Published by:
Creamer Media's
RESEARCH CHANNEL
AFRICA

A MONTHLY REVIEW OF ENERGY-RELATED NEWS

SOUTH AFRICA ENERGY ROUNDUP

JULY **2019**

CREAMER MEDIA'S
ENGINEERING NEWS

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ESKOM GENERATION AND SALES

Eskom appoints Nxumalo as new head of generation

State-owned power utility Eskom has announced that Bheki Nxumalo has been appointed as its group executive for generation as of July 1, 2019. Nxumalo takes over the role permanently from Andrew Etzinger, who has been acting in the position for the past nine months. Nxumalo has more than two decades of experience in the generation business, including having worked as power station manager at Groovlei and Matimba. He was also previously project manager at Kusile and, having left Eskom for ACWA Power in 2016, returned as acting CEO of Rotek Industries in 2017. Nxumalo holds an MBA and is a registered engineer with the Engineering Council of South Africa.

ESKOM FINANCES AND CORPORATE

R230bn support for Eskom to be front-loaded

President Cyril Ramaphosa has announced that the R230-billion in fiscal support being directed to debt-laden power utility Eskom over the coming ten years, will be structured in a way that ensures a significant portion is provided in the early years. A Special Appropriation Bill will be tabled in Parliament on an urgent basis to facilitate such front-end loading, the President said in his post-election State of the Nation Address (SoNA) in June. Finance Minister Tito Mboweni announced in his February Budget speech that R23-billion a year would be injected into Eskom for at least three years, but possibly ten years, to stabilise the cash-strapped utility. The injection was made conditional on Eskom's restructuring, including a plan to split the vertically integrated utility into three separate businesses of generation, transmission and distribution. The process would be overseen by a chief restructuring officer, a position that Mboweni likened to that of a curator appointed when a bank received State support. It subsequently became clear that the injection fell well short of what was required to place Eskom on a sustainable financial footing, in light of the utility's debt burden of about R450-billion and rising, surging interest payments and mounting losses. Delivering his second SoNA of 2019 in Parliament, Ramaphosa confirmed that the injection would be sustained and accelerated. He also described the fiscal support as being necessary, because Eskom was "too vital to the economy to be allowed to fail", or default on its debt.

Eskom may be 'too big to support', S&P warns

S&P Global Ratings has warned that, while South Africa's State-owned electricity utility Eskom is currently considered too big to fail, it may well also be "too big to support", owing to the costs associated with stabilising the group's finances. Sovereign ratings director Ravi Bhatia has said that the recently announced financial support package for Eskom would act as a constraint on fiscal consolidation in South Africa and raise the country's overall debt burden. Nevertheless, the commitment to inject R23-billion a year of additional funding into the utility for ten years was also not sufficient on its own to improve Eskom's liquidity outlook and credit rating. Bhatia also listed State-owned enterprise restructuring as one of the reforms required to elevate South Africa's growth rate, which remained "well below most emerging market peers on a per capita basis". S&P recently lowered it 2019 growth forecast to 1%, but Bhatia said that South Africa might well fall short of that lowered forecast in light of the 3.20% gross domestic product collapse in the first quarter. In March, S&P Global Ratings revised its outlook on Eskom to stable from negative, but maintained a CCC+ subinvestment-grade credit rating on the utility. It also stated that the rating would have been two notches lower on a standalone basis, or assuming a low likelihood of government support.

Government says Eskom creditors won't lose out in restructure

South Africa has laid out a timeline to restructure power group Eskom and pledged that creditors of the State-owned power company will not suffer. Treasury director-general Dondo Mogajane set out the steps in a meeting with investors in London in late June, according to a fund manager, who asked not to be identified because the event was not public. According to the person, Mogajane said:

- the government bailout announced by President Cyril Ramaphosa would enable Eskom to function as a going concern for two years.
- an appropriation Bill for the bailout would be approved by the end of July.
- a chief restructuring officer (CRO) and team have been identified, and will be announced in mid-July.
- the CRO will produce a plan to deal with Eskom's debt within 18 months; the government guarantees that investors would not suffer losses.
- Eskom will be unbundled in two years, which will close some of the cash-flow gap. After that, the government will decide whether a further bailout is needed.
- the Eskom bailout is more important to South Africa than losing the country's investment-grade rating at Moody's Investors service, though he does not think it would lead to a downgrade.

