NUPCHE LIKHU HYDROPOWER PROJECT (57.5 MW)

Ramechhap, Nepal



Project Progress Report

Shrawan to Ashwin, 2083

Vision Energy & Power Limited

New Baneshwor, Kathmandu, Nepal
Tel: +977-01-5244998
Email: visionenergy@veplinfo.com
WEBSITE:www.veplinfo.com

Executive Summary

This Progress Report has been prepared to provide an update on the progress of the Nupche Likhu Hydropower Project (NLHP), Ramechhap (57.5 MW). It includes details about project activities and progress made from **Shrawan to Ashwin, 2083.** The key achievements during this period are as follows:

1. Forest and EIA/IEE Related Works

1. All tree cutting, tree stamping, and compensatory plantation activities within the Project and Transmission Line Right of Way (ROW) have been successfully completed in accordance with the approved Environmental Management Plan.
2. Regular environmental monitoring and compliance inspections were carried out throughout the reporting period to ensure adherence to the approved Environmental Impact Assessment (EIA) and Initial Environmental Examination (IEE) requirements.
3. Environmental and Social Management Plan (ESMP) implementation continued across all construction areas, including monitoring of waste management, erosion control, and occupational health and safety, and biodiversity conservation measures.
4. Community support and livelihood enhancement programs completed under the Project's CSR commitments continue to benefit the local communities, with regular monitoring and Follow-up conducted during the reporting period.

2. Preliminary/Preparatory Works

1. Routine maintenance and strengthening of the project access roads are ongoing to ensure uninterrupted transportation of manpower, equipment, and construction materials during the reporting period.
2. Regular maintenance of construction camps, workshops, warehouses, and temporary project facilities was undertaken to support ongoing construction activities.
3. Traffic management and road safety measures were continuously implemented along the project access roads to facilitate the safe movement of heavy vehicles and equipment.
4. Logistics planning and coordination for the transportation of remaining Electromechanical (EM) and Hydromechanical (HM) equipment were carried out to support timely installation activities.
5. Necessary construction utilities, including power supply, water supply, and communication facilities, were maintained to ensure uninterrupted project execution.

3. Civil Works

1. Approx. **99.14%** of physical progress in Civil Works has been achieved.
2. Progress of finishing of HRT (Headrace Tunnel) are demonstrated each front wise below:

S.N	Face	Length	Completed	Remaining	Completed %
1	**Outlet to Bypass Tunnel Junction**				
	Final invert lining	205	205	0	100.00%
	Final Rib section Lining	205	205	0	100.00%
2	**Bypass Tunnel Junction to US Outlet (F8)**				
	Final Shotcrete	1239	1239	0	100.00%
	Final Invert Lining	1559	1559	0	100.00%
	Final Rib section Lining	268	256	12	95.52%
3	**Adit to Outlet (F7)**				
	Final Shotcrete	1168	1168	0	100.00%
	Final Invert Lining	1168	1168	0	100.00%
	Final Rib section Lining	137	137	0	100.00%
4	**Likhu Inlet to NL Junction (F4)**				
	Final Shotcrete	1426.7	1426.7	0	100.00%
	Final Invert Lining	1426.7	1426.7	0	100.00%
	Final Rib section Lining	55.32	55.32	0	100.00%
5	**NL Junction to Nupche (F2)**				
	Final Shotcrete	1598.98	1598.98	0	100.00%
	Final Invert Lining	1598.98	1598.98	0	100.00%
	Final Rib section RCC Lining	186.2	186.2	0	100.00%
6	**Adit to NL Junction (F6)**				
	Final Shotcrete	227.85	227.85	0	100.00%
	Final Invert Lining	227.85	227.85	0	100.00%
	Final Rib section Lining	15.69	15.69	0	100.00%
7	**Vertical Shaft**	298.76	298.76	0	100.00%
8	**Penstock Tunnel**	610	552	58	90.49%
	Total (Average)	**716.951**	**713.265**	**3.684**	**99.49%**

3. Tunnel finishing works are in final stage, with approximately **99.49%** of the works completed.
4. Backfilling work at Nupche Head works has been completed.
5. Grouting works in tunnel are ongoing simultaneously with finishing works.
6. Installation works of Knife Gate Valves at both Likhu and Nupche Headrace pipe alignments are completed.
7. The construction of the super passage over the settling basin is completed.
8. Construction of the surge shaft is completed.
9. Backfilling of Niche is completed.

10. Second-stage concreting works for Unit-1, Unit-2 and Unit-3 of the powerhouse has been completed with minor grouting are remaining.
11. The Manhole adjacent to Knife Gate Valve at Nupche HRP is completed.
12. Along the penstock alignment, excavation and construction of anchor blocks AB-1, and Cascade drain in Kholsi at AB 22 are Completed while Manhole structure is about to start.

The details of Anchor Blocks are as follows.

S.N	Particulars	Quantity
A	**Penstock Alignment**	
1	Total No. of Anchor Block along Penstock Alignment.	27
2	Total No. of Completed Anchor Blocks (AB-03, AB-02, AB-04, AB-05,AB-06 AB-07, AB-08, AB09, AB-10, AB-11, AB-12, AB-13, AB-14, AB-15, AB-16, AB-17, AB-18, AB-19, AB-20, AB-21, AB-22, AB-23, AB-24, AB-26).	26
3	Total No. Remaining Anchor Blocks (AB-01, AB-27).	1
4	Total Completed Percentage of Anchor Block.	96.30%
B	**Likhu Headrace Pipe**	
1	Total No. of Anchor Block along Likhu HRP Alignment.	19
2	Total No. of Completed Anchor Blocks (AB-01, AB-02, AB-03, AB-04, AB-05, AB06, AB-07, AB-08, AB-09, AB-10, AB-11, AB-12, AB-13, AB-14, AB-15, AB-16, AB-17, AB-18, AB-19).	19
3	Total No. Ongoing Anchor Blocks.	0
4	Total No. Remaining Anchor Blocks	0
5	Total Completed Percentage of Anchor Block.	100.00%
C	**Nupche Headrace Pipe**	
1	Total No. of Anchor Block along Nupche HRP Alignment.	9
2	Total No. of Completed Anchor Blocks (AB-01, AB-02, AB-03, AB-04, AB-05, AB06, AB-07, AB-08, AB-09).	9
3	Total No. Ongoing Anchor Blocks.	0
4	Total No. Remaining Anchor Blocks .	0
5	Total Completed Percentage of Anchor Block.	100.00%

13. Progress of Concreting works at Penstock Tunnel is **90.49%.**

4. Electromechanical (EM) Work

1. 98.46% of Electromechanical works has been completed.
2. Approvals of all design memorandum, drawing and calculation, Procurement and Manufacturing, Factory Testing and Inspection, Site Delivery is 100% completed.
3. Turbine Assembly, MIV Erection, Erection and Assembly of Generator are almost completed.

4. Erection works of all component inside Powerhouse has been completed by 97.52%.
5. Testing and Commissioning has been completed by 20.65%.

