

**UPPER IRKHUWA HYDROPOWER PROJECT
(14.50 MW)
BHOJPUR**



November 2023

SUBMITTED TO:

**Machhapuchchhre Bank Limited
MBL Tower, Lazimpat, Kathmandu**

Nabil Bank Limited

Durbar Marg, Kathmandu

SUBMITTED BY:

**AARATI POWERCOMPANYLTD.
Kathmandu, Nepal**

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1 INTRODUCTION

Upper Irkhuwa Hydropower Project is situated in Bhojpur District, in Province no 1. Project area lies between 27°22'58" N and 27°24'17" N latitude and 87°01'33"E and 87°03'51"E longitudes. The Project area is approximately 12 kilometers south east from Dingla, one of the major historical towns of Bhojpur. Upper Irkhuwa Khola, within the Project area, lies entirely within Dobhane, Khatama and Kuda kaule Village Development Committees (VDCs). Major structure of project such as Headworks, surge tank and powerhouse lie on left bank of the Irkhuwa Khola. The two headworks have been proposed for diversion of required water, one at the Irkhuwa khola which is designed for full discharge as main headworks. Other at Phedi Khola which will be operated during dry season. The powerhouse site of Upper Irkhuwa Hydropower Project is proposed at an elevation of 692 masl. Design discharge of the project at 45.0% exceedance flow is 7.80 m³/s including both Irkhuwa Khola and Phedi Khola. Gross Head of the project is 229.13 and net rated head is 214.78 installed capacity of the Upper Irkhuwa Hydropower Project is 14.50 MW.

The project site can be accessed by three different alternatives.

Route 1: Tumlingtar-Satighat-Chirkhuwa-Nepaledanda-Tamutar- Phedi -Headworks' site

Route 2: Tumlingtar-Satighat-Chirkhuwa-Gahate-Majuwabeshi – Tintama-Gothe bazaar – Phedi – Headworks' site

Route 3: Bhojpur-Dingla-Chirkhuwa-Route1/Route 2

Route 4: Khadbari-Heluwabeshi-Majuwabeshi-Route 2

Tumlingtar in sankhuwasabha district has all-weather motor able roads as well as airport with black topped pitch. For the Route 1, there is bridge under construction in Satighat for Arun River. It needs to cross Chirkhuwa to access project all-round the year. The track opening for the Route 1 is ongoing and about 4 km is being built to reach headworks site. For Route 3, there is public service up to Dingla bazaar and tractor is running from Dingla to Chirkhuwa. From Chirkhuwa it can be extended towards the project site either by Route 1 or Route 2. For Route 4, there is public taxi service up to Heluwabeshi and there is bridge proposed in Arun River.

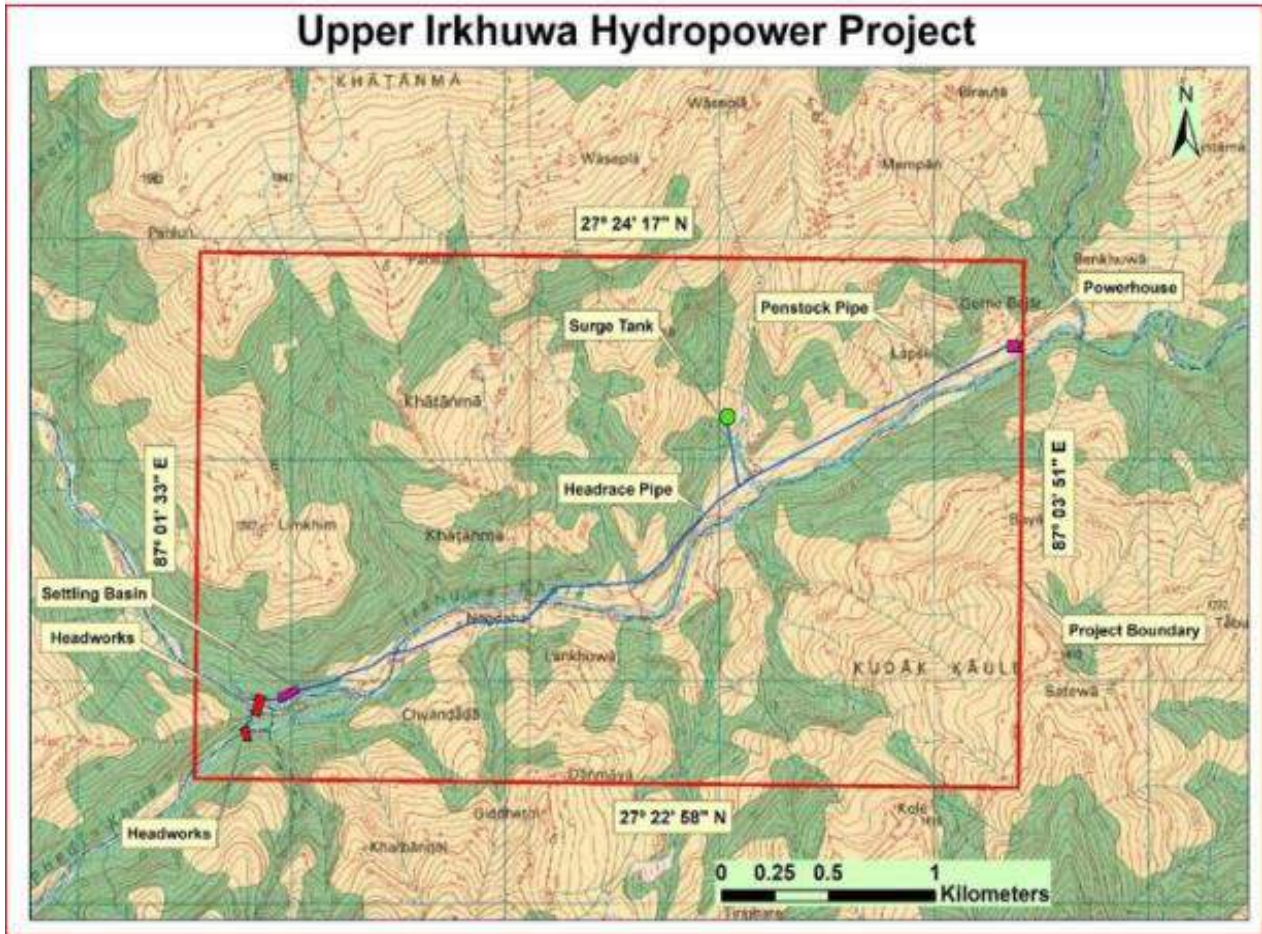


Figure 1-1: Project location map Upper Irkhuwa Hydropower Project

2 SHORT DESCRIPTION AND BACKGROUND OF THE COMPANY

Company in Name	: Aarati Power Company Limited
Establishment	: As Ltd Co. With 37 persons
Company Reg. No.	: 143918 / 072/73
Date of Registration at Company Registrar	: 2072-09-29
Date of Registration at Industry Department	: 2076/04/17
PAN No	: 603579235
Authorized Issued Capital:	
Paid-up Capital	: 27, 50, 00,000
No of Shareholder	: 125 Persons
Generation License No	: 295/ 076/77
Survey License No	: 740/ 073/74

