager of the company "alleged that the fourth round of South Africa's Renewable Energy Independent Power Producer Programme (REIPPP) has been completely sourced from Chinese equipment suppliers," and that these interventions are needed "as cheap imports are crippling the local industry and has seen many manufacturers and installers close down,". This is a rational decision for private renewable energy producers to remain competitive with other private renewable energy (RE) companies. Given that most of the potential jobs in renewable energy development are in the manufacturing of the infrastructure, the notion that the REIPPPP will dramatically alleviate the unemployment crisis is misguided at best.

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[4] The latest BP Statistical Review of World Energy (2021) https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html estimates that in 2020 the share of renewable energy (wind, solar as well as geothermal, biomass and other) as a percentage of total energy generation had increased to 11.7%

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Critically, the trade union movement has been vociferous in its rejection of unbundling and the issue has been seen as so crucial that it has culminated in 'rival' unions, organized at Eskom uniting in their opposition to the privatization and unbundling (divisionalisation) of the state owned company. The National Union of Metal Workers of South Africa (NUMSA) and other trade union formations are not only interested in protecting the over 44,000 Eskom jobs, they are in support of the need for a just transition to a low-carbon economy and continue to stand by their almost decade long demand for socially-owned renewable energy. To realize these goals, the entire system must remain public and the REIPPPP must be ended in order to enable a planned and orderly energy transition.

What Would a Just Transition for South Africa Look Like?

Achieving socially-owned renewable energy will require a break from the South African government's longstanding and unwavering commitment to a macroeconomic policy aimed at attracting foreign direct investment to support an export-led growth model—primarily the export of commodities and cash crops.

A recent, (5 July 2021), letter from the Desk of the President re-affirmed its commitment to an export-led growth path rooted in an extractivist economy when he indicated "High commodity prices and rising global demand is good for our economy, particularly the mining sector. Rising global metal prices will play a significant role in accelerating our recovery from the pandemic downturn... mining is vital to our economy and will continue to be for the foreseeable future. Let us grasp the opportunities that exist in this sector so that mining can help guide our path to a more inclusive and equitable economy". Ironically, in the same letter the President acknowledges, "that mining has historically been central to South Africa's deep inequalities". Not to mention the fact that these industries have detrimental ecological impacts.

The drive to intensified extractivism is exemplified in the Presidential Infrastructure Coordinating Commission Strategic Integrated Project, which sets out to provide the infrastructure for:

- the extraction and export of coal from the Waterberg and Botswana;
- the expansion of the Durban petrochemical port; and
- the pumping up oil and gas from the sea bed of the Pacific.

These neo-liberal austerity policies – beginning with Growth, Employment and Redistribution (GEAR) in post-Apartheid South Africa – advanced the increased role of the private sector, the deregulation of the financial economy and the liberalisation of trade. These policies, centered around an export-oriented growth model that is over-reliant (albeit to a lesser degree) on a mineral-energy complex that is in decline, has driven a process of premature de-industrialisation of the South African economy. This macroeconomic framework is a major obstacle that needs to be overcome if we are to free up the necessary resources required for a state-led low-carbon re-industrialization program.

Proposals towards unlocking a public pathway for a just transition to low-carbon reindustrialization, require large levels of resources, and in the first instance, will need an immediate solution to Eskom's debt crisis.

The situation at state-owned enterprises (SOEs) and the government's increasing debt-to-GDP ratio is of serious concern. In response, the government, led by the Treasury, has prioritised

debt-service costs at the expense of higher levels of social spending. Debt-service costs has been the fastest-growing budget item in the national budget. Despite prioritising debt payments, South Africa's debt-to-GDP ratio has continued to grow and has exceeded 80% to GDP, rising from the February 2020 Budget estimate of 65.6%.

At the end of the first quarter of 2021, South Africa's gross external debt – what lies behind the growing debt-to-GDP ratio – stood at just under $165-billion. The repayments of debt must be situated within the overarching context of the need to finance a transition from a fossil-fuel economy to a low-carbon economy in the struggle to mitigate against the deep impacts of the ecological crisis. Repaying government debts, especially debts incurred against the interest of the majority of the population, leaves less money to invest in the rollout of renewable energy and the genuine, just transition that South Africa needs.

