

HASAN UGURLU

Turkey



Operating Hasan Ugurlu Dam

DESCRIPTION

The Hasan Ugurlu Dam was constructed to regulate the run-off from a catchment area of 35,900km² of the Yesilirmak River with a storage capacity of 1,080 million m³. The spillway has a capacity of 11,000m³. This project can be earmarked in that a

Turkish company had undertaken the prime contractor's responsibility for the civil works which included the construction of a rockfill dam, 9,000 million m³ in volume, and an underground powerhouse which accommodates 4 units of 125MW turbine generators. All the works had completed in accordance with the original schedule.



NAME OF CLIENT:

General Directorate of State Hydraulic Works (DSI)

CAPACITY: 500MW

SERVICES:

Feasibility Study(February,1969-June,1971)

Detailed Design(1971-1972)

Construction Supervision (June,1972-March, 1983)



Principal Characteristics of Project

Catchment Area		35,900km ²
Reservoir	Total Storage Capacity	1,080 x 10 ⁶ m ³
	Effective Storage Capacity	660 x 10 ⁶ m ³
	Available Depth	40.0m
Dam	Type	Rockfill w ith Incined Impervious Core
	Height x Crest Length	175.0 x 405.0m
	Total Volume	9,042 x 10 ⁹ m ³
Spillway	Type	Gated Open Channel Chute
	Capacity	11,000m ³ /s
Waterway	Type	Reinforced Concrete Lined Tunnel
	Size	4.80mD x 148.2m x 2 lines
Penstock	Type	Embedded Steel Penstock
	Length	130.6m
	Diameter	6.0-4.5m
Power House	Type	Underground
Turbine	Type	Vertical Shaft Francis
	Output x No. of Unit	125MW x 4
	Rated Head	111m
Generator	Type	3-Phase, AC Synchronous
	Output x No. of Unit	145MVA x 4