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Critique of Eskom tariff request and of South Africa's worsening climate vulnerability; and support for groundWork alternative strategy

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Charles Hlebel, National Energy Regulator of South Africa,
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Dear Mr Hlebel,

This appeal to your office is to not only refuse Eskom its requested tariff increase for the years after 2012, but to revisit the production and tariff structure with a view to changing it dramatically, so as to achieve climate justice, social equity and economic rationality. We conclude with an endorsement of groundWork/Friends of the Earth recommendations for a stop-gap strategy to correct the most extreme problems. Unfortunately, the National Energy Regulator of South Africa (Nersa) has long facilitated the worst aspects of corporate abuse and government corruption, and the arguments below suggest that given the present state's failure to accept its crucial responsibilities for climate change, it is incumbent upon your office to shift course.

The principal reason for a review is that South Africa remains one of the world's most extreme cases of climate injustice, notwithstanding Durban's hosting of the United Nations Conference of the Parties 17 (COP17) climate summit in November–December 2011. We face extreme risks in coming decades that Nersa has a responsibility to address now, for according to the South African government's 2010 National Climate Change Response Green Paper: 'Should multilateral international action not effectively limit the average global temperature increase to below at least 2°C above pre-industrial levels, the potential impacts on South Africa in the medium- to long-term are significant and potentially catastrophic.' The paper warned that under conservative assumptions, 'after 2050, warming is projected to reach around 3–4°C along the coast, and 6–7°C in the interior'.¹

1. All quotes in the discussion of the *Green Paper* are from: Republic of South Africa, *National Climate Change Response Green Paper*, Pretoria, 2010, <http://www.climatechange.co.za>.

If climate is to become a factor in South African government decision-making, then a full rethink of the Eskom coal-fired electricity generators at Medupi and Kusile is required. This in turn would allow a rethink of the 40 new coal mines in Mpumalanga, Limpopo and KwaZulu-Natal allegedly needed to supply the plants and export markets in coming years, on grounds that – just as at the Cradle of Humankind northwest of Johannesburg, suffering threats of debilitating acid mine drainage – these mines will cause permanent contamination of rivers and water tables, increased mercury residues and global warming. The toxic tailings dams from coal and uranium (for South Africa’s nuclear reactor) are typically unlined, unvegetated and unable to contain the mines’ prolific air, water and soil pollution. Other long-term mining crises continue in South African locales: the notorious platinum belt of the North West and Limpopo provinces, the titanium at the Eastern Cape’s Wild Coast and the coal in the area bordering Zimbabwe known as Mapungubwe where relics from a priceless ancient civilisation will be destroyed unless mining is halted (as even the government agrees).² In all these cases, it should be evident that the abuse of cheap electricity must end, in the high-profit minerals extraction sector, where multinational corporations are willing to abuse political power to achieve strike-breaking objectives, at the expense of so many other community, labour, gender and environmental values our society is meant to promote.

In particular, here are multiple reasons why South Africa requires a new commitment to management of the climate threat, and why this should start with a reconsideration of Eskom’s tariffs by Nersa:

- South Africa’s vast CO₂ emissions can be measured in relative terms, and if so, a good measure of the economy’s addiction to fossil fuels corrected for population size – its carbon intensity per capita unit of GDP output – is amongst the world’s highest, far worse than even the US.
- The main sources of this pollution are two activities that reflect continuity, not change, from apartheid: the coal-burning power plants of the parastatal Eskom and the coal/gas-to-oil conversions of Sasol, formerly a parastatal mandated to foil the apartheid-era petroleum embargo, and then privatised.
- An insignificant contribution to the grid (less than 4 per cent) comes from South Africa’s incredible renewable energy potential in solar, tidal and wind sources, and notwithstanding claims of increases in coming decades, Eskom remains a major block to renewables development, because it is not in the firm’s institutional self-interest to promote competition that has a near zero marginal cost.
- The electricity produced by burning coal is cross-subsidised so that it is the cheapest available anywhere in the world for the world’s largest mining and metals corporations, BHP Billiton and Anglo American Corporation, which were revealed in mid-2012 to be paying around US\$0.01/kilowatt-hour of electricity for smelter consumption, thanks to apartheid-era, four-decade ‘Special Pricing Agreement’ deals (other large corporations received electricity in 2009 at US\$0.05, still below cost, and although prices rose dramatically on average, the lowest increases were imposed on the biggest firms).
- The two main metals/mining firms, plus most other major beneficiaries of cheap electricity, such as ArcelorMittal and Xstrata, export their profits both through illegal transfer pricing and through straight repatriation of dividends to shareholders in London and Melbourne, and the downstream consumption of their metals product is minimal due to notorious local over-pricing.
- Meanwhile, millions of poor people are regularly disconnected or denied access to the grid due to extreme poverty, and because of dirty household energy, the passage is often

2. Patrick Bond, “Dethroning King Coal in 2011, from West Virginia to Durban,” *Znet*, January 30, 2011.

rapid from HIV-positive to full-blown AIDS status via respiratory-related opportunistic infections, including the raging TB epidemic.

