Quarterly Progress Report

of

Amadablam Mini Hydro Subproject (911 kW),

Khumbu Pasanglhamu Rural Municipality, Ward No. 4.

Solukhumbu, Nepal

Submitted To:-

Alternative Energy Promotion Centre (AEPC)

Mini Grid Energy Access Project (MGEAP)

Central Renewable Energy Fund (CREF)

Siddhartha Bank Limited (SBL)

Submitted By:

Aamadablam Mini Hydro Limited

Chandol-4, Kathmandu, Nepal

Email: amadablamhydro@gmail.com

July 2025

Quarterly Progress Report of April - June 2025

1. Executive Summary

1.1 Brief Overview of the Project

Amadablam Mini Hydro Pvt. Ltd, Tilganga - 8, Kathmandu, an Energy Sector Company (ESCO) intends to implement Amadablam Mini Hydro Subproject in Khumbu PasangLhamu Rural Municipality-4, Solukhumbu district in Koshi Province, as a business /PPP model through technical and discussion in financial support of Government of Nepal and the World Bank through AEPC/MGEAP. The sub-project is in Sagarmatha National Park which lies on the trekking trail of Everest Base Camp which is one of the most popular tourist areas of Nepal. ESCO intended to provide electricity to households and other energy users such as Anchors/Business and Community. ESCO will be responsible for development, operation, maintenance, and management of the mini hydro plant. They will be functioning as a service provider and owner of the subproject.

Amadablam Mini Hydro Pvt. was changed to a public limited in 10th October 2023. This was done to facilitate the process of PPP model with Khumbu Pasanglhamu Rural Municipality. At present there are seven number of shareholders in the company, which also includes Beyul Hydro investment Pvt. Ltd. The office of Amadablam Mini Hydro Limited was located in Kapan, Nilopul, Kathmandu. Office location has been recently changed to Chandol, Kathmandu.

The subproject is to be implemented as a business model through the technical and financial support of the Government of Nepal and the World Bank through AEPC/MGEAP. Furthermore, the subproject is supported by Foreign, Commonwealth and Development Office (FCDO) through AEPC/NREP.

Amadablam Mini Hydro Project is a run of the river type (RoR) scheme located in ward no-4 of Khumbu Pasanglhamu Rural Municipality of Solukhumbu district. The project is located inside the core region of Sagarmatha National Park. The project utilizes water diverted from Cholunche Khola to generate 911 kW power. The design flow of the project is 250 lps and gross head is 471.87 m. Cholunche Khola is a perennial river which flows from the Himalaya peak on the Northern side of Solukhumbu district and is a tributary of the Imja River. The project site is located near Pangboche village of Solukhumbu district. The boundary coordinates of the project lie between latitude 27° 50' 50" N and 27° 51' 40" N and longitude 86° 47' 49" E and 86° 49' 19" E. The proposed intake site is located at 27°50'56.52"N, 86°49'6.15"E and an elevation of 4422 amsl. The powerhouse site is located at 27° 51 '12.98"N, 86° 47' 49.21"E and an elevation of 3951.18 amsl. The project will be serving 451 households.

Project Financials:

SN	Source of Fund	Amount (NRs.)
1	AEPC	
1.1	Subsidy (MGEAP)	128,307,000.00
1.2	VGF Support (SECF)	170,050,000.00
2	Loan from Partner Bank (Siddhartha Bank)	150,000,000.00
3	Equity of ESCO	90,544,638.89
4	Investment of RM	80,000,000.00
	Total Subproject Cost (1+2+3)	**618,901,638.89**

1.2 Summary of key accomplishments to date

1.2.1 Agreements between Stakeholders

ESCO and RM:

First agreement : 1st January 2024

First Amendment : 12th February 2025

Second Amendment : 15th April 2025

AEPC and ESCO : 29th March 2024

ESCO and Partner Bank:

Syndicated Credit Facilities Agreement : 7th January 2024

Supplementary Credit Facilities Agreement : 22th April 2025

1.2.2 Procurement

So far, AMHL has mostly completed the procurement works through Public Procurement Act (PPA)/ Public Procurement Regulation (PPR) and Best Commercial Practice for purchase of goods and services. The contractors of Civil, HM, EM and T&D have carried on their respective works and the extension of the contract with the Civil Contractor and the HM contractor has been completed and extended to December 2025 so far.

