

INGWA HYDROPOWER PROJECT

SALIENT FEATURES

SN	FEATURES	CHARACTERISTICS
GENERAL		
1	Name of Project	Ingwa Hydropower Project
2	Type of the Scheme	Run of River
3	Catchment Area	200 Km ² (approx..)
4	Gross head	226 m
5	Design Discharge	9.5 m ³ /s (@Q45% PoE)
6	Install Capacity	18 MW

PROJECT LOCATION

1	Latitude	27°16'46"
2	Longitude	87°52' 22"
3	Project Area	Ankhop VDC of Taplegunj District, Province 1

TECHNICAL INFORMATION

1	Diversion Type	Free Flow Concrete Overflow Weir
	Type	Free Flow Concrete Overflow Weir
	Length of the Weir	54 m
	Crest Elevation	EL 1084.5 msl
	Height of Weir	6.75 m from River Bed
	Size of Intake	(3.0 m x 1.5 m) x 3 Nos
	Size of Under Sluice gate	4.0 m x 5.0 m (1 No.)
	Sill Level of Intake	1083.0 m

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2	Desander basin	
	Type	Dufour Type, Continuous Flushing
	Number	2 nos.
	Size	63 m x 7 m x 4.5 m
	Particle size to be settled	>0.2 mm
3	Approach Canal	
	Type	Rectangular Box Culvert
	Length	58.5 m
	Size	2.72 m x 1.86 m
4	Headrace Pipe	
	Type	Steel Penstock Pipe
	Internal Diameter	2.0 m to 2.2 m
	Length	4500 m
	Thickness	0.10mm to 0.14mm
5	Power House	
	Type	Surface
	Number of units	2
	Size	27.6 m x 1.7 m x 27.6 m
6	Turbine	
	Type	Pelton (Horizontal Shaft)
	Rated Output Capacity/unit	9 MW
	Efficiency	92 %
7	Tailrace	
	Type	RCC Rectangular Box Culvert
	Tailrace Length	115.0 m
	Size	2.74 m x 2.0 m
8	Generator	
	Type	Synchronous, Three Phase
	Rated Output Capacity/unit	9,200 kW
	Efficiency	97 %
	Power Factor	0.85
9	Governors	
	Type	Electronic with PID Controller
	Adjustment for Speed Droop	Between 0 to 5%
10	Transmission line	
	Transmission Line	16 km long to 33 kV to Kabeli substation
11	Access Road Connection	Graveled road upto head works

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CURRENT STATUS OF THE PROJECT

1	Feasibility Study	Ready
2	Detailed Project Report	Ready
3	EIA/IEE	Approved
4	PPA and PPA Rate	PPA Signed Price for 6 dry months = Rs. 8.40 Price for 6 wet months = Rs. 4.80
5	Land Acquisition	Not done

DEVELOPMENT MODALITY

1	Development modality	Public Private Partnership/looking foreign partner
2	Role of Foreign Partner	Arrange Debt/Equity for the project
3	Role of Local Developer	Facilitation and investment in agreed capital structure
4	Development Period	
	a. Pre-Construction Period	1 Year
	b. Financial Closure	1 Year
	c. Construction Period	30 months
	d. Concession Period	30 years

INDICATIVE FINANCIALS

1	Total Project Cost (including Interest During Construction)	~ USD 30 Mn.
2	Interest Rate (including hedging cost)	10 %
3	Project IRR	22.71%

CONTACT DETAILS

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