



► Area near Issyk 2 hydropower project

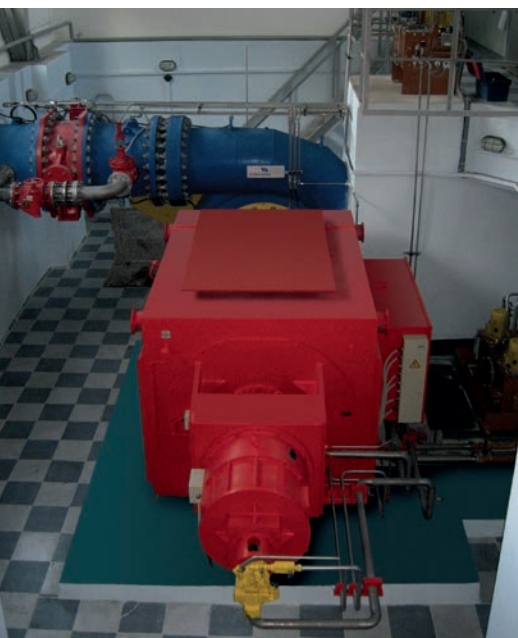
# Kazakhstan

Republic of Kazakhstan

## Hydropower for a Huge Country

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► Machine hall of HPP Issyk 2



The supply and distribution of electricity in Kazakhstan can be erratic because of regional dependencies, but the country is moving forward with plans to improve reliability of electricity and gas supply to its population. The government realizes that its economy suffers from an overreliance on oil and extractive industries and the government announced a stimulus package to cope with the economic challenges. As only about 13% of the hydro generation potential of estimated 62,000 GWh is developed so far, there are vast opportunities offered.

### ANDRITZ HYDRO in Kazakhstan

For about 10 years, ANDRITZ HYDRO has been active in the promising hydropower market of Kazakhstan.

For HPP Moinak (3 × 153 MW) ANDRITZ HYDRO delivered two Pelton turbines and a spare runner, for HPP Issyk 2 (1 × 5.26 MW) the complete electro-mechanical equipment was supplied.

**HPP Shardarinskaya:** In December 2013, ANDRITZ HYDRO signed a contract with JSC “Shardarinskaya HPP” to upgrade the electro-mechanical equipment at the Shardarinskaya hydropower plant.

ANDRITZ HYDRO will replace four Kaplan turbines with new runners, new generators, automation, and auxiliary systems. The power output will be increased by about 20% from 26 MW to 31.5 MW per unit. Completion of the refurbishment is scheduled for mid-2017.

**HPP Issyk 1:** At the beginning of 2016, ANDRITZ HYDRO signed a new contract for HPP Issyk 1 (1 × 5.3 MW) for the delivery of the complete electro-mechanical equipment.

These contracts represent ANDRITZ HYDRO's success in a country with great expectations of further business in the near future. ■

#### KAZAKHSTAN FACTS

17.29 Mio.  
100%  
2,375 MW  
177 MW  
9%  
8,236 GWh  
62,000 GWh

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