

ESKOM'S TRANSMISSION DEVELOPMENT PLAN FOR 2018 – 2027

Eskom will meet with stakeholders during its annual public forum on Thursday, 19 October 2017, to share the Transmission Development Plan (TDP) for 2018 – 2027. The transmission licence issued by the National Energy Regulator of South Africa (Nersa) to Eskom Holdings SOC Ltd requires that a transmission development plan be published annually, which details the proposed strengthening and development of the transmission network in South Africa over the next 10 years.

The forum forms part of the consultative process intended to provide an opportunity for stakeholders to influence the long-term development of the transmission system. Stakeholder participation is critical to ensure that Eskom's Transmission Group takes into account the views of the public, industry, business sectors, local government and other infrastructure development partners.

Nersa is the custodian of the South African Grid Code, which contains the rules governing investment in the transmission network. Eskom, as the licensed Transmission Network Service Provider, plans the network according to this Grid Code, and subject to funding and other resource constraints, builds the network according to these plans.

Some adjustments have been made to the TDP, including the re-phasing of the capital investment in transmission projects, to align with the project execution timelines associated with servitude acquisitions and current available funding.

Since the last forum in October 2015, significant progress has been made in that:

- The 765 kV transmission infrastructure from Mpumalanga to the Western Cape, consisting of approximately 1400 km of lines, was successfully commissioned earlier this year. What makes this project interesting is that it has the longest 765 kV span of 1.3 km in the country and is amongst the longest 765 kV spans globally.
- Close to R2.4bn has been invested in the integration of IPPs to the grid in support of the Renewable Energy Independent Power Producer Procurement (REIPPP) Programme Bid Windows 1 to 3, resulting in a total of 61 projects out of 70 being successfully commissioned and contributing some 3 520 MW to the system.
- Approximately 900 km of high-voltage power lines have been commissioned during this period.

Elements of Eskom's Transmission Development Plan for the period 2018 to 2027 which need to be highlighted include:

- Eskom, as part of the TDP, plans to increase the transmission infrastructure by approximately 6 700 km of high-voltage lines and 41 000 MVA of transformation capacity in the next 10 years. This is part of its commitment to capital investment in infrastructure and why Eskom currently has one of the largest capital investment projects in the country.

- Eskom is investing in its own infrastructure, while creating a new electricity market in South Africa. It is playing a critical role in the connection of independent power producers and creating a new electricity market for the country. Large-scale renewable generation projects in areas such as wind and solar energy are being connected to the grid. This is Eskom's contribution to further diversify the country's energy mix.
- There are also cross-border transmission lines to Namibia, Botswana, Zimbabwe, Mozambique, Swaziland and Lesotho, allowing electricity to be traded with the rest of Southern Africa. It is one of Eskom Transmission Group's strategic objectives to increase the capacity of these interconnections to allow for greater volumes of electricity to be traded to reduce upward pressure on tariffs and improve security of electricity supply in South Africa in the longer term.
- The Medupi and Kusile power stations are due to be completed during the period covered by this TDP, along with any remaining transmission network reinforcements to accommodate the stations' full output. In addition, further IPPs, renewable and conventional generation as determined by the Department of Energy, will be connected to the network.
- New loads need to be connected, which requires additional network capacity to load centres around the country. The planned increase in conventional generation of approximately 15 GW together with 11 GW of renewable energy will ensure access to electricity for more South Africans in their homes, as well as supplies to schools, clinics, hospitals, businesses, mines and industries to promote economic growth, job creation and improved quality of life.

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