CHAPTER 02

2.1 SALIENT FEATURES

1.	**LOCATION**	
	State	Jammu & Kashmir
	District	Poonch
	River	Parnai Nallah, a tributary of River Suran
	Weir/Barrage site Location	Near village Lachho Da Pahad
	Weir site	
	Latitude	33^0 35′ 32″ N
	Longitude	74^0 25′ 02″ E
	EL	1966 M
	Power house site	
	Latitude	33^0 36′ 14″ N
	Longitude	74^0 24′ 40″ E
	Nearest rail head	Jammu
	EL	1831
2.	**HYDROLOGY**	
	Catchment area	33 sq km
3.	**DIVERSION STRUCTURE**	
	Type	Weir/ Barrage
	E.L. at Weir/ Barrage	1966 m
4.	**DESILTING CHAMBER**	
	Type of chamber	Central silt gutter, surface, desilting tank.
	Particle size to be removed	0.2mm
	Design Discharge	10.64 cumecs
5.	**Water Conductor System**	
	Number	1
	Length	3 KM
	Shape	Cut and cover type channel
	Design discharge	11.70 cumecs
6.	**Forebay**	
	Type	Surface

	Size Storage capacity Peaking time	Rectangular tank (50mx20mx4.0m) 4000 Cum. 5 minutes
7.	**PENSTOCK** Numbers Length Velocity	 1 no. main (1900 mm) 2 Branches (1100 mm) 2 Branches (800 mm) Main 300 m Branches 50m each (4 No.) 4.3 m/second
8.	**POWER HOUSE** Location Type Installed Capacity Type of turbines Maximum gross head Net head	 Left bank of Parnai Nallah Near village Girjan Surface 12 MW (2x4MW + 2x2 MW) Francis turbine, Horizontal axis 129 m 125 m
9.	**POWER GENERATION** Installed capacity Annual energy generation 90% dependable year 75% dependable year	 12 MW 53.34 Gwh 64.55 Gwh
10.	**TAIL RACE CHANNEL** Type Length Bed slope Latitude Longitude	 RCC Box section 30 m 1 in 1000 33′ 36′ 14″ N 74′ 24′ 40″ E
11.	**GATES** **a) Diversion structure**	

	Type Number **b) Intake** Type Size Number c) **Draft Tube** Type Size No	Trash Rack 1 Vertical Lift 2.0 m x 2.0 2 Vertical lift 1.6 m x 2.0 m 4
12.	**PROJECT COST** **Total Cost**	 12MW@ 8cr/MW = 96cr