

Steam generators arrive at Koeberg power plant

The first of Koeberg's nuclear power station's long-awaited six replacement steam generators have arrived in Cape Town, and the first three will be installed into Unit 1 between February and June 2021.



Photo: Eskom

These units are part of the programme to extend the power station's operating life by 20 years, and were first approved by the Eskom board in 2010. They will replace the current steam generators that have been in operation at Koeberg since the first unit was connected to the national electricity grid in 1984.

The steam generator replacement has been planned into Koeberg's outage schedule and Eskom's generation plan. They will be housed in the Replacement Steam Generator Facility that has been constructed on the Koeberg site, until the old steam generators are removed from the plant during the unit's next outage.

"The steam generator replacement is a key part of the larger programme to extend Koeberg's operating life, which was budgeted to cost an estimated R20bn, and will be the best investment into sustainable and less carbon intensive electricity generation infrastructure that Eskom can buy," the power utility said in a statement.

Unit 2 replacements

The replacement of steam generators at Unit 2, which is currently undergoing a refuelling outage until mid-October 2020, has also been planned to coincide with the unit's next maintenance and refuelling outage.

This is in order to minimise generation downtime on the unit. The replacement will occur between January and May 2022.

The project's extensive engineering analyses and safety studies, reviewed and approved by the National Nuclear Regulator, concluded that the new steam generators can be safely installed, commissioned and operated, to extend Koeberg's life.

"Steam generator replacement is the most intensive and most expensive project that a nuclear power station can undertake, and several stations internationally have already done so successfully," Eskom said.

Upon removal from the plant, the current steam generators will be stored on the Koeberg site, where they will be packaged and dismantled for final disposal at a national nuclear waste repository, which is the responsibility of the National Radioactive Waste Disposal Institute (NRWDI).

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