2.1 Present Status of the Project

Description	Status	Remarks
Application for Survey License	Applied	2072/10/09
Survey License issue	Issued	2073/06/09
PPA	Completed	2075/04/1
RCOD	Approved	2081/07/30
Industry Registration	Completed	2076/04/17
Feasibility	Completed	D.K Consultancy
Connection Agreement	Completed	2074/11/11
IEE	Approved	2075/06/05
Revised IEE	In the Process of Approval	
Generation License	Issued	2077/02/23
Transmission Line survey issue	issued	2079/01/11
Detailed Design and construction drawing	Completed	Units Engineering Consultancy
Bidding Process	Completed	Terra Green Engineering Services Pvt Ltd (EM), Narayani Industries of Mechanical Solution Pvt. Ltd. (HM), between Buildtech Construction Pvt Ltd & S.B Construction (Civil) and Unique hydro & electric Pvt Ltd (Transmission line)
Financial Closure	Completed	2079/02/19

Postal address : Kathmandu Metropolitan city -5 Ghahana Pokhari Kathmandu

Postal add Telephone : 01 4437544

Type of Organization : Public

Bank for Company Transaction : NCC, Kumari Bank & MBL

BOARD OF DIRECTORS

Chairman	: Mr. Bharat Bahadur Khatri
Director	: Mr. Birendra Bahadur Neupane
Executive Director	: Mr. Prakash Chandra Dulal

2.2 Survey Licensing Related

- Aarati Power Company Ltd. registered in Government of Nepal.
- Issuance of survey license for 14.50 MW capacities.

2.3 Updated Initial Environmental Examination (IEE)

- IEE report approved by MOE submitted to DoED and Supplementary IEE is in progress.

2.4 Detailed Engineering Activities

- The Engineering Geological Study is completed.
- The detailed engineering report is completed and tender document preparation in progress.

2.5 Interconnection & Power Purchase Agreement (PPA) Related

- Confirmation of interconnection point at Sitalpati substation.
- Connection agreement signed with NEA Grid Department.
- PPA has been completed.

2.6 Financial Closure Related

- The total project cost including interest during construction as recommended by DDA consultant is estimated to be NRS.2813.47695 million with IDC.
- Approach for financial closure has been done & completed with Machhapuchhare Bank and its consortium.

3 RECRUITMENT OF CONSULTANT

Units Engineering Consultancy Pvt. Ltd. has been assigned to prepare the detailed design, construction drawing, and tender documents. Aarati Power Company Ltd. has hired technical staff for the execution of the project. Detail Construction drawing (Structural and Hydraulic Drawing) was completed and submitted by Units Engineering on 2080/07/17.

4 PROJECT IMPLEMENTATION STATUS.

4.1 Contracts Awarded:

Bidding Process for EM, HM & Civil works has been done where the contract for EM works has been awarded to Terra Green Engineering Services Pvt Ltd, the contract for HM works has been awarded to Narayani Industries of Mechanical Solution Pvt. Ltd. & the contract for Civil works has been done between Buildtech Construction Pvt Ltd & S.B Construction. Also the contract for Transmission line work has been awarded to Unique Hydro & electric Pvt Ltd.

4.2 Camping Facilities

- Contractor was mobilized for the construction of Camp in Powerhouse and construction of the Camp at the powerhouse area is completed.



Figure 4-1 Construction of Camps at Powerhouse Area



Figure 4-2 Constructed Camp near Powerhouse Area of UIHPP

- Two Storey camp house has been constructed and completed with 10 room capacity.



Figure 4-3 Newly constructed Camp house at Powerhouse Area

4.3 Cement Storage

Cement storing Store has been constructed in powerhouse area with a capacity of storing more than 10,000 bags of cement where cement will be stored and shifted to site by tractor as per requirement.



Figure 4-4: Cement store

4.4 Crusher Plant

The Crushing plant of the Upper Irkhuwa Hydropower Project was delivered to the site and the installation of the crusher plant has been completed and production of aggregate has already been started.



Figure 4-5 Crusher plant Area



Figure 4-6 Aggregate produced by crusher plant

4.5 Machineries Acquired:

Machineries such as 2 JCB brand excavators & 1 JCB brand backhoe loader has been acquired and is being working for excavation and site clearing purpose. Also 2 nos of tractor for material shifting, 1 no DG 125 of kva for crusher and 1 no compressor & 2 nos jack hammer for drilling of boulders for chemical blasting.



Figure 4-6: Newly purchased backhoe loader at site.



Figure 4-7: DG of 128 Kva used for crusher plant



Figure 4-8: Tractor for material shifting



Figure 4-9: Compressor used for drilling process

4.6 Construction Power

Pole installation for the 11 KV line from Chaukidada to Gotha bazar has been completed and the Stringing of the line for the Construction power is completed.



Figure

4-10: Installation of Pole of UIHPP

4.7 Excavation and Site Clearance Works

The Site clearance and excavation works has been carried out at the headworks area(i.e., at intake and settling basin area) and the Powerhouse area.



Figure 4-7: Excavation work at powerhouse area



Figure 4-8 Site clearance works at Intake and Settling Basin Area-1



Figure 4-9 Site clearance works at Intake and Settling Basin Area

4.8 Approach Canal:

The work for Approach Canal which connects Phedi headworks to Irkhuwa headworks has been started where excavation and pcc work of canal is under progress.



Figure 4-10: PCC work for excavated approach canal.

4.9 Transmission line:

The reconnaissance survey for transmission line was completed where tentative route of transmission line was finalised. The detailed survey for transmission line is under progress.

4.10 Procurement and Installation

- Camp materials, furniture, equipment procured.
- Laptops, desktops, A4 printers, and other office equipment procured.
- Total station procured (one unit).

