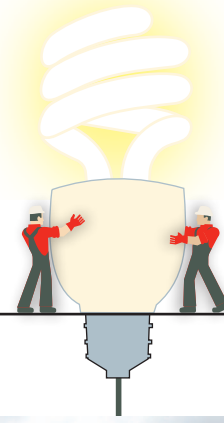


# Rowallan Power Station

## Mersey-Forth Catchment



Rowallan Power Station is the first station in the Mersey-Forth scheme. The station was commissioned in 1968 and houses a single Maier francis turbine coupled to a ASEA generator.

Rowallan Power Station is located about 200 metres downstream of Rowallan Dam, which forms Lake Rowallan. The dam is one of the two main headwater storages in the Mersey Forth scheme and assists in regulating the water supply to four downstream power stations.

Rowallan is a single machine station. The turbine has a partially embedded spiral casing and is connected to a steel penstock and concrete pipe (buried under the dam) with a vertical lift, gravity closed intake gate designed to cut off full flow. No inlet valve is installed but a relief valve is provided to accept flow rejected by the guide vanes.

A bypass valve located near the dam side of the penstock is used to divert water into the river when the station is not operating.

The draft tube gate is designed to be removed by the station crane.

The station output is transmitted via a 22 kV transmission line to Fisher switchyard transformer T2.



<b>Scheme:</b>	Mersey Forth		
<b>Year commissioned:</b>	1968		
<b>Power station structure:</b>	Surface, 32 m long x 11 m wide, with the assembly bay and service block adjacent to a rectangular machine bay.		
<b>Static head:</b>	495 m		
<b>Generating set:</b>	Vertical shaft generating set, comprising a 10.5 MW francis turbine directly coupled to a 3 phase, 50 Hz, 160 MVA synchronous generator and with provisions for synchronous compensator operation.		
<b>Turbine manufacturer:</b>	Maier	<b>Generator manufacturer:</b>	ASEA
<b>Rated head:</b>	49 m	<b>Rated output:</b>	11 MVA
<b>Rated discharge:</b>	26 m <sup>3</sup> /s	<b>Power factor:</b>	0.95
<b>Rated speed:</b>	250 rev/min	<b>Rated voltage:</b>	6.6 kV