5. Hydro mechanical (HM) Works

1. **98.98%** of Hydro-mechanical works has been completed.
2. **100%** of Gates leafs installed along with complete hoisting components including panel board at Likhu and Nupche HWs has been completed.
3. **100%** of works has been completed along Nupche HRP and Likhu HRP.
4. **99.60%** of Pipes erection has been completed.
   The details are as follows:

Erection of PIPES	Total Length (m)	Erected Length (m)	% Completed	Remaining Length (m)
Penstock	1527.54	1523.29	99.72%	4.25
Vertical Shaft	298.76	292.375	97.86%	6.385
Horizontal Shaft	569	569	100.00%	0
Bifurcation and Manifolds(Branch pipe)	182	182	100.00%	0
Likhu HRP	1053.12	1053.12	100.00%	0
Nupche HRP	421.35	421.349	100.00%	0
Total	**4051.77**	**4041.134**	**99.60%**	**10.635**

6. Transmission Line

1. **98.43%** of Transmission Line works has been completed.
2. Approx. **100%** of tower material has been delivered to site.
3. **100%** Excavation of tower foundation has been completed.
4. **100%** of Tower foundation concreting has been completed.
5. **100%** of Tower foundation has been completed with back filling of Pit.
6. **100%** of Tower Erection work has been completed.
7. **95.17%** of stringing work -ACSR Conductor has been completed.
8. **95.17%** of stringing work -OPGW Conductor has been completed

The details of Progress for this Quarter is Illustrated below: -

1	**Foundation Works**				**100.00%**
1.1	Excavation, Concreting and Backfilling	Nos.	78	78	100.00%
2	**Erection Works**				**100%**
2.1	Erection Works	Nos.	78	78	100%
3	**Stringing Works**				**97.21%**
3.1	Stringing Works -ACSR Conductor	Km.	23.5	22.84	97.21%
3.2	Stringing work -OPGW Conductor	Km.	23.5	22.84	97.21%

7. Planning, Governance and Other Works

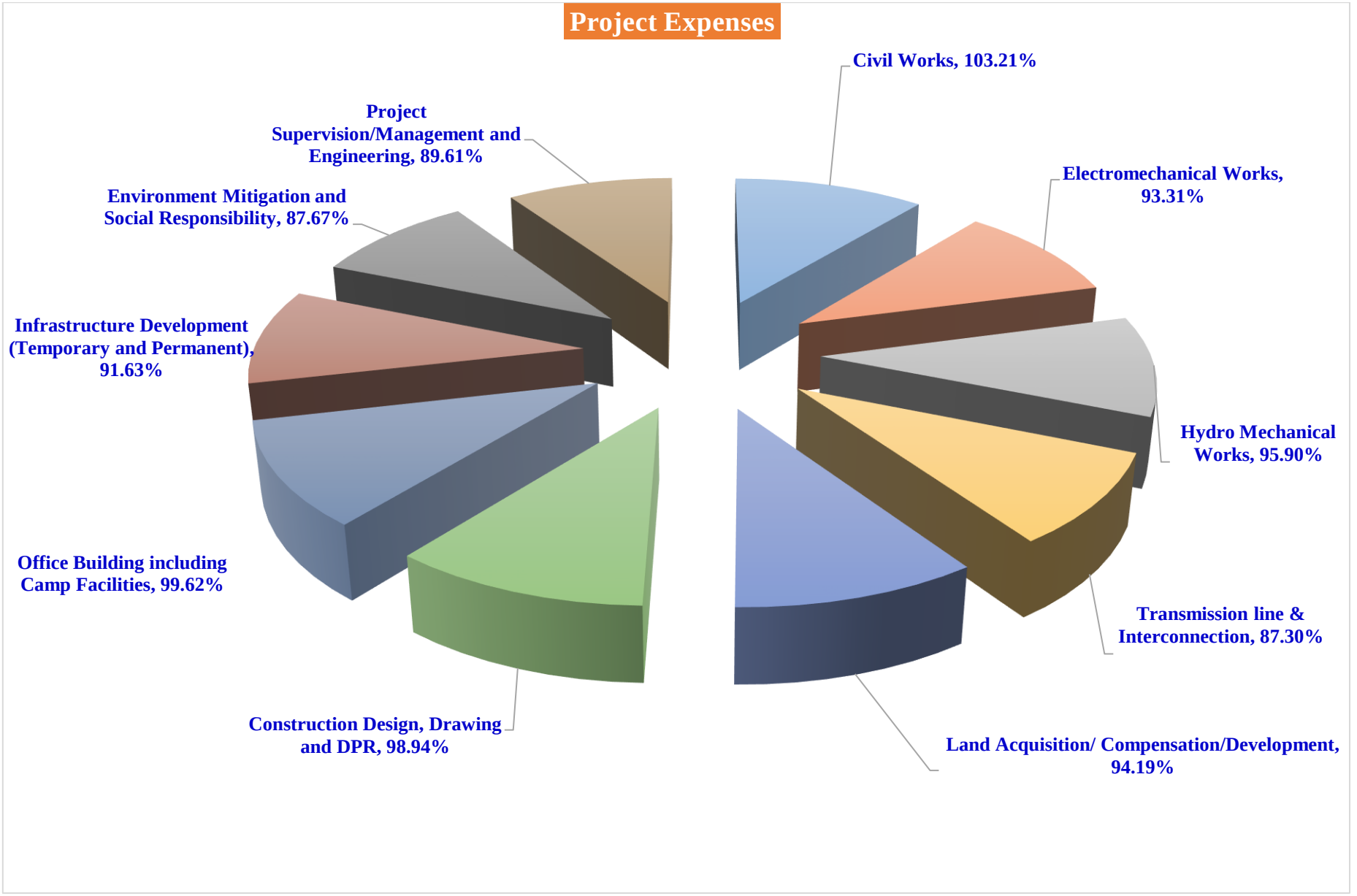
1. Investment in nearby small-scale and other large-scale projects has been completed, and the application review process by the concerned Government Officials is ongoing.
2. The strategy for increasing productivity has been developed and effectively implemented.
3. The process for issuing the Initial Public Offering (IPO) to the public is at the final stage.

8. Any Bottlenecks

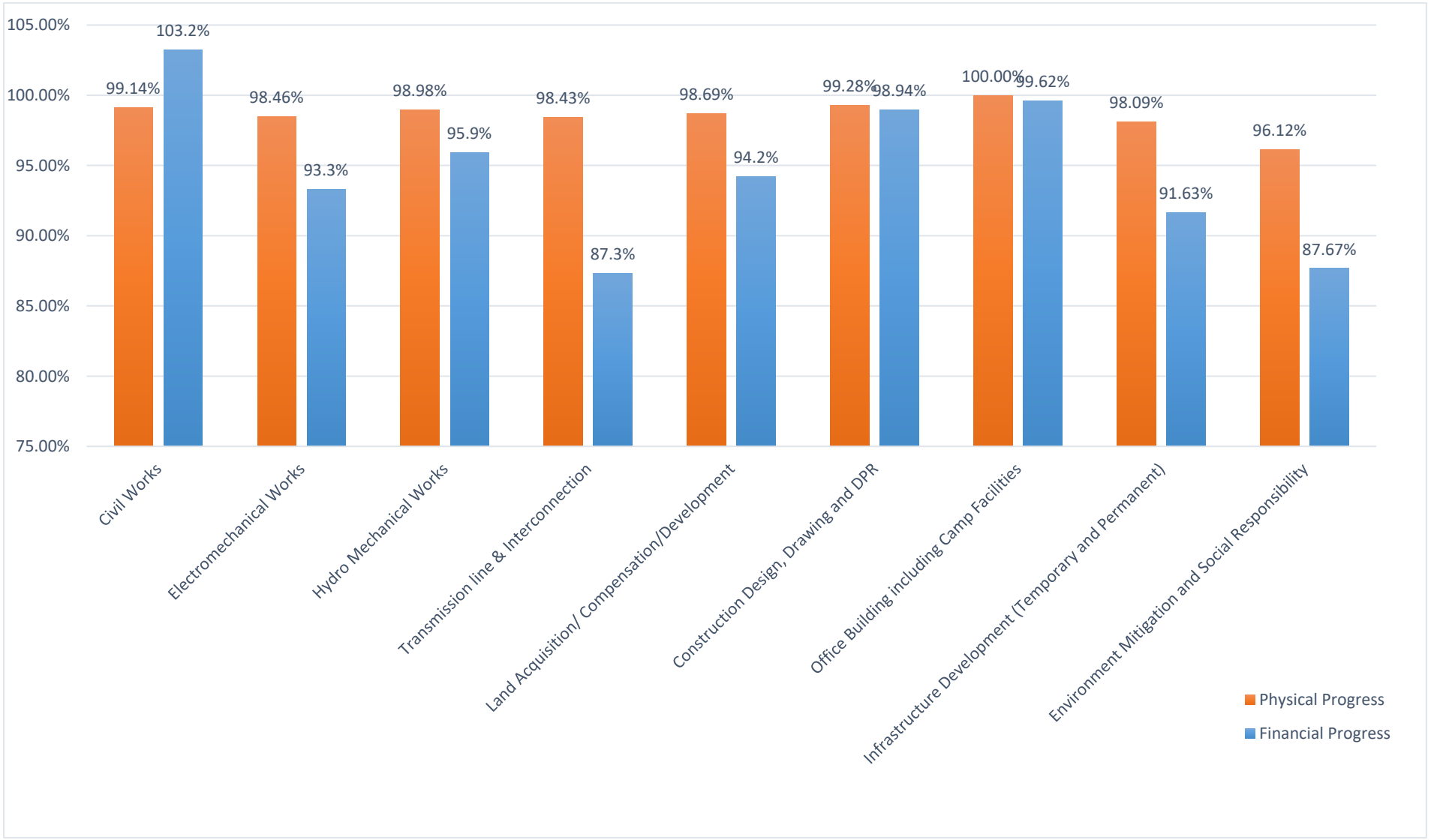
1. Bulkhead Gate Concrete Works at NL Junction to Outlet (Slope Breakpoint) and HRT Outlet, Upstream of Bypass.
2. Erection and Concreting Works of AB-27.
3. Restoration of Access Road and Bridge at site.

