

SALIENT FEATURES

1. LOCATION

i)	State	:-	Arunachal Pradesh
ii)	District	:-	Dibang Valley
iii)	Town	:-	Anini (about 80 km from site)
iv)	Access	:-	Etalin-Maloney Road
v)	Nearby village	:-	Awonli
vi)	Geographical Coordinates of Power House	:-	Latitude = 28°37'53" N Longitude = 96°00'56" E
vii)	Toposheet Reference	:-	91 D/2
viii)	Nearest Railhead	:-	Tinsukia (310 Kms)
ix)	Nearest Airport	:-	Dibrugarh (370 Kms)

2. HYDROLOGY

i)	Name of the River	:-	Anonpani
ii)	River Basin	:-	Dibang Basin
iii)	Catchments Area	:-	134.9 km ²
iv)	Type of River	:-	Perennial
v)	Design Flood	:-	660 m ³ /s
vi)	Average Annual Inflow	:-	352.8 MCM
vii)	75% dependable inflow	:-	326.6 MCM
viii)	Design Discharge	:-	13.06 m ³ /s

3. TRENCH WEIR

i)	Shape	:-	Rectangular drop type
ii)	Length	:-	18 m
iii)	Width	:-	3 m
iii)	Design Discharge	:-	21.549 m ³ /s
iv)	Top level of trench	:-	EL 1312 m
v)	Size of gate	:-	2.5 m (H) x 2.5 m (W)
vi)	Invert Level of Intake	:-	EL 1308.7 m

4. INTAKE CHANNEL

i)	Length	:- 20 m
ii)	Shape	:- RCC Rectangular Box Section
iii)	Size	:- 2.8 m (W) x 2.8 m (H)
iv)	Full Supply Depth	:- 2.5 m
v)	Design Discharge	:- 17.239 m ³ /s
vi)	Bed Slope	:- 1 in 700

5. DESILTING BASINS

i)	Length	:- 90 m
ii)	Width	:- 4.0 m
iii)	Vertical Depth	:- 4.30 m
iv)	Inclined Depth	:- 2.50 m
v)	No. of Basins	:- 2
vi)	Design Discharge	:- 8.62 m ³ /s for each basin

6. WATER CONDUCTOR SYSTEM

Combination of Channel and Tunnel

i)	Total Length	:- 1,759 m
ii)	Channel Length	:- 633 m
iii)	Channel Shape	:- RCC Rectangular Box Section
iv)	Channel Size	:- 2.6 m (W) x 2.8 m (H)
v)	Bed Slope in Channel	:- 1 in 800
vi)	Full Supply Depth	:- 2.5 m
vii)	Design Discharge	:- 14.366 m ³ /s
viii)	Tunnel Length	:- 1,126 m
ix)	Tunnel Size	:- 3.2 m (W) X 3.8 m (H) modified D shaped
x)	Bed Slope in Tunnel	:- 1 in 750

7. FOREBAY

i)	Size	:- 49.0 m long x 12.0 m wide
ii)	Live Storage	:- 3.0 m (Between FSL and MDDL)
iii)	Storage	:- 3 Minutes

iv)	Capacity	:-	1764 m ³
iv)	Full Supply Level	:-	EL 1307.69 m
v)	Max. Draw Down Level	:-	EL 1304.69 m
vi)	C/L of penstock	:-	EL 1301.09 m

8. PENSTOCK

i)	Size	:-	2000 mm (ID) trifurcating into 1200 mm (ID)
ii)	Length (main penstock)	:-	228 m
iii)	Design Discharge	:-	14.366 m ³ /s
iv)	Liner Thickness		Varies from 12 mm to 16 mm

9. POWER HOUSE

i)	Type	:-	Surface
ii)	Head	:-	
	Gross		148.0 m
	Design (net)		138.52 m
iii)	Design Discharge	:-	14.366 m ³ /s (Including 10% overload)
iv)	Size of Power House	:-	
	Length	:-	40 m
	Width	:-	15 m
	Height from Machine Floor Level	:-	17 m
	Machine Floor Level	:-	EL.1165 m
v)	Installed Capacity	:-	16 MW
vi)	Turbines		
	Type	:-	Horizontal Francis
	Number	:-	3 Nos.
	Capacity	:-	5330 kW each
vii)	Generator		
	Type	:-	Synchronous
	Voltage	:-	6.6 kV
	Excitation System	:-	Brush less
viii)	Generator Transformer	:-	3 Nos., 6.6/33 kV
ix)	Number of Draft Tube Gates	:-	3 Nos. manually operated
x)	Power house Crane /Lifting capacity	:-	EOT Crane of 35/8 ton capacity

10. TAIL RACE CHANNEL

i)	Type	:-	Open RCC Channel
ii)	Shape	:-	Rectangular
iii)	Size	:-	11 m (W) x 1.3 m (H)
iv)	Design discharge	:-	14.366 m ³ /s
v)	Quantity	:-	1 no.
vi)	Length	:-	30 m

11. SWITCH YARD

i)	Voltage Level	:-	33 KV
ii)	Size	:-	Outdoor, 40 m X 30 m

12. LAND REQUIREMENT

i)	Submergence	:-	NIL
ii)	Permanent Land Requirement	:-	11.39 Ha.
iii)	Temporary Land Requirement	:-	1.10 Ha.

13. GENERATION

i)	Annual Generation in 75% Dependable Year	:-	91.79 MU
ii)	Annual Energy Generation at 95 % plant Availability	:-	87.20 MU
iii)	Annual Load Factor (%)	:-	62.22 %
iv)	Generation in Lean Period (Nov.-Mar.)	:-	16.99 MU

14. COST ESTIMATE & FINANCIAL PROJECTIONS

i)	Land & Preliminary expenses	:-	Rs. 3.71 Cr.
i)	Civil and HM Works	:-	Rs. 101.04 Cr.
ii)	Electro-mechanical works	:-	Rs. 40.54 Cr.
iii)	Transmission	:-	Rs. 4.75 Cr.
iv)	Total Project Cost	:-	Rs. 150.04 Cr.
v)	IDC and Escalation	:-	Rs. 30.90 Cr.
vi)	Project cost (including escalation and IDC)	:-	Rs. 180.94 Cr.
vii)	Cost per MW	:-	Rs. 11.31 Cr.

	Cost of generation (Rs/ kWh)		
viii)	a) 1 st Year	:-	Rs. 4.14/ Unit
	b) Levelised Cost	:-	Rs. 3.65/ Unit

15. SCHEDULE

i)	Pre construction Activities	:-	12 months
ii)	Construction Period	:-	36 months

Sd-
Executive Engineer (M)
O/o the Chief Engineer (M)
Deptt. of H.P.D., Itanagar

Sd-
Project-Officer (Capital)
APEDA Itanagar
Assamachal pradesh

Sd-
Deputy Manager (C)
HPDCAPL
Itanagar

Sd-
General Manager (E)
Power Dev. Corp. of Ar. Pr.
Itanagar