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A MONTHLY REVIEW OF ENERGY-RELATED NEWS

SOUTH AFRICA ENERGY ROUNDUP

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Creamer Media's South Africa Energy Roundup – February 2019, covering activities across South Africa for December 2018 & January 2019

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ENERGY PLANNING

Radebe insists IRP to be approved soon, amid Nedlac uncertainty

Energy Minister Jeff Radebe reiterated in mid-January that Cabinet could soon approve the long-awaited update to the Integrated Resource Plan (IRP) for electricity, despite persistent suggestions that National Economic Development and Labour Council (Nedlac) sign-off of the document was still months away. "As you will recall, in August of 2018, we released a draft IRP, which many South Africans have commented on. We are now finalising all those comments in order to go to Cabinet," Radebe said. "The issue of Nedlac. We did consult with Nedlac last year in terms of the IRP, so we are now at a stage where we are about to approve this IRP." Reuters reported Radebe as saying the document would be finalised in February. Such an outcome would not be feasible, however, should the IRP be subjected to Nedlac's normal processes for approving policy or legislation. It is understood that there is an expectation among the labour and business constituents within Nedlac that the IRP will be subjected to further consultation, a process that could endure for months. It is also believed that such consultations would be pursued only once the Department of Energy had redrafted the document to incorporate comments made during the 60-day public participation phase. No such redraft has been presented to Nedlac.

ESKOM GENERATION AND SALES

Defects at Medupi and Kusile resulting in underperformance

Not only are the Medupi and Kusile projects years behind schedule and significantly over budget, the two new coal-fired power stations are now also beset with technical defects that are resulting in serious underperformance of the four units that have entered into commercial operation. The three Medupi units and the one Kusile unit currently in commercial operation have experienced, for the financial year to date, 84 unit trips. Medupi unit trips rose from 20 during the 2018 financial year, to 66 in the 2019 financial year, which runs to March 31. The average energy availability factor for the Medupi units was below 70% between April and December last year, with Unit 6, which was the first unit to enter into commercial operation in 2015, having been shut for repairs for three months from the start of September to the end of November. The 'use requirement specification' target for the units is 92%. Eskom has established a specialist team to develop solutions to rectify major defects and has warned that some of the repairs will require the units to be on outage.

Fixing problems will cost an estimated R2-billion, rather than the R1.5-billion bill disclosed in November last year.

Eskom bemoans poor quality of coal

State-owned utility Eskom COO Jan Oberholzer has called on coal mining companies to "play ball" and improve the quality of the coal they supply to the utility. Oberholzer said at a coal mining conference in January that coal stock levels had improved to 29 days as of this week, but that the quality of coal was poor. "We have managed to get out of the undesirable position of insufficient coal, but the quality is not good. Currently there is a 1 000 MW impact, because of the quality of coal. Our mining colleagues are not playing ball. I am requesting you, if you supply to Eskom, understand your responsibility to this country. If we have coal supply agreements, agree to what we have agreed and what we have paid for, otherwise it has a negative impact on the country." Coal stocks dropped to a low around October and November last year, but have increased since then.

Eskom moves to plug 1.3bn ton coal shortfall

Electricity producer Eskom is going back to the future as it seeks to close an estimated 1.3-billion-ton coal shortfall that it calculates will arise over the remaining life of its coal-fired power station fleet. The shortfall calculation takes account of the decommissioning of the power stations in line with the schedule outlined in the Integrated Resource Plan, which also assumes that the new Medupi and Kusile power stations will continue to be operational in 2050. As part of the board-approved strategy, the utility will progressively replace short-term coal supply agreements with long-term coal contracts to avoid a repeat of the shortages that are afflicting the utility, which every year burns about 116-million tons. The long-term strategy also prioritises investments at its five remaining cost-plus mines, reversing a previous strategy that favoured arm's-length supply agreements over investments in mines established with the specific purpose of supplying the nearby power station with coal using conveyor belts. The cost-plus mines are contracted to supply Eskom with 55-million tons yearly, but are only supplying at a yearly rate of about 40-million tons, owing to an underinvestment in the operations.

