

# BUDHI GANDAKI HYDROELECTRIC PROJECT

## SALIENT FEATURES

SN	FEATURES	CHARACTERISTICS
<b>GENERAL</b>		
1	Name of Project	Budhi Gandaki Hydroelectric Project
2	Sector	Hydropower
3	Type	Peaking Run of River with installed capacity of 341 MW (as per Optimization Report Submitted to Department of Electricity Development (DOED) on March 2018)

### PROJECT LOCATION

1	Latitude of Project Area	28° 17' 00 " N - 28°22' 00"
2	Longitude of Project Area	84° 51' 48" E - 84° 56' 56"
3	Project Area	The Headworks of Budhi Gandaki HEP is situated at Jagat village of Sirdibas VDC and Powerhouse is situated at Tatopani village of Uiya VDC in Gorkha district. The project area lies in Gandaki Zone of Province 4, around 200 km northwest from Kathmandu in Nepal.

### PROJECT COMPONENT/TECHNOLOGY

1	Project Layout	Concrete gravity dam across the Budhi Gandaki river about 500meters upstream, waterway through Headrace tunnel into the underground powerhouse with 6 Francis Turbine with same number of generator units.
---	----------------	--

SN	FEATURES	CHARACTERISTICS
2	Hydrology	<p>Catchment Area: 3039 sq. km.  Design flow: 103.7 m<sup>3</sup>/s  Average annual flow: 127.05 m<sup>3</sup>/s  Environment Flow: 2.2 m<sup>3</sup>/s  Probable Max. Flood: 7067 m<sup>3</sup>/s</p>
3	Dam	<p>Concrete dam with spillway across Budhi Gandaki River about 500m upstream of Jagat village, river bed at an elevation of about 1295 masl.  Dam Crest Level: 1330 masl  Length of dam at crest: 52 m  Dam height from foundation: 38 m  Spillway Crest Level: 1325 masl top/1300 masl Bottom</p>
4	Reservoir	<p>Inundation Area: 0.19km<sup>2</sup>  Full Supply Level: 1325 masl  Min Operating Level: 1315 masl  Max. Water Level: 1326.5 masl  Draw Down: 1315 masl  Gross Capacity: 3.33 million m<sup>3</sup></p>
5	Power Intake	<p>Type: Bell Mouth  No. of Intake Openings: 9  Intake invert level: 1309 masl  Size of intake openings: 5 m wide x 4 m high</p>
6	Head Race Tunnel	<p>Shape: Modified Horse Shoe  No. of Tunnel: One  Size: 7.2 m diameter  Length: 7.34 km</p>
7	Pressure Tunnel	<p>Shape of Tunnel: Circular  Size of Tunnel: 4.9 m diameter  Length of tunnel: 424 m  Penstock material: Concrete embedded steel</p>
8	Power House	<p>Type: Underground  Size: 110 m x 17 m x 37 m  Turbine floor elevation: 902 masl  Generator floor elevation: 911 masl  Machine floor elevation: 916 masl</p>

SN	FEATURES	CHARACTERISTICS
9	Power and Energy	Gross head: 410 m Net Head: 388 m Installed Capacity: 341 MW Energy Dry Peak Energy: 343.29 GWh Dry Off Peak: 208.46 GWh Energy: 1316.53 GWh Wet Energy: 1868.67 GWh
10	Power Evacuation	Voltage Level: 220 kv Double Circuit Transmission Line Connection (Length): 45 km

### CURRENT STATUS OF THE PROJECT

1	Feasibility Study	On Going
2	Detailed Project Report	On Going
3	EIA/IEE	TOR & Scoping approved from concern department
4	PPA and PPA Rate	Planned for within 2019
5	Land acquisition	Planned for within 2019

### DEVELOPMENT MODALITY

1	Role of Private Sector	Plan, design, build, finance and operate the facilities during the Concession Period Collection of revenues from the project during the Concession Period Handover to the Government after the Concession Period
2	Role of Foreign Partner	Depend on the interest of Foreign Partner. It can be JV or pure investor of the project. Any modality can be discussed.
3	Development Period	
	a. Pre-Construction Period	1 Years
	b. Financial Closure	2 Years
	c. Construction Period	4 Years
	d. Concession Period	30 Years

SN	FEATURES	CHARACTERISTICS
----	----------	-----------------

### INDICATIVE FINANCIALS

1	Total Project Cost (including Interest During Construction)	USD 500 Million
2	Interest Rate (including hedging cost)	11%
3	Project IRR	19.17%

### CONTACT DETAILS

**MR. NABIN POKHREL**  
**PROJECT DIRECTOR, TIMES ENERGY PVT. LTD.**  
Ph: +977-01-4440090 , Cell: +977-9801031520  
Email: pokhrel.nabin@gmail.com