- Corruption is built in to energy-intensive mining and industry, ranging from controversial ruling-party deal-making in the sector, Black Economic Empowerment shakedowns for well-connected tycoons and corporate malfeasance in climate deals, such as Sasol and Eskom attempts to secure Clean Development Mechanism (CDM) subsidies for destructive projects.³

Because Nersa failed to properly carry out its regulatory mandate in the past, electricity generation shortfalls during January–March 2008 led to consistent surprise ‘load shedding’ in which entire metropolitan areas were taken off the electricity grid. These were due partly to a lack of new capacity built by Eskom since the early 1990s (when excess capacity had risen to more than 30 per cent), the running down of coal supplies and rain damage to incoming coal. But the main reason was the increased electricity consumption of metals smelters due to the 2002–8 speculative uptick in commodity prices. Indeed, even earlier, the economy’s five-fold increase in CO₂ emissions since 1950, and 20 per cent increase during the 1990s, can largely be blamed upon supply of the subsidised electricity by Eskom to multinational corporate mining houses and metals smelters.

South Africa’s big business reliance upon fossil fuels for energy is scandalous, and requires urgent Nersa attention, especially since the first Nersa CEO, Xolani Mkhwanazi, joined BHP Billiton straight after leaving the public service (having never intervened to question BHP Billiton’s vast electricity subsidies – estimated in 2012 alone to be R5 billion). Not only are vast carbon-based profits fleeing to the mining houses’ offshore financial headquarters but, despite consuming huge amounts of electricity, the smelters create very few jobs. Instead of cutting back on these sorts of projects, and turning the subsidies to renewables, Nersa has in the past permitted augmentation of massive new coal-fired generation along with, first, dangerous ‘pebble bed’ nuclear technology (rejected by German nuclear producers in the 1990s and finally in 2010 defunded by finance minister Pravin Gordhan in frustration) and more recently with dangerous existing-technology nuclear reactors. Renewable sources like wind, solar, wave, tidal and biomass are the most obvious ways forward for this century’s energy system, but still get only a tiny pittance of government support. This is an area for immediate Nersa attention and improvement, given the institution’s abject past performance.

Behind the gluttonous and reckless consumption of electricity is a long history of cheap energy for big capital made possible by the availability of large amounts of poor quality coal and an incestuous relationship between the coal mines, gold industry and Eskom. A history of state intervention in securing the energy needs of the mines, agriculture and industry established the principle of keeping electricity as cheap as possible for big capital.⁴ The current government did not change this arrangement, which helps explain why its posture at recent climate summits has been in defence of the world emissions *status quo*.

Indeed, this government was as co-opted as the old regime by the ‘minerals-energy complex’ (MEC), the phrase that captures the fusion of state, mining houses and heavy industry, especially in beneficiating metallic and mineral products through smelting. As Ben Fine and Zav Rustomjee showed in their 1996 book *The Political Economy of South Africa*, throughout the twentieth century, mining, petro-chemicals, metals and related activities,

3. Patrick Bond, Rehana Dada and Graham Erion (eds), *Climate Change, Carbon Trading and Civil Society*, Pietermaritzburg, University of KwaZulu-Natal Press, 2009; Patrick Bond (ed), *Durban’s Climate Gamble*, Pretoria, University of South Africa Press; Patrick Bond, *Politics of Climate Justice*, Pietermaritzburg, University of KwaZulu-Natal Press, 2012.