4.11 Access Road:

- 16 Km Road clearance, cutting, backfilling and grade maintenance from Kartike Bridge -Nepal dada-Kulungto Chaukidada to Gothea bazar has been completed.
- Also, the 4km access road from Gothea bazar to Headworks site at Dovana has also be completed



Figure 4-11: Access Road towards Gothe bazar to Headworks Area-1



Figure 4-12: Access Road towards Gothe bazar to Headworks Area-2



Figure 4-13: Access Road towards Gothe bazar to Headworks Area-3

4.12 Land Acquisition:

Most of the land within the project alignment has already been identified. Rate of the land has been finalized by the Rural Municipality based on the categories of the land. The land acquisition is under process. About 72 ropanies land is required for the different component out of which 58 ropanies is completely acquitted and 14 ropanies of the land is to be acquitted till date where the remaining land is in the final process of acquiring. The acquisition process for the remaining land will be completed within the end of the Chaitra 2080.

Table 4-1 Required land for the UIHPP

S.N	Description	Area (Ropanies)
1.0	Land Acquitted till Date	58.00
2.0	Remaining Land to be Acquitted	14.00
Total land Required (Ropani)		72.00

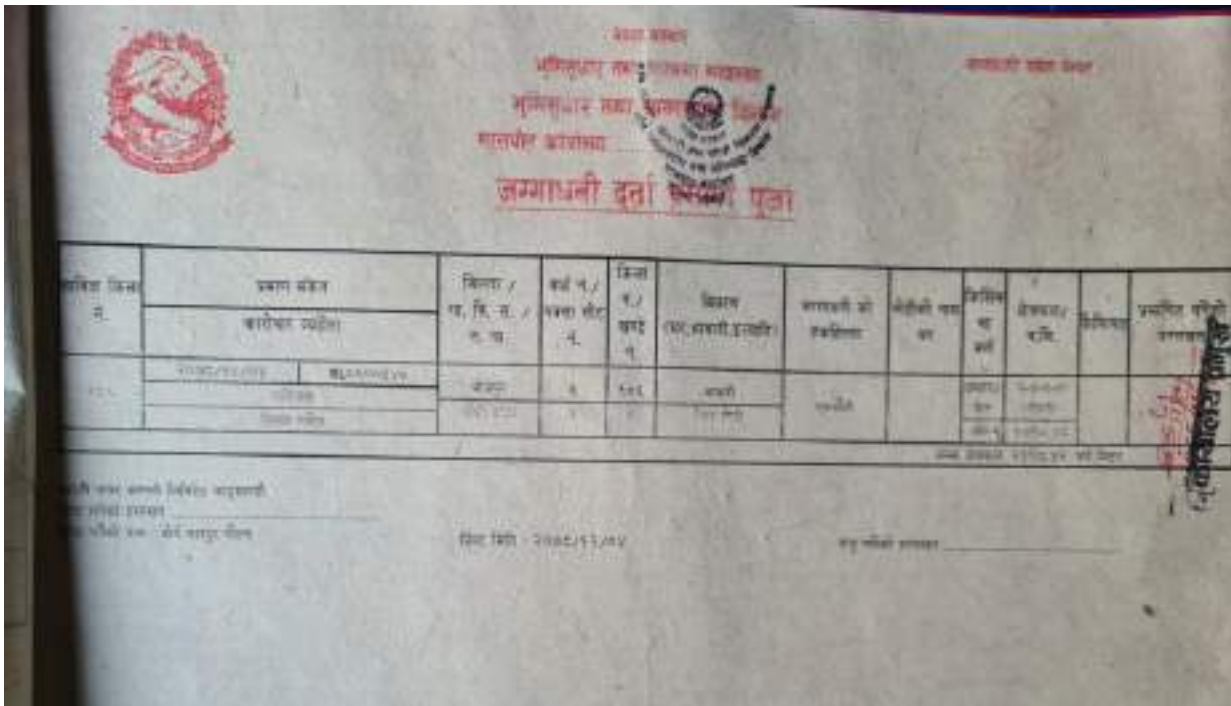


Figure 4-14 Purchased Land Document-1

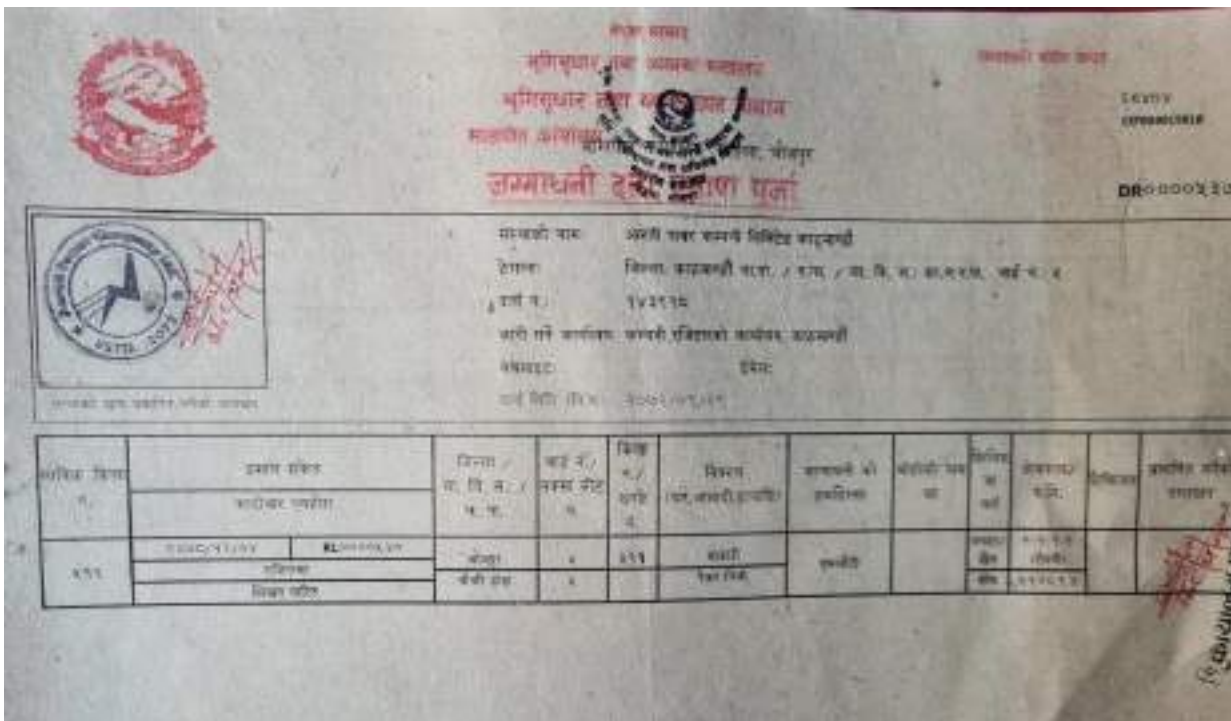


Figure 4-15 Purchase Land Document-2

4.13 Pipeline excavation

Setting out the survey for the pipe alignment is completed and site clearance works for the pipe alignment has also been completed. Remaining land acquisition work is also completed.

