

CASE STUDY BARCAPLE



KEY STATISTICS

Customer: Didul (Pvt) Ltd

Net Head: 98m

Flow: 2600 l/s

Turbine type: Twin Jet Turgo 28

Date of Order: February 2006

Date of Commissioning: Dec 2006

Output power: 2055kW

Speed: 600rpm

Scope of Supply: Twin Jet Turgo Impulse, set inlet pipework, inlet bifurcation and dbifurcation VJ coupling, hydraulic control module, 900mm diameter turbine main inlet valve, bypass for turbine main inlet valve, synchronous generator & brake, set electrical PLC controls & switchgear equipment, supervision & commissioning.

Sri Lanka derives 75% of its electricity from hydroelectric generation. A substantial part of this is large hydro (stations above 40 MW) but there has been a long tradition of utilising small hydro power plants especially in the tea-growing region.

Gilkes supplied 400 water turbine driven units to tea factories in Sri Lanka between 1890 and 1965. A few of these machines are still running but with the development of large hydro, the spread of the electricity grid and the vagaries of the tea market, many small hydro units were abandoned or had fallen into disrepair in the 1970's and 80's. There was limited potential for more large hydro and a reluctance to develop thermal power plants. Small hydro became critical again in the sustainability of power supplies in the country. The demand for electricity on the island increased well beyond generation capabilities and, with the rejuvenation and privatisation of the tea industry, the need for continuous and secure electricity was identified.

Since 1996 Gilkes have supplied equipment to a number of projects in Sri Lanka including the Barcaple Project

- The Watawala Project 1 x 1.4 MW Francis unit
- The Carolina Project, 3 x 850 KW TJ Turgo units
- The Agra Oya Project, 2 x 1.3 MW Francis Units
- The Coolbawn Project, 1 x 1.1 MW Francis unit
- The Rakwanaganga Project, 1 x 600 KW Francis Unit
- The Adawikanda Project, 2 x 2.7 MW Francis units



All projects have been operating successfully for a number of years.

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