



PROGRESS GALLERY
August 2025

**REFURBISHMENT OF TURBINE #5 AT
THE INGA II HYDROPOWER STATION**

The Inga II hydroelectric power facility is on the Congo River, in the west of the Democratic Republic of the Congo. The Congo River is the world's second-longest river, after the Nile, with the world's second-most-powerful flow rate.

INGA II



1.4 Gigawatt Hydroelectric Power Plant

KAMOA-KAKULA



Copper

KIPUSHI



Zinc, Copper, Silver,
Germanium

INGA II

Congo River

Substation

Turbine #5

Turbine Hall

In April 2021, Kamao-Kakula signed an updated agreement with the DRC state power utility, SNEL, to upgrade Turbine #5 at the Inga II hydro electricity. The agreement, totalling \$250 million, also included the refurbishment of the Mwadingusha hydro facility, which was completed in September 2021.

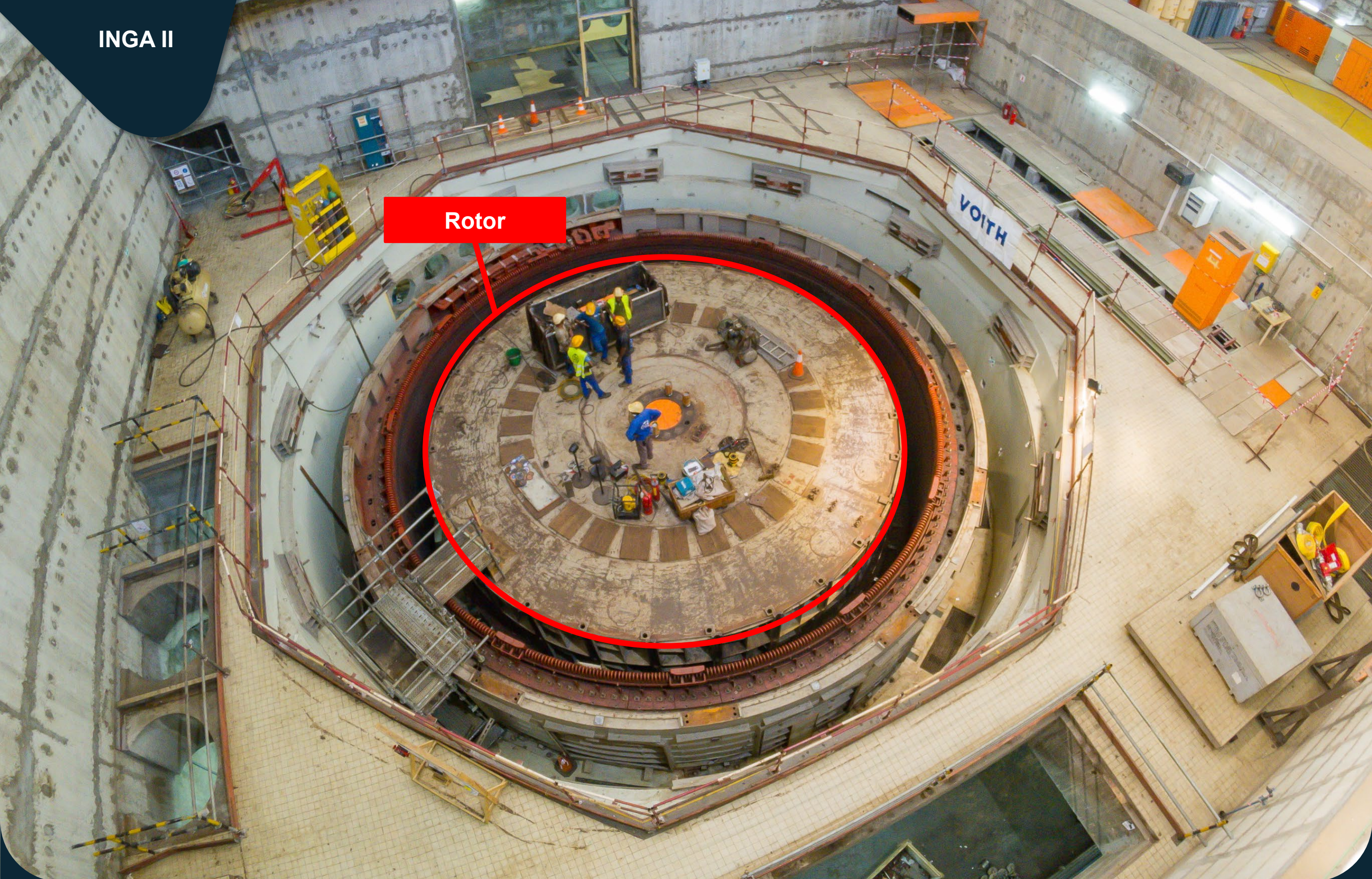
The turbine pit for
Turbines #5 and #6

Turbine #5

Each of the 8 turbines at the Inga II hydroelectric facility can produce up to 178 MW of clean, hydroelectric power, which is supplied directly into the DRC grid. At the time refurbishment works started in late 2022, only 4 of the 8 turbines were operational.



In mid-2021, leading hydropower and water engineering expert, Stucky AG of Basel, Switzerland, was appointed to lead engineering and refurbishment works. Works subsequently commenced in late 2022 with the removal of the turbine cover.



After the turbine cover was removed, work commenced on removing all the equipment inside Turbine #5 and replacing it with newly engineered, state-of-the-art equipment. The first major piece of equipment removed was the rotor in May 2023.



Turbine runner

This was followed by the removal of the turbine center shaft and the turbine runner.



Looking down into the turbine pit, with all of the Turbine #5 equipment removed.



Restoration work underway inside of the turbine pit.



The empty turbine pit is ready for the installation of the newly manufactured turbine equipment.



The new turbine runner was manufactured by Voith Hydro and delivered to the port of Matadi in the DRC and transported by truck to the Inga II Hydropower Station.

The turbine pit for
Turbines #5 and #6



The delivery and unloading of the new runner for Turbine #5 inside the turbine hall at Inga II.



