

A monthly review of energy-related news

South Africa Energy Roundup

AUGUST 2017

Energy planning

Finalisation of 'lowest cost' IRP included in growth action plan

The finalisation of the "lowest cost" Integrated Resource Plan (IRP) for electricity has been included in a list of energy-related interventions unveiled by Finance Minister Malusi Gigaba as part of 'Government's Inclusive Growth Action Plan' published in July. Likewise, the National Treasury calls for a lowest cost Integrated Energy Plan.

The Treasury indicated that a lowest cost IRP should be finalised by February 2018, "taking into account extensive comments received during public consultation" on the draft IRP Base Case, released for public comment in November last year. The Department of Energy (DoE) received public comments until March 31.

The Base Case has been criticised for having included "artificial constraints" on the amount of onshore wind and solar photovoltaic (PV) capacity that could be included yearly. This led several stakeholders to call on the DoE to rerun the IRP in the absence of these constraints so that the Base Case could reflect a 'least cost scenario'. It has been widely speculated that the constraints on wind and solar PV were inserted to ensure that the future electricity mix to 2050 included a new nuclear build programme. However, even the 2016 Base Case indicated that the first new nuclear reactor would be required only from 2037, instead of the 2023 timeframe outlined in the 2010 IRP.

Nevertheless, State-owned power utility Eskom proceeded with the Nuclear New Build Programme request for information and received notification from 27 entities by the end of January that they would be responding by the April 28 submission deadline. However, on April 26, the Western Cape High Court declared the processes hitherto used to procure new nuclear capacity to be unconstitutional and illegal, along with three nuclear-related intergovernmental agreements.

The new action plan has also called for a review of the "pace and scale" of new generation roll-out "under the circumstances of Eskom hardship and overcapacity up to 2021". The action plan set an August 2017 deadline for finalising the review.

Optimism that CSP will be included in new IRP

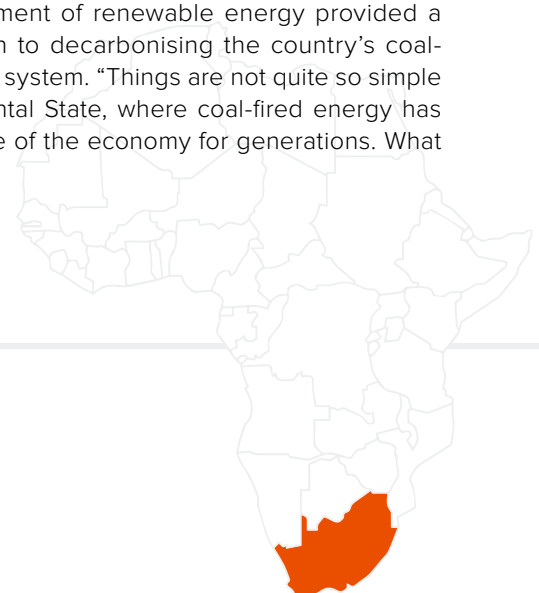
Global engineering and technology group SENER, which is active in three concentrated solar power (CSP) projects in South Africa, is optimistic that the updated Integrated Resource Plan (IRP) will include an allocation for CSP, despite the technology's exclusion from the draft Base Case released last year. Regional MD Siyabonga Mbanjwa says SENER, in cooperation with others in the industry, has made representations to the Department of Energy as part of the IRP public consultation process and that it has been "encouraged" by the reception the technology has received. The industry has sought to counter persistent arguments that CSP is too expensive, offering case studies that show a consistent decline in new-build costs not only in South Africa, but also in countries such as Morocco and the UAE. The technology's ability to store energy, which can be dispatched during peak periods, has also been emphasised, along with expectations that the costs of what is a relatively immature technology should continue to fall as learning rates and deployment increase. Also stressed is the jobs and industrialisation potential of a power generation solution that is civil engineering intensive and includes a thermal cycle that is not dissimilar to that of a coal-fired power station.