4. Ben Fine and Zav Rustomjee, *The Political Economy of South Africa: From Minerals-Energy Complex to Industrialization*, London, Christopher Hirst and Johannesburg, Wits Press, 2006.

which historically accounted for around a quarter of GDP, typically consumed 40 per cent of all electricity, at extremely low rates.⁵ David McDonald updated and regionalised the concept a decade onwards in his edited collection, *Electric Capitalism*, discovering an 'MEC-plus':

Mining is South Africa's largest industry in the primary economic sector and the country has the world's largest reserves of platinum-group metals (87.7 per cent of world totals), manganese (80 per cent), chromium (72.4 per cent), gold (40.1 per cent) and alumino-silicates (34.4 per cent) . . . South Africa's appetite for electricity has created something of a scramble for the continent's electricity resources, with the transmission lines of today comparable to the colonial railway lines of the late 1800s and early 1900s, physically and symbolically.⁶

Eskom fostered a debilitating dependence on the (declining) mining industry, causing a Dutch disease, in memory of the damage done to Holland's economic balance by its cheap North Sea oil, which in South Africa's case is cheap but very dirty coal. As a study by the Energy for Development Research Centre found, South Africa

- is 'the most vulnerable fossil fuel exporting country in the world' if the Kyoto Protocol is fully extended, according to an International Energy Agency report (because of the need to make deep cuts);
- scores extremely poorly on the indicators for carbon emissions per capita and energy intensity;
- has a 'heavy reliance' on energy-intensive industries;
- suffers a 'high dependence' on coal for primary energy;
- offers 'low energy prices to large corporate consumers and high-income households', which in part is responsible for poor energy efficiency of individual sectors; and
- risks developing a 'competitive disadvantage' by virtue of 'continued high energy intensity' which in the event of energy price rises 'can increase the cost of production'.⁷

As a result, when corrected for income and population size, South Africa's emissions are higher than even the energy sector of the US, *by a factor of twenty*.⁸ To deal with this legacy, the government adopted a Long-Term Mitigation Scenario (LTMS) in mid-2008, to great fanfare. The LTMS plans for absolute cuts in CO₂ to only start in the period 2030–5, after a post-2020 plateau. Nor was the language of the 2010 National Climate Change Response Green Paper and the follow-up White Paper in November 2011 sufficiently strong to address the crisis. The Green Paper does, at least, acknowledge, 'South Africa is both a contributor to, and potential victim of, global climate change given that it has an energy-intensive, fossil-fuel powered economy and is also highly vulnerable to the impacts of climate variability and change.'

Yet the Green Paper soon claims, 'South Africa, as a responsible global citizen, is committed to reducing its own greenhouse gas emissions in order to successfully facilitate the agreement and implementation of an effective and binding global agreement.' More appropriate would be this reality-based rephrasing:

5. *Ibid.*

6. McDonald, D. (Ed) (2008), *Electric Capitalism*, Cape Town, Human Sciences Research Council Press.

7. A. Spalding-Fecher, "The Sustainable Energy Watch Indicators 2001," Energy for Development Research Centre, University of Cape Town, Cape Town, 2000.

8. International Energy Agency, "CO₂ Emissions from Fuel Combustion, 1971-1998," Paris, 2000; International Energy Agency, "Key World Energy Statistics from the IEA," Paris, 2000.

South Africa, as an irresponsible global citizen, is committed to rapidly increasing its own greenhouse gas emissions by building the third and fourth-largest coal-fired power plants in the world (Kusile and Medupi) mainly for the benefit of BHP Billiton and Anglo American which get the world's cheapest electricity thanks to apartheid-era discount deals that last decades, and to successfully facilitate the agreement and implementation of an ineffective and non-binding global agreement – the Copenhagen Accord – which is receiving support from other countries only because of coercion, bullying and bribery by the US State Department, as WikiLeaks has revealed.

The Green Paper and White Paper suggest we 'limit the average global temperature increase to at least below 2°C above pre-industrial levels', yet this target is so weak that scientists predict nine out of ten African farmers will lose their ability to grow crops by the end of the century. In contrast, the 2010 Cochabamba People's Agreement demanded no more than a 1–1.5°C rise. This is a vast difference when it comes to emissions cuts needed to reach back from present levels of close to 400 parts per million of CO₂ equivalents in our atmosphere to the 300 parts per million that science requires and that the Cochabamba conference demanded.⁹ Failing that, the Green Paper acknowledges (using even conservative assumptions): 'After 2050, warming is projected to reach around 3–4°C along the coast, and 6–7°C in the interior. With these kinds of temperature increases, life as we know it will change completely.' As one example: '[T]he frequency of storm-flow events and dry spells is projected to increase over much of the country, especially in the east, over much of the Eastern Cape and KwaZulu-Natal, including some of the most crucial source regions of stream-flows in southern Africa such as the Lesotho highlands.'

The climate crisis must be addressed, and since the government is failing miserably, it will be up to agencies such as Nersa to raise awareness and halt the emissions via the regulatory process. The failure of Nersa in the period 2008-10 when the Medupi coal-fired power plant was under consideration and attracting financing, is an important lesson in why a major shift in the electricity regulator's stance is overdue, in part to compensate for past failure.

