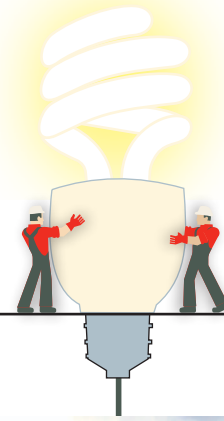


Paloona Power Station

Mersey-Forth Catchment



Paloona Power Station is the seventh and last station in the Mersey-Forth scheme. The station was commissioned in 1972 and houses a single Fuji kaplan turbine coupled to a Siemens generator.

Paloona Power Station is located on the Forth River at the foot of Paloona Dam. The rock-fill, concrete face dam has a side channel spillway and is fed from the outflow of Devils Gate Power Station.

The turbine has a concrete spiral casing and is connected to a short penstock under the dam with a vertical lift, gravity closed intake gate designed to cut off full flow. Draft tube bulkhead gates and a gantry are located outside the station to permit the draft tube to be dewatered. No relief valve or inlet valve is installed in the station.

A riparian outlet pipe with regulating valve is installed to control water flow into the Forth River when the station is not operating.

The station output is fed to Transend Networks' transmission grid via an 11 kV/110 kV generator transformer and 110 kV outdoor switchgear. The transformer yard is situated adjacent to the station. A separate switchyard, shared with Transend Networks, is situated a short distance away.



Scheme:		Mersey Forth	
Year commissioned:		1972	
Power station structure:		Surface, 31 m long x 17 m wide with the service block adjacent to the assembly bay.	
Static head:		32 m	
Generating set:		Vertical shaft generating set, comprising a 30 MW kaplan turbine already coupled to a 3 phase, 50 Hz, 35 MVA synchronous generator.	
Turbine manufacturer:	Fuji	Generator manufacturer:	Siemens
Rated head:	31 m	Rated output:	35 MVA
Rated discharge:	106 m ³ /s	Power factor:	0.8
Rated speed:	188 rev/min	Rated voltage:	11 kV

