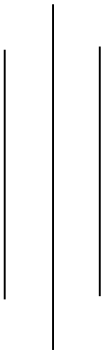
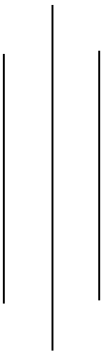
Super Khudi Hydropower Pvt. Ltd
Upper Khudi Hydropower Project (UKHPP)



Progress Report

(July-September 2022)



Kathmandu, Nepal

Submitted to:

Department of Electricity Development

Sano Gaucharan, Kathmandu, Nepal

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1 Introduction

1.1 Company Introduction

Super Khudi Hydropower Pvt. Ltd. is the Project Company for Upper Khudi Hydropower Project with capacity of 26 MW. The Company was established on 2065/066, with Company registration number 58603/065/066. The corporate office of the Company is located at Dillibazar, Charkhal, Kathmandu Nepal.

1.2 Project Introduction

The Upper Khudi Hydropower Project is located at the upstream of existing Khudi Hydropower Project (4.0 MW) and lies 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 situated 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. Detailed Design of the Project has been completed.

1.3 Project accessibility

The main access to the project area is available from Dumre Bazaar, a small town in Prithvi Highway at 133 km from Kathmandu. At Dumre Bazar, a branch road directs north to Besisahar and continues to Chame. The black topped road exists up to Besisahar which is 41 km from Dumre Bazar and the gravel road starts onwards. After 13 km from Besisahar along Besisahar-Chame road, the project road diverts left along the right bank of the Khudi river and continues to Sabje village via powerhouse and headworks areas of existing Khudi Hydropower Project (4.0 MW).

1.4 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, Forebay, 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. The Figure 1- 1 shows the General Project Layout of Upper Khudi Hydropower Project.