Medupi coal corruption

On 8 April 2010, after nearly two months of strenuous lobbying against more fossil fuel credits, the World Bank's Board of Directors approved a \$3.75 billion loan to Eskom. Its main purpose (for which \$3.1 billion was allocated) was construction of a power station that will pump 25–30 megatonnes of CO₂ into the atmosphere annually, more than the output of 115 countries. Paying for Medupi required a 127 per cent real price increase from 2007–12 for South African household electricity consumers (to nearly \$0.15/kilowatt-hour).¹⁰ Yet the loan was a last-minute request, as the 2008–9 global financial turmoil dried up Eskom's potential private sector financing.

In early 2010, more than 200 organisations across the world had endorsed a critique of the loan.¹¹ South Durban activists launched the local public campaign on 16 February 2010 with a spirited protest at Eskom's main local branch. South Durban was an epicentre of protest against fossil fuels, given that it hosts amongst the largest and least responsible petro-chemical firms south of the Niger Delta. With electricity prices soaring, many more

9. B. Norell, "People's Summit adopts Cochabamba Protocols," *Climate and Capitalism* April 23, 2010. <http://climateandcapitalism.com/?p=2225>, accessed 23 April 2010.

10. SAPA, "Sweet deals use 5 percent of Eskom's power – Hogan," April 19, 2010.

11. groundWork (2009), *The World Bank and Eskom*, Pietermaritzburg, December, <http://www.groundwork.org.za/Publications/Reports/SpecialReports/worldbankeskom09.pdf> and <http://www.earthlife.org.za/?p=858>

residents in South Durban were being disconnected. They often reconnect illegally and as Eskom and the municipality clamped down, the result was more social strife in a country with what is probably the world's highest rate of community protest.¹²

The question to be asked of Medupi, which Nersa failed to do properly, is who wins and who loses? First, the source areas of the coal for Medupi are highly contaminated by mercury and acid mine drainage, with air, land, vegetables, animals and people's health at much greater risk. Dozens of new coal mines in impoverished areas of Limpopo, Mpumalanga and KwaZulu-Natal provinces will be opened to provide inputs to Medupi and its successor, Kusile, as well as for exports. This will create a few coal sector jobs (hence receiving endorsement from the National Union of Mineworkers), but a great many jobs in agriculture and tourism will be lost as a result of the invasive mining activity and downstream degradation. Medupi itself will be built in a water-scarce area where communities are already confronting extreme mining pollution and, even though an air-cooled model (Africa's first) was chosen, the cost of supplying an additional water-cooling supply amounted to hundreds of millions of dollars, given the long transport and pumping costs.

Once the coal is burned and electricity generated, the winners and losers become even more divergent. Medupi's main beneficiaries will be the world's largest metals and mining corporations, especially BHP Billiton (Melbourne based) and various Anglo American subsidiaries (most reporting to London), which already receive the world's cheapest electricity thanks to multi-decade deals. Anger soon grew about the huge discounts made when the secret, 40-year sweetheart deals were offered by Eskom during late apartheid. At the time, the firm had a third too much excess capacity due to the long South African economic decline and needed huge smelters to mop it up. These agreements were finally leaked in March 2010, and disclosed that BHP Billiton and Anglo were receiving electric power at less than \$0.02/kilowatt-hour, whereas the overall corporate price was around \$0.05/kilowatt-hour, still the cheapest available anywhere, and the consumer price was around \$0.10/kilowatt-hour. In early April 2010, just before the Bank decision, Eskom announced that a small modification was made to BHP Billiton's contract price but it was reportedly to the firm's 'advantage' by Mkhwanazi. Finally, however, the Australian based mining house was sufficiently intimidated by the glare of publicity that in October 2010 Deutsche Bank mining analysts predicted BHP would dispose of Richards Bay assets. According to *Business Day*: 'The reason for selling the aluminium smelters would be the scrutiny under which BHP's electricity contracts have come amid demands for resource companies to use less power.'¹³ In mid-2012, new data showed even lower prices – as well as BHP Billiton's failure to invest in South Africa. This is one of the reasons Nersa should be much more active as a public interest watchdog, as even Eskom CEO Brian Dames has admitted recently.

