# NUPCHE LIKHU HYDROPOWER PROJECT (57.5 MW)

**Ramechhap, Nepal**




# Project Progress Report

## Shrawan – Ashwin, 2081

## Vision Energy & Power Limited


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# Executive Summary

This Progress Report is prepared for providing information about the progress of Nupche Likhu Hydropower Project (NLHP), Ramechhap (57.5MW). It contains the information about the project activities and progress of the months from **Shrawan to Ashwin 2081**. The major achievements during the period are:

## A. Forest and EIA/IEE Related Works

1. Plantation of 7000 plants in Lahachhewar area under plantation program has been completed.
2. Compensation to the Land owners along the ROW and along the Transmission Line Alignment has been started.
3. Implementation and follow-up of environmental mitigation and social management plan throughout the construction phase to achieve good environment.

## B. Preliminary/Preparatory Works

1. The road strengthening and routine maintenance of project's access road has been accomplished for this season.
2. In coordination with the Local government the maintenance of road from Deurali to Dhokharpa has been completed.

## C. Civil Works

1. Progress in Excavation of HRT (Headrace Tunnel) are demonstrated each front wise below:

| SN | Description of Site | Tunnel Length(m) | Actual Tunnel Excavated (m) | Remaining | Progress |
|---|---|---|---|---|---|
| 1.0 | **Vertical Shaft** | **295.376** | **295.376** | **0** | **100%** |
| 2.0 | **Penstock Tunnel** | | | | |
| 2.1 | First Unit Bifurcation | 56.28 | 56.28 | 0 | 100% |
| 2.2 | Second Unit Bifurcation | 45.814 | 45.814 | 0 | 100% |
| 2.3 | Third Unit Bifurcation | 32.28 | 32.28 | 0 | 100% |
| 2.4 | Penstock Tunnel | 631.2 | 631.2 | 0 | 100% |
| | **Total (1+2)** | **1060.995** | **1060.995** | **0** | 100% |
| **3.0** | **Headrace Tunnel** | | | | |
| 3.1 | **Outlet Portal-Slope Break Point** | 1602.308 | 1046.3 | 556.008 | 65.29% |
| 3.2 | **Likhu Inlet- Nupche Likhu Junction** | 1078.474 | 1078.474 | 0 | 100% |
| 3.3 | **Nupche Inlet -Nupche Likhu Junction** | 1058.915 | 845.7 | 213.215 | 79.86% |

| | | | | | |
|---|---|---|---|---|---|
| 3.4 | **Adit Portal-Adit Junction** | 346.121 | 346.121 | 0 | 100% |
| 3.5 | **Adit Junction-Nupche Likhu Junction** | 227.978 | 227.978 | 0 | 100% |
| 3.6 | **Adit Junction-Slope break point** | 1124.821 | 626.9 | 497.921 | 47% |
| 3.7 | **Nupche Likhu Junction-Likhu** | 347.78 | 347.78 | 0 | 100% |
| 3.8 | **Nupche Likhu Junction-Nupche** | 540 | 426.1 | 113.9 | 79% |
| | **Total (3)** | **6326.397** | **4945.353** | **1585.623** | **84%** |
| **4.0** | **Surge Shaft and Connecting Tunnel** | | | | |
| 4.1 | **Surge Shaft Connecting Tunnel** | 20.03 | 20.03 | 0.00 | 100% |
| 4.2 | **Surge Shaft** | 42.83 | 30.80 | 12.03 | 71.91% |
| | **Total (4)** | **62.86** | **50.8** | **10.2** | **86%** |
| **Total (1+2+3+4)** | | **7450.207** | **6057.16** | **1597.653** | **81.30%** |

2. The total Tunnel of 6057.16(81.30%) has been completed out of 7450.207;
3. Final shotcrete in the Likhu inlet up to 1180m is completed and 369m of final invert lining has been completed from U/S to D/S.
4. Second stage concreting of 12 no's of gates out of 16 no's has been completed at Likhu Headworks.
5. 97% of works at Likhu Headrace Pipe has been completed.
6. Erection of pipes along River and Road Crossing from Bellmouth to AB1 has been completed.
7. 2 nos of Anchor Block AB16 and AB17 has been completed and backfilling along AB18 to AB19 has been completed.
8. 70.37 % of M25 RCC works of Settling basin Flushing has been completed and 35% of M25 concreting works at Intake has been completed at Nupche HWs.
9. M25 Concreting at Main weir and Super passage at settling basin has been completed.
10. Along the Nupche Headrace pipe alignment, 7 nos. of Anchor Blocks AB1 to AB7 is completed whereas AB8 and concrete casing work between AB8 to AB9 are in progress.
11. Support work along the Penstock Alignment are in progress.
12. Along the penstock alignment, excavation from AB6 to AB7 and AB22 to AB23 has been completed with 20nos of Anchor block out of 27, 4 nos for this quarter (AB20, AB21, AB22, AB23) has been completed.
13. Civil works of Power house is completed, only second stage concreting is remaining.
14. Superstructure works of control building and earth mat laying in switchyard area are completed.

