

# Background

## 1. Company Background



Vision Energy & Power Pvt. Ltd. (VEPL) is registered at Office of Registrar of Company on Shrawan 2, 2073 with registration no 151997/073/074. It is registered in Inland Revenue Department on Shrawan 28, 2073 with PAN No. 604286558.

Various professionals and well experienced persons in hydropower sector have united together and come up with a concept of establishing this company, which will construct/invest in energy producing companies.

## 2. Vision, Mission & Objective of the company

- Vision**
- Become well establish energy producing company in Nepal.
- Mission**
- To utilize the available resources for the development of energy in the country
  - To ensure attractive long term return to our shareholders through professional management.
- Objective**
- Conduct feasibility study of transmission line and environment; perform detail engineering design, research and survey for the electricity development.
  - Generate electricity through small or medium scale projects by using alternative source of energy such as water, wind, solar power, biogas etc.
  - Sale of electricity to Nepal government and other institutions or supply of electricity directly to consumers whenever necessary in wholesale or other basis.

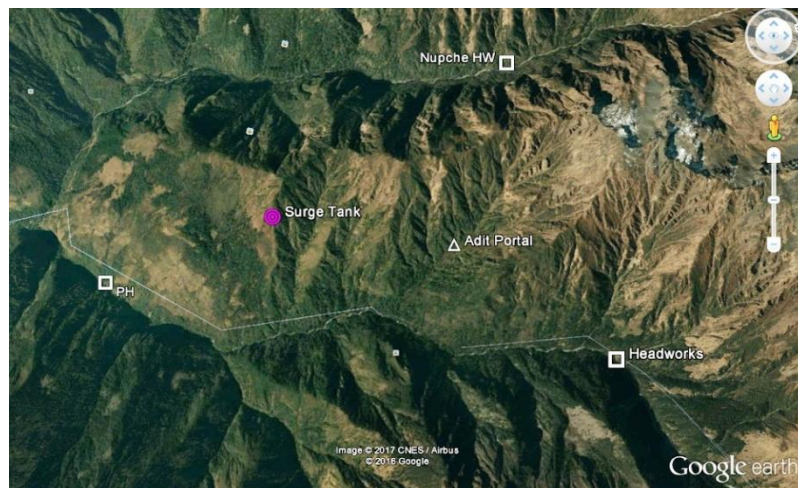
## 3. Board of Directors

S.N.	Name	Position	Qualification	Experience
1	T. N. Acharya	Chairman	FCA, B.Com	More than 14 years experience in various audit, public sector & hydropower sector. Ex BoD Member of CIT, NEA, NAC and Current BoD Member of NTA.
2	Laxman Thapa	Member	B.Com, CA Final	13 years experience in audit & hydropower sector
3	Ramesh Adhikari	Member	B. Com	20 years experience in various government, private and hydropower sector
4	Saroj Koirala	Member	FCA, B.Com	10 years experience in audit & consultancy of various sector
5	Bhimsen K. Gautam	Member	MBS, RA	20 years in audit and various public sector
6	Snigdha Bhatta	Member	BALLB	Involvement in the legal consultancies.

#### 4. About the Chairman

Mr. T. N. Acharya is a fellow Chartered Accountant with more than 14 years of experience in audit and hydropower consultancy service. He is actively involved in development of various hydro powers in the form of investor and consultant. He is involved as financial consultant of various Hydropower companies on behalf of Banks also. He has various top level responsibilities in Nepal Electricity Authority, Citizen Investment Trust, Nepal Airlines Corporation and The Institute of Chartered Accountants of Nepal as Board Member. Presently, he is Board Director in Nepal Telecommunication Authority. He is mainly leading the Nupche Likhu Hydropower Project.

#### 5. Project Description



VEPL is aiming to develop Nupche Likhu Hydropower Project in Ramechhap District using local technical, managerial and financial capability and is dedicated to supply the power to the National Grid to fulfill domestic energy demand.

The source of water for Nupche Likhu hydropower project is originated from snow fed rivers starting from the High Mountain/Hilly areas.