Additionally, there have been few items remained as per the BoQ and AMHL has been working on to purchase through Best Commercial Practice. The items remaining are:

Remaning Components

1	**Power House Auxillary Equipments**	**Qty**	**Unit**	**Rate (NPR)**
1.1	Electrically Operated Travelling(EOT) crane, Capacity: 5 Ton , all complete with accessories	1	Set	
1.2	Portable and mobile Fire Extinguishing 6 sets 4.5 Kgs CO2 fire extinguisher	1	Lot	
1.3	Power House Ventilation and Lighting Complete Set	1	Lot	
2.0	**Power Transformer**			
2.1	Transformer: 650 kVA, 50 Hz, 3 Phase, 0.4/11 kV Setup Power Transformer (YNyn0) with Buchholz relay, 0.5 kV surge arrestor on LV side, sudden gas pressure release valve, temperature rise relay, differential relay with complete accessories inlcuding neutral CT all complete set.	2.00	Set	
2.2	9 m Pole of Bottom Section (5 m Long, Outer Dia. 165.1 mm, Thickness 4.5 mm), Mid Section (2 m Long, Outer Dia. 139.7 mm, Thickness 4.5 mm) and Top Section (2 m Long, Outer Dia. 114.3 mm, Thickness 3.65 mm), Minimum weight 120 kg.	4.00	No	
2.3	Pin Insulator (11kV) with rod as per Indiand Standard	6.00	No	
2.4	Disc insulator (11 kV) with hardware as per Indian Standard	12.00	No	
2.5	Steel Cross arm long, 2200x100x50 mm channel with 5 mm thickness, pole clamp with nut bolts & acessories	4.00	No	
2.6	9 kV Lightening Arrester	2.00	Set	
2.8	Dropout fuse on HV side of power transformer with opearting rod all complete (1 set includes 3 nos. of DO fuse for 3 phase)	2.00	Set	
3.0	**Station Supply System with LT AC Panel**			
3.1	400 V, 3 phase, 4 wire Distribution Board	1.00	Set	
3.2	400 V, 4-Pole, 75 A MCCB	1.00	Set	
3.3	Double pole single phase 15 A MCB	4.00	Set	
3.4	Station A.C. wiring, lighting system including lamps, fixtures, PVC wires, MCBs, switches, all complete	1.00	Lot	
3.5	DC Maintenance free heavy duty industrial type battery & Inverter system for DC load as well as auxiliary AC load like relaying, switching, control system, alarm system and an LED-based emergency lighting system	1.00	Lot	
3.6	DC distribution board with necessary control and protection	1.00	Set	

3.7	DC Lighting System including lamps, fixtures, PVC wires, MCBs, switches, all complete	1.00	Lot	
3.8	50 kVA, 11kV/0.4 kV, oil immersed type, Dyn11, pole mounted Station Transformer with mounting frames and accessories, all complete	1.00	Set	
4.0	Powerhouse grounding mat (mesh) of bare stranded copper and long copper clad steel to achieve at maximum 1 ohm earth resistance with necessary risers, all complete	1.00	Set	
5.0	Control and instrumentation cables for connection of equipment and panels necessary to complete the scope of work	1.00	Lot	
6.0	**Power Cable**			
6.1	1000 sq. mm XLPE insulated single core, armoured copper cable from generator terminals to 400V Bus Bar , with cable shoe, heatshrink, outdoor terminations all complete	75.00	Mtr	
6.2	35 sq. mm XLPE insulated 3 core armoured Aluminium Cable from 400V Bus Bar to outdoor power transformer, power transformer to VCBs with 11 kV Bus Bar for final transmission. It shall be with cable shoe with indoor panel terminations complete.	50.00	Mtr	
6.3	Energy meter at Powerhouse as per AEPC specification	1.00	No.	
7.0	**Trashrack Heating Supply**			
7.1	400 V, 3 phase, 4 wire Distribution Board	1.00	Set	
7.2	400 V, 4-Pole, 25 A MCCB	1.00	Set	
7.3	3 sets of Heating System for trashracks (4.5 kW, 3 kW and 1.5 kW sets)		LS	
7.4	1.1 kV 35 sq.mm. 4 Core XLPE Insulated Unarmoured Aluminium Cable	3	km	
8.0	**Stand-Alone, Auto Start, Diesel Genrator for Backupsupply (25kVA)**	2.00	Set	
9.0	**Transportation Cost**	1.00	LS	

1.3 Key Challenges Encountered and Solutions Implemented

Though the civil work has been going on during this quarter, the progress has not been satisfactory. AMHL has strongly addressed the contractor about the deadline for completion of the civil work by the end of December 2025. The joint meeting between AMHL and contractor on 30th June 2025 has made a concrete plan to speed up the work and attain a target within the stipulated time frame. The civil construction materials were not sufficient at the site and proper bar schedule has not been provided yet by the contractor. Efforts have been going on to speed up the work.