Renewable energy

Brown acknowledges cost competitiveness of renewables

Public Enterprises Minister Lynne Brown, who had for some time criticised the high cost of renewable energy, has offered a tacit acknowledgement of the growing competitiveness of solar and wind, while calling for a long-term deal with the renewable-energy sector to avoid job losses in the energy sector. Speaking at the POWER-GEN and DistribuTech Africa Conference in July, Brown said the deal should go "beyond the price Eskom pays per kilowatt at the check-out counter, although that is obviously important". Any deal should also incorporate the necessity for "serious localisation and labour upskilling or reskilling strategies". The Minister, therefore, dismissed arguments that the deployment of renewable energy provided a "simple" solution to decarbonising the country's coal-heavy electricity system. "Things are not quite so simple in a developmental State, where coal-fired energy has formed the spine of the economy for generations. What

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about jobs? What about the economies of coal-mining towns? What is more important, people's ability to eat in the short term, or the earth's long-term ability to breathe," the Minister asked rhetorically, while affirming that both challenges needed to be addressed simultaneously.

The bulk of Eskom's 44 GW, 29 power-station fleet comprises coal-fired power stations, which employ many of its 40 000 employees directly, while also creating tens of thousands of coal-mining jobs upstream.

Hulisani invests in global wind tower producer

JSE-listed Hulisani has structured an investment path into wind towers producer GRI Wind Steel South Africa through an R82.5-million deal, marking Hulisani's move "down the renewable-energy value chain". The investment holding company provided preference share funding for Pele Green Energy (PGE) wholly owned subsidiary Pele SPV 198 to enable PGE to indirectly acquire 12.5% of GRI. This transaction aligns with Hulisani's strategy to acquire and invest in a diverse basket of energy-producing assets with the potential for growth, as GRI produces the elements used in the creation of renewable energy and services a global customer base.

The acquisition is Hulisani's third this year, following the acquisition of Kouga Wind Farm and solar photovoltaic farm Rustmo1.

Temporary mobile transformer helps Loeriesfontein connect to the grid

The Northern Cape-based Loeriesfontein Wind Farm has been using a mobile transformer to allow for an early connection to the grid for the commissioning of the turbines – a temporary solution until the wind farm can connect to the Helios substation, which is the permanent grid connection.

Project developer Mainstream Renewable Power country construction manager Kevin Foster explains the role of the transformer as twofold: it provides temporary power supply to the project, mitigating the risk of the Eskom transmission being delayed, and it allows for the Loeriesfontein Wind Farm to undergo early grid code testing. Ultimately, this will increase the chances of Loeriesfontein commencing with operations early, ahead of the commercial operating date.

Eskom funding and tariffs

Civil society speaks out against Eskom for MYPD noncompliance

The Organisation Undoing Tax Abuse has requested the National Energy Regulator of South Africa (Nersa) to reject State-owned power utility Eskom's application for permission to omit critical statistics in its upcoming Multi-Year Price Determination (MYPD) electricity price application. The MYPD, which was amended by Nersa last year, will set electricity prices for 2018.

Eskom has requested a "blanket condonation" from Nersa to deviate from the MYPD methodology. The amended Nersa rules require greater operational transparency from Eskom, including transparency with regard to its coal-burning operations. However, Eskom has reiterated that it will be unable to meet certain requirements of the MYPD methodology, as well as certain minimum information requirements for tariff applications.

Eskom expects DFIs to form 'backbone' of capital-raising effort in coming three years

State-owned power utility Eskom indicated that funding from development finance institutions (DFIs) is likely to form the backbone of its capital-raising effort over the coming five years, during which its debt is expected to peak at R500-billion.

However, Eskom followed fellow State-owned company Transnet in stressing that the market remained receptive to its bonds, despite its subinvestment-grade rating, the recent downgrade of South Africa's foreign currency rating to junk status and investor questions about the state of governance at the company. Debt at the utility stands at about R350-billion and is mostly backed by a R350-billion government guarantee, which has been extended until 2023.

The South African utility signed a \$1.5-billion financing facility agreement with the China Development Bank in July and indicated that it might seek to secure up to \$5-billion from the Chinese DFI to help fund its build programme. This is the second facility approved for Eskom, following on from a \$500-million credit facility agreement concluded in October last year.

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Eskom tariffs in AMSA's action plan crosshairs

Steel producer ArcelorMittal South Africa (AMSA) will approach the National Energy Regulator of South Africa directly with a request for discounted electricity tariffs as part of a multipronged business sustainability action plan unveiled after the JSE-listed group slumped to a R1.6-billion headline loss in the six months to June 30.