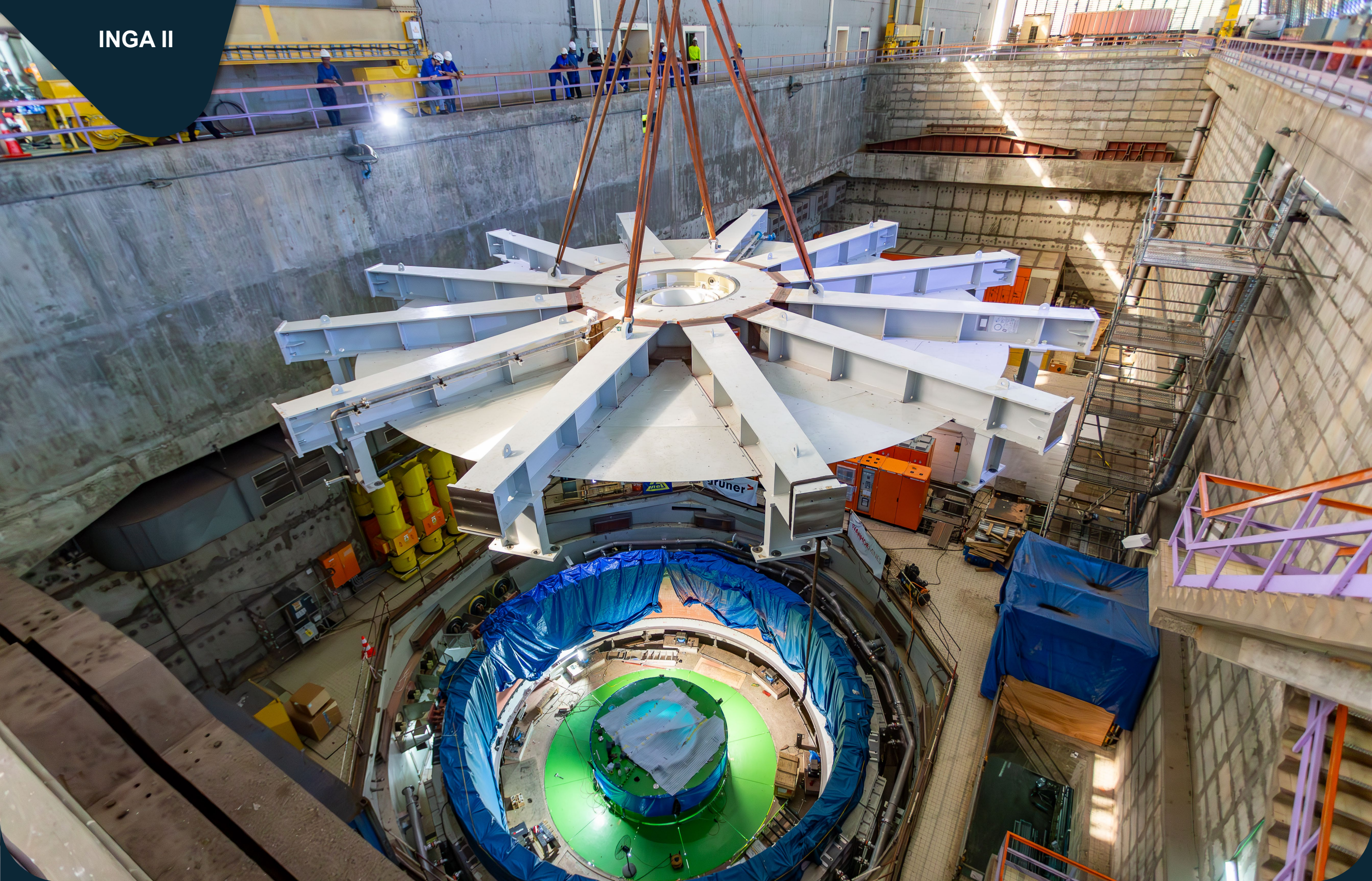
The delivery and unloading of Turbine #5's new turbine shaft inside the turbine hall at Inga II.



Crew members preparing the newly delivered runner for Turbine #5, before being lowered into the turbine pit and installed.



In December 2024, the new turbine runner was lowered into place and installed inside Turbine #5.



Removal of the turbine upper bracket after fitment to allow for the installation of the rotor.



Members of the Inga II project team fitting the thermal expansion dampeners on the turbine upper bracket.



A fresh layer of anticorrosion protection is applied in the spiral case of the runner in the turbine hole.



In April 2025, new trash screens for Turbine #5's inlet are installed. The trash screens protect the turbine equipment from being damaged by river debris.



One of the divers from the Inga II project team preparing for the dive to install the trash screens lowered into the water.



Last cleaning and preparations are made before the new rotor is lowered into place and installed.



A major project milestone is reached in May 2025 following the delivery and installation of the 490-ton rotor, which was the last major piece of equipment to be installed



The project engineering teams look on as Turbine #5's new rotor is lowered carefully into place. There is approximately 100 tonnes of new copper equipment inside the new turbine assembly, including the alternator windings, transformers, and power cables.



The refurbishment of Turbine #5 is now nearly complete. From early Q4 2025, Turbine #5 is expected to once again be fully operational, supplying up to 178MW of clean, hydroelectric power into the DRC grid.



Also in May, upgrades to the resistor bank #1 and #2 at the Substation Converter Inga (SCI) were completed. Further works at the substation are expected to continue into 2026 as part of the \$200 million in committed grid improvement works by Kamoia-Kakula



Kamoa-Kakula has contributed \$450 million to enhancing hydroelectric power generation and transmission in the Democratic Republic of Congo. This includes \$200 million dedicated to grid upgrades, which are scheduled for completion in 2026.