Published by:
Creamer Media's
RESEARCH CHANNEL
AFRICA

A MONTHLY REVIEW OF ENERGY-RELATED NEWS

SOUTH AFRICA ENERGY ROUNDUP

NOVEMBER **2019**

CREAMER MEDIA'S
ENGINEERING NEWS

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ESKOM FINANCES AND CORPORATE

Eskom restructuring plan unveiled

Public Enterprises Minister Pravin Gordhan has released the long-awaited restructuring plan for power utility Eskom in a 'special paper', titled a 'Roadmap for Eskom in a Reformed Electricity Supply Industry'. The paper outlines how the vertically integrated company will be separated into three State-owned subsidiaries, under Eskom Holdings, of generation, transmission and distribution. The functional separation of the transmission company, which will have its own board, is scheduled for completion by March 2020, while complete legal separation is scheduled for December 31, 2021. Eskom's 16 coal-fired power stations, meanwhile, will be grouped into three clusters in an effort to introduce an element of competition, with the aim of realising cost savings and efficiency gains. No timeframe has been set for the creation of the clusters, but a similar model was proposed and planned for in the 1990s when it was envisaged that any new generation capacity would be built by the private sector and Eskom should, thus, prepare for competition. The cluster model collapsed, however, once it became apparent that new-generation capacity was urgently required and Eskom was instructed to begin building new capacity. No private participation is envisaged, but the paper states that each power station will be "placed on its own power purchase agreement with predefined, fixed and guaranteed tariffs for energy and firm capacity". It also states that the CEO of the generation subsidiary will be incentivised on the performance of the power stations, as measured by the energy availability factor.

Eskom seeks to recover R207m from Deloitte

Cash-strapped Eskom wants two contract awards set aside and the recovery of R207 716 243.80 for improperly-awarded work, during 2016, from auditing firm Deloitte Consulting. The State power supplier also wants its former CFO Anoj Singh, and senior executive Prish Govender, to pay the costs of its application.

Light at the end of the Eskom tunnel, despite utility's debt burden

Embattled utility Eskom COO Jan Oberholzer says he sees some light at the end of the Eskom tunnel as long as the utility gets financial assistance from government. He told delegates attending the Southern Africa Power Summit, in October, that Eskom had excellent engineers and specialists, but was struggling with debt that could reach R500-billion by the end of the year. He also called for far greater political will to urge people to pay municipalities for the electricity they use. Municipal debt has ballooned by R3-billion over the past two months alone. Further, Oberholzer said he was working with the Special Investigating Unit to uncover corruption that was "a sickness within Eskom", but that revelations continued to emerge. At the Kusile coal-fired power station project, in Mpumalanga, five contractors had been overpaid by R4-billion. The budget for the Kusile power plant has nearly doubled to about R160-billion, while the budget for the Medupi power station, in Limpopo, had also doubled from R78-billion to R145-billion. Significant latent defects in the new plant, particularly boilers that were too short, were also causing a headache and leading to damage downstream.

Tariffs could rise materially in 2020 should Eskom prevail in court bid for urgent relief

State-owned electricity utility Eskom's decision to approach the courts for urgent relief in the form of a reversal of the National Energy Regulator of South Africa's controversial March 7 decision to offset a government equity injection of R69-billion through a lowering of the utility's return on assets could result in material increases in electricity tariffs in the coming two years. Eskom announced on October 11 that it had applied for urgent interim relief against the regulator's fourth multiyear price determination (MYPD4), which it would also take on legal review on a non-urgent basis. The utility said the regulator's decision to offset the equity investment, which Finance Minister Tito Mboweni announced in his February Budget would be disbursed at R23-billion a year for three years, "defeated the whole purpose of government support". The decision, it added, was at odds with the MYPD methodology and the Electricity Regulation Act, which required the regulator to set revenues reflective of prudent and efficient costs, including a reasonable return on capital. The review of the MYPD4 was not unexpected, with the utility having already moved to review the 2018/19 determination, as well as three regulatory clearing account decisions for the 2014/15, 2015/16 and 2016/17 financial years. When the MYPD4 decision was announced, Eskom also immediately highlighted that the determination had left it with a R102-billion financial hole, but that it would study the regulator's reasons before taking it on review. Those decisions were eventually published on October 9, triggering not only the review, but more surprisingly, a decision to approach the courts for urgent relief. GM for regulation Hasha Tlhotlhalemaje reports that the application for urgent relief has been submitted to the Gauteng North High Court and that Eskom expects the matter to be adjudicated by February 2020.