**D. Electromechanical (EM) Work**

1. Earth mat laying at CT/PT/GT has been completed.

2. Installation of Transformer rail lines, winch block, pulling hooks and other embedment parts has been completed.
3. Transportation of all three units of Generators from border to the site has been completed.
4. Construction of Close Store has been completed.
5. Revision of EM Work Schedule has been completed.
6. Planning for the transportation of the Runner, Turbin Housing and Power house accessories has been completed.

**E. Hydro mechanical (HM) Works**

1. 16 no's of gate frames has been installed at Likhu HWs components with completion of 12 no's of second stage concreting. Additionally, gate frames being installed at Nupche Headworks.
2. 63% of Pipes erection has been completed. The details are as follows:

| Erection of PIPES | Total Length (m) | Erected Length (m) | % Completed |
|---|---|---|---|
| Penstock | 1527.54 | 897.282 | 59% |
| Vertical Shaft | 298.76 | 36 | 12% |
| Horizontal Shaft | 631.2 | 144 | 22.81% |
| Bifurcation and Manifolds(Branch pipe) | 182 | 125.99 | 69% |
| Likhu HRP | 1053.12 | 1026.22 | 97% |
| Nupche HRP | 421.35 | 336.447 | 80% |
| **Total** | **4113.97** | **2565.94** | **62.37%** |

**F. Transmission Line**

1. Approx 98% of tower material has been delivered to site.
2. 45.98% excavation of tower foundation has been completed.
3. 42.28% of Tower foundation concreting has been completed.
4. 21.75% of Tower foundation has been completed with back filling of Pit.
5. 6% of Tower Erection work has been completed.
6. 3% of Tower Protection work has been completed.

**G. Planning, Governance and Other Works**

1. Investment in nearby small and other large projects has been initiated; Application has been submitted to the Government Officials.
2. Development and Implementation of Strategy to increase Productivity has been effectively done.

