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

• 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.

S.N.	Name	Position	Qualification	Experience
1	T. N. Acharya	Chairman	FCA, B.Com	More than 15 years experience in various audit, public sector & hydropower sector. Ex Board Member of CIT, NEA, NAC and Current Board Member of NTA.
2	Ramesh Adhikari	Member	B. Com	20 years experience in various government, private and hydropower sector
3	Desh Bandu Karki	Member	BBS and Bachelor's in Community Welfare Development	More than 5 years of experience in various sectors. Currently a Businessman.
4	Amar Nath Shrestha	Member	B. A.	More than 15 years of experience as an Entrepreneur, Board member of various Private and hydropower sector. Currently Board Member of Chhyangdi Hydropower Ltd.
5	Saroj Koirala	Member	FCA, B.Com	More than 15 years experience in audit & consultancy of various sector
6	Bhimsen K. Gautam	Member	MBS, RA	More than 20 years of experience in audit and involved in various sectors.
7	Snigdha Bhatta	Member	B.A. / B.Sc. L.LB. (Hons.) Course	Has experience in Legal Consultancies for more than 5 years.

3. Board of Directors

4. Advisory Board

5 members Advisory Board in the Chairmanship of Mr. Rohit Prasad Prasai (Member, Federation of Nepalese Chambers of Commerce and Industry, FNCCI), Ithari Sunsari has been formed.

5. About the Chairman

Mr. T. N. Acharya is a fellow Chartered Accountant with more than 15 years of experience in audit, consultancy service and hydro power projects.

He is actively involved in development of various hydro powers in the form of investor and consultant for the past decade. He is actively involved as financial consultant of various Hydropower companies on behalf of Banks also.

- Current Board Member of Nepal Telecommunications Authority (NTA)
- Senior/Managing Partner at T. N. Acharya & Co., Chartered Accountants
- Member of The Institute of Chartered Accountants of Nepal (ICAN); The Institute of Chartered Accountants of India (ICAI); and Management Association of Nepal
- Has experience as Board Member of Nepal Airlines Corporation, Nepal Electricity Authority, Citizen Investment Trust; Executive Member The Institute of Chartered Accountants of Nepal; and Member of Local Body Fiscal Commission under Ministry of Local Development



7. Consulting team

S.N.	Particulars	Name of Consultant
1	Desk Study Report	E.I. Maven Pvt. Ltd
2	Feasibility Study Report for License (57.5	E.I. Maven Pvt. Ltd
	MW)	
3	Topographic Survey	R.K. Survey Company Pvt. Ltd.
4	EIA	Nepal Environmental and Scientific Services
		(P) Ltd.
5	ERT	Explorer Geophysical Consultants Pvt. Ltd.
6	Review of Feasibility Report	E.I. Maven Pvt. Ltd.
7	Automatic Gauge Station	Real Time Solutions Pvt. Ltd.
8	DPR	E.I. Maven Pvt. Ltd.

8. 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 Nucphe 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^3 /s with a gross head of 994 m.

VEPL propose to construct project at an estimated cost of Rs. 9,484 Million.

1.	<u>General</u>	
	Name of the Project	Nupche Likhu Hydropower Project
	Type of the Project	Snow fed Run-off River Hydropower Project
2.	Location	
	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	Nucphe Khola and Likhu Khola
3.	Hydrology	•
	Catchment Area	150 Km^2
	Design Discharge (Q 45 %)	7.11 m ³ /s
4.	Headworks	
	Type of Intake	Orifice, Side Intake
	Intake Elevation	3330 m above msl
	Type of Weir	Boulder line weir
5.	Settling Basin	
	Basin No.	2
	Type	Double Bay Duffer at each side
	Size	$50 \text{ m} \times 5 \text{ m}$ each
6.	Headrace Pipe	
	Headrace Pipe	1264 m
	Headrace Pipe Dia	1.3 m & 1.5 m (Likhu & Nunche River)
7.	Tunnel Length	
	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
8	Penstock Pipe Length	
0.	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	Power House	
	Type	Surface
	Power House Elevation	2336 m above msl
	Number of Generating Units	3
	Turbine Type	Pelton
10	Tail-Race Canal	
10.	Type	Box Culvert
	Length	20 m
11	Power and Energy	20 m
	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) Total: 381.74 GWh