Eskom has more than R440-billion of debt and does not generate enough cash to service it.

Greenpeace study recommends Eskom sell its coal-fired power stations

A study commissioned by Greenpeace Africa has recommended that State-owned Eskom, as part of its reform, gradually spin out its coal-fired power generation activities to new generation companies that will operate the power plants for the remainder of their operating lives. Greenpeace had commissioned energy economist Professor Dr Uwe Leprich to compile the study, titled 'Eskom: A roadmap to powering the future', as it believes the utility needs a new business model, given that its debt is approaching R500-billion and that the South African economy is contacting. Greenpeace Africa senior political adviser Happy Khambule states that the roadmap provides solid options for the country's electricity supply industry crisis, outlines a realistic and sustainable future for Eskom and ensures that all crucial functions of the South African electricity system improve. The study considered several international experiences and trends of phasing out coal and unbundling and breaking up absolute monopolies in the electricity sector.

It recommends the refinancing of Eskom through the decommissioning of coal-fired power stations older than 40 years and the sale of all remaining coal-fired power plants, along with strict conditions in terms of the power stations' compliance with existing air quality and environmental regulations and clear timelines for their closure. Greenpeace has emphasised that overhauling the country's electricity sector must be accompanied by at least two key elements – a coal phase-out law, which gradually, but completely phases out coal-fired power generation by 2040; and a Just Transition process that engages all key stakeholders in a dialogue that should lead to a series of negotiations on a social compact. The study also proposes the introduction of an independent transmission operator to improve the security of electricity supply and provide fair access for new renewable power plants such as wind and solar.

Sakeliga to further investigate Eskom BEE matter

Business organisation Sakeliga has instructed its legal team to evaluate a recommendation by the Broad-Based Black Economic Empowerment (BBBEE) Commission that State-owned power utility Eskom cancel a R4-billion contract awarded to Dongfang Electric Corporation. The commission has said that Eskom failed to comply with the BBBEE Act by awarding a boiler tender for the Duvha power station to Dongfang, which has 0% black ownership, while the tender specified Level 4 BBBEE compliance. Sakeliga is engaged in litigation with the Department of Public Enterprises to have regulations that allow race-based pre-disqualification of prospective contractors set aside. The regulations, adopted in 2017, allowed State-owned enterprises such as Eskom to set their own discretionary and arbitrary minimum BEE requirements for contractors wanting to do business with State entities. Sakeliga claims that if a prospective contractor is not 51% black-owned, Eskom will frequently pre-emptively disqualify it, without considering the proposals.

Trillian judgment welcomed

Eskom has welcomed a High Court judgment ordering Trillian to pay back the R595-million it earned in an "unlawful and invalid" contract. The Gupta-linked advisory firm was ordered by the High Court in Pretoria to pay back the money after the utility in March 2018 launched a bid to set aside its payments to the firm as well as global consultancy McKinsey. McKinsey paid back close to R1-billion last year. In a statement, Eskom chairperson Jabu Mabuza says the debt-laden utility "looks forward to receiving the money". He urges other corporates who had conducted illegal business with the utility to "come forward voluntarily".

RENEWABLE ENERGY

Companies merge into Sola Group to meet renewable-energy demand

Aurora Power Solutions and Sola Future Energy are combining forces to form Sola Group, bringing together a large solar project pipeline, including 48 MW in Zambia and 79 MW in South Africa. The two companies merged in March 2018 and, as of June 1, have consolidated their offering as a vertically integrated renewable-energy company, offering all stages of solar photovoltaic (PV) implementation – from project development and financing, to design, procurement, construction and the operation and maintenance of solar PV facilities.

