PURULIA

India

Upper Dam

Powerhouse

DESCRIPTION

Purulia Pumped Storage Project site is located in the West Bengal State and is planned on the Kistobazar Nala, a tributary of Sobha Nala. Utilizing the topographical conditions, two dams have been proposed with the upper dam located about 1km upstream of the downstream reservoir and about 180m effective head between the upper and lower dam reservoirs is proposed to be utilized for a pumped storage power development. An underground power house complex near downstream reservoir along with all other necessary components like power intake, head-race tunnel/penstocks, underground transformer complex, tail race etc. is planned with an installed capacity of 900MW (4 x 225MW).

NAME OF CLIENT:

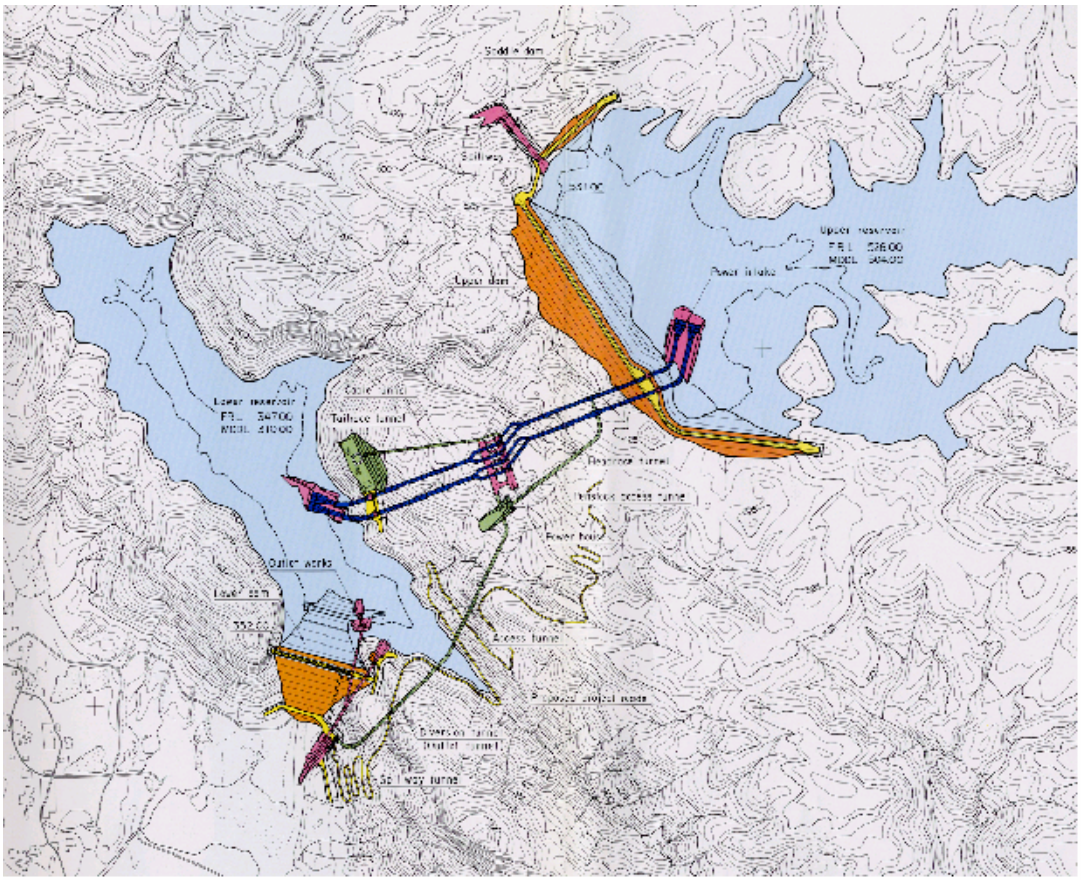
WBSEB: West Bengal State Electricity Board

F/S, D/D, S/V

CAPACITY: 900MW

SERVICES:

Feasibility Study (August 1998 - December 1992)
Definite Design and Construction Supervision (October 1995 - February 2008)



General Plan

Principal Characteristics of Project

		Upper Reservoir	Lower Reservoir
Catchment Area		9.5km^2	9.25km^2
Reservoir	Total Storage Capacity	16,500,000m^3	16,000,000m^3
	Effective Storage Capacity	13,000,000m^3	13,000,000m^3
	Drawdown	22m	37m
Dam	Type	Rockfill	Rockfill
	Hight X Crest Length	72m X 1,132m	95m X 310m
	Total Volume	3,060,000m^3	1,910,000m^3
Spillway	Type	Open-chute, Non Gate	Tunnel, Radial Gate
	Capacity	142m^3/sec	242m^3/sec
Waterway	Type	Pressure Tunnel	
	Size	D7.7m X 123m	
Penstock	Type	Underground	
	Length	547m, 559m	
	Diameter	D7.7m ～D3.4m X 2	
Powerhouse	Type	Underground	
Turbine	Type	Vertical Reversible Francis Pump Turbine	
	Output X No. of Unit	230MW X 4 units	
Generator	Type	Vertical Synchronous Motor Generator	
	Output X No. of Unit	250MVA/255MVA	

Purulia