

2. SALIENT FEATURES

The salient features of Tatapani (Sungaldan) SHP

SALIENT FEATURES

2.1 Location	
UT	: Jammu & Kashmir
District	: Ramban
Tehsil	: Ramban
Village	: Dharam-B
Access distance from	:
Srinagar	: 171 km
Jammu	: 156 km
Nearest Road Head	Ramban 34 Km
Nearest Rail Head	: Banihal – 80 km
2.2 Geographical Co-ordinate of proposed Diversion Site	
Longitude	: 75° 2'44.26"E
Latitude	: 33° 16'52.30"N
Altitude	: ± 1140 m
2.3 Details of the Stream	
Name of the stream	: Chinji
Catchment area at diversion	: 47.5 Sq. Km.
Existing water use of the stream in nearby area	: Nil
Approximate slope of the stream in the proposed stretch.	: 1 in 7
Status of the stream snow / glacier / rain fed	: Glacier, snow, and rain fed

2.4 Meteorological Information		
Annual Rainfall	:	1330 mm
Temperature	:	Min. -10°C, Max 28°C
2.5 Availability of Labour		
Availability of Labour in nearby area		
(i) Skilled	:	Available in District Ramban.
(ii) Unskilled	:	Available near project site
2.6 Availability of Building Materials		
(i) Boulders	:	Available locally
(ii) Stones for stone masonry	:	Available locally
(iii) Fine sand	:	Available locally
(iv) Cement	:	Available in District Ramban.
(v) Reinforcement steel	:	Available in District Ramban.
2.7 Preliminary Technical Parameters		
Basic parameters		
Gross Head	:	175 m
Design discharge	:	1.56 m ³ /s
Installed Capacity	:	2.20 MW
Diversion structure & intake		
Type	:	Trench Weir
RBL		1140.0 m
FRL		1140.0 m
Design discharge for Intake structure	:	2.27 cumec
Size	:	Width: 1.5 m Depth: 2.0 m

Length	:	25 m
Intake Channel upto Desilting Chamber		
Type	:	Surface Cut & Cover
Length	:	193 m
Design Discharge in Pipe	:	2.06 cumec
Size	:	Width: 2.0 m Depth: 1.5 m
Desilting chamber		
Design Criteria	:	To remove silt particles of size 0.2 mm and above
Flushing Arrangement	:	Sloping bed, sluice valve at the bottom
Design Discharge		2.25 cumec
No. of bays	:	1
Size L x W x H	:	29 m, 5 m, and 5 m
Power Channel cum Energy Dissipation Arrangement		
Design Discharge	:	1.56 cumec
Width	:	2.0 m
Depth of flow	:	1.5 m
Length	:	3674 m
Forebay Tank		
Design discharge	:	1.56 cumec
Length	:	25.0 m
Width	:	5.0 m
Depth	:	6.0 m
Free Board	:	0.30 m
Type	:	Rectangular RCC
Approximate Detention Time	:	3 minutes

Capacity Provided	:	751.25 m ³
Penstock		
Design discharge		1.56 Cumec
Diameter	:	1.0 m
Length	:	231 m
Design discharge of Unit Penstock		0.78 Cumec
Diameter of Unit Penstock		0.50 m
Type	:	Circular (ASTM 285 Grade "C")
Thickness	:	Varies from 12 mm to 24 mm.
Anchors and Saddle Supports	:	After every 6m, there is proposed to have saddle support and Anchor Bock after every 100m or at every horizontal/Vertical Bends
Power House		
Longitude		75° 3'47.59"E
Latitude		33° 16'17.08"N
EL.		965 m
Type	:	Surface
Size of the Power House building	:	L = 30 m W = 25 m H = 16.0 m
Service Bay Elevation	:	EL. 967 m
Centre Line of turbine	:	EL. 965 m
Installed Capacity	:	2.0MW
No. and capacity of unit	:	2 x 1.0MW
Type of Turbine	:	Francis Horizontal
Gross Head	:	175 m
Net Head	:	166.25 m

Power House Crane	:	40/10 T EOT
Tail Water Level (TWL)	:	963 m
Tail Race		
Design discharge		1.56 Cumec
Shape	:	RCC Box Rectangular Section
Size	:	1.5 m (Wide) x 1.7 m (High)
Bed Slope	:	1 in 500
Length	:	64 m
Power Details		
Installed Capacity	:	2.0MW
Annual Energy at 90% plant availability	:	9.55 MU
Plant Load Factor	:	49.55 %
2.8 Estimated Cost of Project		
Approx. 25 Crore INR		