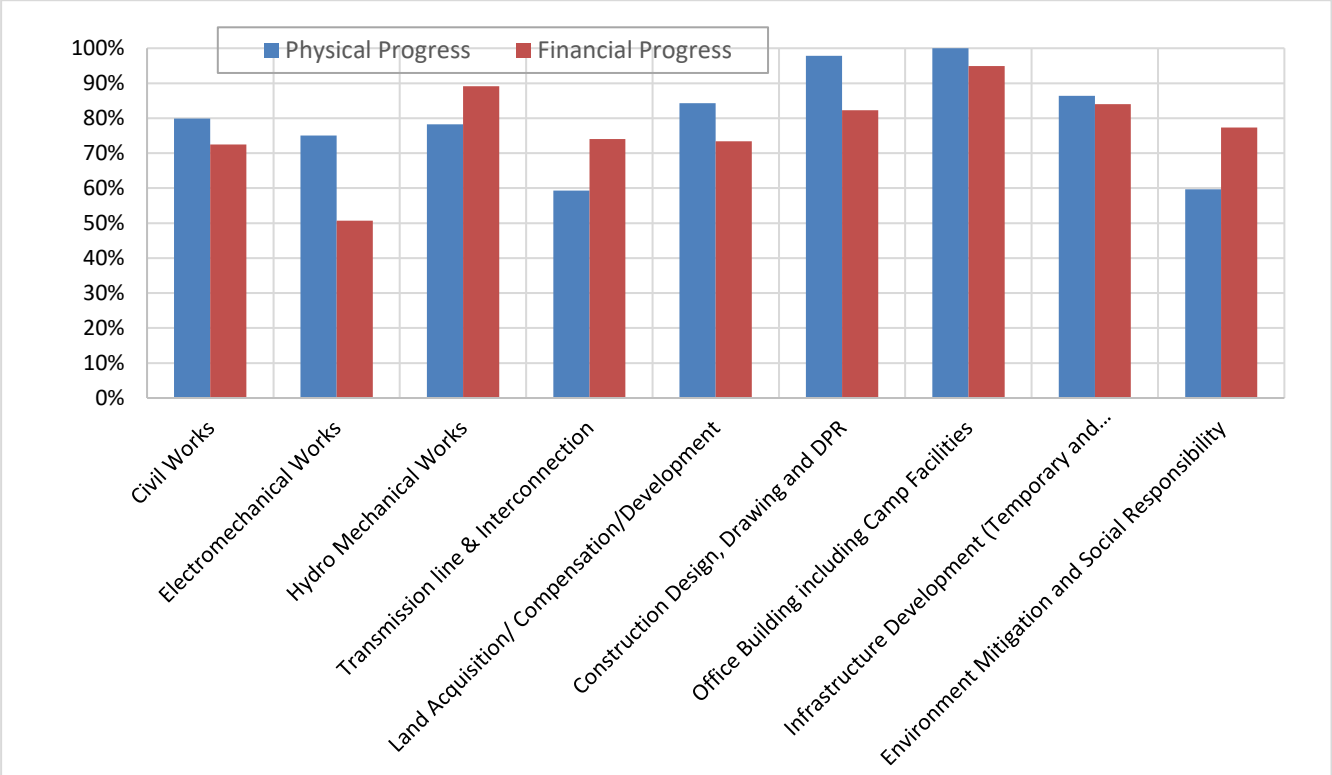
**H. Any Bottlenecks**

1. Installation of Hoisting system and gates at Likhu headworks.
2. Breakthrough of Nupche Inlet from NL-Junction

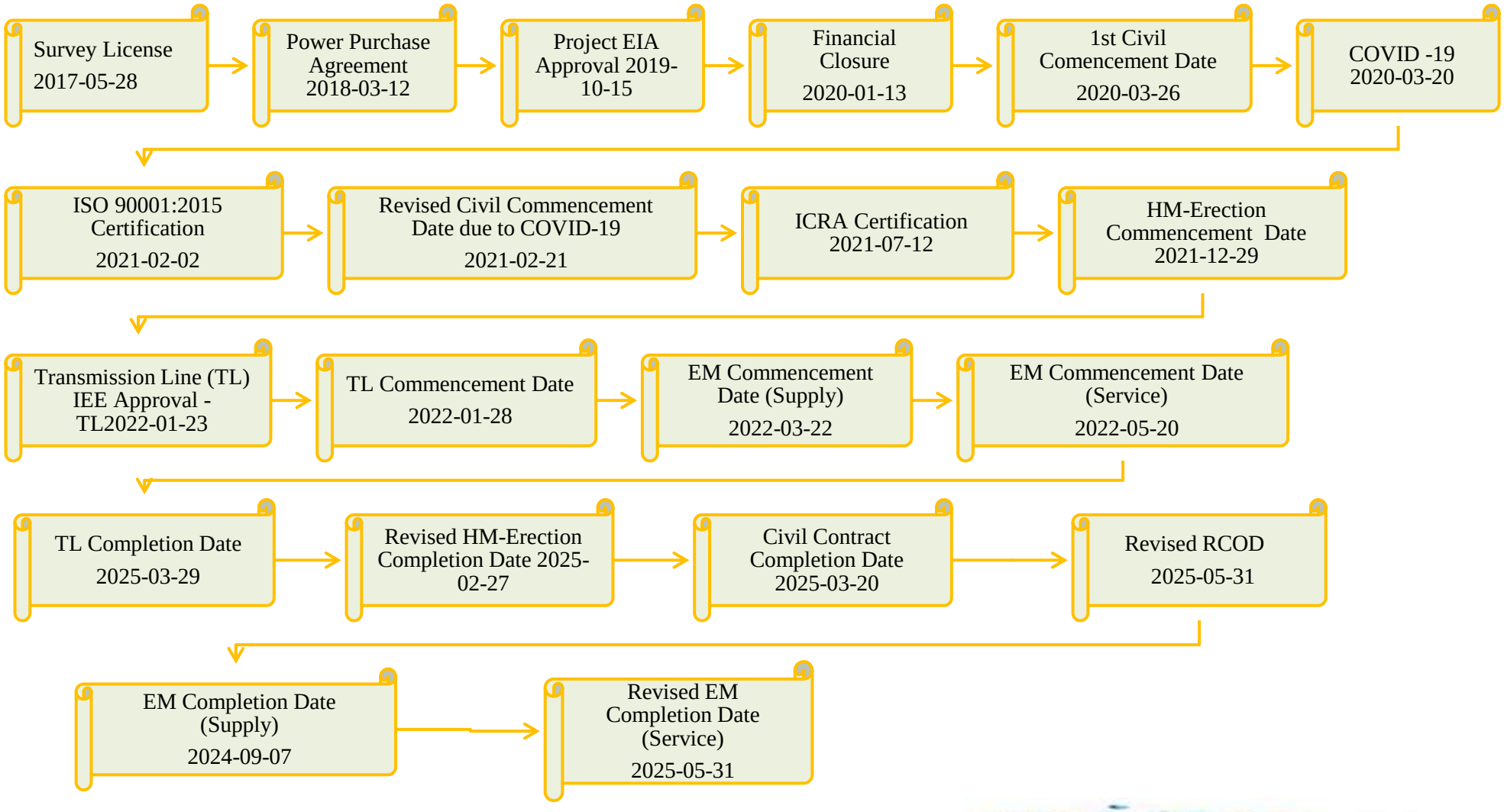
3. Breakdown of machineries and remobilization of the manpower after Monsoon.
4. Erection & concreting works at VT/PT.