9. Financial and Physical Progress

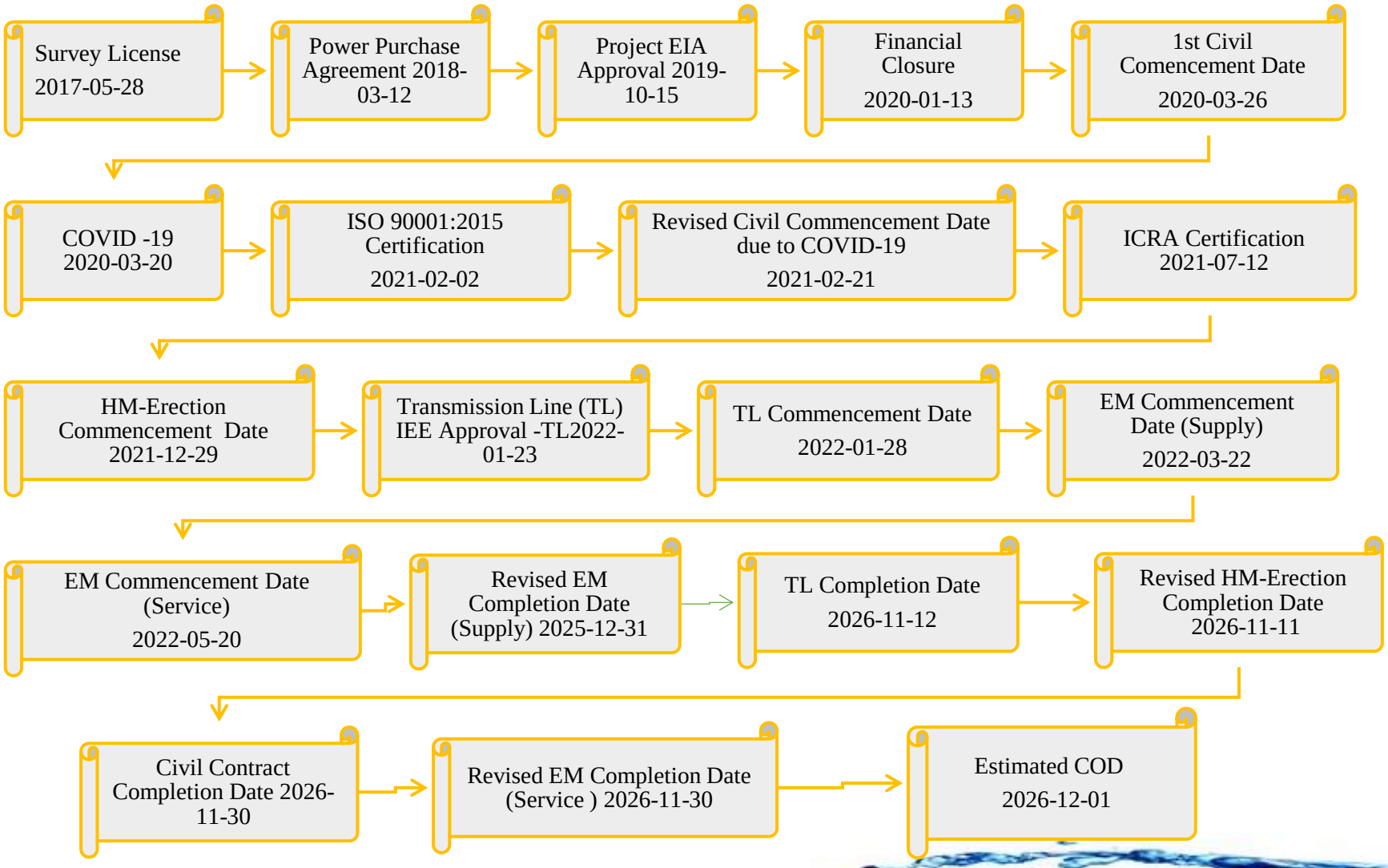
1. Till the date **96.38%** of the budget has been utilized and about **98.72%** of the overall physical progress has been achieved;


Project Expenses
Civil Works, 103.21%
Project Supervision/Management and Engineering, 89.61%
Electromechanical Works, 93.31%
Environment Mitigation and Social Responsibility, 87.67%
Infrastructure Development (Temporary and Permanent), 91.63%
Hydro Mechanical Works, 95.90%
Office Building including Camp Facilities, 99.62%
Transmission line & Interconnection, 87.30%
Construction Design, Drawing and DPR, 98.94%
Land Acquisition/ Compensation/Development, 94.19%

Physical Vs Financial Progress.