Treasury keeps Eskom debt-relief powder dry as it awaits unbundling progress

Finance Minister Tito Mboweni did not unveil a debt-relief plan for struggling power utility Eskom in his October Medium-Term Budget Policy Statement (MTBPS), announcing instead that any debt restructuring would be negotiated only once the utility had reduced costs and made unbundling progress. The total cost of Eskom's yearly debt and interest payments will average R85-billion over the coming three years and the National Treasury acknowledges in the MTBPS that Eskom's R441-billion debt portfolio as of March 31, 2019, is "well beyond what it can afford to hold without government support". Eskom's debt has risen beyond R450-billion since the end of March. Nevertheless, Mboweni said that the "appropriate size of debt relief" would be approved only "once I am convinced that the Eskom board and management has made an irrevocable commitment to implement government's decisions and there is enough progress". He also announced that any further direct financial support to Eskom from the fiscus would take the form of loans rather than equity injections. Government has already confirmed support of R230-billion over a ten-year period and Mboweni said that "very difficult Budget adjustments have been made" to accommodate Eskom. Proposed transfers of R49-billion in the current year include the R23-billion announced in the 2019 Budget, which has been frontloaded, as well as a further R26-billion arising from the Special Appropriation Bill released in July. To date, R13.5-billion has been transferred to Eskom during 2019/20 and further requests for short-term financial support in the current financial year will be limited to the remaining balance of R35.5-billion, which will be transferred in accordance with Eskom's cash flow requirements, pending the enactment of the appropriation Bills. A further R56-billion will flow to Eskom in 2020/21, after which any further support will arise in the form of loans rather than equity.

COAL

Energy transition the 'right path' for South Africa, says coal miner CEO

South Africa's transition from coal-fired electricity generation to other sources is a "complicated problem to solve", as the solution cannot depend on one organisation, or entity, alone, says coal miner Exxaro Resources CEO Mxolisi Mgojo. Focusing on South Africa's "unique and current situation", he says the solution does not stem from having one energy source, or another. The issue is rather the levels of inequality and unemployment, a failing education system and serious corruption issues. This is just the country's socioeconomic problems, without even getting to the energy debate. South Africa will have to deal with its social and economic challenges while transitioning to using new energy sources. However, the need to transition is the "right path" for South Africa in the long term, Mgojo notes.

RENEWABLE ENERGY

Globeleq appoints new CEO

Africa-focused independent power producer Globeleq has appointed current COO and CFO Mike Scholey as its new CEO, effective January 1. He will succeed Paul Hanrahan. Globeleq chairperson Laurence Mulliez says Scholey's well-established relationships with key stakeholders, coupled with his business insights and current experience working with Hanrahan, make him the best candidate for the role.

Harmony considers solar PV roll-out at Free State mines

Solar technology developer SOLA Group has signed a heads of terms agreement with a consortium, which intends to install three solar photovoltaic (PV) plants at gold miner Harmony Gold in the Free State. The three solar PV plants, totalling 26 MW, will power three of Harmony Gold's mines in the region. SOLA Group is actively investigating energy storage solutions for a number of mines in Southern and West Africa.

IRP bodes well for solar industry – SAPVIA

The South African Photovoltaic Industry Association (SAPVIA) has welcomed the release of the Integrated Resource Plan (IRP) and says the significant allocation toward renewable energy bodes well for the industry. The IRP 2019 has made an allocation of 6 000 MW of new-generation capacity for large-scale solar photovoltaic (PV) capacity and about 6 000 MW for embedded generation. Commenting on the IRP, SAPVIA chairperson Wido Schnabel has said that the association will continue to engage Mineral Resources and Energy Minister Gwede Mantashe to find mechanisms to "smooth out the gaps" for solar power in the plan. In 2024, 2026 and 2027 no new solar PV is envisaged to be added to the grid and Schnabel points out that continuity is important for investment in industrialisation. SAPVIA also welcomed the allocation for embedded generation, which increased from 200 MW to 500 MW yearly. To this end, SAPVIA COO Niveshen Govender says the waived requirement for Ministerial deviation on 1 MW to 10 MW small-scale embedded generation projects, and the allocation to embedded generation, based on short-term capacity and energy gaps, are great portents for the sector's future.