About the transmission cables, the contractor has proposed to replace the cable as per BOQ with specification of 11kV 35 sq. mm 3 core PVC insulated armored aluminum cable with XLPE insulated armored cable. The change will result in escalation of the cost of the product and hit the transportation cost by the comprehensive rate. AMHL has been reviewing the report and has been consulting with the experts and planning to address soon. The preliminary meeting between AMHL and AEPC will certainly address the issue in the coming days.

There has been some reluctance shown by the contractor of the EM component. Thus, first advance payment under APG has been initiated by opening the LC but could not be completed till date.

2. Work Progress Overview

Amadablam Mini Hydro Limited is dissatisfied with the current work progress of the contractors. It is required to reschedule the work schedule prepared by the contractors for the coming days. So far, the commitment shown by the contractors are the only ray of hope.

2.1 Activities

2.1.1 Human Resource Management

The Human Resource Department at Amadablam Mini Hydro Limited (AMHL) is pleased to announce the successful onboarding and formal appointment of all company personnel, effective June 16, 2025. This marks a significant organizational milestone, officially initiating the company's full operational readiness across all departments and project activities.

With all designated staff now in place, AMHL has entered a phase of streamlined internal coordination, enabling more efficient execution of both administrative and field operations. The HR Department has implemented a structured system for monitoring staff performance and presence, with a focus on accountability and productivity.

The Human Resources details are shown below.

S. N.	Designation	Name	Phone Number	Email	Remarks
1	Project Manager/TL	Surendra Maharjan	9802378274	surendra.smsm@gmail.com	Project
2	Chief Finance Officer	Yuvraj Basnet	9802378273	amadablamfinance@gmail.com	Project
3	Civil Engineer	Rajeeb Maharjan	9707082539	mjn.raziv@gmail.com	Project

S. N.	Designation	Name	Phone Number	Email	Remarks
1	Project Manager/TL	Surendra Maharjan	9802378274	surendra.smsm@gmail.com	Project
4	Mechanical Engineer	Rukesh Maharjan	9802378271	rukesh012@gmail.com	Project
5	Electrical Engineer	Tseten Jangbu Sherpa	9802378272	sangposherpa523@gmail.com	Project
6	Environment Officers	Kalpana Dangol	9707082537	dangol.kalpana33@gmail.com	Project
7	Admin/HR Coordinator	Srijana Sunuwar	9802378275	amadablamhr@gmail.com	Company

In addition, the HR team is closely monitoring the workforce and will continue to provide support in personnel deployment, contract management, and performance tracking, as the project moves through key phases of implementation.

2.2.2 Meetings and Events

Orientation Program for New Members of Amadablam Mini Hydro Limited (AMHL)

A comprehensive orientation meeting was convened at the AMHL Hall on June 23, 2025, as part of the onboarding process for new members of Amadablam Mini Hydro Limited (AMHL). The session brought together key stakeholders, including representatives from the Alternative Energy Promotion Centre/Ministry of Energy, Water Resources and Irrigation (AEPC/MGEAP), Central Renewable Energy Fund (CREF), Nepal Renewable Energy Programme (NREP), and members of the AMHL Board of Directors (BoD).

Key Objectives of the Meeting:

1. Introduction to the Subproject
2. Roles and Responsibilities
3. Environmental, Social, and Technical Considerations
4. Coordination and Reporting Structures
5. Grievance Redress Mechanisms (GRM)

Monthly Staff Meeting June

A regular monthly staff meeting of AMHL was held on June 22, 2025, at the AMHL office in Chandol, Kathmandu, with the participation of staff members and representatives from the Board of Directors. The meeting focused on reviewing the monthly and quarterly progress reports, highlighting key achievements, ongoing challenges, and areas requiring improvement. Discussions emphasized the clear delegation of responsibilities across all teams to ensure accountability and coordinated project execution. A detailed site mobilization plan was also presented, outlining timelines for the deployment of personnel, equipment, and materials. Additionally, the team reviewed strategies for managing on-site quality control, material quantity tracking, occupational health and safety measures, and adherence to environmental standards. The meeting concluded with a collective commitment to maintaining strong coordination, improving operational efficiency, and upholding safety and environmental compliance throughout the project lifecycle.