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NUCLEAR

Nuclear regulator confirms receipt of 25 000 comments on Thyspunt, Duynefontyn applications

The National Nuclear Regulator (NNR) reports that is has received more than 25 000 comments from affected parties and the general public in response to two nuclear installation site licence (NISL) applications received from Eskom in March 2016. The applications are for the Thyspunt site, in the Eastern Cape, and Duynefontyn, in the Western Cape, alongside the existing Koeberg power station. In its applications, Eskom indicated that it intended constructing and operating multiple nuclear power reactors and associated auxiliary nuclear installations on the sites, but did not identify the plant type and technology to be employed.

The NISL applications were made in line with the NNR Act and were also aligned with the 2010 version of the Integrated Resource Plan (IRP), which envisaged the construction of 9 600 MW of new nuclear capacity in South Africa by 2030. The IRP is in the process of being updated and the draft IRP 2018, which has been subjected to a public consultation process, but which is not yet approved, does not envisage the construction of any new nuclear capacity between 2019 and 2030. In addition, on April 26, 2017, the Western Cape High Court declared the Ministerial determinations used by government to initiate the procurement of new nuclear capacity to be unconstitutional and illegal, along with three nuclear-related intergovernmental agreements. Government decided against appealing the ruling, which resulted in the cancellation of a planned release of a request for information by Eskom to nuclear vendors.

ESKOM CORPORATE AND FINANCES

Cabinet to assess municipal electricity debt management plan in February

Cabinet will in February consider a detailed implementation plan to deal with the more than R14-billion in debt owned by municipalities to power utility Eskom. This plan is part of the Department of Cooperative Governance and Traditional Affairs' municipal recovery programme, which was launched last year to assist municipalities that require urgent support to deal with governance, financial management and service delivery issues.

Eskom job cuts extend beyond top management tier

Eskom will extend its strategy of trimming top executive positions to include lower ranking managers and finally the general workforce as the cash-strapped power utility looks to cut costs, newswire Bloomberg reports, citing a "person familiar with the plans". The State-owned company in December reduced its highest executive structure to nine positions from 21 by regrading and combining roles. The next phase is to cut a 600-strong layer of managers – known as E-band employees – by at least 70%, according to the person who requested anonymity because the information is not public. The latest notice on job cuts "is only limited to executive level", Eskom spokesperson Khulu Phasiwe said in a text message. He did not comment on cuts for other managers or staff.

Eskom task team considers future sustainability

President Cyril Ramaphosa has appointed an 'Eskom Sustainability Task Team' to advise government on actions to resolve the State-owned power company's operational, structural and financial challenges. The team initially included Anton Eberhard, Brian Dames, Tsakani Mthombeni, Sy Gourrah, Grové Steyn, Frans Baleni, Mick Davis and Busisiwe Vilakazi, but Dames and Gourrah subsequently stepped down, owing to potential conflict of interest. The task team handed its report to Ramaphosa at the end of January. A public announcement on the future structure of Eskom is expected in February and people familiar with the matter have said that the proposals focus on splitting Eskom into three separate State-owned entities responsible for power generation, distribution and transmission.

South Africa needs to bail out Eskom, says former adviser

The South African government needs to "bite the bullet" and bail out struggling State-run power firm Eskom, which has asked for R100-billion in government support, the CEO of Rothschild & Co in South Africa tells Reuters. Rothschild advised Eskom in 2008 when it last received a major cash injection from government. At the time, Eskom sought R115-billion, but was granted a R60-billion loan, which was later converted into equity. Opinion is divided on whether Eskom should be bailed out again. Rothschild's Martin Kingston says that recapitalising Eskom could cost the country its last investment grade credit rating, but that there was "no other obvious solution" if Eskom was to survive.

Public hearings into Eskom tariffs

The National Energy Regulator of South Africa (Nersa) has held public hearings across the country to gather input into power utility Eskom's request for an increase in electricity tariffs for the next three years. Initially, Eskom submitted a request for a 15% a year tariff increase for 2019/20, 2020/21 and 2021/22. On February 1, the group adjusted its request to 17.1% for 2019/20 and 15.4% for 2020/21 and 15.5% for 2021/22. Nersa will announce a decision on March 1.

Don't hurt farmers with higher tariffs, says Agri Western Cape

Sharp electricity tariff hikes would have a major detrimental effect on the agriculture sector, Agri Western Cape has said during public hearings into electricity tariffs. In its submission to Nersa, Agri Western Cape said high increases in electricity costs would be a threat to food security and have a major negative impact on agricultural sustainability and economic survival.