4.14 Hydro-mechanical works:

The detail drawing and calculation of penstock pipes requirement has been completed and also the LC was prepared for ordering of the penstock pipes. Ordering of penstock pipes has already been placed which is currently prepared & ready to be shipped from China to Kolkata Port where the penstock pipes will be then shifted to Project by road.

4.15 Electromechanical works:

The general arrangement drawing of EM components has been completed. The design of EM components is under process.

4.16 Detail Project Report

Detailed Project Report of Upper Irkhuwa Hydropower Project has been completed.

4.17 Miscellaneous

Construction Material

- Aggregates have already been provided to the site as required from the Irkhuwa Khola crusher plant. The quality of aggregate crusher is acceptable. Sand is required for construction work. Sand from Arun Khola is of good quality.
- Uptill date 2340 bags of cement has already been shifted to cement store
- Uptill date 58 ton of tmt bar of size 12mm, 16mm, 20mm & 25mm has been shifted to site



Figure 4-16 Collection of Construction Material at the Powerhouse Area



Figure 4-17 Collection of Quarry Material Near Powerhouse Area



4-18: Aggregate produced by crusher at site

Figure

4.18 Survey:

Detail survey of land for different components of the project has been conducted. Pegging has been done throughout the headrace pipe, penstock pipe, and surge tank alignment. Setting out the survey was conducted at the headwork site and powerhouse area to locate the different structures in that area.

4.19 Social Participation and Awareness

Social participation on project plan and procedure were carried out at project area in presence of company representatives. As well as the public discussions for the Supplementary IEE.



Figure 4-19: Informing Local People about Project Plan and Procedure



Figure 4-20: Meeting with Local People by company representatives

4.20 Human resources: Aarati Power Company. Ltd.

S.N.	Designation	Number	Station
1.	Resident Engineer	1	HO/Site
2.	Site Engineer	1	Site
3.	Surveyor	3	Site
4.	Administration department	3	HO
5.	Finance Department	2	HO
6.	Cook	1	HO
7.	Admin Account	2	Site

4.21 Salient Features of the Project**Project Location**

Development Region	:	Eastern Development Region
Zone/Province no.	:	Koshi / Province-1
District	:	Bojpur
Rural Municipality	:	Dobhane, Khatama & Kudakaule VDCs of Bhojpur District
Intake Site	:	Dobhane VDC
Powerhouse Site	:	Kuda Kaule VDC
<i>Geographical Co-ordinates</i>		
Latitude	:	27° 22' 58" N to 27° 24' 17" N
Longitude	:	87° 01' 33" E to 87° 03' 51" E
2 General		
Name of River	:	Irkhuwa Khola and Phedi Khola
Nearest Town	:	Dobhane, Kundakaule and Khatama
Type of Scheme	:	ROR-Hydropower
Gross Head	:	229.13 m
Net rated Head	:	214.78 m

Installed Capacity	:	14500 kW
Dry Energy	:	31.79 GWh
Wet Energy	:	61.42 GWh
Total Energy	:	93.20 GWh
Average Available flow	:	14.55 m ³ /s
3 Hydrology		
<u>Catchment Area</u>		
Irkhuwa Khola Headworks	:	74.17 km ²
Phedi Khola Headworks	:	63.18 km ²

Combined Catchment Area at the Headworks	:	137.35 km ²
<u>Mean Annual Discharge</u>		
Irkhuwa Khola	:	7.74 m ³ /sec
Phedi Khola	:	6.81 m ³ /sec
Combined Mean Annual Discharge	:	14.55 m ³ /sec
Design Discharge (at 45.0% PoE)	:	7.8 m ³ /s
Riparian Release	:	0.31 m ³ /sec
<u>100 Yrs. Flood Discharge</u>		
Irkhuwa Headworks	:	191.63 m ³ /sec
Phedi Headworks	:	181.56 m ³ /sec
Average Annual Precipitation	:	1976 mm
4 Diversion Weir		
<u>Irkhuwa Khola</u>		
Type of Weir	:	Boulder weir
Length of Weir	:	25.00 m
Crest Elevation	:	920.90 masl
Weir height	:	3.45 m
Width of weir crest	:	2.00 m
<u>Phedi Khola</u>		
Type of Weir	:	Boulder weir
Length of Weir	:	24.00 m
Crest Elevation	:	924.70 masl
Weir height	:	3.33 m
Width of weir crest	:	1.50 m
Water Conveyance upto Irkhuwa khola	:	Approach canal of size 2.5m width and 1.80m high,84.50m length
5 Undersluice		

Number	:	1
Size of undersluice	:	2.5 x 2.5 m
Slope	:	1 in 20
6 Intake Structure cum Gravel Trap		
<u>Irkhuwa Khola</u>		
Type of Intake	:	Orifice, Side Intake
Nos of Opening	:	3
Size of Intake (W x H)	:	2.50 m * 1.50 m each
Intake Sill Level	:	918.70 masl
Size of Gravel Trap	:	7.50 m x 9.30 m x 2.05-5.20m (L x B x H)
Particle size to be trapped	:	5 mm
Flushing Duct (W x H)	:	1.0 m x 1.15 m
<u>Phedi Khola</u>		
Type of Intake	:	Orifice, Side Intake
Nos of Opening	:	2
Size of Intake (W x H)	:	2.6 m * 0.90 m each
Intake Sill Level	:	923.60 masl
7 Settling Basin		
Type	:	Conventional with intermittent flushing
Nos of bay	:	2
Dimension (L x B x H)	:	55.50 m * 6.5 m * (3.14 to 7.74) m
Inlet Transition Length	:	10.00 m
Particle Size to be settled	:	0.20 mm
Trapping Efficiency	:	90%
8 Headrace Pipe		
Type	:	Mild steel circular pipe
Length	:	3287.20 m

Steel headrace pipe diameter	:	Varies from 2000 mm-1750mm diameter, 8mm-18mm Thick
Nos. of Anchor Blocks	:	30 nos of AB
9 Surge Tank		
Type	:	Sub- Surface, Concrete, with surge pipe
Total Depth	:	16.5 m
Diameter (Inside)	:	8.00 m
Upsurge Level	:	924.9 masl
Static Water Level	:	920.90 masl
Down surge Level	:	904.97 masl
10 Steel Penstock Pipe		
Type	:	Mild Steel circular Pipe
Internal Diameter	:	1.75 m
Length	:	557 m (upto bifurcation)
Steel Thickness	:	Varies (18 mm to 20 mm)
Nos. of Anchor Blocks	:	8 nos of AB (including 1 no bifurcation)
11 Powerhouse		
Type	:	Surface with 2 units of turbine
Size of powerhouse	:	26.00 m * 15.40 * 17.15m (L x B x H)
Tail Water Level	:	691.77 masl
12 Tailrace		
Type	:	Concrete, Box canal
Tailrace Length	:	87.10 m

