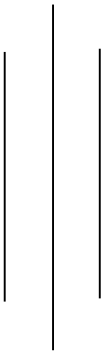
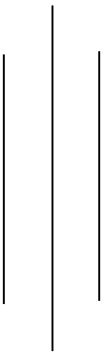
Super Khudi Hydropower Pvt. Ltd

Upper Khudi Hydropower Project (UKHPP)



Progress Report

(Jan –2023)



Kathmandu, Nepal

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1 Introduction

1.1 Background

The Upper Khudi Hydropower Project is located at the upstream of existing Khudi Hydropower Project (4.0 MW) and project located in ward no 2 & 3 of Marshyangdi Rural Municipality of Lamjung district, Gandaki Province. The headworks area of proposed project is near to Probi village and the powerhouse area is near to Khudi Bazaar. The approximate distance of powerhouse and headworks from Beshisahar are 9 km and 15 km respectively. Geographically the project area lies within 84˚ 19' 26' E to 84˚ 20' 44'E and 28˚ 18' 22' N to 28˚ 21' 50' N.

The Khudi River is a snow fed Perennial River originating from Lamjung Himal situtated at an elevation of nearly 5000m amsl, in Lamjung District. It is one of the tributaries of Marsyangdi River. The river flows through dense and undisturbed forest and joints Marsyangdi River at Khudi Bazaar. The catchment area is elongated from North- West to South- East direction draining toward the south. The catchment area at proposed intake is 72.3 km2. Feasibility study of the UKHPP has been completed.

1.2 Overall Project Description

The Upper Khudi Hydropower Project is a snow fed perennial Run of River (ROR) project. The main structures of the project are overflow weir, side intakes, gravel trap, settling basin, headrace tunnel, surge tank, penstock pipe, anchor blocks, saddle supports, powerhouse and tailrace canal respectively.

It consists of the overflow weir and the side intake on right bank of the river. The riverbed elevation at the intake site is about 1501 amsl. The weir crest level, crest level of side intake and intake invert levels is fixed accordingly as per site condition.

The project diverts water from the Khudi River by means of weir, passes through 3.5 km long headrace tunnel and 2.5 km long penstock and finally released to the Khudi River after power generation.

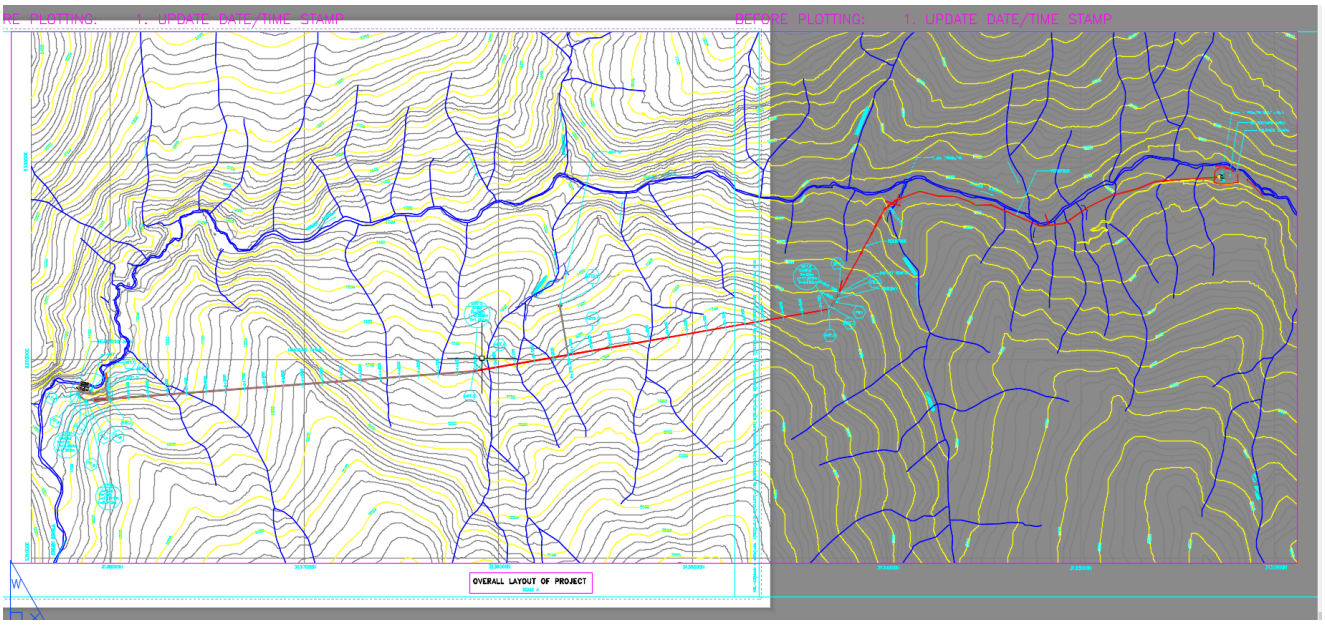

Figure 1- 1: General Project Layout of Upper Khudi Hydropower Project

1.3 Completed Milestones

S.N.	Milestones	Date
1.	Electricity Generation License	2075 - 02 - 09
2.	Power Purchase Agreement (PPA)	2076 - 01 - 11
3.	Financial Closure or facility agreement	2077 - 11 - 10
4.	EIA Approved	2076 - 02 - 27