Monthly Staff Meeting May

The regular monthly staff meeting of AMHL was held on May 20, 2025, at the AMHL office in Chandol, Kathmandu, with the participation of staff members and representatives from the Board of Directors. The meeting focused on reviewing both the monthly and quarterly progress reports, assessing performance against planned targets, and identifying areas for improvement. Roles and responsibilities of individual teams were reiterated to ensure clarity and accountability in project execution. A comprehensive site mobilization plan was discussed, covering timelines, resource allocation, and logistics. Special emphasis was placed on implementing effective measures to manage quality control, monitor material quantities, uphold workplace safety, and ensure environmental compliance at the project site. The session concluded with a shared commitment to strengthening coordination, maintaining high standards, and ensuring the timely delivery of project milestones.

Monthly Staff Meeting April

The regular monthly meeting of AMHL was held on April 29, 2025, at the AMHL office in Chandol, Kathmandu, with active participation from the Amadablam technical team. The meeting focused on reviewing the monthly and quarterly progress reports, evaluating accomplishments, identifying challenges, and discussing corrective actions to stay on track with project timelines. Team-specific roles and responsibilities were clearly reiterated to ensure accountability and seamless coordination across all functional areas. A detailed discussion was held on the site mobilization plan, covering the deployment of personnel, equipment, and materials. Emphasis was placed on maintaining quality standards, accurately tracking material quantities, ensuring worker safety, and adhering to environmental compliance throughout project implementation.

2.2 Summary of Completed and Ongoing Tasks

The civil construction works at the AMHL project have advanced notably, with core excavation works completed at both intake and desanding structures, and soling and PCC activities progressing in line with the planned sequence. Coordination with hydro-mechanical and electro-mechanical teams remains strong, enabling the integration of critical components such as headrace pipes, penstock alignment, and powerhouse structures. With transportation logistics being actively managed and joint planning underway, the project remains on track to achieve its next set of milestones.

2.2.1 Civil Works

Significant civil construction activities have progressed at various locations across the Amadablam Mini Hydro subproject site during the reporting period. The civil contractor, CRC Nepal – D.L. Structure & Builders JV, has mobilized materials and manpower to carry out site works efficiently, with continuous coordination with the hydro-mechanical and electro-mechanical contractors to align all interconnected activities.

a. Headwork Construction and Material Mobilization

Construction work at the headwork area has commenced in full swing. The transportation and collection of essential construction materials—including reinforcement bars, cement, plywood for formwork, gabion boxes, stone, aggregate, and sand—are ongoing to maintain steady progress. Materials are being stockpiled on-site in anticipation of upcoming construction phases to minimize logistical delays.

b. Intake and Gravel Trap

Excavation for the intake structure and gravel trap has been successfully completed. This milestone prepares the way for subsequent foundational activities. Soling work—a preparatory process that involves placing crushed stones to stabilize the base—has already begun and is currently in progress. Once soling is completed, the contractor will immediately proceed with Plain Cement Concrete (PCC) works. This staged execution ensures a solid and stable foundation for the structural elements of the intake. To improve efficiency and reduce on-site mixing workload, arrangements are being made to deliver ready concrete mix directly to the site, expediting the casting process for foundation and structural elements.

c. Desanding Basin cum Forebay

Similarly, excavation for the desanding basin cum forebay has also been completed. Soling work at this location is in progress, following the same technical sequence as the intake. After the soling

is completed, PCC work will commence without delay. These measures are critical to ensure proper foundation stabilization and structural integrity. The timely completion of this phase is essential to facilitate the next stages of structural concreting and equipment installation.

d. Headrace Pipe Coordination and Planning

In coordination with the hydro-mechanical contractor, Maa Shakti Engineering and Hydropower Pvt. Ltd., the civil team has emphasized the urgent need for timely delivery of the headrace pipes. This delivery is crucial to prevent schedule slippages, especially at the intake and desanding basin locations, where pipe-laying and backfilling need to follow closely after foundational works. The pipes are currently under manufacturing and will be transported as per the construction timeline to support continuity in civil works.