The proposed Nupche Likhu Hydropower Project is located in Gumdel VDC (Currenty Umakunda Rural Municipality) of Ramechhap District, Nepal. The proposed intake of the Nupche Likhu Hydropower Project is located north of Lahaksewar village in left bank of Nupche Khola at an elevation of 3330 m above msl.

The project is proposed to develop with an installed capacity of 57.5 MW by utilizing a design discharge of 7.11 m<sup>3</sup>/s with a gross head of 994 m.

VEPL propose to construct project at an estimated cost of Rs. 8,483.76 Million.

## 6. Salient features of the project

<b>1. General</b>	
Name of the Project	Nupche Likhu Hydropower Project
Type of the Project	Snow fed Run-off River Hydropower Project
<b>2. Location</b>	
Longitude	86°26'30" E - 86°30'30" E
Latitude	27°40'37" N - 27°43'37" N
Zone/Development Region	Janakpur Zone/Central Development Region
District	Ramechhap
Project Location (VDCs)	Gumdel VDC
River	<u>Nupche Khola and Likhu Khola</u>
<b>3. Hydrology</b>	
Catchment Area	150 Km <sup>2</sup>
Design Discharge (Q 45 %)	7.11 m <sup>3</sup> /s
<b>4. Headworks</b>	
Type of Intake	Orifice, Side Intake
Intake Elevation	3330 m above msl
Type of Weir	Boulder line weir
<b>5. Settling Basin</b>	
Basin No.	2
Type	Double Bay Duffer at each side
Size	50 m × 5 m each
<b>6. Headrace Pipe</b>	
Headrace Pipe	1264 m
Headrace Pipe Dia	1.3 m & 1.5 m (Likhu & Nupche River)
<b>7. Tunnel Length</b>	
Nupche Intel Portal to Junction	1690 m
Likhu Intel Portal to Junction	1435 m
Outlet/Surge Tank to Junction	3250 m
Adit Tunnel Length	450 m
Tunnel Size	2.8m x 3.5m
<b>8. Penstock Pipe Length</b>	
Total Steel Penstock Pipe	2356 m
Internal Diameter	1.6-1.8 m
Thickness	8mm to 56mm
Steel Lined Vertical shaft	308m
Steel Lined Tunnel	540 m

9.	<b><u>Power House</u></b>	
	Type	Surface
	Power House Elevation	2336 m above msl
	Number of Generating Units	3
	Turbine Type	Pelton
10.	<b><u>Tail-Race Canal</u></b>	
	Type	Box Culvert
	Length	20 m
11.	<b><u>Power and Energy</u></b>	
	Gross Head	994 m
	Net Head at Full Flow	974.12 m
	Installed Capacity	57.5 MW
	Generated Energy per Annum	139.76 GWh, 36.61% (Dry) and 241.98 GWh, 63.39% (Wet) <b>Total: 381.74 GWh</b>
12.	<b><u>Transmission Line &amp; Grid</u></b>	This project has to develop the approx. 30 km up to National grid at 132 kV switchyard of Proposed NEA Hub at Garjang Sub-Station, Ramechhap district. However it has other two options also. First is 10 km in downstream project and second is 50 km in Bamti
13.	<b><u>Approach Road Connection</u></b>	There is an existing all weather road up to Manthali which is 131 km from Kathmandu. From Manthali to Kyama, Gumdel VDC, there is partly stone paved earthen road which is about 110 km long and to the proposed PH site of the project, there exist a foot trail of about 12 km.
14.	<b><u>Project Road to HW &amp; PH</u></b>	Around 34 km
15.	<b><u>Approximate Cost of Project</u></b>	8,483.76 million NPR
16.	<b><u>Approximate Construction Period :</u></b>	4 Years

# Progress Report

## FIRST STAGE: PRE-Power Purchase Agreement

### 1. Survey License:

#### Completed:

Survey License of 57.5 MW has been obtained as per upgrading report of the Project (Previously 21.5 MW).

#### Going on:

Terms and Conditions as per Survey License is being implemented.