5.	132 kV Transmission line License	2076 – 08 – 19

Table 1: Table of events dates (Milestone)

2 Institutional Arrangement

Following entities constitute the whole institutional arrangement of Super Khudi Hydropower Project having

The Employer/Owner: Super Khudi Hydropower Pvt. Ltd (SKHP)

The Engineer/Consultant : Hydro Solution Pvt. Ltd (HSL)

Financing Institution : Bank of Kathmandu Limited as Lead Bank; Global IME Bank Limited as Co-Lead Banks; and Bank of Kathmandu Limited, Global IME Bank Limited, Civil Bank Limited, Mega Bank Nepal Limited and Nepal Credit and Commerce Bank Limited as participating Banks.

3 Project Progress Update

3.1	**Engineering**	**Status**
3.1.1	Contractor mobilization	• For the construction of access road on 17th March 2021. • Pre - Fab Construction contractor has been mobilized on 25th July 2021 and completed.
3.1.2	Tender document and tender drawing	Completed and issue for bid.
3.1.3	*Access Road and Pre- Fab Constrcution*	• 5.5 Km access road has been completed out of 10.0 Km The Picture is attached. • 100% of camp Construction work is completed.
3.1.4	*Civil Contractor Mobilizaton*	• 15th Sep 2021
3.1.5	*EM Contractor*	• Tender Document issued for the proposal
3.1.6	*HM Contractor*	• Proposal has been received.
3.1.7	*TL*	• Public Hearing Completed, Survey completed and land acquisition is in process. ToR approved from DoED. Proposal has been received
3.1.8	*Technical Consultant*	• Angel Engineering has been hired
3.1.9	*Financial Consultant*	• Financial Consultant submitted final report to Bank
3.1.10	*Credit Rating*	• Is in process.
3.2	***Others***	
	• Senior Surveyor, Survyor, Engineer and Account/admin offier has been hired. • Physical Discharge Measurment is ongoing . • Construction Power (CP) has been completed. • Construction of Bunker and Army Camp contract ageement has been completed and materials are reached to site. Asessment of land for Army Camp has been completed. Pls see the picture below.	

	• Mortage of Land is completed • Term Loan and Bridge Gap Loan is seeking from Bank • IPC certified by Angel Engineering has been submitted to Bank.
4.	Hydro Solutions Engineering & Consultancy Private Limited has undertaken the detail engineering design of the project. The consultant has created a team of engineers and geologist for providing design and construction management services for the project. The required investigations for underground and surface works have been completed. Till date the consultant has already submitted the Detailed Project Report (DPR), tender documents for civil construction, electro mechanical works and hydro-mechanical, technical specification of civil, electro-mechanical and hydro-mechanical works, construction drawing of surface and underground works, electromechanical and hydro-mechanical. The monitoring of the construction works at site by the Consultant is being done through regular site visits. Other experts have also been engaged to provide specialized services to foresee and deal with potential problems that can impact on work progress.
5.	As per SLA 10 Million BGL has been received from Bank out of 20 Million

Table 2: Progress update of Upper Khudi Hydropower Project

4 132 kV Transmission Line

The project requires about 5 km transmission line to NEA's substation at Tadikuna. The Transmission Line Survey has been completed and preparation of IEE is in process. The probable route of Transmission Line is as shown below

