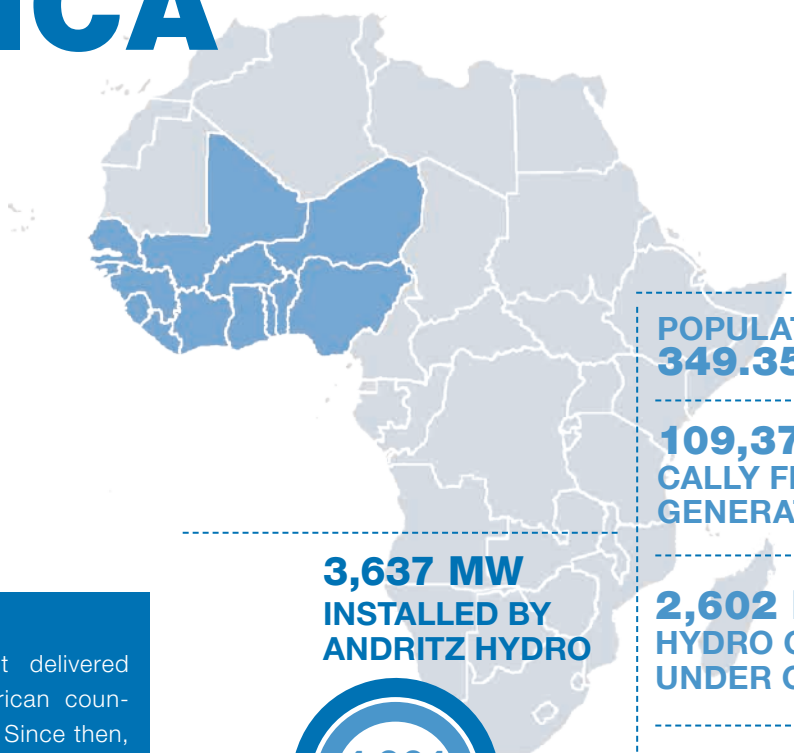
WEST AFRICA



POPULATION
349.35 Mio.

109,371 GWh TECHNICALLY FEASIBLE HYDRO GENERATION POTENTIAL

3,637 MW
INSTALLED BY ANDRITZ HYDRO

2,602 MW
HYDRO CAPACITY UNDER CONSTRUCTION

4,964 MW
TOTAL INSTALLED HYDRO CAPACITY

939 GWh
HYDRO GENERATION

74 UNITS INSTALLED BY ANDRITZ HYDRO

ANDRITZ HYDRO
ANDRITZ HYDRO first delivered equipment to West African countries in the early 1950s. Since then, more than 70 units with a total output of about 3,600 MW have been delivered to the region. The company was involved in West Africa's most important hydropower projects, such as HPP Akosombo and Kpong in Ghana, HPP Kainji and Shiroro in Nigeria, HPP Taabo, Ayamé and San Pedro in Côte d'Ivoire, HPP Bagré in Burkina Faso, HPP Garafiri and Banea in Guinea Conakry, and HPP Contador – the only hydropower plant in São Tomé & Principe. One recent project was HPP Mount Coffee in Liberia, for which ANDRITZ HYDRO rehabilitated the hydraulic steelworks. In Senegal and Togo ANDRITZ HYDRO has supplied almost 100% of the hydropower fleet. In countries like Nigeria, Ghana and Mali, the company has supplied more than 60% of the total installed hydropower capacity.

Reaching from the dry Sahara in Mali and Niger to the sub-tropical rainforest on the Atlantic coast, the region of West Africa encompasses 16 countries. They are: Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, São Tomé & Principe, Senegal, Sierra Leone, and Togo.

In 2015, the region was struck by the Ebola crisis, causing a halt in economic progress. The economic outlook is nonetheless promising. West Africa has managed to maintain an impressive growth rate in recent years, in particular driven by the largest economy in Africa, Nigeria, and Ghana, one of the strongest economies in the whole of Africa.

Given the wide climate variation across the West African countries, hydropower also exhibits a wide range of national potentials. Guinea-Bissau has a hydropower potential of only about 500 GWh/year, for example, while coun tries such as Benin or Togo have around 1,700 GWh/year, and Nigeria has an identified potential of an impressive 32,450 GWh/year.

