Eskom connects Kusile Unit 4 to power grid

Eskom connected Unit 4 of the Kusile Power Station to the national grid for the first time on 23 December.

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“This synchronisation milestone means four generating units of the power station are now connected to the grid, and will contribute an additional 800MW to the country’s power system once the unit is fully optimised, following a series of tests and other commissioning activities,” said the power utility on Thursday, 30 December.

Situated near eMalahleni in Mpumalanga, Kusile is South Africa’s largest construction project and will be the world’s fourth largest coal plant.

The unit will supply electricity intermittently during the testing and optimisation phase over the next six months, before being handed over to the generation division to officially be part of the commercial fleet. This will further assist Eskom to address supply capacity challenges.

Group executive for Group Capital Bheki Nxumalo said the milestone is just what the country needs to power the economy.

“This achievement signifies the relentless efforts from the team in ensuring that the power station project is completed without any further delays, which would help strengthen South Africa’s electricity capacity. I am grateful for the commitment

displayed by the Kusile execution team and its contractors.”

Eskom splits off transmission division

Emma Rumney 20 Dec 2021

Unit performing as expected

Since synchronisation last week, the unit has performed to expectation, intermittently generating up to 330MW. Eskom said the unit post synchronisation commissioning activities are well in progress, and experiencing the normal challenges, as expected, during this phase.

Construction and commissioning activities on the remaining Kusile Units 5 and 6 continue to progress according to plan. At completion, the station will consist of six units, and will produce a maximum 4,800MW.

Eskom is fitting wet flue gas desulphurisation (WFGD) to the Kusile plant as an atmospheric emission abatement technology, in line with current international practice, to ensure compliance with air quality standards, making it more environmentally friendly.

Kusile is the first power station in South Africa and Africa to use WFGD technology. WFGD is used to remove oxides of sulphur (SOx), for example, sulphur dioxide (SO2), in the emissions of power plants that burn coal or oil.