Size (W x D)	:	2.5 m * 2.5 m
Tailrace Water Level	:	691.77 masl
13 Turbine		
Type	:	Horizontal Francis
Number	:	2 set
Rated Output Capacity per unit	:	7874 kW
Net Head	:	214.78 m
Discharge per Unit	:	3.90 m ³ /sec
Efficiency	:	91.8 %
14 Governor		
Type	:	Will be confirmed after confirmation of design.
Adjustment for Speed Drop	:	
15 Generator		
Type	:	Calculation of Generator in under process due to change in no of turbines and its design
Rated Output Capacity per Unit	:	
Power Factor	:	
Voltage	:	
Frequency	:	
No of Units	:	
Excitation System	:	
Efficiency	:	
16 Transformer		
At Powerhouse Switchyard		
Type	:	Approval of SLD of switchyard is under process due to change in design of turbine
Rated Capacity	:	
Voltage Ratio	:	
No of Units	:	

Vector Group	:	Approval of SLD of switchyard is under process due to change in design of turbine
Efficiency	:	
17 Transmission Line		
Voltage Level	:	33 KV double circuit
Length	:	11.0 Km Approx.
Conductor Type	:	ACSR Dog
From	:	Upper Irkhuwa Switchyard
To	:	Sitalpati substation
18 Project Cost Estimate		
Total Cost of the Project	:	NRs. 2639.339Million (With IDC)
19 Construction Period	:	2.0 years
20 Project Evaluation		
Internal Rate of Return (IRR)	:	18.19
BC Ratio	:	1.76
Return on Equity (ROE)	:	29.42%
Interest rate	:	10 %
Net Present Value (Nrs '000)	:	1,722,647

Note: Due to the outbreak of COVID-19 and the imposition of a national-wide lockdown, the progress of the work was delayed.

PHOTOGRAPHS



Photograph 1: Field verification with DOED Team and Consultant



Photograph 2: Meeting with Chairmen of Salpashilicho Rural metropolitan for project Development



Photograph 3: Director Received Appreciation Letter from Chairman of Salpashilicho Rural Metropolitan



Photograph 4: Director Supervision pipeline alignment area



Photograph 5 : Layout Works of Pipe Alignment



Photograph 6: Site visit with consultant Team



Photograph 7: Site visit with consultant Team



Photograph 8: Installation of Crusher plant



Photograph 9: Road towards Powerhouse Area and Camp house



Photograph 10: Pipes stock for multi-purpose use.



Photograph 11: Bar bending work under process



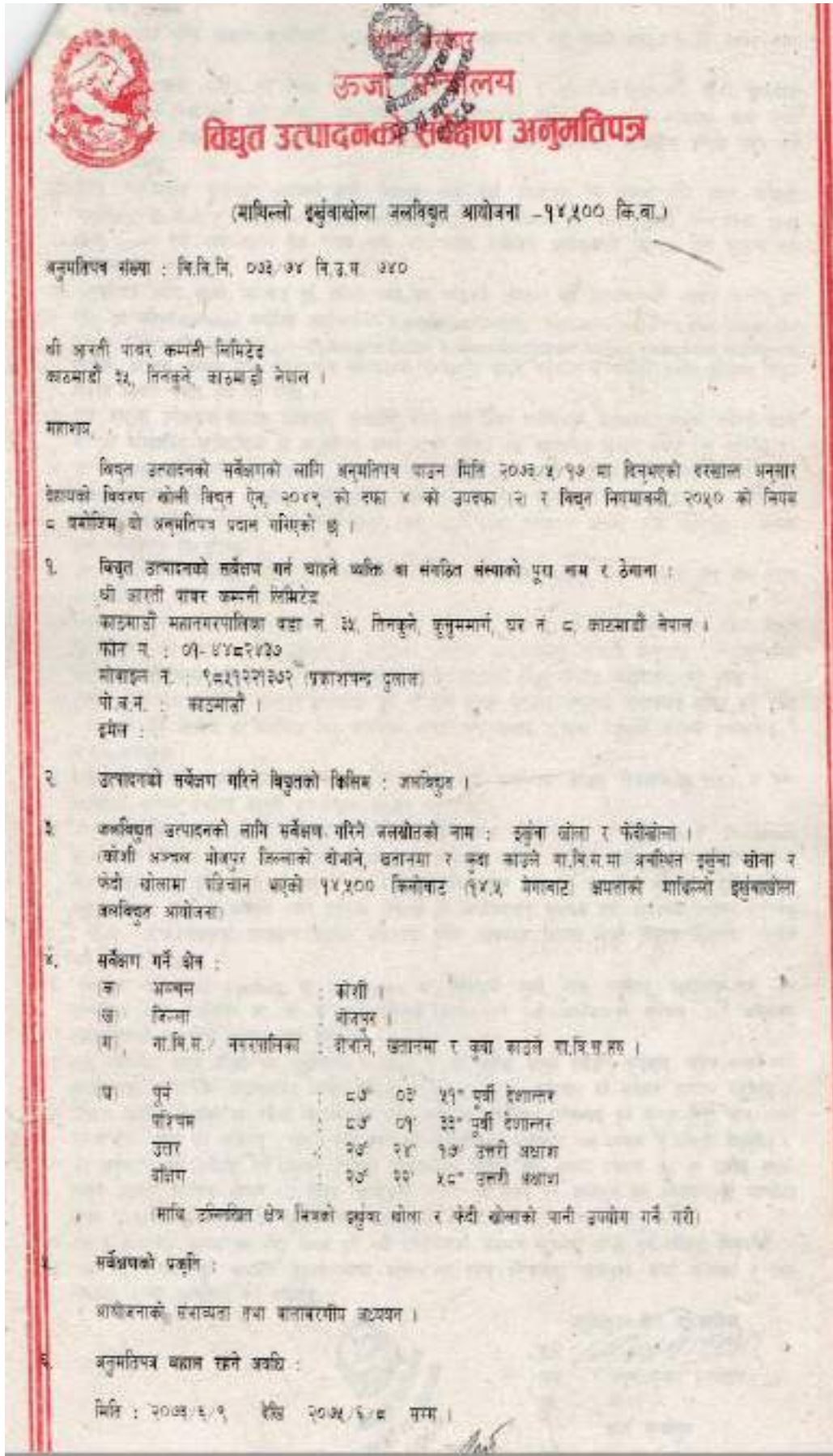
Photograph 12: Excavation work in Powerhouse area under process