10. Revised NLHP Project's Major Timeline



Contents

Section A- About the Project

1. Introduction 2

1.1 Background 2

1.2 About the Project 2

1.3 Location & Access: 2

1.4 Main Financial Features of the Project 2

1.5 Salient Features of the Project 3

1.6 Investment Module 4

2. Human Resources and Good Governance 4

2.1 Organization Chart 4

2.2 Good Governance 5

3. Project Implementation 5

3.1 General 5

4. Current Status of the Project 6

4.1 Completed Works of the Project 6

4.1.1 Forest, EIA & IEE Related 6

4.1.2 Preliminary/Preparatory Works 6

4.1.3 Civil Works 7

4.1.4 Electromechanical Works 8

4.1.5 Hydro mechanical Works 8

4.1.6 Transmission Line 9

4.1.7 Governance 9

4.2 Ongoing Works of the Project 9

4.2.1 Forest and EIA Related Works 9

4.2.2 Preliminary/Preparatory Works 9

4.2.3 Civil Works 9

4.2.4 EM (Electromechanical) Works 10

4.2.5 HM (Hydro-mechanical) Works 10

4.2.6 Transmission Line 10

4.2.7 Planning and Other Works 10

4.3 Challenges Faced: 10

4.4 Physical Progress 12

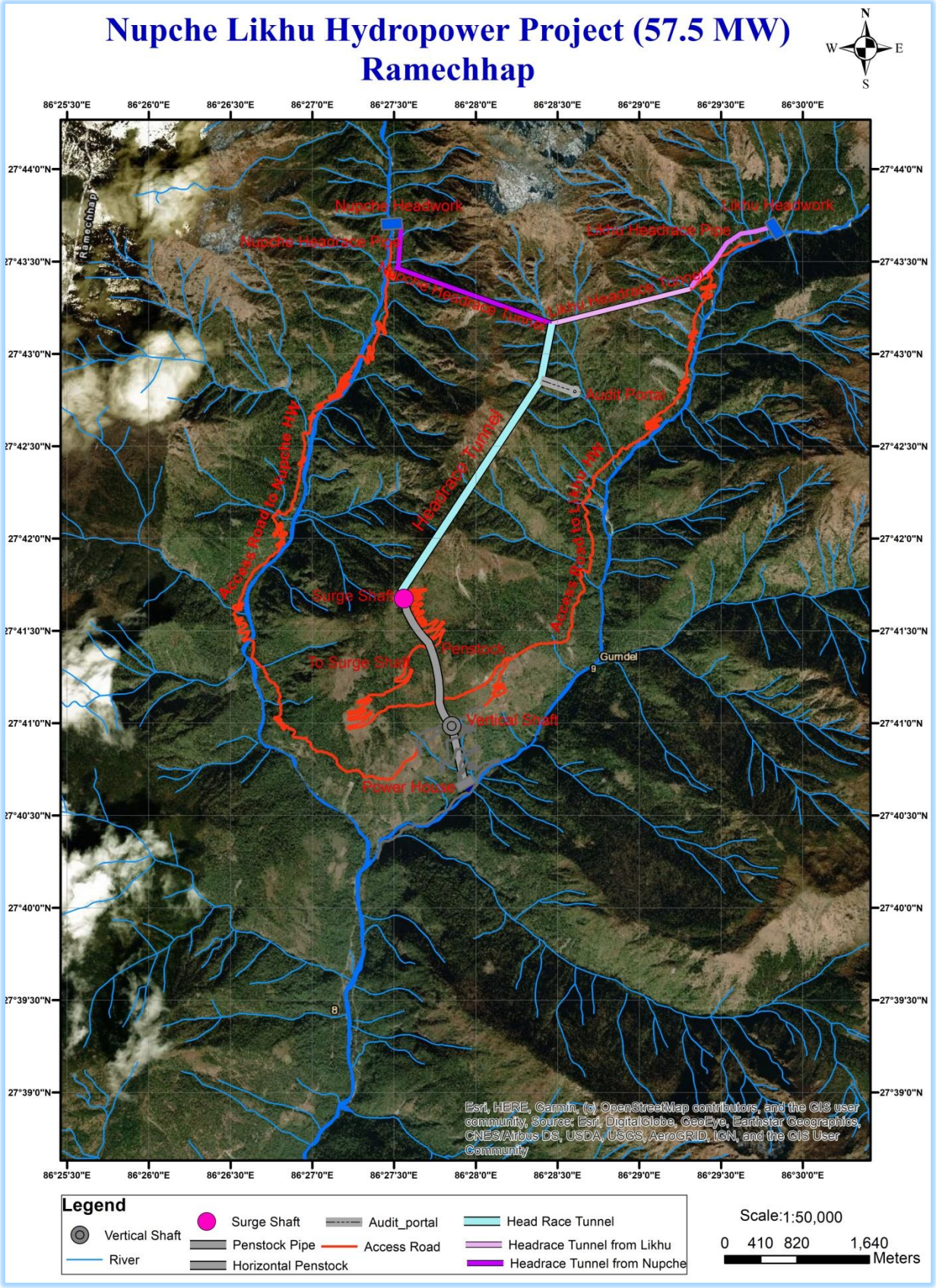
4.5 Financial Progress 12

4.6 Loan Details 13

4.7 Planning for the next quarter 14

ANNEX – 1: SOME PHOTOGRAPHS OF WORK PROGRESS 15

Section A: About the Project



1. Introduction

1.1 Background

Vision Energy & Power Ltd (VEPL) is committed to developing the 57.5 MW Nupche Likhu Hydropower Project in the Ramechhap District by utilizing local technical, managerial, and financial expertise. The company is dedicated to supplying power to the National Grid to meet domestic energy demands. This project is designed as a run-of-river (RoR) hydropower initiative.

1.2 About the Project

The proposed Nupche Likhu Hydropower Project is situated in Umakunda Rural Municipality of Ramechhap District, Nepal. The project utilizes water sourced from the snow-fed Nupche and Likhu rivers, originating in the high mountainous and hilly regions. The intake for the project is positioned north of Lhachhewar Village on the left bank of the Nupche Khola, with a weir crest elevation of 3338 m above mean sea level (amsl), and on the right bank of the Likhu Khola, also with a weir crest elevation of 3338 m amsl. The powerhouse is located on the right bank of the Likhu Khola, with the turbine centerline at 2332.35 m amsl. The project has an estimated gross head of 1005.65 meters and a design discharge of 7.11 m^3/sec.

1.3 Location & Access:

The project can be access from Kathmandu through an existing all-weather road up to Manthali (131 km) or 94 km road from Bardibas. After Manthali, following about 125 km partly stone paved earthen road reaches up to Kyama, Gumdel VDC. Furthermore, from Kyama an access road has been reached near to Kongematar village, the proposed Powerhouse site, Lahachhewar village which is also the residential area for the project employees, Outlet/Surge Shaft, Adit Tunnel, Likhu Headworks and Nupche Headworks.

1.4 Main Financial Features of the Project

a) Total project cost of the project: NRs. 12,439,091,124.00 and total cost per MW = NRs. 216,332 thousand.
b) Internal Rate of Return (IRR): 15.02 %, Equity Internal Rate of Return (EIRR): 19.16%
c) Simple Payback Period: 5.49 Years; Discounted Payback Period: 9.64 years.
d) High Energy per MW (6.63 GWh p.a.), Dry Energy 36.61% and Wet Energy 63.29%
e) Income Per MW: is NPR 4.07 Crore.
f) The Project has high head. It ensures cost efficiency and high energy.
g) Professional, Transparent and Responsible Management.

h) Aims to benefit Small and medium Investors too.

i) Focused on high Return on Investment and high value in secondary market.

1.5 Salient Features of the Project

S.N.	Particulars	Remarks
1.	**General**	
	Name of the Project	Nupche Likhu Hydropower Project
	Type of the Project	Snow fed Run-off River Hydropower Project
2.	**Location**	
	Zone/ Development Region	Janakpur Zone/Central Development Region
	District	Ramechhap
	Project Location	Umakunda Rural Municipality, (Gumdel VDC)
	River	Nupche Khola and Likhu Khola
	License Boundary	
	Longitude	86°26'30" E - 86°30'30" E
	Latitude	27°40'37" N - 27°43'43" N
3.	**Hydrology**	
	Catchment Area at Headworks	150 Km^2 (Nupche 82km^2&Likhu 68 km^2)
	Design Discharge (Q 45 %)	3.89 m^3/s+ 3.22 m^3/s (Nupche & Likhu) = 7.11m^3/s
4.	**Nupche & Likhu- Headworks**	
	Weir	
	Type	Boulder line weir
	Bed Load Sluice	
	Type	Bed Load
	Intake	
	Type	Orifice, Side Intake
	Gravel Trap	
	Type	Single, Dufour
	Settling Basin	
	Type	Double Bay Dufour Type
5.	**Headrace Pipe**	
	Headrace Pipe	421.35m & 1053.12m (Nupche & Likhu)
6.	**Tunnel Length**	
	Total Length	7450.201 m
	Tunnel Size	3.2 m x 3.8m (Excavation Size)
7.	**Surge Tank**	
	Type	Surface, Circular
8.	**Penstock Pipe Length**	
	Total Steel Penstock Pipe	2639.5 m
9.	**Power House**	
	Type	Surface
10.	**Turbine**	
	Type	Horizontal Pelton
	Number of units	3