South Africa's debt problems are strongly intertwined with Eskom's growing financial woes. Eskom's debt is estimated to be R400-billion (June 2021).

An insider estimates that the cost of corruption in relation to Eskom's contracts could potentially be as high as R500-billion. A seemingly clear-cut example of corruption relates to the World Bank loan to Medupi in 2010. Eskom is still repaying this loan: in fact, more than R1.3-billion was paid during the months of lockdown and, based on Alternative Information and Development Centre's (*AIDC*) calculations, Eskom will only repay the debt in full by the end of the century.

That the loan was granted to build the biggest coal-fired power *(read carbon-emitting)* station in South Africa – contradicting the outcomes of the World Banks' own research that indicates climate change has negative consequences for development – coupled with the fact that the loans seem to be infested with corruption, makes this a quintessential case of odious debt. There have already been calls for this debt to be cancelled, by the South African Federation of Trade Unions (SAFTU), AIDC, Public Affairs Research Institute and *Daily Maverick's* Kevin Bloom, among others.

Given the scale of corruption, a publicly disclosed forensic audit of all SOE and government debt – with the intention to repudiate the odious debt – is necessary. This is in line with the recent calls by more than 200 global organisations for debt cancellation following the outbreak of Covid-19. Such an agreed debt cancellation would immediately create much needed fiscal room for enhanced social spending and public investment.

While a small share (10%) of government debt is foreign-denominated debt as a percentage of its total debt, approximately 50% of SOE's debt is held by foreign creditors. A good debt policy for both SOEs and government would be to prioritise borrowing from domestic creditors over foreign creditors. This brings us to the potential power of pension funds.

The power of pension funds

Increasingly the power of pension funds is being understood. In 2002, Robin Blackburn in *Banking on Death or Investing in Life* points out:

"While a good pension regime could help to reinforce a healthy and sustainable pattern of economy, a bad and short-sighted one will compound economic dangers and social distempers."

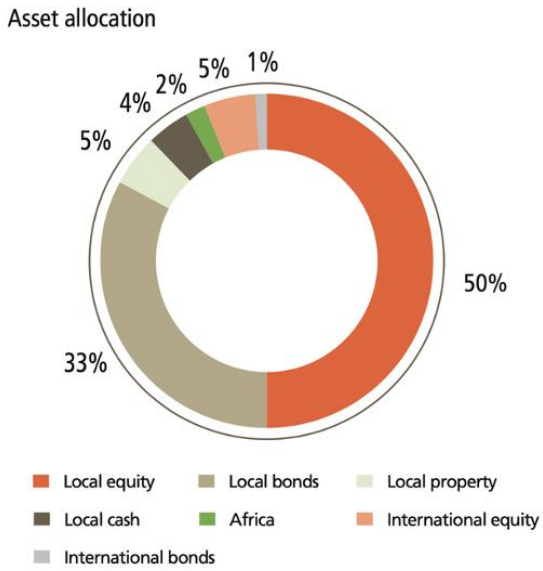
As financial capital became increasingly dominant within the global economy during the 1980s, investments shifted from productive capital in the real economy to greater levels of investment in stock markets, derivatives and speculative markets. With this, we see the intensified commodification and, in some instances, even privatisation of public goods such as electricity, water, health, housing and transport.

These essential goods and services are increasingly produced for profit maximisation rather than meeting people's needs. Pension funds, public and private, are massive contributors to this trend.

Addiction to equity and the shackles of finance capital

South African pensions have amassed more than R4-trillion in accumulated reserves, making it one of the largest pension systems in the world. Much of this is invested in the JSE.

For example, more than half of all the Public Investment Corporation's (PIC) R2-trillion in assets under management is invested in the JSE. The largest contributor to the PIC's assets is the Government Employees' Pension Fund (GEPF). Currently, the GEPF has approximately R1.8-trillion in accumulated reserves: two-thirds of this, just over R1-trillion is invested in the JSE.



Source: GEPF 2018/19 Annual Report

The GEPF's investment strategy and its fixation on financial investments is exactly the kind of bad and short-sighted pension regime that Blackburn was referring to. The GEPFs overinvestment in the JSE as a result of the PIC's addiction to equity has come at a huge price – the cost of growing unemployment and income inequality – due to the lack of investment in an industrialising, job-creating strategy. This process, coupled with declining labour share as a percentage of gross value added (i.e. falling real incomes), has meant that it is only through credit that households are able to make ends meet.