## I. Financial and Physical Progress

1. Till the date 72.07% of the budget has been utilized and about 79% of the overall physical progress has been achieved;



## J. Revised NLHP Project's Major Timeline



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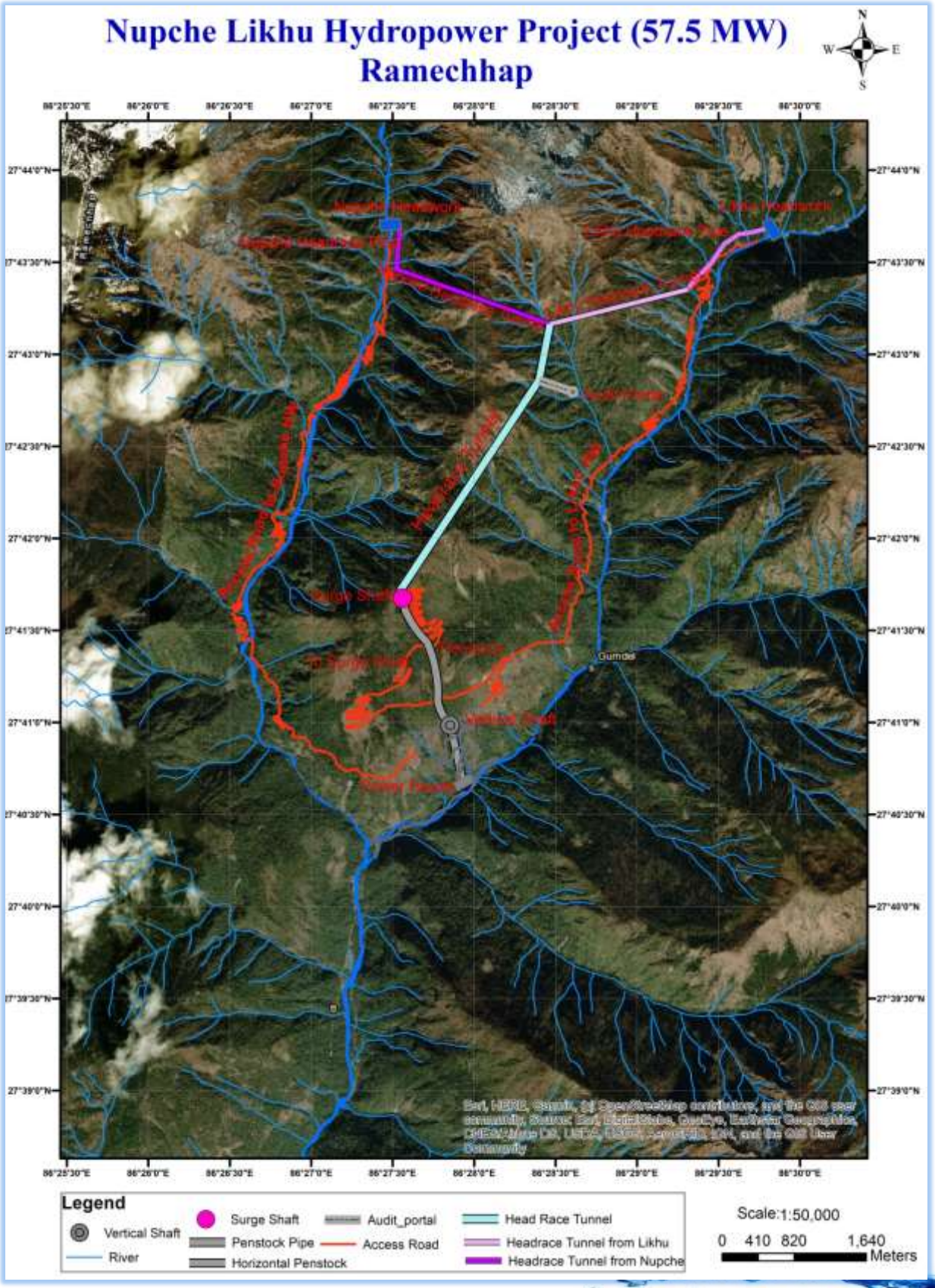
**Section A- About the Project**

# Section A: About the Project



# 1. Introduction

## 1.1 Background

Vision Energy & Power Ltd (VEPL) aims to develop Nupche Likhu Hydropower Project (57.5 MW) 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 project is a run-of-river (RoR) Hydropower Project.

