

# MOVING ON THE RIGHT TRACK

*With an annual GDP growth of about 6.3% in 2018, Nepal is one of the fastest growing economies in the world, though still one of the least developed. Political uncertainty and a difficult market have slowed foreign investment. Additional challenges to Nepal's growth include its geographic location, power shortages, and underdeveloped infrastructure.*

Nepal's recent progress in hydropower construction is phenomenal when compared with the previous century of hydropower development, which achieved less than 1,200 MW in total. Conversely, it is expected that around 3,000 MW of hydroelectricity is to be added to the grid over the next three years.

Nepal has a large economically feasible hydropower potential of 44,000 MW, however the vast majority has yet to be harnessed. To address this, the Government of Nepal has come up with a road-map to produce 15,000 MW of electricity within 15 years\*.

#### **ANDRITZ HYDRO IN NEPAL**

ANDRITZ has been a significant contributor to the Nepalese hydropower sector for many years. Over the last three decades

almost 1,200 MW of electricity generation capacity has been commissioned or is in development. For example, ANDRITZ is the electro-mechanical and recently also the hydro-mechanical contractor of Nepal's national priority project Upper Tamakoshi (456 MW), the largest hydropower plant funded solely by the Nepalese. This is in addition to 33 other projects all around the country. ANDRITZ is also now actively involved in hydro-mechanical works in Nepal and secured four contracts in 2019 alone.

**Kalanga Cluster Projects:** Located in the Bhajang District, one of the most remote parts of Nepal, the Kalanga cluster projects include Upper Kalanga Gad (38.46 MW), Kalanga Gad (15.34 MW) and Upper Sanigad (10.7 MW). In 2017, ANDRITZ signed a contract with Kalanga Group

Installation team Upper Tamakoshi



# NEPAL



Tamakoshi River in the Nepalese Himalayas

of Companies, a well-known independent power producer in Nepal and the developer of these projects. The scope includes the supply of three vertical, four-jet Pelton turbines for Upper Kalanga Gad, two horizontal Francis turbines for Kalanga Gad, and two horizontal Pelton

turbines for Upper Sanigad. The scope also includes the entire electro-mechanical equipment as well as erection and commissioning.

**Likhu Cluster Projects:** Likhu 1 (77 MW), Likhu 2 (54 MW) and Likhu A (29 MW) are

three cluster projects on the Likhu River at Ramechhap District developed by a single client, MV Dugar Group. ANDRITZ signed a contract in December 2018 for the delivery of three vertical, five-jet Pelton turbines for Likhu 1, three vertical Francis turbines for Likhu 2, and three horizontal Francis turbines for Likhu A. The contract included the entire electro- and hydro-mechanical scope, as well as erection and commissioning.

**Nilgiri Cluster Projects:** In December 2019, ANDRITZ signed the hydro-mechanical contract for the Nilgiri cluster projects in Myagdi District. The cluster comprises Nilgiri Khola I (38 MW) and Nilgiri Khola II (71 MW) and is developed by the well-regarded Nilgiri Khola Hydro-power Company Limited. The contract includes design, engineering, fabrication and installation of the penstock (service contract) and supply of manholes and bifurcations (supply contract).

## GENERAL FACTS

Population: **28,087 million**  
 Access to electricity: **95.5%**  
 Installed hydro capacity: **1,074 MW**  
 Hydropower under construction: **2,647 MW**  
 Share of generation from hydropower: **100%**  
 Hydro generation per year: **4,476 GWh**  
 Technically feasible hydro generation potential per year: **300,000 GWh**

**ANDRITZ Hydro in the country:**

Total installed / rehabilitated units: **74**  
 Total installed / rehabilitated capacity: **1,200 MW**  
 Location: Kathmandu  
 E-Mail: [contact-hydro.np@andritz.com](mailto:contact-hydro.np@andritz.com)

\* Report from Energy White Paper 2018 published by Ministry of Energy, Water Resources and Irrigation.



Automation systems Upper Tamakoshi

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