e. Penstock Pipe Alignment and Excavation

A joint site visit between the civil and hydro-mechanical contractors is planned for early July 2025 to finalize the penstock alignment. This visit is a key step to ensure accurate layout and technical coordination before starting the penstock trenching. Post-alignment, the civil contractor will initiate trench excavation along the finalized route. This preparatory work is essential to facilitate timely installation of penstock pipes, avoiding interruptions in the integrated construction schedule. In parallel, the hydro-mechanical contractor is finalizing agreements with helicopter service providers to begin airlifting penstock pipes from Surke to the project site. This is expected to start in early July and continue through August 2025, aligning with the trenching and installation schedule.

f. Powerhouse Construction

Following the submission of the CAD drawings and technical layout for the powerhouse floor by the electro-mechanical contractor, the civil contractor is now ready to begin earthworks and concrete foundation works for the powerhouse building. This handover of design documentation represents a major milestone and allows for the seamless integration of civil and electro-mechanical components at the powerhouse site. Initiating construction at this location will support the timely installation of mechanical and electrical equipment in subsequent phases.

g. Gabion Protection Works

Gabion protection walls have been installed as part of slope stabilization and erosion control measures at critical hydraulic structures. A total of three layers of gabion wall, extending 24 meters

in length, have been constructed at both the intake and forebay areas. These gabion structures are vital for safeguarding against erosion, landslide risks, and hydraulic impact, ensuring long-term durability of the intake and forebay components. This preventive work reinforces the physical security of the structures and contributes to overall site stability.

2.2.2 Hydro-Mechanical Works

During the months of April to June 2025, substantial progress has been made on the Amadablam Mini Hydro Limited (AMHL) project, particularly in the areas of transportation, coordination, and hydro-mechanical works. The hydro-mechanical contractor, Maa Shakti Engineering and Hydropower Pvt. Ltd., initiated the transportation of penstock pipes and expansion joints to Surke, Khumbu Pasanglhamu Rural Municipality-2, using road transportation. By June 2025, all materials had been successfully transported and stored at Surke—the farthest point accessible by road.

Preparations for airlifting the penstock pipes from Surke to the project site began in late June, with airlifting operations scheduled to commence in early July 2025 and continue through to late August 2025. The contractor is actively coordinating with helicopter service providers to finalize the transport agreement and organize logistics, including load distribution and ground support at both the departure and landing zones, to ensure timely delivery and prevent potential delays.

A series of coordination meetings in April 2025 were instrumental in advancing project implementation. On 24 April, a virtual meeting was held between AMHL and Maa Shakti Engineering to assess the current sub-project status, discuss transportation arrangements, manpower mobilization, and finalize the broader project implementation strategy. Potential risks and challenges were also identified, and it was agreed that a separate meeting between civil and hydro-mechanical contractors would be organized to enhance collaboration.

On 27 April 2025, a subsequent coordination meeting took place at the Alternative Energy Promotion Centre (AEPC), bringing together representatives from AMHL, the hydro-mechanical contractor, AEPC, and the Central Renewable Energy Fund (CREF). The meeting focused on reviewing hydro-mechanical components, evaluating current progress, and reaffirming the overall implementation plan.

Following this, on 29 April 2025, a joint virtual coordination meeting was held between Maa Shakti Engineering and Hydropower Pvt. Ltd., the hydro-mechanical team, and the CRCN civil contractor (CRC Nepal – D.L. Structure & Builders JV). The meeting, facilitated by AMHL,

concentrated on the alignment and installation of penstock pipes, which requires precise coordination due to technical and site-specific complexities. Key agenda items included site coordination, technical interface management, work scheduling, resource mobilization, and risk mitigation. The parties also agreed to conduct regular on-site coordination meetings moving forward to monitor day-to-day progress.

Although no physical progress on penstock alignment was achieved during this period due to technical challenges, these issues were resolved in May 2025 through the collaborative efforts of AMHL, AEPC, and the contractor. Meanwhile, other hydro-mechanical activities continued. The manufacturing of headrace pipes began at the contractor's factory in June 2025, with deliveries being aligned to avoid disrupting ongoing civil works. Fabrication of expansion joints is also in progress—by the end of June, 40 out of 57 joints had been completed, 17 were under fabrication, and 2 were yet to begin.

