

MALAWI ROAD TO ELECTRI- FICATION



HPP Nkula A

MALAWI FACTS

17.22 Mio.
12%
352 MW
22 MW
99.9%
1,905 GWh
6,000 GWh

Population
Access to electricity
Installed hydro capacity
Hydro capacity under construction
Share of generation from hydropower
Hydro generation
Technically feasible hydro generation potential

ANDRITZ HYDRO

110 MW
9
31.25%

Installed capacity
Installed units
Fleet share

The World Bank, IEA, World Energy Outlook, Hydropower & Dams World Atlas 2016 ©

Mark52/Shutterstock.com

by Wilhelm Karanitsch
wilhelm.karanitsch@andritz.com

Landlocked Malawi is one of the most densely populated countries in the world. The economy is mostly agricultural with about 80% of the population living in rural areas. The Malawian government has introduced several programs to boost the economy.

Only about 12% of the population has access to electricity today. It is planned to increase this to 17% by 2020. A process to deregulate the energy sector to allow independent power producers is ongoing. The objective is to attract private investors to increase electricity production from 1,900 GWh to 3,580 GWh within the next decade. Some 6,000 GWh/year of technically feasible hydropower potential has been identified. Impressively, almost 100% of Malawi's power generation comes from hydropower.

ANDRITZ HDRO in Malawi

First contracts in Malawi date back to the early 1970s. ANDRITZ HYDRO delivered the complete electro-mechanical equipment for the Tedzani I, II and III hydropower plants on the Shire River, as well as for HPP Wowwe. For the Nukla B and Kapichira hydropower plants, also on the Shire River, ANDRITZ HYDRO delivered some hydro-mechanical equipment.

HPP Tedzani III

In 2016, the Electricity Supply Corporation of Malawi Limited (ESCOM) and ANDRITZ HYDRO signed a contract for rehabilitation, modernization and upgrading of the 51 MW Tedzani III hydropower station. ANDRITZ HYDRO is responsible for a new control and SCADA system, new excitation, protection and synchronisation systems, as well as repair and replacement works on turbines and generators.

HPP Nkula A

A contract to rehabilitate and upgrade the 24 MW Nkula A hydropower station to 35.1 MW was awarded to ANDRITZ HYDRO, as leader of a consortium, by the Millennium Challenge Account – Malawi (MCAM). The scope of supply for ANDRITZ HYDRO includes modernization of intake and draft tube gates, penstocks, installation of new turbine runners, new generators, mechanical and electrical auxiliary systems, as well as a new high voltage hybrid switch gear, and SCADA system. HPP Nkula A is expected to resume operations in mid-2018.

Recently, a further contract for a Generation Control & Monitoring System was awarded to ANDRITZ HYDRO.