	Rated Output Capacity per unit	20.26 MW
11.	**Generator**	
	Type	Solid State, PID Governor
	Number of units	3
	Rated Output Capacity	22.55 MVA
	Excitation System	Brushless Type
12.	**Transformer**	
	Type	Outdoor, Oil immersed, Three Phase
	Rated Capacity	23 MVA
	Number of Units	3
13.	**Tail-Race Canal**	
	Type	Box Culvert
14.	**Transmission Line & Grid**	24 km 132 kV Double circuit line up to National grid at 132 kV switchyard of Proposed NEA Hub at Garjyang Substation, Ramechhap district.
15.	**Power and Energy**	
	Gross Head	1005.65m
	Net Head at Full Flow	968.33 m
	Installed Capacity	57.5 MW
	Generated Energy per Annum	139.757 GWh, 36.61% (Dry) and 241.978 GWh, 63.39% (Wet) **Total: 381.735 GWh**
16.	**Project Road to HW & PH**	38.90 km
17.	**Approximate Cost of Project**	12,439 Million (Revised as per lending Bank Technical Consultant)
18.	**Approximate Construction Period:**	4 Years
19.	**Estimated Commercial Operation Date (COD)**	2083-08-15 BS 2026-12-01 AD

1.6 Investment Module

A total of NPR 3.32 Arba has been successfully received from the shareholders against the issuance of 3.32 crore units of shares.

2. Human Resources and Good Governance

2.1 Organization Chart

The organization structure of Nupche Likhu Hydropower Project has been prepared considering Construction, Operation & Maintenance phases of the Project. The detained organization chart is presented in the official website of the company i.e. www.veplinfo.com.

2.2 Good Governance

Nupche-Likhu Hydropower Project has proposed Performance Based Incentive program for its employee. The key performance area (KPA) and Key performance index (KPI) is developed for whole project period. Based on the developed KPI the performance evaluation mechanism is developed. Further,

1. Various manuals such as Finance Manual, Human Resource Manual, Investment Manual, Corporate Governance Guidelines, Performance Evaluation Guidelines, Project Management Guidelines, Branding Guidelines, etc. are in practice.
2. Formation of various committees such as High-level coordination sub-committee, Audit Committee, Local Area Co-ordination Sub-Committee and International Co-ordination Sub-Committee.
3. Recruitment of highly professional Consultants.
4. Work plan assigned to each executive level and working level personnel.
5. Updates on performance evaluation format for each personnel, which is conducted on quarterly basis.
6. Compliance officer appointed for legal and internal guidelines compliance.
7. Regular meeting of Board of Directors and Various Committees.
8. Unique investment module and mechanism to select quality investors.
9. Integrity, transparency, legal compliance, team work, higher return, responsibility, safe investment, accountability are the core values of the Company.

3. Project Implementation

3.1 General

The company has obtained the Generation Liscence. It has planned to generate electricity within the period of 4 years from the commencement of construction work. The Environmental Impact Assessment (EIA) for the project and Initial Environmental Examination (IEE) for the Transmission Line has been approved. The Supervision & Management Consultants, Civil Contractor, Explosives Suppliers, Electromechanical Contractor, Hydromechanical Contractor and Transmission Line Contractor are actively involve in the construction of the project. Detailed progress of the project is also presented in the official website of the company i.e., www.veplinfo.com.

4. Current Status of the Project

4.1 Completed Works of the Project

4.1.1 Forest, EIA & IEE Related

1. The concerned Government authorities have approved **Environmental Impact Assessment (EIA)** study of the Project. The Project is implementing all environmental mitigation and monitoring measures in accordance with the approved EIA and applicable environmental regulations.
2. **Procurement of land** for the replacement of the Government land used by the Project has been completed in accordance with the applicable legal and regulatory requirements.
3. **Field work for tree counting and tree stamping** for the Project has been completed pursuant to the approved EIA. Subsequently, all tree cutting activities within the Project area and the Transmission Line Right of Way (ROW) have also been completed in accordance with the approved Environmental Management Plan (EMP).
4. The **Initial Environmental Examination (IEE)** for the Transmission Line was approved on **2076-10-09**, and the **Government of Nepal Cabinet** granted approval for tree cutting and Government land use for the Transmission Line on **2080-04-23**. The agreement with the **Department of National Parks and Wildlife** Conservation (DNPWC) has also been concluded, enabling construction activities in compliance with all statutory environmental requirements.
5. **Land acquisition, agreement with DNPWC, tree stamping, and tree cutting** for both the Project and the Transmission Line have been completed. In addition, compensatory plantation activities have been successfully carried out in accordance with the approved Environmental Management Plan (EMP) to fulfill the Project's environmental obligations.
6. **Regular environmental monitoring and compliance inspections** were carried out throughout the reporting period to ensure continued adherence to the approved **Environmental Impact Assessment (EIA), Initial Environmental Examination (IEE),** and other applicable environmental laws and regulations.
7. **Implementation of the Environmental and Social Management Plan (ESMP)** continued across all active construction areas. Monitoring activities included waste management, spoil disposal, erosion and sediment control, occupational health and safety, dust suppression, and biodiversity conservation to minimize environmental impacts during construction.
8. **Community support and livelihood enhancement programs** implemented under the Project's Corporate Social Responsibility (CSR) commitments continue to benefit the local communities. Regular monitoring and follow-up were conducted during the reporting period to ensure the sustainability and effectiveness of these programs. These initiatives include the construction of community infrastructure, educational support, and promotion of sustainable livelihood activities for the affected communities.

4.1.2 Preliminary/Preparatory Works

1. **Survey License** of the project was obtained for 57.5 MW on 2074/06/29 (15/10/2017).
2. **Power Purchasing Agreement (PPA)** has been done with Nepal Electricity Authority (NEA) on 2074/11/28 (12/03/2018).

3. **Financial Closure** has been completed with Machhapuchchhre Bank Ltd. (Lead Bank), Himalayan Bank Ltd. (Co-Lead Bank), Citizens Bank International Ltd., NCC Bank Ltd., Kumari Bank Ltd., Agriculture Development Bank Ltd., Rastriya Banijya Bank Ltd., Global IME Bank Ltd.., Kamana Sewa Bikash Bank Ltd.
4. **Generation License** has been obtained on 2076/10/12.
5. The License for Transmission Line has been obtained on 2078/12/30.
6. **Automatic Gauge Station** has been installed at Nupche & Likhu Intake site.
7. **Hydroelectricity Investment and Development Company** (HIDCL) has approved to invest in equity share capital of Vision Energy & Power Ltd (VEPL).
8. **Detailed Engineering Design** of the Project & Transmission Line has been completed.
9. The **Construction of main Camp House and associated facilities** has been completed.
10. **Bank's consultants** for the project have been selected.
11. The Company's Senior Management team including the Chairman, Board of Directors, General Manager, Project Director **launched blasting process** for the Penstock Tunnel and Vertical Shaft construction work on *12th Ashwin 2078*.
12. The **Supervision & Management Consultants, Civil Contractor, Explosives Suppliers, Electromechanical Contractor, Hydromechanical Contractor and Transmission Line Contractor** has been selected and agreement has been signed.
13. Land acquisition for the Project has been completed.
14. Completion of Construction Power Line.