An additional problem with BHP and Anglo as beneficiaries is the outflow of profits to Melbourne and London, at a time South Africa's current account deficit made it the world's most risky middle-income country, according to *The Economist* on 25 February 2009. Moreover, South Africa had an existing \$75 billion foreign debt, which would be escalated by 5 per cent with the Bank loan. The 1994 foreign debt was just \$25 billion, and First National Bank projected that the ratio of foreign debt to GDP would by 2011 rise to the same level as was reached in 1985, when a debt crisis compelled a default (on \$13 billion).¹⁴ That was the signal, incidentally, that business and banking were finally breaking ranks with the

12. <http://www.ukzn.ac.za/ccs/default.asp?2,27,3,1858>

13. Allan Seccombe, "SA assets may be on block in BHP's bid to buy Potash," *Business Day*, October 25, 2010.

14. Rand Merchant Bank Financial Markets Research, "Monthly ZAR outlook," Johannesburg, March 5, 2009, p.2.

apartheid regime.¹⁵ By mid-2012, the SA foreign debt had soared further, to around \$120 billion.

Another controversial aspect of the loan was the Bank's articulation of the privatisation agenda. The confirmation that Eskom would offer private generating capacity to Independent Power Producers was established in loan documentation in relation to the renewable component. In the process, this advanced Eskom's desire to privatise 30 per cent of generating capacity, including a 49 per cent private share in Kusile, although no private interest had been expressed before it received its financing support. This component of Eskom's strategy, replacing an earlier attempt to fragment assets and sell the pieces, attracted explicit opposition from trade unions – especially the National Union of Metalworkers of South Africa – and consumers.¹⁶

Corruption was another feature that generated critiques of the World Bank by South African opposition political parties (especially the centre-left Independent Democrats and liberal Democratic Alliance, which subsequently merged) and *Business Day* newspaper.¹⁷ These organisations opposed the loan because contrary to supposed Bank anti-corruption policies, it will directly fund ANC ruling party coffers. Medupi will be built with Hitachi boilers that in turn kick back between \$10 and \$100 million (the amount is still unclear) due to an ANC investment in Hitachi. As the Eskom-Hitachi deal was signed, the Eskom chairperson (and former environment minister), Valli Moosa, was also a member of the ANC's finance committee. A government investigation released in March 2010 found his conduct in this conflict of interest to be 'improper'.¹⁸ The ANC promised to sell the investment stake, but this dragged on and in late 2010 was still not complete. Ironically, in February 2010, the Bank had issued a major statement alongside its annual African Development Indicators, entitled 'Quiet Corruption', in which it blamed African teachers and healthcare workers for moonlighting (a result of Bank structural adjustment policies).¹⁹

And in relation to the Bank in South Africa, the matter of historic racial injustice could not be ignored. The World Bank's financing of apartheid began just three years after the 1948 election of the Afrikaners' National Party, lasting through 1967, and included \$100 million for Eskom.²⁰ During that period, the Bank financed the supply of electricity to no black households (who only began receiving electricity in 1980), and instead empowered only white businesses and residences.

Curiously, South African finance minister Gordhan argued, on 1 April 2010 (appropriately enough), that 'South Africa, in sixteen years of democracy, never has had to take any loans from the World Bank . . . This is an opportunity for the World Bank to build a relationship with South Africa.'²¹ Yet the Bank's 1999 and 2008 'Country Assistance Strategy' documents show conclusively that Medupi is the fifteenth credit from the World Bank Group since 1994.²² As for 'building a relationship', Gordhan also neglected that the Bank co-authored

15. Patrick Bond, *Elite Transition*, London: Pluto Press, 2000; Connie Fields, *The Bottom Line: Have You Heard from Johannesburg*, Berkeley, Clarity Films, 2010, www.clarityfilms.org/joburg/.

16. Castro Ngobese, "Numsa statement on Eskom retrenchments, National Union of Metalworkers of South Africa Press Statement, Johannesburg, April 19, 2010.

17. Peter Bruce, "The thick end of the wedge," *Business Day*, April 19, 2010.

18. Ernest Mabuza, "Valli Moosa-Eskom 'Conflict of Interest'," *Business Day*, February 19, 2009.

19. World Bank, *Silent and Lethal: How Quiet Corruption undermines Africa's development efforts*, Washington, DC: World Bank, 2010.

20. Patrick Bond, *Against Global Apartheid*, London, Zed Books, 2003.

21. Sandrine Rastello, "U.S. lawmakers raise concern about World Bank loan to Eskom," Bloomberg, April 5, 2010, <http://www.businessweek.com/news/2010-04-05/u-s-lawmakers-raise-concern-about-world-bank-loan-to-eskom.html>

22. World Bank, *South Africa: Country Assistance Strategy*, Washington, DC, 1999; World Bank, *South Africa: Country Assistance Strategy*, Washington, DC, 2008

the 1996 Growth, Employment and Redistribution (homegrown structural adjustment) programme, whose orthodox strategies failed and which led South Africa to overtake Brazil as the world's most unequal major country, not to mention more than a dozen other major interventions in social and economic policy.²³ How do Bank loans like Medupi and neoliberal policy advice affect lower-income South Africans?