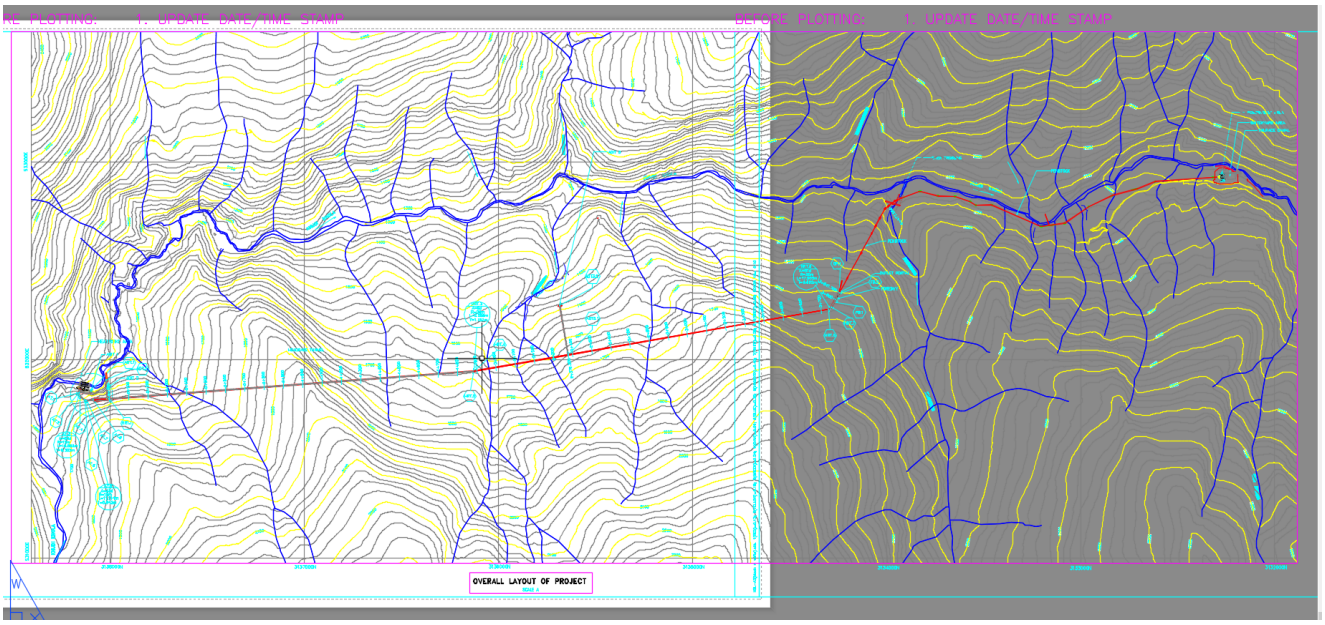

Figure 1- 2: General Project Layout of Upper Khudi Hydropower Project

1.5 Summary of the Project Progress

Project Introduction

I. Project Name: Upper Khudi Hydropower Project
II. Plant capacity: 26MW
III. Developer: Super Khudi Hydropower Pvt. Ltd.
IV. Contact Address: Charkhal, Dillibazar-30, Kathmandu, Nepal (Tel. no: 4424655)
V. Power Purchase Agreement date: 2076/01/11
VI. Financial Closure date: 2077/11/10
VII. R-COD date (PPA):25 January 2025
VIII. Land Acquisition: 100 % Complete
IX. Overall Progress up to the reporting date: 25%
X. Estimated Project Budget: NRs. 4.19 Billion
XI. Planned Commercial Operation date: 25 January 2025

Progress update in the reporting period:

Components:	**Progress Percentage:**	**Components:**	**Progress Percentage:**
Access Road	75%	Project Road	45%
Head works	0%	Water Conveying system	25%
Electromechanical works	20%	Hydromechanical works	20 %
Powerhouse Civil	10%	Transmission line	15%

Problems faced by the project:

i. First & Second phase of Covid-19 Pandemic
ii. Social Issues and Demands in the project site
iii. Heavy Landslide and Flooding in Project site and Project access
iv. Liquidity Crunch of Financial Institutions
v. Road blocked due to construction of Muglin-Pokhara and Dumre-Chame road

1.6 Completed Milestones

The table 1 shows the list of completed milestones in the reporting date

Table 1: Table of events dates (Milestone)

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

2 Institutional Arrangement

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

i. The Employer/Owner : Super Khudi Hydropower Pvt. Ltd (SKHP)
ii. The Engineer/Consultant : Hydro Solution Pvt. Ltd (HSL)
iii. 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

Progress update up to the reporting date is shown below

Table 2: Progress update of Upper Khudi Hydropower Project

3.1	**Engineering**	**Status**
3.1.1	Site Arrangement	• Construction Power with 11kV voltage level, has been made available to the Project site • Construction of Engineers' Camp has been completed near Powerhouse • Contractor's Camp has been completed
3.1.2	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.

3.1.4	*Access Road and Pre- Fab Construction*	• 5.5 Km access road has been completed out of 10.0 Km. The progress photograph of the Project access road is presented below. • 100% of first camp Construction work is completed. • 100% of Second camp construction is fully completed.
3.1.5	*Army Camp and Bunker*	• Nepal Army has visited the site and verified the Bunker Location. The Photographs of the Nepal Army visiting to the site is presented below
3.1.6	*Civil Contract*	• The Civil Contractor was mobilized to the site on15th Sep 2021. The following major activities have been carried out by the contractor till the reporting date: *i.* Construction of Outlet Portal is completed *ii.* The Excavation of 24.5 m out of 24.5 m of Forebay has been completed
3.1.7	*Electro Mechanical Contract*	• Tender Document issued to the probable bidders for the proposal
3.1.8	*Hydro Mechanical Contract*	• Different proposals from the probable bidders is being reviewed
3.1.9	*Transmission line Contract*	• Public Hearing Completed, Survey completed and land acquisition is in process.
3.1.10	*Technical Consultant*	• Angel Engineering has been hired as Technical Consultant for the project
3.1.11	*Financial Consultant*	• T.P. Adhikari is hired as the Financial consultant for the project
3.1.12	*Tree Cutting Approval*	• Tree Cutting approval is being reviewed by Annapurna Conservation Area Project (ACAP)
3.1.13	*Land acquisition of Additional land*	• Land acquisition works is completed
3.1.14	*Care Rating*	• Care rating approval is in process
3.1.15	*Transmission Line IEE*	• Terms of Reference (TOR) for the IEE has been completed in the reporting period
3.1.16	*Community Support Program (CSR)*	• Different CSR programs are carried out in the reporting period
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.	
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.