4.1.3 Civil Works

1. Approx. **99.14%** of physical progress in Civil Works has been achieved.
2. Tunnel finishing works are progressing, with approximately **99.49%** of the works completed
3. Backfilling work at Nupche Headworks has been completed.
4. Grouting works in tunnel are ongoing simultaneously with finishing works.
5. Installation works of knife Gate Valves at both Likhu and Nupche Headrace pipe alignments are completed.
6. The construction of the super passage over the settling basin is completed.
7. Construction of the surge shaft is completed.
8. Backfilling of Niche is completed.
9. Second-stage concreting works for Unit-1, Unit-2 and Unit-3 of the powerhouse has been completed with minor grouting are remaining.
10. The Manhole adjacent to Knife Gate Valve at Nupche HRP is completed.

11. Along the penstock alignment, excavation and construction of anchor blocks AB-1, and Cascade drain in Kholsi at AB 22 are Completed while Manhole structure is about to start Progress of Concreting works at Penstock Tunnel is **90.49%.**

4.1.4 Electromechanical Works

1. Approximately **98.46%** of the overall erection works for the electromechanical systems has been completed.
2. Erection works for the Generator, Excitation System, Computerized Control System, and DG Unit have reached **98%** completion.
3. Installation of the Communication System has reached **95%** completion.
4. Erection of the Hydraulic Turbines and Main Inlet Valve has reached **98%** completion.
5. Erection works for the Fire Fighting System have reached **99%** completion.
6. Installation of the Measurement of Hydraulic Quantities System has reached **90%** completion.
7. Testing and commissioning of the Computerized Control System and Electrical Protection System have reached **50%** completion.
8. Testing and commissioning of the LVAC System and 11 kV Switchgear have reached **60%** completion.
9. Testing and commissioning of the DG Unit and DC and UPS System have reached **40% and 80%** completion, respectively.
10. Overall testing and commissioning progress of the electromechanical systems has reached **20.65%,** with further testing and commissioning activities remaining for most systems.

4.1.5 Hydro mechanical Works

1. **98.98%** of Hydro-mechanical works has been completed.
2. Installation of gate leaves, hoisting stands, motors, and panel boards at Likhu and Nupche Head works has been completed.
3. Pipe erection along both Likhu and Nupche HRP alignments has been completed.
4. Overall pipe erection has reached **99.60%,** with 4,041.134 m completed out of 4,051.77 m.
5. Penstock and vertical shaft pipe erection have reached **99.72%** and **97.86%** completion, respectively.
6. Horizontal shaft, bifurcation, manifolds, and branch pipe erection works have been **100%** completed.

4.1.6 Transmission Line

1. **98.43%** of Transmission Line works has been completed.
2. Tower foundation Excavation, Concreting, and Backfilling works have been **100%** completed for **all 78 towers**.
3. Tower Erection works have been **100%** completed for **all 78 towers**.
4. ACSR conductor stringing has reached **97.21%** completion, covering 22.84 km out of 23.5 km
5. OPGW conductor stringing has reached **97.21%** completion, covering 22.84 km out of 23.5 km.
6. Earthing works for the Transmission Line have been **100%** completed

4.1.7 Governance

1. The Company has received ISO 9001:2015 Certificate on 2021-02-02.

4.2 Ongoing Works of the Project

4.2.1 Forest and EIA Related Works

1. Implementation and follow-up of environmental and social management plan throughout the construction phase to achieve good environmental outcomes as per approved EIA.

4.2.2 Preliminary/Preparatory Works

1. Road strengthening and routine maintenance of access road.

4.2.3 Civil Works

1. Final-stage patch repairs, invert clearance, grouting, concrete lining, and finishing works are ongoing at various sections of the **Headrace Tunnel (HRT).**
2. Grouting works are progressing downstream of the bypass at the HRT Outlet and within the Vertical Shaft and Penstock Tunnel.
3. Backfilling of niches and other designated areas is ongoing at the **HRT Outlet** and associated **tunnel sections**.
4. Second-stage concreting for Unit 3 is ongoing at the Powerhouse.
5. M20 RCC concreting is in progress in the Penstock Tunnel to complete the penstock alignment.
6. Preparation works for bulkhead gate concreting are ongoing at the **NL Junction to Bypass** Junction section.

7. Preparatory works for the construction of **Anchor Block AB-27** are in progress along the penstock alignment.

4.2.4 EM (Electromechanical) Works

1. Erection works for the Generator, Excitation System, Hydraulic Turbines, and Main Inlet Valve are nearing completion.
2. Installation of the Computerized Control System, DG Unit, and Communication System is in the final stage.
3. Erection works for the Fire Fighting System and Measurement of Hydraulic Quantities System are ongoing.
4. Testing and commissioning of the Computerized Control System and Electrical Protection System are in progress.
5. Testing and commissioning of the LVAC System, 11 kV Switchgear, DG Unit, and DC and UPS System are ongoing.

4.2.5 HM (Hydro-mechanical) Works

1. Fabrication and erection of AB-27 bends of penstock are ongoing.
2. Penstock cleaning works are nearing completion.
3. VT and PT pipe welding works are nearing completion.
4. Assembly of Bulkhead gate frame and Leaf is in progress.

4.2.6 Transmission Line

1. **Conductor stringing works** are ongoing.
2. **OPGW stringing works** are ongoing.

4.2.7 Planning and Other Works

1. Investment in nearby small- and large-scale projects is ongoing.
2. Planning for access road improvement is in progress.
3. River training works are ongoing.

4.3 Challenges Faced:

Although the Company remains committed to completing the project within the stipulated time and schedule, several challenges related to site conditions, weather, local issues, logistics, and manpower have affected project implementation. The major challenges faced are:

1. **Continuous rainfall** has affected construction activities and caused delays in overall project progress as multiple spots have encountered landslides.
2. **Flooding and adverse weather conditions** have disrupted site activities and transportation as the main bridge connecting project site along with approximately 1000m of road has been completely washed out.
3. **Road blockages by local communities** due to issues related to nearby hydropower projects have disrupted the transportation and supply of materials.
4. **Topographical challenges and unexpected ground** conditions have been encountered along the transmission line alignment beyond those anticipated during the geotechnical investigation.
5. **Heavy rainfall and poor road** conditions have caused delays in the material supply chain and transportation.
6. **Significant drops in temperature** have resulted in frequent equipment breakdowns, affecting work progress and efficiency.
7. **Difficulty in mobilizing and retaining skilled labor** in remote project locations has affected productivity and work quality.

Management Plan for the Mitigation of Challenge:

1. **Coordination with local authorities and local communities** is being maintained to resolve local issues and minimize disruptions.
2. **Adequate equipment, manpower, and advanced work methodologies** are being deployed to address topographical and site-related challenges.
3. **Delayed works due to monsoon and adverse weather conditions** are being expedited to recover the lost time.
4. **Sufficient critical materials are being stored manually at site** to minimize disruptions in the supply chain.
5. **Regular road maintenance and improvement works** are being carried out to ensure smooth transportation and material supply.
6. **Optimum planning of work progress and contractor demobilization** is being implemented for effective resource utilization and cost optimization.
7. **Regular progress reviews, site inspections, and schedule updates** are being conducted to identify bottlenecks and implement timely corrective actions.
8. **Coordination among civil, electromechanical, transmission line, and other interfacing works** is being strengthened to avoid conflicts and delays.

9. **Alternative access routes and contingency measures** are being considered to minimize the impact of road blockages, flooding, and other unforeseen disruptions.
10. **Manpower and equipment resources are being continuously monitored and mobilized** to maintain productivity and accelerate critical activities.

4.4 Physical Progress

Vision Energy & Power Ltd records physical progress data on every construction work of the Nupche Likhu Hydropower Project. The evaluation of project physical progress has been prepared by weighted method, which is highlighted as the best and realistic technique to determine the percentage complete of the overall project. Below is the physical progress data as of **Ashwin, 2083**.