Conco wins eSwatini solar power project

South Africa's Consolidated Infrastructure Group (Conco) has won a $16-million contract to build a 10 MW solar project, in eSwatini. The kingdom, formerly known as Swaziland, imports 80% of its electricity from South Africa's troubled utility Eskom but is looking to boost its energy independence. Earlier in June, eSwatini called for bids to build 40 MW of solar power capacity. It plans to produce 100% of its own power by 2034, including through the expansion of the Maguga dam project.

Perdekraal East Wind Farm turbine foundations completed ahead of schedule

The developers of the Perdekraal East Wind Farm, in the Western Cape, have completed the project's 48 wind turbine foundations – three weeks ahead of schedule and still within budget. The first of the foundations was poured in November 2018. The majority of the labour was employed from the local communities of Ceres, Nduli, Bella Vista and the Prince Alfred Hamlet, in support of local employment and upliftment. In a statement, the developers says the foundation design used a 70% replacement of cement, signalling a significant improvement in the concrete mix, having a 32.5% reduced carbon footprint. Further, all material excavated from the foundations had been reused on the site, either as fill on roads or in preparation for the hard stands, situated adjacent to the foundations. Each turbine base has a diameter of 19 m and comprises over 45 t of reinforced steel and 369 m^3 of 30 MPa concrete; while the plinth requires 23 m^3 of 60 MPa concrete. This is equivalent to a total of 65 full concrete trucks per foundation. The 110 MW wind farm spans 3 055 ha.

Rooftop solar installed base grows beyond 400 MW

An analysis conducted by the Council for Scientific and Industrial Research (CSIR) Energy Centre outlines significant potential to create thousands of full-time jobs and to nurture hundreds of small enterprises by supporting the further deployment of small-scale embedded generation (SSEG) plants. Even in the absence of a supportive environment, the centre estimates that South Africa's installed base of SSEG plants, mostly in the form of rooftop solar installations, has grown to above 400 MW from close to zero ten years ago. This growth has coincided with a steep rise in South Africa's electricity tariffs over the period and a similarly steep fall in the cost of solar photovoltaic (PV) modules. Between 2007 and 2017, the average electricity tariff in South Africa increased by 384%, while solar PV technology costs fell by more than 530%. CSIR Energy Centre head Dr Clinton Carter-Brown reports that its research pointed to there being a total of 387 MW of SSEG capacity installed in South Africa by the end of 2017. A further 150 MW to 200 MW was likely to have been added last year alone, spurred partly by a return to load-shedding by Eskom during the year.

SAWEA supports small-scale embedded generation

The time has come for South Africa to reconsider how energy is supplied and to evolve and adapt its outdated systems, says the South African Wind Energy Association (SAWEA). SAWEA says the country should start shifting away from a centralised monopoly to a more efficient, decentralised generation model, which includes small-scale embedded generation (SSEG). SAWEA board member and Council for Scientific and Industrial Research Energy Centre group leader Ntombifuthi Ntuli highlights that renewable-energy independent power producers have the ability to raise finance to develop smaller projects that reach commercial operation in an average of 24 months, which is far quicker than building new coal-fired power stations. Further, renewable-energy projects contribute to a reduction in carbon emissions and water consumption. However, Ntuli points out that a foreseeable downside to the connection of SSEG projects could be their impact on the distribution network. If not planned properly, the integration of SSEG projects could pose systems operation challenges in the long run.

Solar plant to power Pietermaritzburg Mall

Liberty Two Degrees (L2D) and Liberty Group, co-owners of Liberty Midlands Mall, have completed the R12-million installation of a 1 MW solar photovoltaic plant at the centre. The plant was commissioned on the roof structure of the mall's 22 000 m^2 Lifestyle Centre. The plant is designed and manufactured to operate for at least 25 years.