Power to the people

The ordinary Sowetan working-class consumer offers us a good case study of climate politics associated with high electricity tariffs, in part thanks to extraordinary political mobilisations that have occurred in the Johannesburg suburb of Soweto. In the same spirit as the 1976 uprising there, using the same rhetoric and songs, a new movement against extreme electricity price increases arose in 2000: the Soweto Electricity Crisis Committee. The potential for Soweto civics to address issues beyond their immediate community by tracing the production of a basic need – such as water from Lesotho dams to privatised municipal water to substandard sewage systems²⁴ – has been remarked upon often. But the particular conditions of electricity commodification at a time of Nersa's inability to control Eskom price increases are important to consider.

Sowetans experienced high price increases due to a huge reduction in central-local state subsidies during the 1990s: 85 per cent in real terms according to the Financial and Fiscal Commission.²⁵ As the subsidies ebbed and as Eskom followed its mandate for 'cost-reflexive tariffs', an estimated 10 million people were victims of electricity disconnections after apartheid, and in the early 2000s, the rate increased dramatically.²⁶

This process of electricity commodification was first posed in an apartheid-era (1986) White Paper on Energy Policy, which called for the 'highest measure of freedom for the operation of market forces, the involvement of the private sector, a shift to a market-oriented system with a minimum of state control and involvement, and deregulation of pricing, marketing and production'. After apartheid was replaced in 1994, similar language was found in the Urban Development Strategy (1995), the Municipal Infrastructure Investment Framework (1997 and 2001) and the Energy White Paper (1998). The latter called for 'cost-reflective' electricity tariffs so as to limit any potential subsidy from industry to consumers.²⁷ Asked why cross-subsidisation of electricity prices to benefit the poor was not being considered, Chippy Olver, the state's leading infrastructure-services official explained: 'If we increase the price of electricity to users like Alusaf [a major aluminum exporter owned by BHP Billiton], their products will become uncompetitive and that will affect our balance of payments.'²⁸ BHP Billiton was actually cross-subsidised by retail consumers. Nor did anyone factor in the ecological price of cheap power at the site of production and in the coal-gathering and burning process.

Rising electricity prices across South African townships had a negative impact during the late 1990s, evident in declining use of electricity despite an increase in the number of connections. According to Statistics South Africa, households using electricity for lighting

23. Bond, *Elite Transition*, *op cit*.

24. Bond, *Unsustainable South Africa*, *op cit*.

25. Patrick Bond, *Cities of Gold, Townships of Coal*, Trenton, Africa World Press, 2000.

26. David McDonald, "The Bell Tolls for Thee: Cost Recovery, Cutoffs and the Affordability of Municipal Services in South Africa," Municipal Services Project Special Report, Queens University, Kingston, 2002, http://qsilver.queensu.ca/~mspadmin/pages/Project_Publications/Reports/bell.htm

27. Patrick Bond and Trevor Ngwane, "Community resistance to energy privatization in South Africa," in K.Abramsky (Ed), *Sparking a Worldwide Energy Revolution: Social Struggles in the Transition to a Post-Petrol World*, Oakland, AK Press, 2010.

28. *Mail & Guardian*, 22 November 1996.

increased from 63.5 per cent in 1995 to 69.8 per cent in 1999. However, households using electricity for cooking declined from 55.4 per cent to 53.0 per cent, and households using electricity for heating dropped from 53.8 per cent in 1995 to just 48.0 per cent in 1999. The state agency conceded a significant link between decreasing usage and the increasing price of electricity.²⁹ More than a decade later, most poor South Africans still rely for a large part of their lighting, cooking and heating energy needs upon paraffin (with its burn-related health risks), coal (with high levels of domestic household and township-wide air pollution) and wood (with dire consequences for deforestation). The use of dirty sources of energy has negative consequences, especially for women's health leading to respiratory diseases and eye problems. This is because women are traditionally responsible for managing the home; they are more affected by the high cost of electricity and spend greater time and resources searching for alternative energy. Ecologically sensitive energy sources, such as solar, wind and tidal, have barely begun to be explored, notwithstanding the enormous damage done by South Africa's addiction to fossil fuel consumption.