The steel producer argues that, in the context of State-owned power utility Eskom's current surplus, South Africa's prevailing recession and the hardship being experienced by the steel industry, it has a strong case for tariff relief. In fact, AMSA CEO Wim de Klerk reports that the winter tariff being paid by Saldanha Steel, in the Western Cape, has been benchmarked to be 180% more expensive than the highest power prices paid elsewhere within the bigger ArcelorMittal Group. During winter, Saldanha Steel's tariff rose to \$0.22/kWh, from \$0.06/kWh in summer.

Nersa calls for comment on special pricing deal to unlock ferrosilicon production

The National Energy Regulator of South Africa (Nersa) is calling for written comments on an application by State-owned power utility Eskom to implement a two-year incentive pricing package that will enable the restart of ferrosilicon production in Limpopo and Mpumalanga.

The regulator turned down an earlier request to implement a so-called negotiated pricing agreement (NPA) between the two companies, owing to the absence of a framework for adjudicating such applications.

The plants in Polokwane and eMalahleni are owned by Silicon Smelters. In a consultation paper on the proposed NPA, Nersa states that the company ceased all ferrosilicon production in June 2016, owing to a combination of weak demand and uncompetitive production costs, with electricity listed as one of the largest cost components. Producing a ton of ferrosilicon consumes 13.3 MWh of electricity, making the process as energy intensive as aluminium smelting. Silicon Smelters, which has moved to retrench more than 3 000 staff as a result of the production cuts, has indicated that it has no immediate intention of restarting domestic production unless a more favourable electricity price can be secured. It also notes that Ferroglobe has been successful in negotiating

"significantly improved" power pricing in a number of other countries. For its part, Eskom has indicated that it is eager to discuss ways of increasing sales to electricity-intensive businesses, noting that industrial demand has fallen steadily since 2007, while its supply surplus is expected to rise as new output is introduced.

Solidarity seeks out govt collaboration on solution to high power-rates during winter

Trade union Solidarity has requested industry players, government and State-owned power utility Eskom to convene a solution-seeking roundtable to discuss the high power-rates during winter and their negative impact on the steel and chrome industry. Under the Save Our Steel Campaign, Solidarity metal and engineering deputy general secretary Marius Croucamp says it has sent a letter to government requesting an urgent high-level meeting to delve into this matter. "Companies close plants and shut down smelters, owing to the higher power rates that apply in June, July and August. When production is halted at companies, no economic growth takes place, which could result in retrenchments at the companies in question," he explains. In light of this, Solidarity suggests that a model allowing for flexibility must be found to assist and support companies during the winter power tariff period.

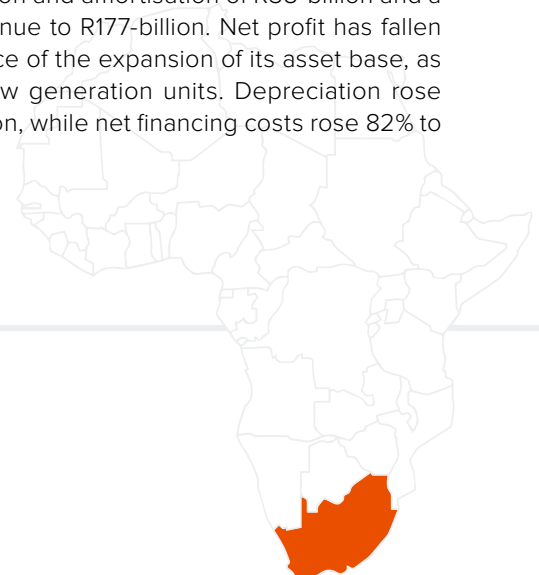
State capture casts long shadow over Eskom's results

South Africa's worst kept corporate secret was confirmed on July 19, when State-owned power utility Eskom reported a sharp fall in after-tax profits to R888-million in 2017, from more than R5-billion in the previous financial year.

However, the results were all but overshadowed by serious allegations of corruption and maladministration at the utility, which has become the focal point of claims of State capture by a predatory elite.

Eskom executives have dismissed media reports that the company is in severe financial difficulties and down to its "last R20-billion". Notwithstanding the fall in net profit, Eskom reported a 14.4% rise in earnings before interest, taxes, depreciation and amortisation of R38-billion and a 7.9% rise in revenue to R177-billion. Net profit has fallen as a consequence of the expansion of its asset base, as it introduced new generation units. Depreciation rose 22% to R20-billion, while net financing costs rose 82% to

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more than R14-billion. Eskom also reported a 13% rise, to R33-billion, in employee-related costs.