IRP gets wind industry association's thumbs-up

The Cabinet-approved 2019 Integrated Resource Plan (IRP) shows that South Africa is transitioning to a cleaner energy future, the South African Wind Energy Association (SAWEA) has said, giving the government blueprint a thumbs-up. The organisation has welcomed the 14.4 GW allocation for wind power, which gave the technology 18% of projected total power generation capacity by 2030. SAWEA CEO Ntombifuthi Ntuli has said that the wind industry views the commitment to 1.6 GW a year as a positive step, as it will allow original-equipment manufacturers and first-tier suppliers to commit to local manufacturing of certain components. Besides utility-scale generation, the wind industry is geared to supply electricity directly to energy-intensive users through private power purchase agreements. Ntuli says this will address a lot of capacity challenges and ultimately avoid load-shedding, which hinders economic stability and growth. To achieve the wind sector's potential requires policy support – generation licences and a wheeling policy framework.

Outlook for wind energy in South Africa improving

After stalling last year, global renewable-energy capacity additions are expected to recover strongly in 2019, supported by a solid rebound in onshore wind deployments and ongoing solar photovoltaic (PV) growth. The International Energy Agency (IEA) expects almost 200 GW of renewables capacity to be added at nearly 12% a year, representing the fastest pace of deployments since 2015. The IEA expects

53 GW of onshore wind to be added, a 15% increase on the previous year.

The Global Wind Energy Council (GWEC) is equally optimistic, forecasting 330 GW of new wind capacity additions during the five-year period to 2023, underpinned by especially strong growth in China and North America. Even excluding China and the US markets, the outlook remains buoyant, with GWEC market intelligence director Karin Ohlenforst expecting between 32 GW and 35 GW of wind capacity to be added yearly to 2023 across the other territories, including Africa. In fact, the organisation anticipates that nearly 7 GW of wind capacity will be added across several African economies over the five-year period, with South Africa responsible for about 1.8 GW.

The South African growth forecast has been made despite a frustrating delay in the finalisation of the long-awaited update to the Integrated Resource Plan (IRP) for electricity, which itself follows a controversial three-year hiatus in the building of new renewables plants, owing to Eskom's well-publicised refusal to sign new power purchase agreements. The positive outlook for the domestic wind-energy market is, however, supported by a growing consensus that a combination of wind, solar PV and flexible generation represents the lowest-cost way for South Africa to meet new demand and close any supply gaps that will emerge when Eskom decommissions some of its ageing coal-fired power stations. This reality is reflected in the draft IRP update, notwithstanding the inclusion of policy adjustments to cater for more expensive new coal and imported hydropower, as well as the imposition of a questionable constraint on the amount of wind and solar PV that can be added in a single year. The document expects a total of 9 980 MW of additional wind capacity to be introduced to the domestic grid by 2030.

Renewable-energy sector preparing 'just transition' roadmap

The renewable-energy sector has revealed that it is preparing a "just transition" roadmap that seeks to speed up and assist the mobilisation of wind and solar energy in regions where gold and coal mining are on the decline. By incorporating employment and industrialisation in the renewable-energy industry, the roadmap intends to accelerate economic activity and produce job opportunities within the affected areas. According to the plan, independent power producers will be encouraged to develop projects in these coal and gold mining regions – such as eMalahleni, in Mpumalanga – where the closure of State-owned Eskom's power stations in the coming years is projected to have a negative impact on the economy and citizens alike. Other regions – such as Klerksdorp – where gold mining has slowly been waning over the past decade, will also be targeted. The roadmap is closely aligned with the redefined industrial strategy created by the Department of Trade, Industry and Competition, as well as the Public Private Growth Initiative behind President Cyril Ramaphosa's campaign to attract $100-billion of investment between 2018 and 2022.