Photograph 13: Excavation work in Powerhouse area under process



Photograph 14: Survey of Required Land for the Project by Nepal Survey Office, Dingla-3



Photograph 15 Project License from DoED



नेपाल सरकार
ऊर्जा मन्त्रालय
विद्युत विकास विभाग
(.....
अनुमतिपत्र महाशाखा

फोन नं. : ४४७४८५२, ४४८०२७६
४४७८०८५, ४४८०३९६
४४८०४२५, ४४९६८००
४४८९६९४, ४४७९९९०

फ्याक्स (९७७-९)-४४८०२५७
पोष्ट बक्स नं. २५०७
धापागाउँ, अनामनगर
काठमाडौं, नेपाल

मिति: २०७३/७/७


पत्र संख्या : २०७३/०७४ (अनुमतिपत्र)
चलानी नं. : २६४

विषय:- माथिल्लो इर्खुवाखोला जलविद्युत आयोजनाको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र बारे ।

श्री आरती पावर कम्पनी लिमिटेड
काठमाडौं महानगरपालिका वडा नं. ३५, तिनकुने, कुसुममार्ग, घर नं. ८, काठमाडौं नेपाल ।
फोन नं. : ०१-४४८२४३७
मोबाइल नं. : ९८५९२२९३७२ (प्रकाशचन्द्र दुलाल)
पो.ब.नं. : काठमाडौं ।


प्रस्तुत विषयमा तहाले माथिल्लो इर्खुवाखोला जलविद्युत आयोजनाको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र पाउन २०७३/५/१७ मा दिएको दरखास्त अनुसार विद्युत ऐन, २०४९ को दफा ४ को उपदफा २ र विद्युत नियमावली, २०५० को नियम ८ बमोजिम नेपाल सरकार, ऊर्जा मन्त्रालय (सचिबस्तर) को मिति २०७३/६/९ को निर्णयानुसार मिति २०७३/६/८ सम्म (दुई वर्ष) बहाल रहने गरी जारी भएको १४,५०० किलोवाट (१४.५ मे.वा.) क्षमताको विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र संख्या वि.वि.वि. ०७३/७४ वि.उ.स. ७४० यसै साथ सलग्न गरी पठाइएको व्यहोरा अनुरोध छ ।

सलग्न : विद्युत उत्पादनको सर्वेक्षण अनुमतिपत्र संख्या : वि.वि.वि. ०७३/७४ वि.उ.स. ७४० ।



 (दुर्गानारायण भुसाल)
 इन्जिनियर

बोधार्थ:
 श्री ऊर्जा मन्त्रालय, सिंहदरबार ।
 श्री विद्युत विकास विभाग,
 > आयोजना अध्ययन महाशाखा ।
 > निरीक्षण तथा अनुगमन महाशाखा ।
 > योजना महाशाखा ।
 > आर्थिक प्रशासन शाखा : प्रबर्द्धकवाट अनुमतिपत्र दलुर बापत मिति २०७२/१०/७ मा आ.र.नं. ४६६८ ध.भौ.नं. ०७५३९८ बाट जम्मा गरेको धरौटी रकम रु.४०,००,०००/०० तथा मिति २०७२/११/९ मा आ.र.नं. ४६९५ ध.भौ.नं. ०७००४५ बाट जम्मा गरेको धरौटी रकम रु.२०,००,०००/०० राजस्व खातामा जम्मा हुन ।
 श्री जिल्ला जलस्रोत समिति, भोजपुर ।

Photograph 16 : Survey License



नेपाल सरकार
ऊर्जा, जलस्रोत तथा सिंचाई मन्त्रालय
विद्युत विकास विभाग
(..... अनुमतिपत्र महाशाखा)



पत्र संख्या :- ०७६/७७
चलानी: १३२५


फोन नं. | ४४३४११९, ४४११५३७
१४४५५२९, ४४३९३६७
फ्याक्स ४४३५९०३
पोष्ट बक्स नं. २४०७
सानोगौचरण
काठमाडौं, नेपाल
२०७७/०२/३२
मिति:

विषय:- माथिल्लो इर्खुवा खोला जलविद्युत आयोजना (१४.५०० कि.वा.) को विद्युत उत्पादनको अनुमतिपत्र बारे ।

श्री आरती पावर कम्पनी लि.
का.म.न.पा बाई नं ३२, तिनकुने, काठमाण्डौ
फोन : ०१-५१९९३२९
Email: prkshdulal@gmail.com

प्रस्तुत विषयमा त्यस कम्पनीले माथिल्लो इर्खुवा खोला जलविद्युत आयोजना (१४.५०० कि.वा.)को विद्युत उत्पादनको अनुमतिपत्र पाउन मिति २०७६/१२/०७ मा दिएको दरखास्त अनुसार विद्युत ऐन, २०४९ को दफा ४ को उपदफा २ र विद्युत नियमावली, २०५० को नियम १७ बमोजिम नेपाल सरकार, ऊर्जा, जलस्रोत तथा सिंचाई मन्त्रालय, विद्युत विकास विभाग (महानिर्देशकस्तर) को मिति २०७७/०२/२३ को निर्णयानुसार मिति २११२/०२/२२ सम्म बहाल रहने गरी जारी भएको १४.५०० किलोवाट क्षमताको विद्युत उत्पादनको अनुमतिपत्र संख्या वि.वि.वि. ०७६/७७ वि.उ. २९५ यसै साथ संलग्न गरी पठाइएको व्यहोरा अनुरोध छ ।


संलग्न: विद्युत उत्पादनको अनुमतिपत्र संख्या वि.वि.वि. ०७६/७७ वि.उ. २९५ ।


.....
(सकृय न्यौपाने)
इन्जिनियर


बोधार्थः
श्री ऊर्जा, जलस्रोत तथा सिंचाई मन्त्रालय, सिंहदरवार ।
श्री विद्युत विकास विभाग ।
➢ आयोजना अध्ययन महाशाखा ।
➢ निरीक्षण, अनुगमन तथा सुविधा सिफारिस महाशाखा ।
➢ योजना, वातावरण तथा आयोजना विकास सम्झौता महाशाखा ।
➢ आर्थिक प्रशासन शाखा : मिति २०७५/०६/०७ मा आ.र.नं. ६२०८, ने.रा.वै. प्र.भौ.नं. १०५२०२ र १०५२०१ बाट अनुमतिपत्र दस्तुर बापत रु १०,००,०००।०० अक्षेरूपी रु दश लाख मात्र राजश्व खातामा जम्मा हुन ।