9. Salient features of the project

12.	Transmission Line & Grid	This project has to made an agreement with the approx. 30 km up to National grid at 132 KV switchyard of Proposed NEA Hub at Garjang Sub-Station, Ramechhap district.
13.	Approach Road Connection	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.	Project Road to HW & PH	Around 34 km
15.	Approximate Cost of Project	9,484 million NPR (Subjected to increase/decrease after DPR)
16.	Approximate Construction <u>Period</u> :	4 Years
17.	RequiredCommercialOperation Date (RCOD)	2080/05/02(2023/08/19)

Main Features of Project

- 1. Internal Rate of Return (IRR): 19.47%, Equity Internal Rate of Return (EIRR): 35.19%
- 2. Simple Payback Period: 4.28 Years; Discounted Payback Period: 6.61 years.
- 3. The Project has high head. It ensures cost efficiency and high energy.
- 4. High Energy per MW (6.63 GWh p.a.), Dry Energy 36.61% and Wet Energy 63.29%
- 5. Income Per MW: More than NPR 4 Crore
- 6. Professional, Transparent and Responsible Management.
- 7. Aims to benefit Small Investors too.
- 8. Focused on high Return on Investment and high value in secondary market.

9. Dividend Payout Capacity:

- a. No Change in Project Cost, Revenue& Interest Rate: Year 2081-40%, Year 2082-45%, Year 2083-50%, Year 2084-55%, Year 2085-60% and then till year 2110 average 65%
- b. Project Cost increase by 10%, Revenue Decrease by 10% & Interest Rate at 12%: Year 2081-19%, Year 2082-20%, Year 2083-25%, Year 2084-30%, Year 2085-30% and then till year 2110 35% to 48%
- c. Project Cost increase by 15%, Revenue Decrease by 10% & Interest Rate at 13%: Year 2081-10%, Year 2082-15%, Year 2083-20%, Year 2084-20%, Year 2085-25% and then till year 2110 25% to 45%

Progress Report FIRST STAGE

S.		Status			
Ν	Activities	Completed	Going On		
1	Survey License	License obtained of 57.5 MW on 2074/06/29(15/10/2017)	Completed.		
2	Feasibility Study	The consultant team has submitted Final Feasibility Study Report.	Review of the report by the company going on.		
3	Topography Survey	Topography Survey Report Obtained	Completed.		
4	ApprovalfromMinistry of Forest.	Approval for Survey Work Obtained.	Completed.		
5	Quality Measurement of Water	Report of Water Measurement has been obtained.	Completed.		
6	Environment Impact Assessment (EIA) study	EIA Consultant has completed initial field visit and has submitted preliminarily report. Further the consultant has submitted TOR in Department of Electricity Development (DOED) for approval	The consultant team has committed to complete the assignment within Baisakh 15, 2075		
7	Electronic Resistivity Tomography (ERT)	ERT Consultant has Completed ERT Works and has submitted Final Report.	Completed.		
8	Gauge Station Installation	Automatic Gauge Station has been Installed at Project Site.	Collection of data from the Gauge Station is going on.		
9	Grid Agreement	Connection Agreement has been entered with NEA to evacuate the power at Garjyang Sub-station. (Estimated distance 30 KM).	Completed.		
10	PPA	PPA has been done with Nepal Electricity Authority (NEA) on 2074/11/28 (12/03/2018).	Completed.		
11	Transmission Line Survey	Transmission Line Survey license obtained from DOED. Agreement with technical advisor has been completed.	Work is being done as per agreement.		
12	Road Survey	Agreement with technical advisor has been completed.	Work is being done as per agreement.		
13	Detail Design	Agreement with technical advisor has been completed.	Work is being done as per agreement.		
14	Generation License	Work is being done to obtain generation license			

Second Stage : 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 obtaining Generation Liscence. The company plans to generate electricity within the years from period of 4 the commencement of construction work subject to complex disturbances. The construction work will be commenced after the completion of the first stage and second stage.

Investment Module

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

For Individual-Minimum 10 Lakh and Maximum 2 Crore and For Institution: Minimum 20 Lakh and Maximum 10 Crore Investment Schedule

S.N.	Particulars	Percentage
1	At the time of Application	20%
2	Jestha End 2075	15%
3	Ashoj End 2075	20%
4	Magh End 2075	20%
5	Jestha End 2076	15%
6	Ashoj End 2076	10%



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