Physical Progress

SN	Activities	Physical Progress
1	Civil Works	99.14%
2	Electromechanical Works	98.46%
3	Hydro Mechanical Works	98.98%
4	Transmission line & Interconnection	98.43%
5	Land Acquisition/ Compensation/Development	98.69%
6	Construction Design, Drawing and DPR	99.28%
7	Office Building including Camp Facilities	100.00%
8	Infrastructure Development (Temporary and Permanent)	98.09%
9	Environment Mitigation and Social Responsibility	96.12%
	Total	**98.72%**

OVERALL PHYSICAL PROGRESS ACHIEVED: 98.72%

4.5 Financial Progress

Vision Energy & Power Ltd. records all important financial data on every aspect of a business's activities. Below is the financial progress data to manage the operations of our business and also to provide reporting transparency to our stakeholders.

Allocated Budget Vs. Actual Utilization Up to 31 Ashwin , 2083

Financial Progress.

SN	Particulars	Revised Budget-3	Total Utilization Including Advance	Utilization %
1	Preliminary Works	246,051,846	246,051,846	100.00%
2	Civil Works	4,415,494,797	4,557,269,800	103.21%
3	Electromechanical Works	1,494,861,982	1,394,917,876	93.31%
4	Hydro Mechanical Works	1,410,017,582	1,352,217,136	95.90%
5	Transmission line & Switchyard	716,405,062	625,404,863	87.30%
6	Land Acquisition/ Compensation/Development	109,880,925	103,497,101	94.19%
7	Project Supervision/Management and Engineering	741,958,363	664,856,693	89.61%
8	Construction Design, Drawing and DPR	28,276,932	27,976,932	98.94%
9	Office Building including Camp Facilities	93,355,241	92,996,191	99.62%
10	Office Equipment	12,824,085	12,138,134	94.65%
11	Vehicle	20,694,976	20,694,976	100.00%
12	Infrastructure Development (Temporary and Permanent)	919,327,844	842,419,294	91.63%
13	Environment Mitigation and Social Responsibility	228,863,850	200,639,071	87.67%
14	Loan Documentation Fee	93,718,758	86,845,264	92.67%
15	Interest During Construction	1,907,358,881	1,761,301,628	92.34%
	Total	**12,439,091,124**	**11,989,226,806**	**96.38%**

4.6 Loan Details

S.N.	Particulars	Amount	Amount	Remarks
A	Total Share Capital		**3,320,000,000**	
B	Total Bank Loan		**8,459,243,366**	
	Term Loan	*7,664,773,366*		
	Bridge Gap Loan	*794,470,000*		
C	**Total (A+B)**		**11,779,243,366**	
D	Debt Ratio (B÷C)		71.81%	
E	Equity Ratio (A÷C)		28.19%	

4.7 Planning for the next quarter

a) Finishing Work of All Tunnel.
b) Complete erection of all pipes in Vertical shaft and Penstock Tunnel; along with the infill of concrete.
c) Completion of 100% of Penstock Pipe Works.
d) Completion of 100% of the Nupche Headworks.
e) Completion of stringing works for 24KM of Transmission Line.
f) Testing and Commissioning of Civil work, HM, EM, TL.
g) Completion of Dry Test and Initiation of Wet Test.

