

## BOKANG BALING H.E. PROJECT

### SALIENT FEATURES

#### LOCATION

State	Uttaranchal
District	Pithoragarh
River	Dhauliganga
Dam site	D/S of confluence of Lassar Yankti with Dhauliganga river
Nearest Airport	Delhi
Nearest rail head	Tanakpur
Location of Dam Site	
Latitude	30° 16' 34" N
Longitude	80° 31' 58" E

#### HYDROLOGY

Catchment area at dam site	691 sq km
Maximum average Discharge at dam site	48.64 cumec
Minimum average Discharge at dam site	32.09 cumec

#### RESERVOIR

Full reservoir level (FRL)	3280 m
Minimum drawdown level (MDDL)	3240 m
Gross storage at FRL	50.67 M cum
Live storage	35.13 M cum
Area under Submergence at FRL	132.5 ha

#### DIVERSION TUNNEL

Number	1
Size	6.0 m dia
Length	490 m
Diversion discharge	205.82 cumec

#### DAM

Type	Concrete Gravity Dam
Top elevation of dam	3283
Height of dam above deepest foundation level	136 m
Length of dam at top	438 m
River bed level	3162 m

## SPILLWAY

Design flood	3492.94 cumec
Type	Sluice spillway
Crest elevation	3200 m
Number	4
Length of spillway	48.0 m
Energy dissipation type	Ski jump bucket

## INTAKE

Invert level	3227.1 m
Number	1
Size of gate opening	5.0m x 5.0m
Trash rack	5.5m x 13.9 m x 5 no.
Intake conduit	5.0 dia

## DESILTING CHAMBER

Number	Not required
Size	
Length	
Design discharge	
Particle size to be removed	

## HEAD RACE TUNNEL

Number	1
Size	5.0 m dia
Shape	Horse shoe
Length	9.4 km

## SURGE SHAFT

Number	1
Size	14 m dia
Height	120 m

## PRESSURE SHAFT

Numbers	1
Size	4.2 m dia
Length	640 m



## **POWER HOUSE**

Type	Underground
Installed capacity	330 MW (3x110 MW)
Number of units	3
Power house cavern size	19 m x 111 m
Type of turbine	Vertical Francis
C.L. of turbine	2774.0 m
Rated Head	455.2 m

## **TAIL RACE**

Size	5.0 m dia
Type	Tunnel D-shaped
Length	295.0 m
Design Discharge	78.34 cumec
River Bed Level	2778.0 m
Normal TWL	2783.0 m

## **SWITCHYARD**

Size	GIS on the floor above the transformers in the transformer cavern of size 16 m x 86 m
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## **POWER GENERATION**

Installed capacity	330 MW (3x110 MW)
Annual energy generation	
i) 90% dependable year	1124.62 Gwh
ii) Energy in 90% year on 95% availability	1108.38 Gwh

## **CONSTRUCTION PERIOD**

6 years