## 1.2 About the Project

The proposed Nupche Likhu Hydropower Project is located in Umakunda Rural Municipality of Ramechap district of Nepal. The source of water for the project is originated from Nupche and Likhu rivers which are snow-fed Rivers starting from the High Mountain/Hilly areas. The proposed intake of the Nupche Likhu Hydropower Project is located north of Lahachhewar Village in left bank of Nupche Khola with its weir crest level at an elevation of 3338 m above amsl and the right bank of Likhu Khola with its weir crest level at an elevation of 3338 m above amsl. The powerhouse is located on the right bank of the Likhu Khola with the turbine center line level at 2332.35 m amsl. The gross head estimate is 1005.65 meter and design discharge is 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.10,983,640,292.00 and total cost per MW = NRs. 197,019 thousand.
b) Internal Rate of Return (IRR): 17.50 %, Equity Internal Rate of Return (EIRR): 27.57%
c) Simple Payback Period: 4.75 Years; Discounted Payback Period: 7.68 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 | Nucphe 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 82$km^2$&Likhu 68 $km^2$) |
| | Design Discharge (Q 45 %) | 3.89 $m^3/s$+ 3.22 $m^3/s$ (Nupche & Likhu) = 7.11$m^3/s$ |
| 4. | **Nupche & Likhu- Headworks** | |
| | **Weir** | |
| | Type | Boulder line weir |
| | **Bed Load Sluicer** | |
| | 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 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** | 10,983Million (Revised as per lending Bank Technical Consultant) |
| 18. | **Approximate Construction Period:** | 4 Years |
| 19. | **Required Commercial Operation Date (RCOD)** | 2082/02/18 BS<br>2025/05/31 AD |

### 1.6 Investment Module

The investment in Promoters Share has been closed from Ashwin End 2075.

# 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,

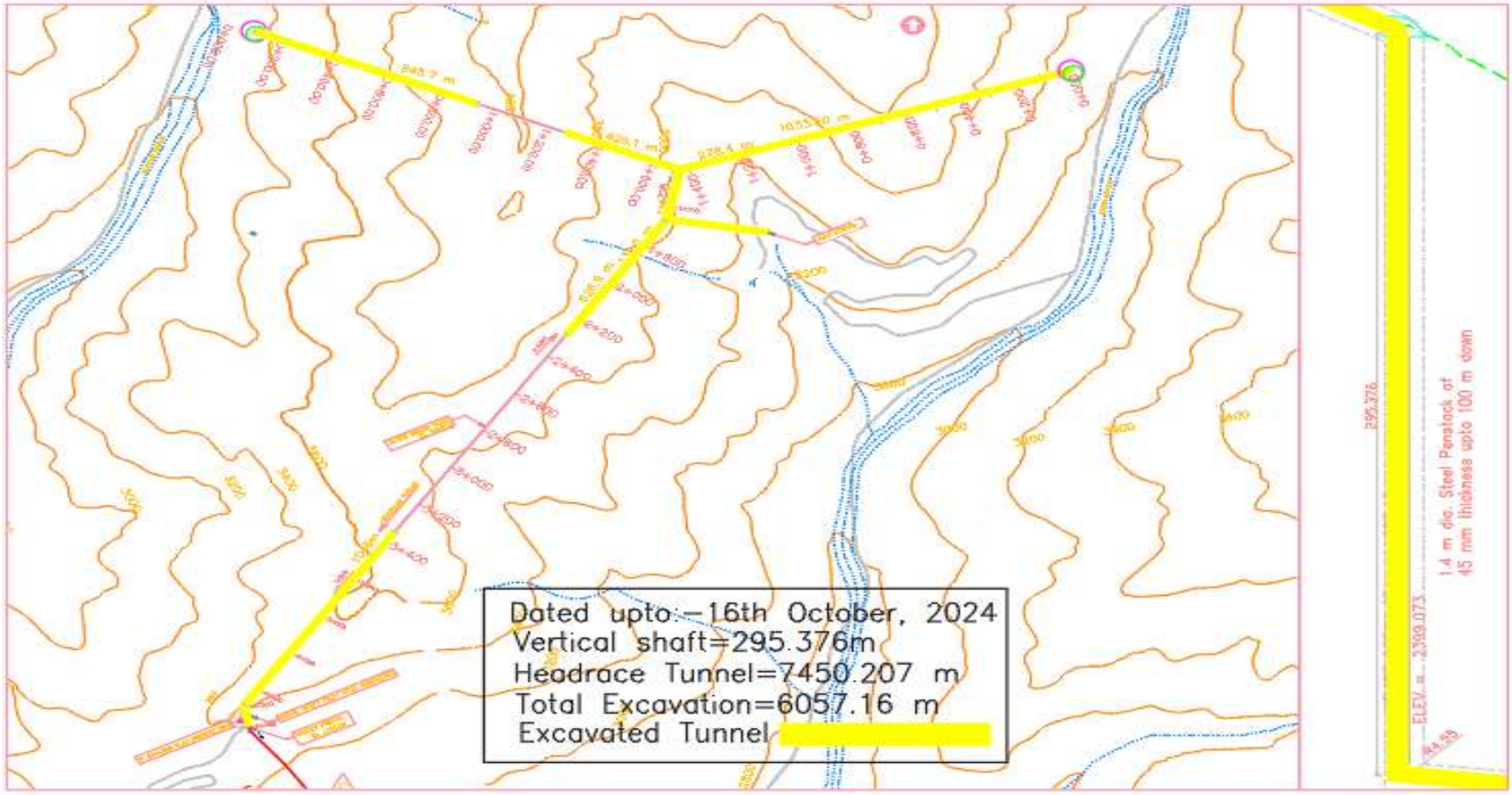
1. Various manuals such as Finance Manual, Human Resource Manual, Investment Manual, Corporate Governance Guidelines, Performance Evaluation Guidelines, Project Management Guidelines, Branding Guidelines, etc. are in practice.
2. Formation of various committees such as High-level coordination sub-committee, 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. Performance evaluation of each personnel 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.