"The current climatic conditions, rising input costs and the exchange rate have had a severe impact on agriculture. Sharp increases in electricity costs would put agricultural cash flow under pressure," said Carl Braam Opperman on behalf of Agri Western Cape. The organisation represents 4 000 producers in the Western Cape. The province employs 20% of the national agricultural workforce, said Opperman. He said the agriculture sector could not afford further electricity tariff hikes. It would weaken profitability further and hurt exports. It would also push farmers to introduce alternatives. "Being hit with a double digit increase in electricity would force the industry to develop more cost-effective forms of power supply to take them off the grid."

Electricity increases will badly hurt the poor, says community leaders

Community and faith leaders, as well as pensioners and residents, have called on Nersa to oppose Eskom's request for a tariff hike. "If granted, this price increase will severely impact on all consumers of electricity across the country, many of whom are already struggling to pay their daily bills," said the Southern African Faith Communities' Environment Institute (Safcei) in its submission. Safcei's Eco-Justice lead Liz McDaid said people were already battling to afford to pay for electricity. "I know of households where the electric stove is now an ornament. People are using kettles to boil water, or are using paraffin to cook," she told the Nersa panel. Her sentiments were echoed by residents from communities in and around Cape Town.

Salga warns of dangers of raising electricity prices

The South African Local Government Association (Salga) has rejected Eskom's appeal for a 15% tariff increase over the next three years, saying the utility is "out of touch with reality". "There is already too much burden hanging over South African customers. We can't expect them to pay," Salga head of electricity and energy Nhlanhla Ngidi told the public hearings.

Ngidi said municipalities were also battling and were experiencing negative growth. "Salga appreciates and sympathises with Eskom's financial challenges, but everyone is going through this. There are no holy cows." Ngidi agreed that "delinquent municipalities" owed Eskom a lot of money, but said they were also battling with low sales. "Eskom is going through this predicament. But so are we." He said higher prices would motivate more affluent customers to leave the grid and use solar and other energy sources, while it would hit the most vulnerable, the working class and the unemployed. It would lead to greater levels of nonpayment."

Miners warn 15%-a-year tariff hike is the tipping point

The Minerals Council South Africa (MCSA) has warned that Eskom's proposed tariff increases will cost about 150 000 direct mining jobs, all but eliminate the gold sector and, as a consequence, reduce Eskom's mining client base by about 36%, thereby exacerbating the utility's "death spiral".

"I've been trained all my life not to be an alarmist, but this is the tipping point for the mining sector," says MCSA chief economist Henk Langenhoven. Taking the multiplier effect into account, the proposed tariff increases will imperil about 300 000 jobs and adversely affect three-million people. Gold is the most electricity-intensive commodity, owing to the depths involved and the subsequent level of ventilation and cooling required. Langenhoven notes that, since 2007 and the beginning of the electricity crisis, 53 500 jobs have been lost in the mining sector, with 34.2%, or 18 303, of those specifically attributable to electricity tariff increases. Further, of the 18 303 jobs lost, 7 341 were lost in the gold sector.

TRANSMISSION AND DISTRIBUTION

Eskom secures loan for transmission projects

Cash-strapped Eskom has signed a loan agreement with the Agence Française de Développement for R1.5-billion to extend its transmission grid along the West Coast. It is the first tranche of a R6.5-billion loan facility agreed last year. The money will be used to pay for the Juno Gromis project, which forms part of the utility's Namaqualand strengthening phase designed to boost the power network in the Northern Cape, to integrate renewable-energy supply and finally to enable cross-border electricity transmission. It will include building 282 km of transmission line between the Juno substation in the Western Cape and the Gromis substation in the Northern Cape. Construction is scheduled to begin in early 2019.

RENEWABLE ENERGY

Solar PV uptake expected to double

Energy supply from solar photovoltaic (PV) technology is increasing at a rapid rate in South Africa, with PV grid installation expected to double in the 2018/19 period, says renewable-energy solutions supplier Genesis Eco-Energy director and solar energy association South African Photovoltaic Industry Association chairperson Davin Chown. Within the past 18 months, 145 MW of solar generated power has been installed in the residential, commercial and industrial (C&I) sectors, with C&I system installations ranging between 100 kW and 16 MW in size. Chown mentions that the uptake of solar PV technology can predominantly be attributed to competitive energy pricing, with implementation costs inevitably decreasing as adoption rates increase and innovation increases. The average cost of solar PV technology is decreasing at 10% every year. Chown says prices have dropped from $1/W five years ago, to $0.40/W currently, adding that producers of solar PV panels are further expecting prices to drop from $0.40/W to $0.25/W by 2022.