### 2. Feasibility study

#### Completed:



The Company has entered into agreement with an experienced consultant company to conduct the feasibility study of the project. The consultant company already mobilized a team to the project site during the month of Jestha, 2074 and submitted Inception Report, Prefeasibility Study Report as well as Power Updating report to the VEPL. Based on field visit and reports, the project is technically feasible.

#### Going on:

The consultant team is preparing Final Feasibility Study Report and is estimated to submit within 2nd week of Magh, 2074.

### 3. Topography Survey

#### Completed

The Topography Consultant had mobilized the team to the field during the month of Ashadh 2074 and already submitted Final Topography survey report to the company.



### 4. Approval from Ministry of Forest

#### Completed

The project is situated at Gaurishankar Conservation Area. Hence need approval from the Ministry of Forest for the survey of the project. The company has obtained approval from Ministry of Forest and Soil Conservation for the Survey work of Nupche Likhu Hydropower Project.



**Going on:**

The Company is in the process to obtain approval for EIA and survey for upgraded Power of 57.5 MW

**5. Water Quality Test:**



**Completed**

The quality of water of Nupche and Likhu river plays vital role in the selection of turbine. One staff has been appointed to collect sample of river water for the quality test. Water from river was collected and sent for Testing. Water testing report has been received.

**7. Environment Impact Assessment (EIA)**

**Completed**

The company has signed a Contract with an experienced consultant company for EIA works and The EIA Consultant team has completed initial field visit for EIA work and submitted draft report.

**Going on:**

Draft report has been submitted at Department of Electricity Development and Further works are going on as per agreement. The Team has committed to complete the assignment within 7.5 months i.e. Baisakh 15, 2075.



**8. Electric Resistivity Tomography (ERT)**

**Completed**

The company has signed a contract with an experienced consultant company for ERT study. The ERT Consultant Team has completed the field visit and submitted the final report.

**9. Gauge Station Installation**

**Completed**

The Company has entered into agreement with a company for installation of automatic gauge station at the river site. The Company has successfully installed the gauge station.

**Going on:**

Collection of Data from the Gauge Station is going on.

## 10. Evacuation point selection



### Completed

Evacuation point refers to the place which joins the transmission lines. Based on the current study, the Garjyang Substation is the suitable Evacuation point for the project which is in the distance of 30 KM. Further discussion is being held with downstream hydropower project for the transmission line with cost sharing basis. It has about 10 KM distance to the transmission line. However, total length of this 220 KVA line is about 50 KM long and there are 4 projects to share the transmission line cost.

### Going on:

Necessary discussions are being held to ensure the evacuation point.

## 11. Power Purchase Agreement (PPA)

### Completed

The Project's prefeasibility study report and LOI (Letter of Intent) from Bank has already been received. The company has already applied for PPA at Nepal Electricity Authority and finalized Energy Table. Necessary Presentations are given in front of NEA Authorities.

### Going on:

Necessary process has been complied with for the PPA with NEA.



## Second Stage : PPA and Financial Closure

After PPA, the financial closure will be done with Banks. The company aims to finalize financial closure within 12 to 18 months from the date of PPA. Necessary discussions are being held with the Banks in this regard.



## **Third Stage: Construction Work**



The company will start its construction work after PPA. The company plans to generate electricity within the period of 4 years from the commencement of construction work subject to complex disturbances. In this way, the company will generate electricity within 5 years from the date of obtaining survey license. The construction work will be commenced after the completion of the first stage and second stage.

### **Investment**

Demands of energy in Nepal is gradually increasing along with population growth and economic development. As there is less supply of electricity, Nepal has to import electricity from India regularly. Hence, Development of Hydropower project is need of the country which will help to industrialize the nation by eliminating current load shedding. As the hydropower company gives longtime benefits to its shareholder, investment in this sector can be assumed as future pension plan.

### **Minimum and maximum Investment in 2 Years**

**For Individual**-Minimum-10 Lakh and Maximum-3 Crore and

**For Institution**: Minimum 20 Lakh and Maximum 5 Crore

### **Investment Schedule**

**First Year**- 40% of Commitment and **Second Year**-60% of Commitment