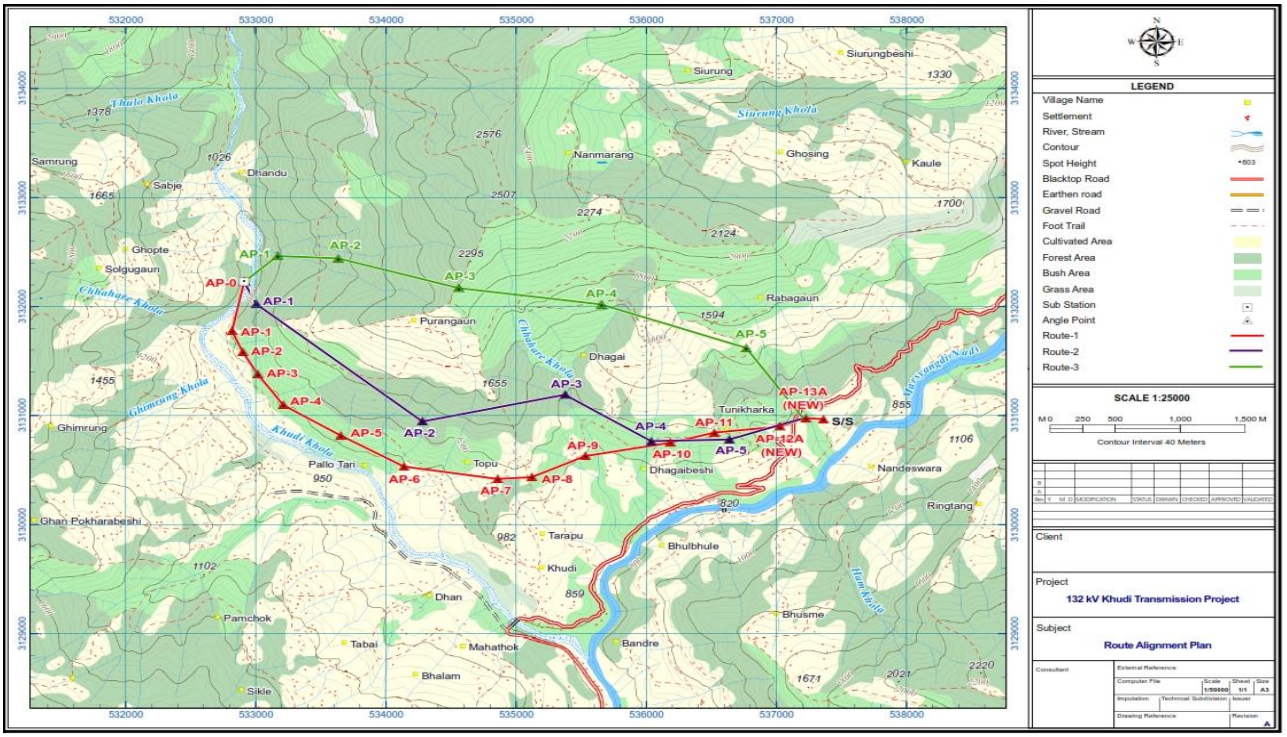

Figure 4- 1: Proposed Alignment of Transmission Line

Figure 4- 2: Construction drawing and layout of Sub Station and Information Board of 220kV Khudi GIS Substation

Plate 4: 3 Construction of retaining structures in different sides of the sub-station construction site in Khudi

5 Corporate Social responsibility

As per the Sarokar Samittee request to upgrade the 5 km road of Roplephat to Bhache and Sabje to Ghopte (about 1 km) project has upgraded the road before the rainy season so that community can freely mobilize their vehicle. In addition to that project has constructed gabion wall and help certain amount for the construction of damaged road due to heavy rainfall and landslide in the project area. The project has also provided two oxygen concentrator and PPE to the community to overcome with Covid-19 pandemic. Project has good rapport with Community.

As a part of CSR Upper Khudi hydropower Project is now constructing protection work at Purbeli tole, where part of road swept away by landslide (ref Figure 5-1).

Figure 5- 1: Protection work construction is in progress

6 Government Land Leasing and purchase of the private land

As per stated in approved EIA of Super Khudi Hydropower Project, it is authorized to use 2.5 hectares of land for permanent use and 5.6 hectares of land for temporary use. The procurement of land is in process.

For this purpose the project has already been purchased 42 ropanis of land.

7 Access Road

In total 5.5 Km track opening is completed out of 10.0 KM. Phase I and II is connected successfully till date and now it is easily accessible up to Outlet portal and chainage4+200. Three blast per week is being in process to expedite the access road construction.

Side drainage has been constructed at different stretches of road and cross drainage construction at Kichhe Khola is in progress (ref figure 7-2).

Figure 7- 1: Road construction and surface grading ongoing and mucking after blast at Chainage 3+800

Figure 7- 2: Cross drainagae construction at Kitchhe Khola

8 Camp Facilities

Construction of Prefab camp has been completed. Fencing & leveling, installation of Gate and outdoor area preparation is still remaining as shown in

Figure 8- 1: Second Camp at Sabje.

The septic tank construction of both camp is also completed which can be visualized in Figure 8.2.

Figure 8- 1: Second Camp at Sabje.

9 Land Assessment for Army Camp

Construction of Bunker and Army Camp contract ageement has been completed and materials are reached to site. Asessment of land for Army Camp has been completed.

Figure 9- 1: Army Camp Assessment with Nepal Army Officials

10 HRT excavation

Outlet portal excavation and portal stabilization is in progress. Support work such as spot bolting, wire mesh rib, connecting bar, tie bar, shotcrete has also been installed. 72m outlet portal has been advanced.

Figure 10- 1: Work Progress of Outlet Portal Construction after first and second blast

Figure 10- 2: Work Progress of Outlet Portal Construction

11. Challenges Faced

Though the company is committed to complete the work in stipulated time and schedule and despite the availability of multiple resources, company struggles to tackle the project management challenges and issues related to the processes and directions of government, local community etc. This section shall point out the major challenges we have faced. We haven't had any problems so far. However the current liquidity crisis and increment of raw material price is posing major price challenge.

As you are aware that topography within the project co-ordinate is very challenging and specially thought out the alignment of access road. We are facing very challenging to excavate access road in hard rock and philite fractured rock with the numerous number of kholsi and water fall. Three blast per week is being in process to expedite the access road construction.