

GOHANA TAL H.E. PROJECT (2X30=60 MW)

SALIENT FEATURES

LOCATION

State	Uttaranchal
District	Chamoli
River	Birahi Ganga

DIVERSION SITE

Location	1.7 km d/s of confluence of Pui Gadhera joining river Birahi Ganga from Right Bank
Latitude	30° 22' 43" N
Longitude	79° 30' 18" E
Nearest Airport	Dehradun
Nearest rail head	Rishikesh

HYDROLOGY

Catchment area at dam site	211 sq km
Maximum average discharge at dam site	33.7 cumecs
Minimum average discharge at dam site	2.3 cumecs

RESERVOIR

Full Reservoir Level (FRL)	El 1614.0 m
Maximum Water Level (MWL)	El 1614.0 m
Minimum Drawdown Level (MDDL)	El 1612.0 m
Gross storage at FRL	1.10 M cum
Live storage	0.58 M cum
Area under Submergence at FRL	24.64 ha

DIVERSION TUNNEL

Number	1
Size	3.0 m diameter
Length	280 m
Diversion discharge	35 cumecs

DIVERSION STRUCTURE

Type	Barrage
Length	84 m
Total number of bays	6
No. of spillway bays	4 Nos. (10.0 m x 9.5 m each)
No. of Under sluices bays	2 Nos. (10.0 m x 14.5 m each)
Crest Level	
i) Spillway bay	El 1605.0 m
ii) Under sluice bay	El 1600.0 m
Design Flood	2500 cumecs

INTAKE

Invert level	El 1606.5 m
Number	1
Size of gate opening	3.0m x 3.0m
Trash rack	3 of 3.6m x 6.3 m
Design discharge	14.0 cumecs

DESILTING CHAMBER

Number	1
Size	100.0 m x 5.0 m x 8.0 m
Design discharge	14.00 cumecs
Particle size to be removed	0.2 mm & above

HEAD RACE TUNNEL

Number	1
Size	2.5 m
Shape	D Shape
Length	9.0 km
Design discharge	11.62 Cumecs

SURGE SHAFT

Number	1
Size	6.0 m diameter
Height	60.0 m

PRESSURE SHAFT

Numbers	1
Size	1.8 m diameter
Length	650.0 m

POWER HOUSE

Type	Underground
Installed capacity	60 MW
Number of units	2 of 30 MW
Power house cavern size	61.5 mx19.25 mx35.0 m
Type of turbine	Vertical Pelton
C.L. of turbine	El 998.0 m
Rated Head	584.57 m

TAIL RACE

Size	2.5 m dia
Type	D-Shape
Length	940.0 m
Design Discharge	11.62 cumecs
River Bed Level	El 991.0 m
Maximum TWL	El 995.0 m

SWITCHYARD

Size	Gas Insulated Switchyard (GIS) on the floor above the transformer/s in P/H cavern
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POWER GENERATION

Installed capacity	60 MW (2x30 MW)
Annual energy generation	
i) 90% dependable year	269.35 GWh
ii) Energy in 90% year on 95% availability	261.53 GWh

CONSTRUCTION PERIOD

5 years