SITE REPORTS

MWADINGUSHA

ENERGY INTO THE JUNGLE

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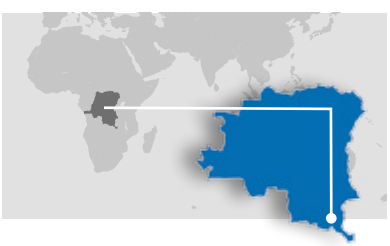

Mwadingusha | DR Congo

Technical data:

Total output:	78 MW
Scope:	4 × 13.05 MW
Voltage:	6.6 kV
Head:	111 m
Speed:	375 rpm
Runner diameter:	1,320 mm

DR CONGO – In September 2016, an ANDRITZ HYDRO-led consortium was awarded a contract for the refurbishment of the existing Mwadingusha hydropower plant in Katanga Province of DR Congo. This hydropower plant is equipped with six Francis units with a capacity of 11.8 MW each. Financed by Ivanhoe Mines, the final client is Société Nationale d'Electricité (SNEL), while the owner's engineer is the Swiss consulting firm Stucky.

The Mwadingusha hydropower plant is located on the river of Lufira. It was originally commissioned in 1930, and the original supplier was Charmilles, Switzerland, now ANDRITZ HYDRO. Up until today no major overhaul of the hydropower plant and its equipment had been conducted.

For ANDRITZ HYDRO, the scope of supply comprises replacement of four turbine units, generators, governors, inlet valves, exciters, voltage regulators, and draft tube stop logs. This includes dismantling, erection, and commissioning. Transformers and the balance of plant are within the scope of the consortium partner. The original discharge volume and net head remain unchanged, but there will nonetheless be a power increase of about 10% from 11.8 MW to 13.05 MW per unit.

All major equipment, such as the turbines, inlet valves, stop logs, and generators, have already been designed and are in the manufacturing process. Due to road infrastructure conditions in DR Congo, the transport of the equipment to the site is going to be very challenging and can only be done in the dry season, from mid-April to mid-October. Therefore most of the heavy equipment will be delivered to the site by mid-October 2017.

Site mobilization has started mid-August 2017 and will be followed by dismantling of the existing equipment through until April 2018. The contractual commissioning of the first unit is scheduled for February 2019 and by the end of the same year all four units should be commissioned.

After completion and hand over, HPP Mwandingusha will supply electrical energy to the Congo National Grid as well as to the copper mining activities at the Kamoa-Kakula project by Ivanhoe mines.

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