Nersa's neoliberal pricing principles and the consequent policy of mass disconnections prevented the widespread redistribution required to make Eskom's mass electrification feasible. As protests began in earnest from 1997 and the ANC witnessed rising voting apathy before the 2000 municipal elections, the ruling party introduced a 'Free Basic Services' monthly package of 50 kilowatts of electricity per household, but Eskom delayed implementation and the amount proved far too little, and disconnections increased.³⁰

Eskom continued to be a target of criticism, especially from environmentalists who complained that coal-burning plants lack sufficient sulfur scrubbing equipment and that alternative renewable energy investments have been negligible. Moreover, labour opposition mounted. Having fired more than 40 000 of its 85 000 employees during the early 1990s, as a result of mechanisation and over-capacity, the utility tried to outsource and corporatise several key operations, resulting in periodic national anti-privatisation strikes by the trade union federation.

But it was in Soweto that the resistance became world famous and internationally networked. In 2001, domestic consumers paid an average price to Eskom of US\$0.03 cents per kilowatt, while the manufacturing and mining sectors paid only half that amount. Two years earlier, in 1999, Soweto residents had experienced three increases – amounting to 47 per cent – in a short period as Eskom brought tariffs in line with other areas.³¹ This reflected the move towards 'cost reflectivity' and away from regulated price increases, in order to reduce and eventually eliminate subsidies, so as to achieve 'market-related returns sufficient to attract new investors into the industry', said Eskom.³²

When prices became unaffordable and payment arrears began to mount, Eskom's first strategy was disconnection and repression. Eskom decided in 2001 to disconnect households whose arrears were more than R3200, with payment more than 120 days overdue. An anticipated 131 000 households in Soweto were to be cut off due to non-payment, according to Eskom, even though the company had only 126 000 recorded consumers in the township.³³ Johannesburg Metro authorities decided, in an act of solidarity, to cut off water and began evictions, selling off residents' houses in order to recoup the debts owed in an attempt to pressure people to pay Eskom arrears.³⁴ A survey of

29. Statistics South Africa (2001), *South Africa in Transition: Selected Findings from the October Household Survey of 1999 and Changes that have Occurred between 1995 and 1999*, Pretoria, pp.78-90.

30. Bond, *Unsustainable South Africa*, *op cit*.

31. *The Star*, 15 July 1999.

32. Eskom, *Annual Report 2001*, Megawatt Park, Johannesburg, 2001.

33. Eskom, "Eskom targets defaulters," Press statement, Megawatt Park, February 27, 2001.

34. *Saturday Star*, 10 March 2001; *Star*, 17 May 2001.

Soweto residents found that 61 per cent of households had experienced electricity disconnections, of whom 45 per cent had been cut off for more than one month. A random, stratified national survey conducted by the Municipal Services Project and Human Sciences Research Council found that 10 million people across South Africa had experienced electricity cutoffs.³⁵

The impact of disconnections can be fatal. One indication of the health implications of electricity denial and of supply cuts was the upsurge in tuberculosis rates, as respiratory illnesses are carried by particulates associated with smoke from wood, coal and paraffin. As a result of climate and congestion, respiratory diseases are particularly common in Soweto. In a 1998 survey, two in five Sowetans reportedly suffered from respiratory problems.³⁶ Survey respondents reported many fires in the neighborhood, often caused by paraffin stoves, many of which were harmful to children. Eskom's disconnection procedures often resulted in electricity cables lying loose in the streets.³⁷ Residents were unhappy not only about the high reconnection fees charged but the fact that Eskom used outsourced companies that earned R40 per household disconnection. No notification was given that supply would be cut off, and residents were not given time to rectify payments problems. Eskom can disconnect entire blocks at a time by removing circuit breakers, penalising those who do pay their bills along with those who don't.

Policy reform through serious Nersa regulatory oversight?

South Africa's interlinked climate-energy-economic travesties can only be reversed by a new perspective, one which would cut against the grain of 'captive regulation' – as Nersa's plight has been termed. At the Durban COP17, a range of environmental, community, women's, youth and labour voices demanded effective action to address the greatest crisis of our times:

- major investments in Green Jobs would let metalworkers weld millions of solar-powered geysers, for example, thus allowing Eskom to switch off power to BHP Billiton's aluminum smelters and to halt new power plant construction without net job loss;
- new public transport subsidies should reconfigure apartheid-era urban design and pull us willingly from single-occupant cars;
- an employment-rich zero-waste strategy would recycle nearly everything and compost organic waste so as to eliminate methane emissions at the remaining landfills;
- more direct-action protests against major emissions point sources – Eskom, Sasol, the Engen refinery in South Durban and the new Durban-Joburg oil mega pipeline, for instance – should better link micro-environmental struggles over local air, water and land quality to climate change;
- more ambitious Air Quality Act regulations would label – and then phase out – CO₂, methane and other greenhouse gas 'pollutants', as with the US Clean Air Act;
- government planning and utility board decisions would halt willy-nilly suburbanisation and ungreen maldevelopment; and
- instead of North-South financing via destructive carbon markets, the demand for climate debt repayment would permit the flow of strings-free, non-corrupt and effective adaptation funds.