South Africa seeks to renegotiate old renewables projects

South Africa has started discussions with power producers to try to pay lower tariffs for electricity from some older renewable-energy projects and give the economy a boost, several participants in the talks say. However, participant power firms – some of which are supported by big names such as EDF Renewables – say they cannot give government big savings on many of the 64 solar and wind projects that are part of the discussions, because most of the money has already been spent. About "80% to 90% of project costs are sunk costs, so as an industry we need to manage expectations [by showing] that there isn't that much room for savings", says Jan Fourie, general manager for sub-Saharan Africa at Scatec Solar, another company that owns projects under discussion. He says government has not yet made any formal proposals. Renewable-energy projects are protected by more than R140-billion of State guarantees, exposing government to huge penalties if it were to terminate or breach existing agreements.

Southern African wind energy association launched

A regional association that will focus on unlocking wind energy opportunities across Southern Africa has been launched at the yearly Windaba wind energy conference in Cape Town. Known as Wind SADC, the association will help countries boost their wind energy industries and facilitate companies to participate. The nonprofit industry body is a partnership between the Africa-European Union Energy Partnership, the Global Wind Energy Council, the South African Wind Energy Association and the SADC Centre for Renewable Energy and Energy Efficiency. "It will work across 16 countries to ensure wind power is fully used in the journey towards universal access to sustainable energy services in Southern Africa, while boosting jobs, skills and economic development," the partners say. Wind SADC is expected to promote wind energy in the Southern African Development Community (SADC) by acting as an umbrella body to its members, including industry associations from the wind sector in SADC countries.

DISTRIBUTION AND TRANSMISSION

Accelerated grid investment required to integrate renewable-energy plants

State-owned electricity producer Eskom is warning that the generation roadmap contained in the Integrated Resource Plan 2019 (IRP 2019) will require a material acceleration in the pace of investment in grid infrastructure so that the renewable-energy plants envisaged in the plan can be integrated in the timeframe outlined. Alternatively, stakeholders should agree to build the new wind, solar photovoltaic and battery storage plants that dominate the new-build portfolio to 2030 in regions of surplus grid capacity. Such areas are typically located the northern parts of the country where the renewable resources are less potent than is the case in provinces such as the Northern Cape, the Western Cape and the Eastern Cape. Group executive for transmission Segomoco Scheppers has said that the utility is still in the process of modelling the impact of the IRP 2019 on the grid relative to the draft IRP 2018 on which the Transmission Development Plan (TDP) for 2019 to 2029 is based. The initial indications, however, point to the need to "expedite and bring forward some of the network development plans" outlined in the TDP, developed using the assumptions contained in the draft IRP 2018. The TDP published on October 31, indicates that investments of R98.6-billion will be required over the ten-year period to ensure that the country's grid infrastructure is able to integrate new generation sources and connect new areas of demand. Senior manager for strategic grid planning Ronald Marais has noted that the IRP 2019 includes 4 118 MW of new capacity in the ten-year TDP window period that is not included in the draft IRP 2018.

ENERGY PLANNING

South Africa's energy mix still to lean on coal in next decade

Coal will continue to play a significant role in South Africa's plan to boost electricity generation over the next decade, with more renewable energy also lined up. Mineral Resources and Energy Minister Gwede Mantashe in October unveiled South Africa's long-delayed plan for electricity generation until 2030. The Integrated Resource Plan 2019 (IRP 2019) replaces a previous blueprint not updated for almost a decade, and deals with planned electricity generation combined with the energy mix. Additional capacity for the energy mix until 2030 will include 1 500 MW from coal, 2 500 MW from hydro, 6 000 MW from photovoltaic, 14 400 MW from wind, 2 088 MW from storage and 3 000 MW from gas. This will result in coal contributing 59% of energy volumes.

Meanwhile, South Africa will release a request for information (RFI) in the coming weeks to test the market for solutions to close an immediate electricity supply gap of between 2 000 MW and 3 000 MW, which has emerged primarily as a result of a fall in the energy availability factor from Eskom's coal fleet and a de-rating of the anticipated output from the much-delayed Medupi and Kusile plants. The IRP 2019 is able to accommodate such procurement, owing to the plan having introduced an allocation for 'other' technologies, besides the specific allocations made for coal, nuclear, hydro, storage, solar photovoltaic, wind, concentrated solar power, gas and diesel. The IRP 2019 states that, between 2019 and 2023 allocations for other technologies, such as distributed generation, cogeneration, biomass and landfill gas, will be made "to the extent of the short-term capacity and energy gap". Acting deputy director-general Thabang Audat has said that the RFI will be entirely technology agnostic and will target short-term solutions that can be procured at tariffs below that of the diesel-fuelled open-cycle gas turbines. He indicated that power barges could be one of the short-term solutions considered, but also emphasised that the department would also be open to demand-side interventions.