Eskom reported a fall in electricity sales volumes, which declined 0.2% last year, despite a 12.1% rise in international sales to the rest of the region. Industrial and agricultural demand fell by 3.7% and 5.7% respectively, which Eskom attributed to lower ferrochrome demand and the drought conditions during the period, which reduced pumping by farmers. Domestic power consumption had declined by 0.5% a year on average since 2006, led by large power users, with the fall in consumption calculated by Eskom to be 1.7% a year over the past ten years.

Eskom leadership

Eskom CFO Anoj Singh placed on special leave

State-owned power utility Eskom CFO Anoj Singh was placed on special leave on July 27, amid mounting allegations of improper financial dealings by the power utility with companies in the Gupta business empire. Calib Cassim, a chartered accountant with 15 years' service at Eskom, is serving as interim CFO.

Public Enterprises Minister Lynne Brown says the board's decision to grant Singh special leave will facilitate a probe into Eskom's affairs.

Former interim Eskom CEO faces disciplinary charges

Disciplinary proceedings have been instituted against previous interim State-owned power utility Eskom CEO Matshela Koko, following a June 23 report by Cliffe Dekker Hofmeyr and auditor Nkonki confirming conflict-of-interest issues relating to Koko's stepdaughter, Koketso Choma. Choma was a shareholder in Impulse International, which received Eskom contracts valued at an estimated R1-billion from a division overseen by Koko. The charges were drafted and have been dispatched to Koko, who has been on leave from Eskom since late June.

Public Protector to investigate Brian Molefe over R30m 'golden handshake'

Public Protector Advocate Busisiwe Mkhwebane has agreed to investigate disgraced former State-owned power utility Eskom CEO, Brian Molefe, for the R30-million

"golden handshake" he was awarded by the beleaguered power utility. The Democratic Alliance requested the investigation after it emerged that the Eskom board approved the payout to Molefe after only 18 months as CEO of Eskom.

Request for SIU probe of Eskom submitted to President Zuma

Public Enterprises Minister Lynne Brown has submitted a formal request to President Jacob Zuma to establish a Special Investigations Unit (SIU) to investigate allegations of impropriety at State-owned utility Eskom. The request has also been handed to Justice and Correctional Services Minister Michael Masutha. The Minister has described the SIU probe as a "deep dive" into all allegations that have emerged from several previous investigations at the utility since 2007.

The primary focus of the SIU probe will be on allegations of maladministration and corruption that have persisted since 2010. "There are about ten investigations that have taken place since 2007. So what I really want is to synergise those investigations. There are many of the recommendations that have been followed through, but there are many that have not been followed through since 2007. However, the dominant focus will be on the period from 2010 to 2017."

Other

Inga 3 capacity to double

The Democratic Republic of Congo (DRC) has decided to more than double the size of its planned Inga 3 hydroelectric plant to make it more economical after the \$14-billion project was hit by financing problems. Inga 3 is part of a \$50-billion to \$80-billion project to expand hydroelectric dams along the Congo river, but the project has repeatedly been delayed by red tape and disagreements between the DRC and its partners on the project.

A consortium led by China Three Gorges Corporation and another consortium that includes Spain's ACS have been vying to develop the project. They will now submit a joint bid on the expanded project in September.



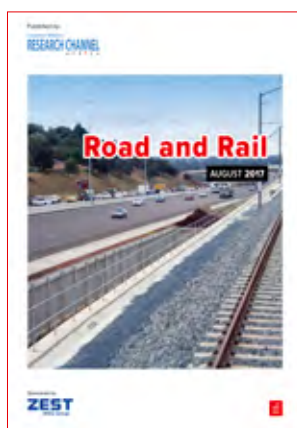
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The plant will be built to produce between 10 000 MW and 12 000 MW of power, more than double the originally planned capacity of 4 800 MW. Agency for the Development and Promotion of the Grand Inga Project director Bruno Kapandji says the increased capacity will

help meet rising power demand and bring down costs, although he did not say how much the expanded project would cost. The original \$14-billion project struggled to attract financing.

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