Sener advocates for IRP policy adjustments to cater for CSP

Spanish technology group Sener, which has overseen the construction of three concentrated solar power (CSP) projects in South Africa and 29 in total internationally, is urging the South African government to reconsider CSP's exclusion from the final version of the Integrated Resource Plan (IRP). Sener Southern Africa regional MD Siyabonga Mbanjwa believes a specific policy adjustment should be made to the IRP to cater for the carbon-free technology, despite the fact that CSP plants, which can operate even when the sun sets, currently generate electricity at tariffs higher than those outlined in the least-cost mix favoured in the draft IRP 2018.

Currently, the only policy deviations from a least-cost IRP relate to the inclusion of two private coal-fired power stations already procured by the Department of Energy, as well as a plan to import 2 500 MW of Grand Inga power in line with a treaty between South Africa and the Democratic Republic of Congo. Otherwise the draft IRP 2018, which has been subjected to public consultation, envisages the least-cost new-build combination of wind, solar photovoltaic and gas meeting South Africa's electricity demand to 2030, notwithstanding the closure of several coal-fired power stations during the period.

The draft IRP, therefore, does not cater for the building of additional CSP power stations besides those already procured through various Renewable Energy Independent Power Producer Procurement Programme bid windows, including one dedicated exclusively to the technology. Sener has been an active engineering, procurement and construction participant in three South African CSP projects including: the 50 MW Bokpoort plant, which has been in operation for three years; the 100 MW Ilanga 1 CSP power station, which entered commercial operation on November 30; and the 100 MW Kathu 1 CSP project, which has been synchronised to the grid and is scheduled to enter into commercial operation during the first quarter of 2019.

OTHER

New Necsa board announced

The new chairperson of the board of the State-owned South African Nuclear Energy Corporation (Necsa),

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Dr Rob Adam, has given the assurance that the new board and interim CEO, Don Robertson, will be able to restore the beleaguered entity. In addition to Adam and Robertson (who is an ex-officio member), the new board includes two other nuclear specialists, nuclear physicist Dr Pulane Molokwane, and nuclear engineer Dr Ramatsemela Masango. The other five board members are leading labour lawyer and human resources specialist Aadil Patel, corporate law specialist Pulane Kingston, research finance specialist Bishen Singh, human resources specialist Matlhodi Ngwenya and private-sector corporate and human capital executive Jabulani Ndlovu. Cabinet appointed a new board in December, after it was accused, among other things, of defiance.

South Africa may double power purchases from DRC

South Africa is mulling committing to doubling the amount of electricity it will buy from a proposed multibillion-dollar hydro power plant in the Democratic Republic of Congo (DRC). Increasing the amount of electricity that South Africa will buy has become a linchpin for the companies seeking to build and operate the 11 000 MW facility. The DRC in October named Chinese and Spanish groups as co-developers of the plant, which could cost as much as $18-billion including transmission lines.

South Africa committed to purchasing 2 500 MW from the dam, known as Inga 3, in a 2013 treaty between the two countries. In December, South African Energy Minister Jeff Radebe notified the Congolese authorities of his government's willingness to increase the amount it will purchase. "I wish to indicate South Africa's interest to procure additional capacity of 2 500 MW over and above that which was committed under the treaty," Radebe said in a December 19 letter to Bruno Kapandji, who heads Congo's Agency for the Development and Promotion of Grand Inga. The letter, seen by Bloomberg, was verified by the agency.

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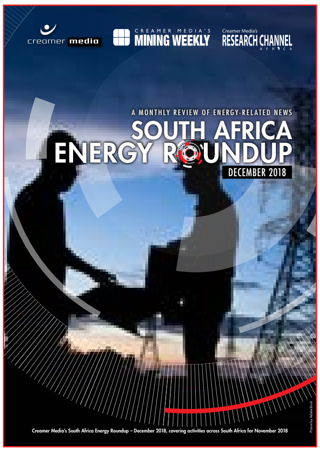

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