

1. General

Source River	:	Dordi Khola
VDC	:	Phaleni and Dhodeni
District	:	Lamjung
Zone	:	Gandaki
Development Region	:	Western
Location of the Project		28° 15' 00" to 28° 16' 20" N 84° 28' 46" to 84° 31' 59" E

2. Power Development

Type of Power Generation	:	Run-of-river
Turbine Discharge	:	9.80 m ³ /s (2x4.90)
Total Gross Head	:	325.56 m
Rated Net Head	:	319.22 - 299.31 m
Installed Capacity	:	25.0MW
Average Annual Energy		
Total Energy	:	138.398 GWh
Dry Energy	:	22.849 GWh
Wet Energy	:	115.549 GWh

3. Hydrology and Meteorology

Catchment Area at Intake	:	191.60 km ²
Average Annual Precipitation	:	3965 mm
Design 100-yrs Flood at Intake	:	265.0 m ³ /sec
Downstream Release	:	0.282 m ³ /sec
Long-term Average Flow	:	18.08 m ³ /sec
40 Percentile flow (Q _{40%})	:	9.80 m ³ /sec

4. Weir and Undersluice

Type of Weir	:	Gravity Spillway
Length of Spillway	:	21.0 m
Crest Level of Weir	:	EL 1224.86 m

Top Width of Weir	:	2.0 m
Length of Undersluice	:	4.0 m
Crest Level of Undersluice	:	EL 1221.36 m
Nos. of gates in Undersluice	:	1 no.
5. Intake		
Type	:	Side Intake Freeflow
No. of Opening	:	3 nos.
Crest Level	:	EL 1223.51 m
Width	:	3.68 m
6. Gravel Trap		
Type	:	Rectangular (RCC)
Length	:	16.1m
Size (BxD)	:	5.6m (min.)x3.5m
Gravel Flushing Channel	:	0.6m wide by 0.8m high
7. Approach Canal		
Type	:	Rectangular (RCC)
Length	:	12.68m
Size (BxD)	:	5.6mx1.75m
8. Desilting Basin		
Type	:	Dufour (Double-Chamber)
Size of Each Chamber (LxBxH)	:	69.00mx8.50mx4.70m
Particle Size to be Desanded	:	0.2mm (90% removal min.)
No. of Flushing Channel	:	2.0 Nos.
Size of Flushing Channel (BxH)	:	0.5m x (0.41 -1.78)m
Flushing Type	:	Continuous
Water Level in Head Pond	:	EL 1224.537m
9. Headrace Tunnel		
Type	:	Inverted D/ Free Flow Type

Length	:	2632m
Size (BxD)	:	2.9mx3.85m
Slope of Tunnel	:	1 in 600
No. of Adit/ Length (m)	:	1/ 39 m
Adit Size (BxD)	:	2.9mx3.85m

10. Forebay

Type/Material	:	RCC (Rectangular)
Normal Water Operating Level	:	1219.95 m
Overall Size	:	30.6 x 20.0 m
Spillway Length	:	155 m
Spillway Section (BxD)	:	3.2m x 3.6 m

11. Headrace/Penstock Pipe

Type	:	Mild Steel
Size (before bifurcation)	:	1.9m
Length (before bifurcation)	:	3140.00m
Thickness	:	10mm - 24mm average
Size (after bifurcation)	:	1.4m
Length (after bifurcation)	:	18.0m x 2 nos.
Thickness	:	24mm

12. Powerhouse

Type	:	Surface
Size (LxBxH)	:	40.0m x 20.0mx11.0m
Number of Units	:	2 nos.
Type of Turbine	:	Pelton, Horizontal Shaft
Rated Capacity	:	12.5 MW x 2
Turbine CL Axis Level	:	EL 899.30m
Rated Speed	:	428 rpm

10. Tailrace Canal	:	
Type	:	RCC Box Culvert
Size (BxD))	:	3.0m x 2.1m
Length	:	106.00m
Tailrace Outlet	:	Dordi Khola
11. Transmission Line	:	
Specification	:	132 kV Single Circuit
Length	:	12.0 km (PH to Proposed Udipur HUB)
12. Generator	:	Brushless synchronous, 3 phase 2x14700 kVA, 11 KV
13. Transformer	:	
Power rating	:	2 x14700 kVA, 133/11 kV, 50 Hz
Specification	:	3 Phase, ONAN/ONAF Cooled
14. Project Cost in 'Mil. NPR (Excluding IDC)	:	3,490
15. Financial Indicators	:	25 MW
Project Cost MNPR/ MW	:	139.610
Construction Period (years)	:	3
IDC (MNPR)	:	472.42
Financial Cost (MNPR)	:	3962
Financial Cost (MNPR)/ MW	:	158.51
Interest Rate	:	12.00%
IRR	:	17.20%
NPV (MNPR)	:	1346
Pay Back Period (years)	:	5.68