ANNEX – 1: SOME PHOTOGRAPHS OF WORK PROGRESS



Sending End Switchyard



Work Progress in Powerhouse



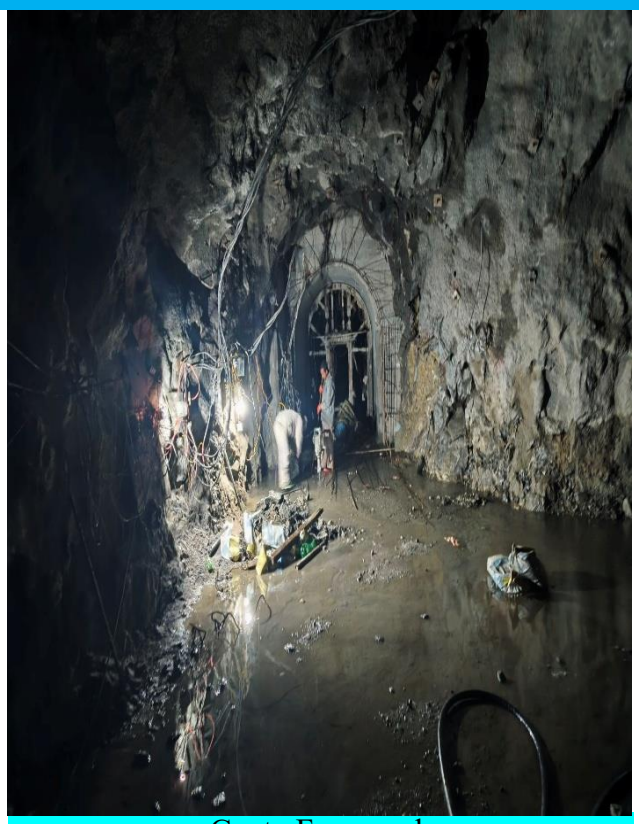
Completed Anchor Block AB-1



Reinforcement Work at PT



Grouting Work in Tunnel



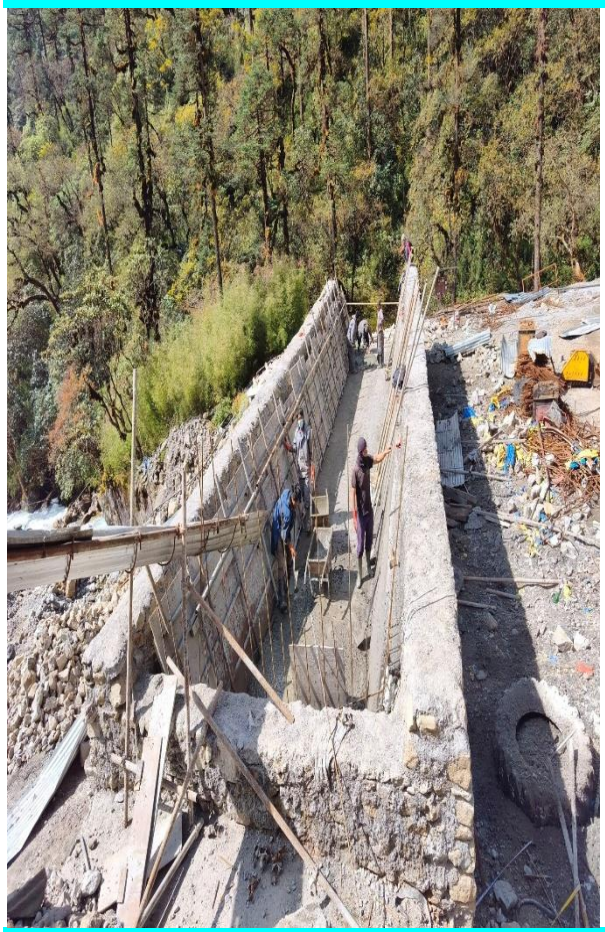
Ganty Formwork

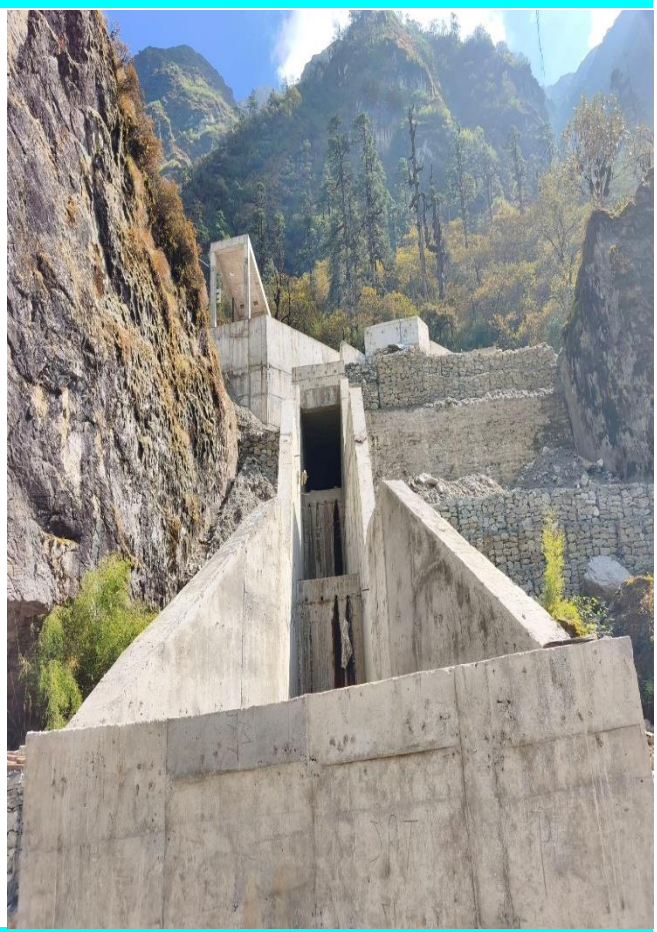


Concreting work at PT



Overview of Nupche Headworks





Flushing of Settling Basin at Nupche



Ongoing Grouting works



Kholsi Protection Completed



Nupche Intake



Cleared Gravel Trap at Likhu



Settling Basin at Likhu



Completed Cover of Surge shaft



Painting works of PT / Penstock







Bend Erection at AB-1



Cut piece welding at PT



AB-1 Bend





Installation of third Turbine Housing



Overview of all Unit



Erection works at Unit-3

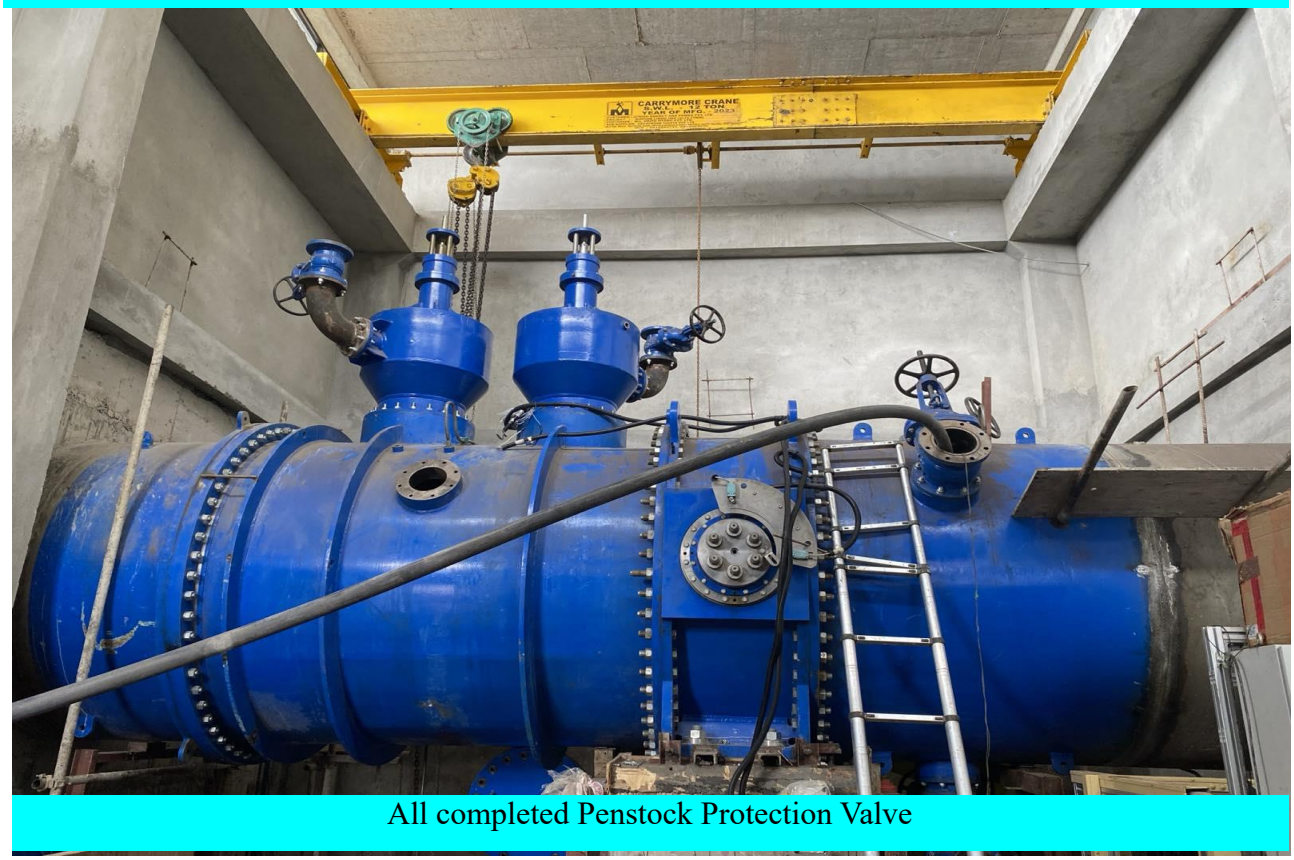


Control Panels at Control Building





Erection works at Unit-3



All completed Penstock Protection Valve



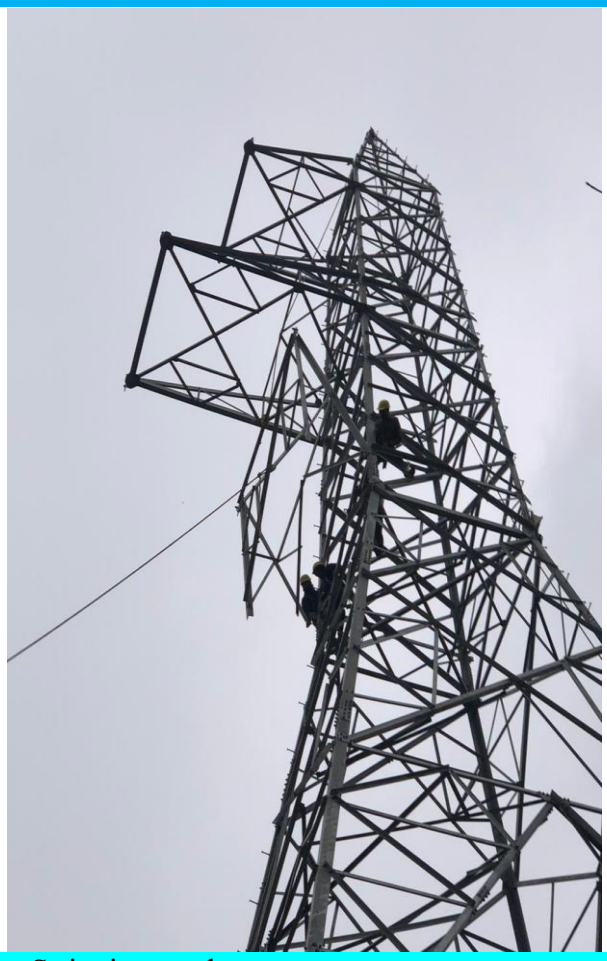
NLHP Transmission Line Towers





NLHP Transmission Line Stringing works





NLHP Transmission Line Stringing works





NLHP Receiving end Substation Garjyang



THANK YOU!