

SALIENT FEATURES

1. LOCATION

i)	State	:-	Arunachal Pradesh
ii)	District	:-	Changlang
iii)	Town	:-	Jairampur (about 33 km from project area)
iv)	Access	:-	Nampong-Rima village Road
v)	Nearby village	:-	Rima
vi)	Geographical Coordinates	:-	Latitude = 27°19'49" N Longitude = 96°12'05" E
vii)	Toposheet Reference	:-	92 A/3, 92 A/7
viii)	Nearest Railhead	:-	Tinsukia (110 Kms)
ix)	Nearest Airport	:-	Dibrugarh (170 Kms)

2. HYDROLOGY

i)	Name of the Stream	:-	Rinon River
ii)	River Basin	:-	Rima River
iii)	Catchments Area	:-	72 km ²
iv)	Type of Stream	:-	Perennial
v)	Design Flood	:-	435 m ³ /s
vi)	Average Annual Inflow	:-	155 MCM
vii)	75% dependable inflow	:-	124.5 MCM
viii)	Design Discharge	:-	0.81 m ³ /s

3. TRENCH WEIR

i)	Shape	:-	Rectangular drop type
ii)	Length	:-	10 m
iii)	Width	:-	1 m
iii)	Discharge	:-	1.283 m ³ /s
iv)	Top level of trench	:-	EL 298 m
v)	Size of gate	:-	1.0 m (H) x 1.0 m (W)
vi)	Invert Level of Intake	:-	EL 296.30 m

4. INTAKE CHANNEL

i)	Length	:-	10 m
ii)	Shape	:-	RCC Rectangular Section
iii)	Size	:-	0.9 m (W) x 1.1 m (H)
iv)	Full Supply Depth	:-	0.9 m
v)	Discharge	:-	1.069 m ³ /s
vi)	Bed Slope	:-	1 in 500

5. DESILTING BASIN

i)	Size	:-	14.0 m long x 4.0 m wide
ii)	Slope Height	:-	1.50 m
iii)	Vertical Height	:-	3 m
iv)	Silt Catch Drain	:-	0.5 m x 0.5 m
v)	Full Supply Level	:-	EL 297.361 m

6. POWER CHANNEL

i)	Length	:-	205 m
ii)	Shape	:-	RCC Rectangular Section
iii)	Size	:-	0.9 m (W) x 1.0 m (H)
iv)	Full Supply Depth	:-	0.8 m
v)	Discharge	:-	0.891 m ³ /s
vi)	Bed Slope	:-	1 in 600

7. FOREBAY TANK

i)	Size	:-	14.0 m long x 6.0 m wide
ii)	Storage	:-	3 Minutes
iii)	Capacity	:-	168 m ³
iv)	Full Reservoir Level	:-	EL 297.01 m
v)	Max. Draw Down Level	:-	EL 295.01 m
vi)	C/L of penstock	:-	EL 293.71 m

8. PENSTOCK

i)	Size	:-	700 mm (ID) bifurcating into 500 mm (ID)
ii)	Length (main penstock)	:-	75 m
iii)	Discharge	:-	0.891 m ³ /s
iv)	Liner Thickness		Varies from 8 mm to 10 mm

9. POWER HOUSE

i)	Type	:-	Surface
ii)	Head	:-	
	Gross		18.0 m
	Design (net)		15.0 m
iii)	Design Discharge	:-	0.891 m ³ /s (Including 10% overload)
iv)	Size of Power House	:-	
	Length	:-	15 m
	Width	:-	7 m
	Height from Machine Floor Level	:-	8 m
	Machine Floor Level	:-	EL.282 m
v)	Installed Capacity	:-	70 KW
vi)	Turbines		
	Type	:-	Kaplan
	Number	:-	2 Nos.
	Capacity	:-	35 kW each
vii)	Generator		
	Type	:-	Synchronous
	Voltage	:-	415 V
	Frequency	:-	50 Hz

10. TAIL RACE CHANNEL

i)	Type	:-	Open RCC Channel
ii)	Shape	:-	Rectangular
iii)	Size	:-	2 m (W) x 0.8 m (H)
iv)	Discharge	:-	0.891 m ³ /s
v)	Length	:-	20 m

11. LAND REQUIREMENT

i)	Submergence	:-	NIL
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ii)	Permanent Land Requirement	:-	1.265 Ha.
iii)	Temporary Land Requirement	:-	0.27 Ha.

12. GENERATION

i)	Annual Generation in 75% Dependable Year	:-	0.50 MU
ii)	Annual Energy Generation at 95 % plant Availability	:-	0.47 MU
iii)	Annual Load Factor (%)	:-	76.93 %
iv)	Generation in Lean Period (Nov.-Mar.)	:-	0.15 MU

13. COST ESTIMATE & FINANCIAL PROJECTIONS

i)	Land & Preliminary expenses	:-	Rs. 0.63 Cr.
i)	Civil and HM Works	:-	Rs. 4.35 Cr.
ii)	Electro-mechanical works	:-	Rs. 3.15 Cr.
iii)	Evacuation	:-	Rs. 0.18 Cr.
iv)	Total Project Cost	:-	Rs. 8.31 Cr.
v)	IDC and Escalation	:-	Rs. 1.77 Cr.
vi)	Project cost (including escalation and IDC)	:-	Rs.10.08 Cr.
vii)	Cost per KW	:-	Rs. 14.40 Lacs
	Cost of generation (Rs/ kWh)		
viii) a)	1 st Year	:-	Rs. 37.73/ Unit
b)	Levelised Cost	:-	Rs. 28.19/ Unit

14. SCHEDULE

i)	Pre construction Activities	:-	9 months
ii)	Construction Period	:-	12 months