Wind power construction to peak at above 1 GW in 2020/21 – WoodMac

Wind energy construction activity in South Africa will peak at more than 1 GW of capacity in 2020/21 as developers race to operationalise projects that were awarded during the fourth bid window of the Renewable Energy Independent Power Producer Procurement Programme, says Wood Mackenzie (WoodMac) Power and Renewables. Its 'Africa wind power market outlook 2019' report states that, in the longer term, the country's Integrated Resource Plan is expected to target more than 10 GW of additional wind power capacity through 2030. Further, President Cyril Ramaphosa's proposed reforms for the power sector are expected to create a more favourable environment for renewable-energy deployment. South Africa boasts Africa's largest wind power market with 2.1 GW of operational capacity as of the first quarter of 2019. Issues with governance in 2016 and 2017 had negatively impacted on the local wind market, as no new additions were recorded in 2018, says WoodMac senior analyst Sohaib Malik. However, installations are expected to restart in 2019 with 130 MW of new capacity additions, though potential project delays jeopardise that capacity and limit any upside potential for additional capacity. Growth prospects improve thereafter, with more than 1 GW of capacity expected in 2020 and 2021 combined. This outlook is supported by ongoing construction activity, peaking in 2020 as independent power producers race to achieve commercial operations. Meanwhile, cumulative wind power capacity in Africa stood at 5.5 GW by the end of 2018. Africa's wind project pipeline stands at 18 GW as of the first quarter of 2019, says Malik.

OIL AND GAS

South Africa working on new oil, gas policy to enable growth

South Africa is working on a policy to govern the development of oil and gas resources after calls by potential investors to shield the industry from a long-running debate over laws that apply to mining exploration. The finalising of oil legislation has become more urgent since Total announced the first significant deep-water oil find off the coast of South Africa in February. Since the discovery, which has an estimated one-billion barrels of crude reserves, rival Royal Dutch Shell has bought a stake in exploration blocks in the same area from Anadarko Petroleum. Mineral Resources and Energy Minister Gwede Mantashe said in a speech to Parliament in Cape Town in June that the department had begun with the process of developing a Petroleum Resources Development Bill. Developing a separate oil and gas policy will protect the industry from uncertainty that has held back the mining sector, which has been bogged down in debates over a new government charter aimed at redistributing the country's mineral wealth. The Bill "will further provide regulatory certainty to the upstream petroleum industry and stimulate growth and development of this sector", Mantashe said, without giving details of when he expects the draft law to come before Parliament.

OTHER

Environmental organisations take Highveld pollution matter to court

Environmental justice group groundWork and community organisation Vukani Environment Justice Movement in Action have launched "landmark litigation", demanding that government clean up the air in the Mpumalanga Highveld. GroundWork and Vukani on June 7 served papers to the High Court, asking that President Cyril Ramaphosa, the National Air Quality Officer and Environment, Forestry and Fisheries Minister Barbara Creecy, declare the levels of air pollution on the Highveld a violation of people's Constitutional rights. The court case is also aimed at forcing government to take meaningful action to implement and enforce the 2012 Highveld Priority Area (HPA) air quality management plan (AQMP). GoundWork and Vukani, represented by the Centre for Environmental Rights (CER), alleged that government had violated the Constitutional right to a healthy environment for the people living and working in the HPA, by failing to deal with "deadly levels" of air pollution in the area. The CER said Mpumalanga accounted for about 83% of South Africa's coal production, with Eskom owning 12 coal-fired power plants in and around the HPA. Environmental organisation Greenpeace Africa in October 2018 reported on satellite data, which revealed that Mpumalanga had the highest nitrogen dioxide emissions of any area across six continents. In 2007, the then Environmental Affairs and Tourism Minister Marthinus van Schalkwyk had designated the HPA because of the poor air quality in the province. Nearly five years later, in 2012, the then Environmental Affairs Minister Edna Molewa published an AQMP to clean up the HPA's air pollution. However, little has changed since then. GroundWork alleges that human exposure to toxic chemical compounds emitted by the coal-fired power plants, such as sulphur dioxide, heavy metals such mercury, and fine particulate matter, result in chronic respiratory illnesses such as asthma, bronchitis and lung cancer, and contribute to strokes, heart attacks, birth defects and premature death. In a health risk modelling study done and submitted to court by independent expert and Gray Sky Solutions founder Dr Andrew Gray, he estimates that emissions from the nearby facilities – Eskom's 12 power plants and two major fuel refineries within the HPA – resulted in between 305 and 650 early deaths in 2016.