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

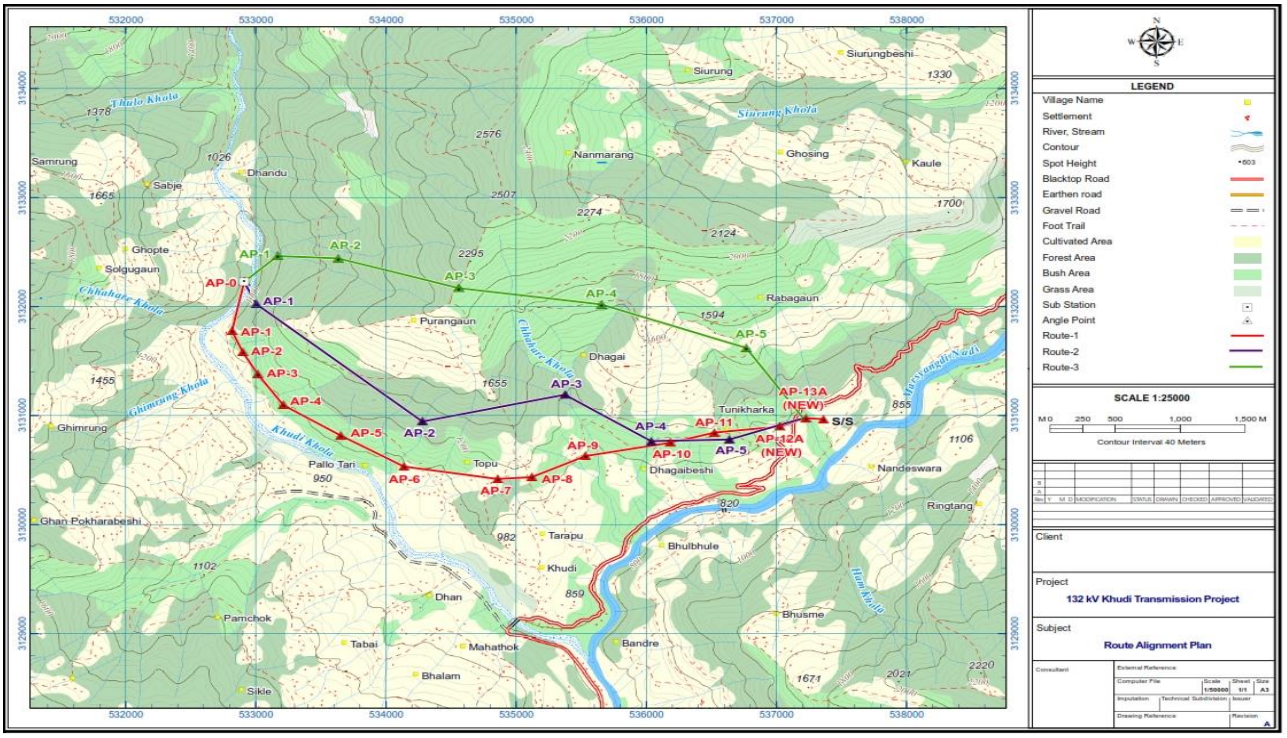

Figure 4- 1: Proposed Alignment of Transmission Line

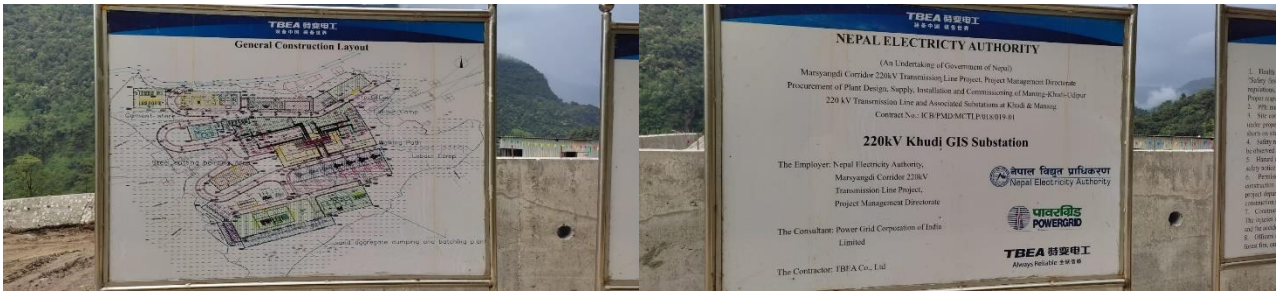

Figure 4- 2: Construction drawing and layout of Sub Station and Information Board of 220kV Khudi GIS Substation

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 protection work at Purbeli tole, where part of road swept away by landslide (ref Figure 5-1) is completed.

Figure 5- 1: Slope Protection work Construction at Purbeli tole

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 already completed.

For this purpose the project has already been purchased 34 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 chainage 3+800. 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 drainage construction at Kitchhe Khola

8 Camp Facilities

Construction of second Prefab camp is in progress. 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.

Figure 8- 2: Septic tank construction

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. 24.5 m outlet portal has been advanced.

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

Figure 10- 2: Current Work Progress of Outlet Portal & Forebay