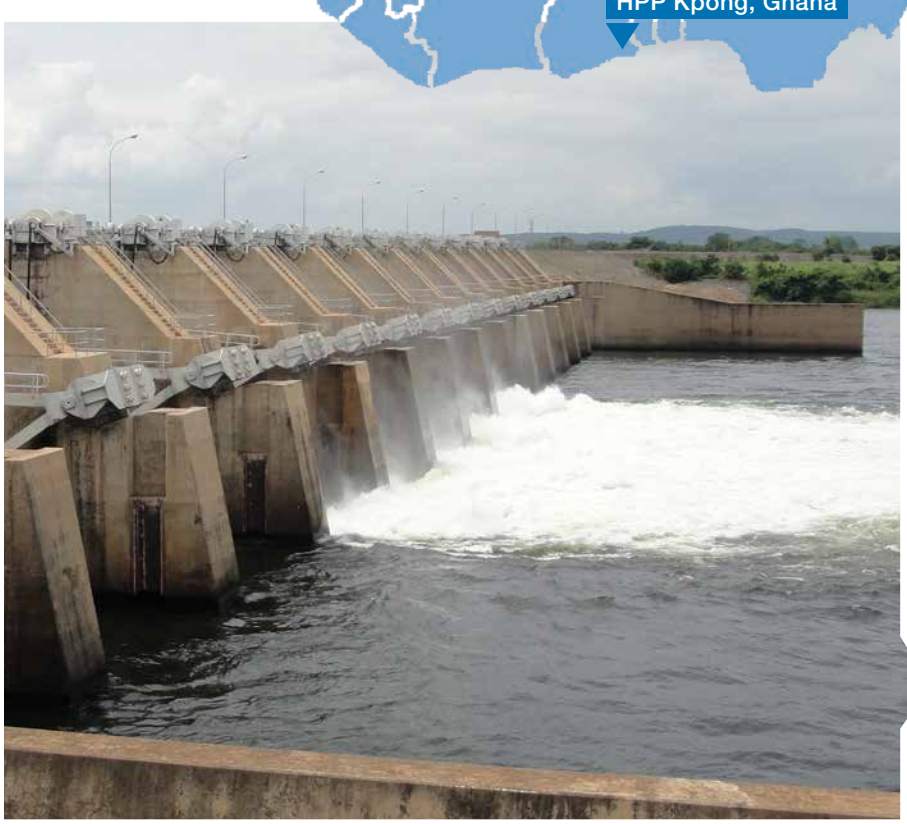
The region offers interesting possibilities for large hydropower projects as well as small hydro developments.

HPP Manantali, Mali

In 2014, ANDRITZ HYDRO signed a contract with La Société de Gestion de l'Energie de Manantali (SOGEM) to perform the overhaul and update of five 41 MW generating units at the Manantali hydropower plant in the Republic of Mali.

All five Kaplan turbines were commissioned in 2002. Since 2013 units #2, #3 and #4 experienced successive failures of their blades internal control mechanism, so SOGEM called for an international tender for the repair and general ten year overhaul of all five units.

ANDRITZ HYDRO as the original turbine manufacturer (OEM) offered the technologically and economically best offer. Finalization of the project is scheduled for late 2017 and will benefit the populations of Senegal, Mauritania and Mali for years to come.



HPP Kpong, Ghana

In 2013 ANDRITZ HYDRO signed a contract with Volta River Authority for the four 40 MW Kpong retrofit project on the Volta River, the second largest hydroelectric dam in Ghana, covering about 12% of the country's electricity production.

ANDRITZ HYDRO will supply design, manufacturing, delivery, erection, and testing as well the commissioning of electrical and mechanical equipment including generators and excitation equipment, turbine and auxiliary equipment, governors, generator transformer, powerhouse station service facilities as well as hydro-mechanical equipment.

The first unit was successfully handed over to the customer in August 2016. The second unit is in the refurbishment and installation phase; commissioning is scheduled for mid-2017. The two further units will follow subsequently.