Liberate the GEPF

A shift in investment strategy to a greater share of investment in bonds rather than in equity is what is needed by the more than 1.7 million people – 1,269,000 public employees and 476,000 pensioners – who are directly dependent on the fund.

Moreover, the majority of South Africans who indirectly suffer, given the negative socioeconomic impacts of austerity-based macroeconomic policies, also stand to benefit from such a change in investment strategy. This shift will have a number of advantages, including the potential room to invest in the development of socially owned renewable energy, as well as stable and positive returns on investment.

Back to a pay-as-you-go scheme

The amount of resources available is dependent on whether there is a continuation of the GEPF as a fully funded scheme, or if it shifts back to a pay-as-you-go scheme.

The growth of the fund is partly due to the transition in the fund from a pay-as-you-go scheme to a fully funded scheme. This transformation culminated with the amalgamation of various public pension funds with the GEPF's establishment in 1996. The reasons behind this shift and its implications have been elaborated on before.

Prior to the outbreak of the pandemic, the GEPF was estimated to be 108% funded, and probably remains at approximately these levels in spite of the initial fall in the JSE. Under the GEPF law (1996), the fund can be 90% funded. There is also a view that credit rating agencies consider public pension funds finances to be healthy if they have more than 80% of their liabilities covered.

Reducing the GEPF's funding level to 90% would liberate more than R300-billion for investment, while remaining within the confines of the GEPF law. It is possible to go further and liberate an additional R200-billion by reducing the level of funding to 80% of its total liabilities.

If the fund is transformed back into a pay-as-you-go scheme, more than R1-trillion in resources can be made available for investing in sustainable low-carbon, labour-intensive industries in driving a low-carbon reindustrialisation programme.

As we have previously mapped out, this has the potential to create a number of jobs in the development of renewable energy infrastructure manufacturing and the transformation of Eskom into a fully public renewable energy utility. But a just transition must be more than the development of renewable energy: it should also be about the development of a mass public housing programme, the improvement of the public transport system in urban and rural communities, as well as financing the transformation of our agrarian system from large-scale industrial farming to small-scale agroecology.

In addition to mitigating against carbon emissions, these developments are also labour and employment intensive – both directly and in downstream industries – and therefore they have large employment potential.

This is a major advantage for the GEPF in the medium to long term, and a necessity if it shifts back to a pay-as-you-go scheme. As Blackburn pointed out, this potential pool of finance that pension funds present to governments strikes fear into financiers and private investors (*Banking on death, or investing in life*, p74).

This may explain why some investors are dead set against utilising the GEPF in this way, as it may set a precedent that soon would require private pension funds to invest in domestic bonds as well. The Congress of South African Trade Unions (Cosatu) has already indicated that it would be in favour of reviving similar policy measures.

Only the public can save us

In the February 2020 Budget, the finance minister said the Department of Public Enterprises' (DPE's) Eskom Roadmap is non-negotiable, opening the path for the divisionalisation of Eskom and the greater privatisation of the SA electricity sector. This is reminiscent of the way former finance minister Trevor Manuel introduced GEAR in 1996.

Emboldened by Finance Minister Tito Mboweni, Eskom CEO Andre de Ruyter recently indicated that the Eskom board intends expediting this process. As we have shown in previous articles, divisionalisation will not solve Eskom's problems, nor will it help to catalyse a renewable energy transition – only a public pathway to a renewable energy transition can meet the challenge of climate change.

The resources to finance the transition are available, but to harness those resources requires us to rethink our understanding of the role of the economy. This necessitates shifting the thinking from what is financially affordable, to how we raise the finances required to meet the needs of our people and the planet.

In South Africa, besides technical constraints, the transition to an affordable, equitable, and low-carbon energy system will require facing major political and economic challenges that are rooted in the country's history of socio-economic and racial inequality, as well as in its heavy dependence on coal-fired power

This struggle over the economy is at the heart of the struggle to meet the challenges of climate change and the ecological crisis.