# Section B: Current Status of the Project



# 4. Current Status of the Project

## 4.1 Completed Works of the Project

### 4.1.1 Forest, EIA & IEE Related

1. **Environmental Impact Assessment (EIA)** study of Project has been approved.
2. The application for approval of **'Tree Cutting and use of Government Land**' has been approved from the Council of Ministers.
3. Procurement of Land for the replacement of the government land used by the Project has been completed.
4. The agreement between Department of National Parks and Wildlife Conservation, Department of Forests and Soil Conservation and Vision Energy & Power Ltd. for use of **'Tree Cutting and use of Government Land'** has been signed on 30th Chaitra, 2077.
5. Field Work for Tree Counting and Stamping for the project is completed in pursuant to EIA.
6. IEE for the Transmission Line has been approved on 2076-10-09 and Tree cutting and government land use for Transmission Line from cabinet of government of Nepal has been approved on 2080-04-23, also agreement with Department of National Parks and Wildlife Conservation has been concluded.
7. Submission of self EHS Audit Report to ministry of Forest and Environment.
8. Land acquisition and Agreement with the NPWC has been completed and Tree stamping completed and cutting is in progress.

### 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 of Nupche

### 4.1.3 Civil Works

1. Approx. **80%** of physical progress in Civil Works has been achieved.
2. Control Building and base preparation for the foundation of Switchyard has been completed.
3. Out of 3 nos of Thrust Blocks 2 has been completed and remaining one is in final stage of completion.
4. Powerhouse and Control Building is in the final stage of handover to EM Contractor.
5. Excavation of HRT (Headrace Tunnel) from Outlet about 1673.2 m (61.35%) completed out of 2727.128m;
6. Shotcrete of HRT 800m (56.09%) from Likhu Inlet to Nupche Likhu Junction about has been completed out of 1426.25m and invert lining of 370m has been completed at Likhu HRT.
7. Excavation of HRT from Nupche Inlet about 1271.8 m (79.54%) has been completed out of 1598.915m;
8. Excavation in Surge Shaft has started with progress of 30.80 m (75%) out of 41m has been completed.
9. The total Headrace Tunnel of 6006.33m (80.61%) has been completed out of 7450.201m;
10. Completion of 33m Concreting at the Vertical Shaft and 132 m of concreting at Penstock Tunnel.
11. Likhu HWs is on the verge of completion, approx. 99% of civil works of Likhu HWs has been completed except the second stage concreting.
12. Completion of concreting Anchor Block from 1 to 18 has been completed and backfilling works of Anchor Block from 1 to18 for Likhu Headrace pipe is in progress.

13. Along the Likhu HRP, 99% of work has been completed.
14. Along the penstock alignment, 20 Anchor Blocks out of 27 has completed.
15. Excavation along penstock Alignment AB6 to AB7 and AB22 to AB23 is completed.
16. Support Structure from AB4 to AB5 is completed along Nupche HRP.
17. Protection wall from AB15 to AB19 is completed along Likhu HRP
18. M25 Concrete of Unit 1 and Unit2 of thrust block is completed

### 4.1.4 Electromechanical Works

1. Approx**. 75%** of physical progress in Electromechanical Works has been achieved.
2. Commissioning of Powerhouse EOT crane has been completed.
3. Delivery of Main Transformer at site and have been placed at its location.
4. System Engineering and general layout drawing has been completed for major Equipment.
5. PPV casting has been completed.

### 4.1.5 Hydro mechanical Works

1. Approx. **78.20 %** of physical progress in HM Works has been achieved.
2. 16 nos. of gates second stage EP installation has been completed in Likhu headworks.
3. Erection of 10.24% pipes in the Vertical Shaft has been completed and erection of 24.52% pipes on PT has been completed.
4. Erection of pipes 56.28% has been progressively completed.
5. Installation of embedded parts and gate frames in Nupche HWs components is in progress and gate frames being installed at Likhu HWs.
6. Transportation of the pipes including accessories, valves and manifolds also have been completed.