श्री षडानन्द नगरकार्यपालिकाको कार्यालय, षडानन्द नगरपालिका, भोजपुर ।

Photograph 17: Generation License



नेपाल सरकार
उद्योग, वाणिज्य तथा आपूर्ति मन्त्रालय
उद्योग विभाग
उद्योग दर्ता प्रमाण-पत्र




CERTIFICATE OF INDUSTRY REGISTRATION

उद्योग दर्ता नं.:-५७४६ मिति:- २०७६।०४।१७
 Industry Registration No: 5746 Date: 2019-08-02

औद्योगिक व्यवसाय ऐन, २०७३ को दफा ५ बमोजिम निम्न अनुसारको विवरण भएको उद्योग दर्ता गरी यो प्रमाण-पत्र प्रदान गरिएको छ।

१. उद्योगको नाम:-	आरती पावर कम्पनी लिमिटेड	
Industry Name:	AARATI POWER COMPANY LIMITED	
२. उद्योगको ठेगाना:-	भोजपुर जिल्ला षडानन्द नगरपालिका र साल्पासिलिछो गाउँपालिका	
३. उद्योगको उद्देश्य:-	जलविद्युत उत्पादन गर्ने (माथिल्लो इर्खुवा खोला जलविद्युत आयोजना)	
Objective of Industry:	GENERATION OF HYDROELECTRICITY	
४. उद्योगको कूल पुँजी रु:-	२,६०,२२,७१,०००।-	(NRs. 2,602,271,000.00)
(क) स्थिर पुँजी रु:-	२,५४,४५,००,०००।-	(NRs. 2,544,500,000.00)
(ख) चालु पुँजी रु:-	५,७७,७१,०००।-	(NRs. 57,771,000.00)
५. उद्योगको स्तर:-	ठूला (LARGE)	७. सिफ्ट संख्या:- ३
६. विद्युत शक्ति:-	200 KVA	९. संचालन दिन (प्रति वर्ष):- ३६५
८. उद्योगको वर्ग:-	ऊर्जामूलक	११. रोजगारी: २४ जना
१०. उद्योगपति/ संचालकको नाम:-	डिल्लीराम अर्याल समेत	
१२. उद्योगको क्षमता:-	जलविद्युत - १४.५ मे.वा.	


 शास्त्रा अधिकारी
 Official Signature

नोट: उद्योगले पालना गर्नुपर्ने शर्तहरू यस प्रमाणपत्रको पछाडि उल्लेख गरिएको छ।

Photograph 18: Industry Registration

Signatories

In witness whereof, each signatory having been appropriately authorized to enter into this Memorandum of Understanding on behalf of the Party for whom they sign, the Parties have caused this Memorandum of Understanding to be executed by their respective duly authorized representatives.

Signed on behalf of

Arati Power Co. Ltd.

Name: Mr. Prakash Chandra Dulal

Designation: Managing Director

Signature: 

Company Seal:

Signed on behalf of

Nepal Electricity Authority:

Name: Mr. Prakash Singh Pradhan

Designation: Officiating Director

Signature: 

Company Seal:

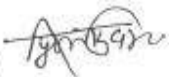


Witness on behalf of

Arati Power Co. Ltd.

Name: *Jyoti Karki*

Designation: *Accountant*

Signature: 

Company Seal:

Witness on behalf of

Nepal Electricity Authority:

Name: Mr. Ananta Upreti

Designation: Asst. Manager, GOD

Signature :



Photograph 19: MoU of Connection Agreement



नेपाल सरकार
ऊर्जा, जलस्रोत तथा सिंचाई मन्त्रालय
विद्युत विकास विभाग
(वातावरण प्रशाखा)

फोन नं.

४४७४६२, ४४७०२७
४४७६०४, ४४७०३६
४४७०२२, ४४९६००
४४७९९४, ४४७९९०

फ्याक्स (९७७-१-४४८०२५७)
पोष्ट बक्स नं. २५०७
सानोगौचरन, काठमाडौं, नेपाल

पत्र संख्या :- ०७८/७९

च. नं. :- १९१५

मिति: २०७८/११/२९

विषय:- पूर्व स्वीकृत प्रारम्भिक वातावरणीय परिक्षण (IEE) प्रतिवेदनलाई परिमार्जन गर्न सहमति दिइएको सम्बन्धमा ।

श्री आरति पावर कम्पनि लि.

तिनकुने, काठमाडौं- ३५

फोन: ०१ ४४८२४३७, ९८५९२२९३७२

उपरोक्त सम्बन्धमा तहाँबाट माथिल्लो इर्खुवा खोला ज.वि.आ. (१४.५ मे.वा.) को पूर्व स्वीकृत प्रारम्भिक वातावरणीय परिक्षण (IEE) प्रतिवेदनलाई परिमार्जन गर्नको लागि सहमति माग गरि पेश गरिएको निवेदन उपर कारवाही हुदा तल उल्लेखित ४ वटा सर्त सहित पूर्व स्वीकृत IEE लाई परिमार्जन गर्नको लागि श्री ऊर्जा, जलस्रोत तथा सिंचाई मन्त्रालय (सचिवस्तर) को मिति २०७८/११/१८ गतेको निर्णयानुसार सहमति दिइएको व्यहोरा अनुरोध छ।

सर्तहरू:

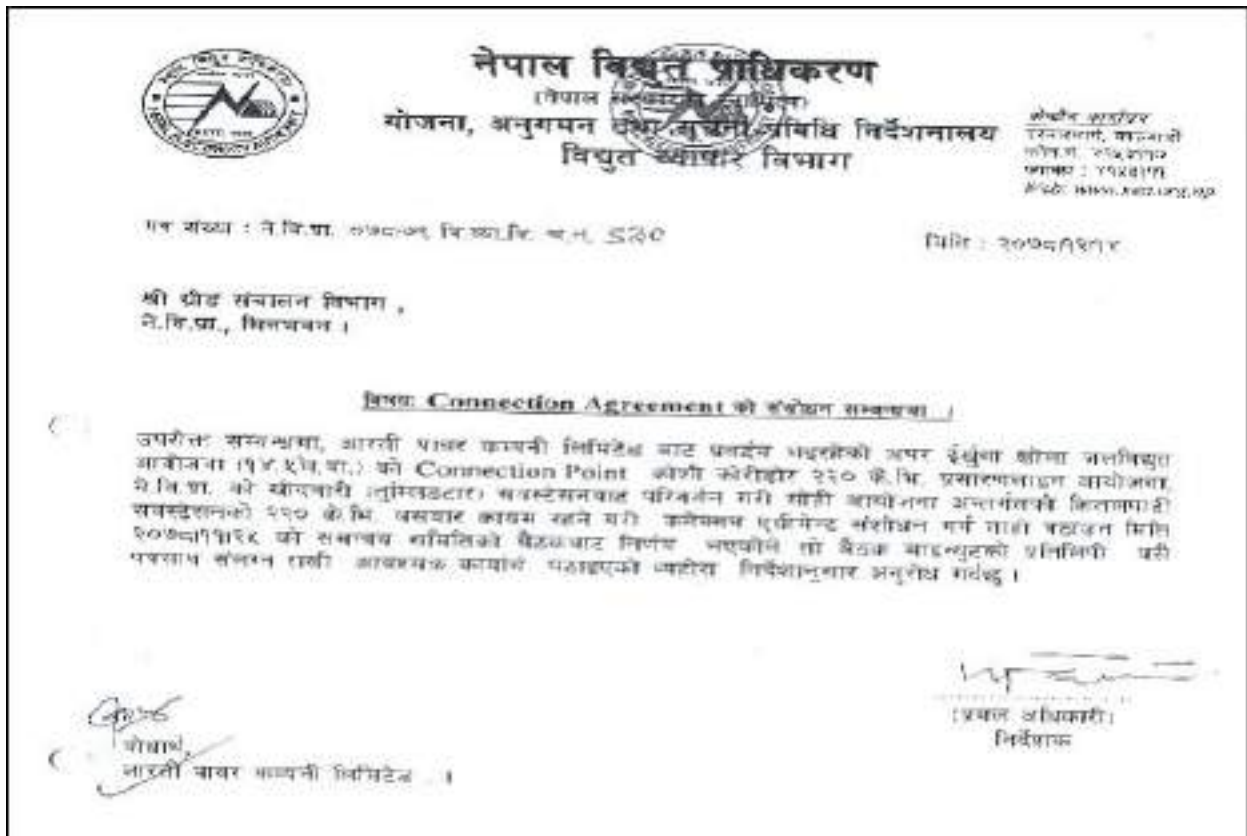
- परिमार्जित प्रारम्भिक वातावरणीय परिक्षणको अध्ययन गर्दा कार्यसूची स्वीकृत गराउने वाहेक सार्वजनिक सूचना, सार्वजनिक सुनुवाई र परिवर्तन हुने स्थानीय तहको सिफारिस लगायत वातावरण संरक्षण नियमावली २०७७ अनुसार प्रारम्भिक वातावरणीय परिक्षणको सबै प्रक्रिया पुरा गर्नु पर्नेछ।
- परिमार्जित प्रारम्भिक वातावरणीय परिक्षण अध्ययन गर्दा उक्त स्थानको विद्यमान वातावरणीय वस्तुस्थितिमा प्रारम्भिक वातावरणीय परिक्षण स्वीकृति पछि आएको परिवर्तनहरूलाई समेत अध्ययन गरि प्रतिवेदनमा समावेश गर्नुपर्नेछ।
- परिमार्जित प्रारम्भिक वातावरणीय परिक्षण पेश गर्दा स्वीकृत प्रारम्भिक वातावरणीय परिक्षणलाई परिमार्जित गरि एकीकृत परिमार्जित प्रारम्भिक वातावरणीय परिक्षण पेश गर्नु पर्नेछ।
- आयोजनाले असर पर्ने सार्वजनिक संरचना र प्रभावित घरधुरी (खरिद भै सकेको तथा थप आवश्यक संरचना र जग्गा सहित) को विवरणहरू जानकारी दिने गरि सार्वजनिक सुनुवाईको आह्वान गर्नुपर्ने।

.....
(हिमन्त राज घिमिरे)
वातावरणविद

Photograph 20: Approval for Supplementary IEE



Photograph 21: Approval Letter for the Study to Alternative Layout of UIHPP



Photograph 22: Amendment Letter for Connection Agreement.

नेपाल सरकार
ऊर्जा, जलस्रोत तथा सिंचाइ मन्त्रालय
विद्युत विकास विभाग
विद्युत प्रसारणको सर्वेक्षण अनुमतिपत्र
(माथिल्लो इर्खुवा खोला ब.वि.आ.को १३२ के.भी. विद्युत प्रसारण लाइन आयोजना)

अनुमतिपत्र संख्या : वि.वि.वि. ०७८/७९, वि.प्र.स. ४४३

श्री आरती पावर लि.
का.म.न.पा. - ५, काठमाडौं।

महाशय,
विद्युत प्रसारणको सर्वेक्षण अनुमतिपत्र पाउन मिति २०७८/१२/२० मा दिनु भएको दरखास्त अनुसार देहाएको विवरण खोली विद्युत एन, २०४९ को रफा ४ को उपरफा (२) र विद्युत नियमावली, २०४० को नियम न नमोजिम यो अनुमतिपत्र प्रदान गरिएको छ।

- विद्युत प्रसारणको सर्वेक्षण गर्न चाहने व्यक्ति वा संगठित संस्थाको पुरा नाम र ठेगाना :
श्री आरती पावर लि.
का.म.न.पा. - ५, काठमाडौं
फोन नं. ०१-४४९९३२९
इमेल : prkshdulal@gmail.com
- प्रसारण गरिने विद्युत उपलब्ध गराउने परियोजना र स्थानको विवरण :
माथिल्लो इर्खुवा खोला जलविद्युत आयोजना (१४.५ मेगावाट)
- विद्युत प्रसारण कहाँबाट कहाँ गर्ने हो सो को विवरण :
प्रदेश नं. १ भोजपुर जिल्ला साल्पासिलिचो गाउँपालिका स्थित माथिल्लो इर्खुवा खोला जलविद्युत आयोजनाको स्वीचर्याङ देवी संखुवासभा जिल्ला स्थित ने वि.आ.को सिलतपाटी सबस्टेशन सम्म करिब १०.५ कि.मि. प्रसारण लाइन।
- सर्वेक्षण गर्ने क्षेत्र :
(क) प्रदेश : प्रदेश १
(ख) जिल्ला : भोजपुर र संखुवासभा
(ग) गाउँपालिका/नगरपालिका : साल्पासिलिचो गाउँपालिका/भोजपुर) र साँदवारी नगरपालिका (संखुवासभा)।
- विद्युत प्रसारणको भोल्टेज र परिमाणहरू :
भोल्टेज : १३२ के.भी. (सिङ्गल सर्किट)
परिमाण : १४.५ मेगावाट
- सर्वेक्षण प्रकृति : सम्भाव्यता तथा वातावरणीय अध्ययन।
- अनुमतिपत्र बहाल रहने अवधि :
मिति : २०७९/०१/११ देखि २०८१/०१/१० सम्म।

अनुमतिपत्र संख्या : वि.वि.वि. ०७८/७९, वि.प्र.स. ४४३

पाना १/३

Photograph 23 Transmission Line License