The world will get half its power from wind, solar by 2050

Nearly half the world's electricity will come from renewable energy by 2050 as costs of wind, solar and battery storage continue to plummet. That titanic shift over the next three decades will come as electricity demand increases 62% and investors pump $13.3-trillion into new projects, according to a report by BloombergNEF. The move away from fossil fuels has sweeping implications for energy markets and the fight to stave off climate change. Wind, solar and batteries are poised to enable the power sector to meet its share of emission cuts required under the Paris climate agreement, at least until 2030, according to BNEF. By 2050, solar and wind will supply almost 50% of the world's electricity, with hydro, nuclear and other renewable-energy resources providing another 21%, according to BNEF. Coal will be the biggest loser in the power sector, with its share of global generation plunging from 37% today to 12% in 2050, BNEF said. Those other renewables could include geothermal systems, fuel cells and devices that harvest energy from ocean waves and tides. But it is unclear which, if any, will be economical to deploy on a mass scale. Other low-emission technologies could be developed between now and 2030. BNEF forecasts that many nations can cut power-sector emissions through to 2030 in line with goals set in Paris to limit the increase in world temperatures to less than 2 °C above preindustrial levels. And they can do that without additional subsidies for solar and wind, BNEF says. Since 2010, the cost of wind power has dropped by 49%, and solar has plummeted 85%, according to BNEF. That makes them cheaper than new coal or gas plants in two-thirds of the world. Battery storage costs, meanwhile, have dropped 85% since 2010.

Wild weather is endangering world's oldest form of clean power

The Kariba dam has towered over one of Africa's mightiest rivers for 60 years, forming the world's largest reservoir and providing reliable electricity to Zambia and Zimbabwe. However, as drought grips the region, flow on the Zambezi river has dwindled to a third of what it was a year ago. In May, Zambia's State-owned power utility began cutting output, unleashing daily blackouts that leave more than 17-million people in the dark. Around the globe, climate change is sapping hydropower's dependability as rivers that once ebbed and flowed with seasonal regularity have grown erratic. In Brazil, record drought triggered blackouts in 2015. In California, output from dams has swung wildly from year to year. In Europe, Spanish utility giant Iberdrola SA's hydro output reached a record high in 2016, then plunged 57% the following year. The shift has profound implications for regions that depend on dams for power and is prompting utilities and investors to more closely scrutinise what has long been one of the largest sources of carbon-free electricity. "Hydropower is going to be less effective," says professor at the University of Wisconsin-Milwaukee's School of Freshwater Sciences Jenny Kehl. "As the water levels decline, the capacity for hydropower plants to generate electricity will decrease." Droughts are only half the problem. As California was enduring one of its wettest winters on record in 2017, heavy rains inundated the lake supplying Oroville's hydroelectric power northeast of San Francisco. The pressure crippled a spillway, forcing nearly 200 000 people living downstream to evacuate.

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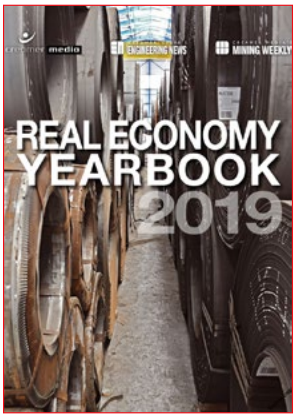

This report has been compiled by Creamer Media's Research Unit, based in Johannesburg, South Africa. It forms part of a monthly series that is available for purchase, as well as free of charge to subscribers to Creamer Media's Research Channel Africa and Mining Weekly Research. The information has been drawn from sources believed to be reliable, but no warranty is made on the accuracy of such information. The report covers activities across South Africa for June 2019.

Publication date: July 2019

Main sources: *Engineering News*, *Mining Weekly*, African News Agency, News24Wire and Reuters.