

PROJECT

RAMU 1, PAPUA NEW GUINEA

Two new Francis runners

ANDRITZ has manufactured two spare Francis runners for units 4 and 5 of the Ramu 1 hydropower plant located in the Eastern Highlands of Papua New Guinea. The contract was awarded by the state-owned utility Papua Power Ltd. (PPL) in February 2022 and the two spare runners were delivered in August 2023.

The runners are rated at 17 MW output each, have a diameter of 1,200 mm, and an operating speed of 750 rpm.

Ramu 1 is an underground power plant and consists of five machine sets with a total plant capacity of 77 MW. Three units with 15 MW each were put into operation in 1975/76 and two more units with 17 MW each were added subsequently and put into service in 1989. Immediately thereafter, the three original units were extensively modernized by ANDRITZ. Since 2011, some of the auxiliary systems were modernized. As Ramu-1 plays an important role for the local population to gain independence from expensive diesel and oil as a source of energy, PPL is planning to conduct a major overhaul of the plant.

AUTHORS

Gerhard Enzenhofer,
Edo Ronaldo
hydronews@andritz.com

TECHNICAL DETAILS

- Year of manufacture: 1976 (1989)
- Nominal power of unit 4 & 5: 17 MW
- Nominal speed: 750 rpm
- Runaway Speed: 1,435 rpm
- Rated head: 185 m
- Draft tube outlet: 2,100 mm