35. McDonald, *op cit*, 2002.

36. Alan Morris, Belinda Bozzoli, Jacklyn Cock, Owen Crankshaw, Lael Gilbert, Lebo Lehutso-Phooko, Deborah Posel, Zwelakhe Tshandu, and Elsa van Huysteen, "Change and continuity: A survey of Soweto in the late 1990s," Department of Sociology, University of the Witwatersrand, 1999, pp.34-35,41.

37. In a shack settlement outside Cato Manor in Durban, this problem caused the death of 11 children in 2001 (*Mail & Guardian*, 16-22 March 2001).

Conclusion

Superstorm Sandy taught some sobering lessons on October 30. Sandy was profiled in the *London Review of Books*, in an article by Mike Davis entitled “The repo girl is at the door” (referring to the repossession man sent by bankers to collect overdue debts). “The construction since 1960 of several trillion dollars’ worth of prime real estate on barrier islands, bay fill, recycled swamps and coastal lowlands has radically transformed the calculus of loss.” Given such “certifiably insane coastal overdevelopment,” Davis concludes, “Sandy is the beginning of the race for the lifeboats on the *Titanic*.”

The vast storm also raised the bar on climate-chaos damage, with around R350 billion worth of property destroyed in a small section of the northeastern US, in the same cost range as the 2010 flooding of a third of Pakistan and as the droughts that wiped out world grain crops in between, and double the previous year’s Hurricane Irene. As oceans warm up, cyclones and hurricanes also intensify, with their impact soon to be exacerbated by sea-level rise. ‘The volume of Arctic sea ice has been reduced by 75 percent in just 30 years,’ reported the world’s most respected climate scientist, James Hansen of NASA, to the Cornell University Global Labor Institute and Rosa Luxemburg Foundation last month. ‘There is a danger that the ice sheets will begin to collapse and we could get several meters of rising sea levels in one year.’

The need to connect the dots at a time of planetary crisis is obvious, and Nersa should not lose nerve given what is at stake. For example, at last month’s Presidential Infrastructure Investment Conference in Johannesburg, Deputy Public Works Minister Jeremy Cronin confessed what is patently obvious: ‘Too much of our development has been plantation to port, mine to port.’ Instead, we need ‘social infrastructure, such as water, hospitals, schools, and housing, in order to prevent the kind of protests witnessed recently in the mining sector.’ In contrast, instead of recognizing impending climate catastrophe, some in South African business offer a different mandate for state investment: ‘mine more and faster and ship what we mine cheaper and faster’, as *Business Day* editor Peter Bruce ordained just as the R850 billion infrastructure budget was announced in February.

The only question is whether Nersa will allow Eskom and the rest of the MEC to continue along these self-destructive lines, or instead, make a major shift to a more sound, environmental and economically rational, and socially just approach. That approach was recommended earlier today by the organisation groundWork, the local affiliate of Friends of the Earth International, which:

- rejects Eskom’s proposed residential tariff restructuring and calls for the implementation of a revised inclining block tariff with a wider lower band for which the tariff is set at 0c/kWh and more bands at the top;
- calls for the repudiation without compensation of the special pricing agreement with BHP Billiton;
- proposes that the cost of base-load new build be attributed to energy intensive industrial corporations in proportion to their consumption;
- calls on Nersa to consider the externalised costs of construction and operation to the environment and to people’s health and well-being – which makes the price hikes even more burdensome;
- calls for the closure of equivalent capacity in Eskom’s old coal plants as Medupi and Kusile are brought on line;
- calls for the wholesale revision of IRP 2010 before any consideration is given to funding further construction;

- proposes that the 2013 price determination should be for one year only to allow time for the revision of the IRP;
- calls on the South African government to turn away from fossil and nuclear technologies and focus national capacity on building a sustainable energy system under people's control and based on energy conservation and efficiency and renewable generation technologies.

These are excellent stop-gap suggestions that represent logical first steps to addressing the multiple crises caused by Eskom.

Sincerely,

A handwritten signature in black ink that reads "Patrick Bond". The signature is written in a cursive, slightly slanted style.

Patrick Bond Senior Professor and Director, Centre for Civil Society