### 4.1.6 Transmission Line

1. Approx. **59%** of physical progress in Transmission Line Works has been achieved.
2. 98% of tower material has been received to the site.
3. 50% of pit marking has been completed.
4. 42.28% excavation of tower foundation has been completed.
5. 21.50% of Tower foundation has been completed with back filling of Pit.
6. 6% of Tower erection work has been completed.
7. 3% of Tower protection work has been completed.
8. Marking of Tree cutting has been completed in ROW area along the transmission line.

#### 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 Quality and Good Governance

1. ICRA rating revision is in progress.

#### 4.2.2 Forest and EIA Related Works

1. Agreement with NPWC to start tree stamping and tree cutting along the transmission line.
2. Implementation and follow-up of environmental and social management plan throughout the construction phase to achieve good environmental outcomes as per approved EIA

#### 4.2.3 Preliminary/Preparatory Works

1. Road strengthening and routine maintenance of access road.

#### 4.2.4 Civil Works

1. Foundation work at Switchyard Area.
2. Thrust Block Concreting works is at final stage.
3. Concreting of Nupche intake, gravel trap and approach canals.
4. RCC works in settling basin in Nupche settling basin, Head Pond with Flushing structures.
5. Excavation and PCC along the Nupche Headrace Pipe alignment is in progress.
6. HRT excavation from 4 tunnel faces.
7. Concreting work of AB4 and excavation from AB23 to AB24 along Penstock alignment is in progress.
8. Full excavation of Surge shaft; with safety shotcrete.
9. Final shotcrete and invert lining in the Likhu inlet area is in progress.

#### 4.2.5 EM (Electromechanical) Works

1. Ongoing transportation of the Turbine runner.
2. Ongoing transportation of accessories of Powerhouse equipment.
3. Planning for the transportation of Turbin Housing.

#### 4.2.6 HM (Hydro-mechanical) Works

1. Fabrication, supply and Erection of hoisting arrangement gear and gear box.

2. Erection of pipes from AB2 to AB1 and AB3 are completed in Nupche HRP.
3. Erection of pipe between AB22 and AB21 is in progress along penstock alignment.
4. Testing and Rectification of the HM pipes and accessories

### 4.2.7 Transmission Line

1. Tower protection work of different tower footing is in progress.
2. Pit marking of the tower and survey and establishment of camp in other front along the tower alignment.
3. Erection of Tower.

### 4.2.8 Planning and Other Works

1. Investment in nearby small and other large projects has been started;

## 4.3 Challenges Faced:

Though the company is committed to complete the work in stipulated time and schedule, company struggles to tackle the project management challenges and issues related to the processes and directions of government, local community, site condition etc. The major challenges we have faced are.

1. Due to monsoon the transportation has become difficult and hectic.
2. Local issues such as excessive demands for construction/upgradation of roads
3. Topographical challenges and unexpected ground conditions at TL alignment than anticipated in geotechnical investigation.
4. Damaged road section in various location of access road to Nupche-Likhu Hydroelectric project.

**Management Plan for the Mitigation of Challenge:**

1. NOC has been issued and the explosives has reached at site within 15$^{th}$ Shrawan, 2081.
2. Co-ordination with local authority and local people about the issue.
3. Beside the topographical challenges the resources such as equipment and manpower with advance working methodology has been adopted.
4. Road maintenance work in progress and regularly being done.

## 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 up to **30th Ashwin, 2081**.

### Physical Progress

| SN | Activities | Physical Progress |
|---|---|---|
| 1 | Civil Works | 80% |
| 2 | Electromechanical Works | 75% |
| 3 | Hydro Mechanical Works | 78.20% |
| 4 | Transmission line & Interconnection | 59% |
| 5 | Land Acquisition/ Compensation/Development | 84% |
| 6 | Construction Design, Drawing and DPR | 98% |
| 7 | Office Building including Camp Facilities | 100% |
| 8 | Infrastructure Development (Temporary and Permanent) | 86% |
| 9 | Environment Mitigation and Social Responsibility | 60% |
| | **Total** | **79%** |