OIL AND GAS

Engen plans IPO

Petroliam Nasional and its South African partners plan to conduct an initial public offering (IPO) in their fuel retailer Engen to fund the upgrade of a refinery in Durban, KwaZulu-Natal, and to expand its network of gas stations. A yet to be decided amount of shares in the company, which is South Africa's biggest fuel retailer, will likely be sold on the JSE in the first half of next year, according to people familiar with the matter. Engen's 135 000 bbl/d refinery needs to be upgraded to meet more stringent laws aimed at curbing pollution.

Renergen reaches final milestone in ramp-up to construction at flagship project

Emerging domestic natural gas and helium producer Renergen has reached its final milestone, before construction starts on its flagship Virginia gas project, in the Free State, with the award of a contract to Western Shell Cryogenic Equipment for plant technology and equipment, alongside the project's engineering, procurement and construction contractor EPCM Bonisana. EPCM Bonisana will install the pipeline and manage the interface between the two installations. The plant is expected to be operational within the first half of 2021 and is expected to produce up to 2 700 GJ/d of liquefied natural gas (LNG) and 350 kg/d of liquid helium. This will make the plant the first commercial LNG facility in the country.

Sasol mulling several gas supply options as it seeks to reduce carbon footprint

Chemicals and energy group Sasol is investigating several gas-supply alternatives for its coal-heavy South African operations as it seeks ways to reduce its carbon footprint. The JSE-listed group is simultaneously working on a 'sustainability roadmap', which will have a strong focus on lowering its greenhouse-gas (GHG) emissions. CEO-designate Fleetwood Grobler says a team of senior executives has been set the task of studying various gas-supply options, including those that could arise as a result of the development of liquefied natural gas (LNG) export infrastructure in northern Mozambique.

Sasol already imports natural gas by pipeline from southern Mozambique, where it has initiated further exploration activities to secure additional gas resources to use in its South African fuel and chemicals plants, as well as by other industrial users. The company, Grobler says, is pursuing a multipronged supply strategy, rather than one tied to a single supply option. "We are not betting on a single gas-supply solution. Rovuma is in play, our own exploration is in play, South African gas reserves are in play in the longer term and there is also the option of bringing in gas from elsewhere as more and more gas is found and LNG grows." The gas option is central to the group's commitment to reduce its absolute GHG emissions from its South African operations by 10% by 2030 against a 2017 baseline. Already the company has indicated that it will not pursue any greenfield coal-to-liquids plants and will also not pursue new gas-to-liquids prospects as it transitions from being primarily a producer of fuel in Southern African into a global chemicals producers.

OTHER

SANEDI receives $100 000 grant for cool roofs challenge

The State-owned South African National Energy Development Institute (SANEDI) has received a $100 000 grant from the 1-Million Cool Roofs Challenge to deploy solar reflective coatings and/or materials between August 2019 and December 2020. It is one of ten global teams awarded a portion of $1-million in grant funding. The 1-Million Cool Roofs Challenge is a $2-million global competition to rapidly scale up the deployment of highly solar-reflective "cool" roofs in developing countries suffering heat stress and lacking widespread access to cooling services. The uptake and promotion of cool surfaces has been much more vigorous in developed countries than in developing ones. The cooling effects will vary by city, but studies indicate a cooling potential of about 2 °C to 4 °C. The whitening of 100 m² of grey roofing cancels the warming effect of 10 t of carbon dioxide emissions (or 0.6 t/y for the life of the roof). Globally, this would reduce greenhouse-gas emissions by the equivalent of about 500 medium-sized coal-fired power stations, SANEDI states. "Cool roof technology is an inexpensive, effective, energy-passive, low-technology cooling intervention, which allows less heat into the building and makes non-air-conditioned homes, warehouses and other buildings much cooler. The deployment of reflective materials creates sustainable job and skills opportunities for low skilled workers in rural and urban contexts."

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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 October 2019.

Publication date: November 2019

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

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