**OVERALL PHYSICAL PROGRESS ACHIEVED: 79%**

## 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 31st Ashadh, 2081**

| SN | Particulars | Amount (Rs.) | Utilization Up to 31st Ashadh, 2081 (Rs.) | Utilization % |
|---|---|---|---|---|
| 1 | Preliminary Works | 246,969,000 | 246,051,846 | 99.63% |
| 2 | Civil Works | 4,297,121,504 | 3,113,518,577 | 72.46% |
| 3 | Electromechanical Works | 1,413,490,626 | 717,010,527 | 50.73% |
| 4 | Hydro Mechanical Works | 1,258,106,453 | 1,120,937,540 | 89.10% |
| 5 | Transmission line & Switchyard | 596,943,160 | 442,202,493 | 74.08% |
| 6 | Land Acquisition/ Compensation/Development | 110,210,625 | 80,923,125 | 73.43% |
| 7 | Project Supervision/Management and Engineering | 451,561,212 | 378,536,937 | 83.83% |
| 8 | Construction Design, Drawing and DPR | 33,886,932 | 27,886,932 | 82.29% |
| 9 | Office Building including Camp Facilities | 97,744,741 | 92,754,241 | 94.89% |
| 10 | Office Equipment | 19,447,135 | 13,256,213 | 68.17% |
| 11 | Vehicle | 28,417,477 | 22,551,998 | 79.36% |
| 12 | Infrastructure Development (Temporary and Permanent) | 819,327,844 | 688,580,721 | 84.04% |
| 13 | Environment Mitigation and Social Responsibility | 190,931,582 | 147,595,682 | 77.30% |
| 14 | Loan Documentation Fee | 69,685,000 | 67,929,921 | 97.48% |
| 15 | Interest During Construction | 1,349,797,000 | 756,158,463 | 56.02% |
| | **Total** | **10,983,640,292** | **7,915,895,216** | **72.07%** |

***Total Share Capital as on 30th Ashwin 2081: - NPR 3,139,511,287***

## 4.6 Loan Details

**Total loan from Consortium Banks is 7 Arab 93 Crores. Loan disbursement till this period is NPR 5,147,114,903.00**

## 4.7 Planning for the next quarter

a) Routine Maintenance of Access Roads
b) Kholsi-Protection of Powerhouse
c) Handover of the Powerhouse to EM.
d) Installation of transformer.
e) Installation of Generators.
f) Transportation of Turbine and Turbine Housing
g) Completion of excavation and finishing work of Surge shaft.
h) Complete erection of 120m pipes in Vertical shaft and 260 Inclined Tunnel; along with the infill of concrete.
i) Excavation of 90% of the Headrace Tunnel.
j) Completion of 100% of Headrace Pipe Works.
k) Completion of 95% of Penstock Pipe Works.
l) Completion of 90% of the Nupche Headworks.
m) Installation of gates in Likhu HWs, Nupche HWs & Tailrace.
n) Complete excavation of 81 no's of Towers along Transmission Line.
o) Erection of 45 no's of towers along transmission line.
p) Completion of 65 no's of Tower Protection Works.

## ANNEX – 1: SOME PHOTOGRAPHS OF WORK PROGRESS

Figure : Concreting of Staircase roof slab of Super Structure of Control Building.

Figure: Superstructure of Control Building.

Figure showing: Earthmat laying at Switch yard area at Powerhouse Area.

Figure Showing: Concreting of Manifold Unit-1.

Figure: Vertical Shaft (Full Face).

Figure showing Load Test at Vertical Shaft.

Figure:Pipe Erection Work at penstock.

Figure: Welding of pipe at Penstock Tunnel.

Figure: Completion of AB18 along Penstock Alignment.

Figure: Concreting of Anchor Block along penstock pipe alignment.

Figure: Breakthrough of Pilot Hole

Figure: Full face Drilling and Excavation work of Surge Shaft

Figure: Adit Junction

Figure: Rib Installation at Nupche Inlet at 0+814m

Figure: Outlet Tunnel towards Adit.

Figure: Invert Linning of Likhu Tunnel towards Inlet.

Figure: NL Junction to Nupche

Figure: Adit D/S towards Outlet

Figure: NL Junction HRT

Figure: Rib Installation and stone packing at Nupche HRT.

Figure: Khosli Crossing at Likhu HRP between AB16 & AB17.

Figure: Likhu Settling Basin sand Flushing culvert protection.

Figure: Superpassage above Likhu Power Canal

Figure Showing:- Likhu Headworks Intake Superstructure.

Figure Showing:- Likhu Protection works at upstream of HWs

Figure: Completed section of Penstock

Figure:-Concreting of Anchor Block along penstock alignment.

Figure: Nupche Headworks installation of Bellmouth and Concrete works.

Figure: Nupche HWs Settling Basin Super Passage.

Figure:PCC at Bed Load Flushing Culvert

Figure: Pipe Erection at Nupche HRP.

Figure: Water flowing through main weir and Concreting of Gravel Flushing at Nupche HWs.

Figure: Gap measurement between template and Bucket

Figure: Checking of Bucket width

Figure: MIV Downstream body Casing

Figure: Inspection of CTs

Figure: Commissioning of EOT Crane


Figure:Storage of EM Equipments

Figure:Protection structure at Garjyang

Substation.

Figure: Garjyang Substation.

Figure:Loading and Transportation of Tower members of TL

Figure: Erection of Tower

Figure: Erection of Tower AP23

Figure:Erection of Tower AP23

Figure: Tower Protection Works


THANK YOU!
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