Additionally, the contractor submitted the first running bill to AEPC during June 2025, which is currently under review. Swift processing of this bill is essential for maintaining project momentum and facilitating the procurement and transport of hydro-mechanical components critical to the next phase.

In conclusion, the AMHL project has made steady progress during the April–June 2025 period, particularly in logistical coordination, fabrication, and inter-agency collaboration. With the upcoming airlifting of penstock pipes and the continued focus on integration between civil and hydro-mechanical components, the project is on track to meet its key implementation milestones in the upcoming months.

2.2.3 Electro Mechanical Works

Following the agreement, AMHL has been maintaining close communication with the supplier and is currently in the final stages of fulfilling the contractual preconditions for initiating the project's electro-mechanical phase.

AMHL, in collaboration with its partner bank, Siddhartha Bank Limited, Hattisar, Kathmandu, is in the final stages of establishing an irrevocable, confirmed Line of Credit (LC) in favor of Poseidon SA. The LC process, which commenced shortly after contract signing, is progressing steadily and is expected to be finalized by 1st week of July 2025. In parallel, the company is actively coordinating with the supplier to disburse the first advance payment, as outlined in the contract. The supplier has reaffirmed its commitment to delivering the final technical drawings for the electromechanical components within the stipulated timeline, enabling the timely commencement of construction activities, particularly at the powerhouse site.

A key coordination meeting was held on 26th June 2025 at the Alternative Energy Promotion Centre (AEPC). The meeting was attended by Mr. Manish Prasad Acharya, the Nepal representative of Poseidon SA, along with members of ESCO and other stakeholders. The discussions primarily focused on detailed timelines, LC arrangements, and synchronization of civil and electromechanical activities to ensure alignment with the overall project implementation schedule. During this meeting, ESCO confirmed it had initiated the formal request to AEPC for approval of LC confirmation charges and submitted a request for the necessary payment to facilitate the timely opening of the Letter of Credit.

In addition, Poseidon SA has already shared CAD drawings of the powerhouse floor layout and other critical technical documents with ESCO. With these design materials now available, the civil contractor is prepared to proceed with earthworks and concrete works for the powerhouse structure. This marks a significant milestone, demonstrating effective coordination between civil and electromechanical teams and ensuring that construction can move forward without delays.

Furthermore, a follow-up meeting has been scheduled with Mr. Acharya to discuss in detail the scope of electromechanical components and address any pending technical or logistical matters. All efforts are currently focused on ensuring that both the LC opening and the advance payment disbursement are completed in a timely manner, supporting the seamless delivery and installation of the electromechanical equipment.

2.2.4 Transmission & Distribution Works

Amadablam Mini Hydro Limited (AMHL) signed a contract with Koju Engineering and Builders Pvt. Ltd., Babarmahal, Kathmandu, on 1st April 2025 for the Installation of Underground Transmission and Distribution Line for the AMHL project. The total contract value is NPR 99,811,037.35 (In Words: Ninety-Nine Million, Eight Hundred and Eleven Thousand, Thirty-Seven Rupees and Thirty-Five Paisa Only), inclusive of all applicable taxes.

a. <u>Contract Mobilization and Advance Payment</u>

To initiate project execution, AMHL conducted a virtual meeting with the contractor on 30th April 2025, where key topics were discussed, including the first advance payment, project challenges, work schedules, equipment procurement (particularly cables and transformers), and safety protocols. During this meeting, the contractor committed to submitting the work schedule and began preparations to submit cable samples for technical approval.

In line with the agreement, AMHL processed and disbursed the first advance payment of NPR 8,798,208.00 to the T&D contractor on 8th June 2025. This enabled the contractor to formally begin procurement activities for approved materials.

b. Procurement and Technical Approvals

The contractor submitted a formal request on 7th May 2025 for the approval of 1.1 kV and 11 kV underground cables and distribution transformers. The technical evaluation process, involving AMHL's technical team and AEPC, was completed by 26th May 2025, following which approval was granted for low-tension (LT) cables and distribution transformers.

However, the 11 kV, PVC-insulated, 35 sq.mm, 3-core aluminum conductor high-tension (HT) cable approval was withheld due to unresolved technical and design-related concerns. The contractor subsequently requested a price adjustment to reflect potential changes in cable specifications. To facilitate timely coordination, two technical meetings were held on 16th May and 21st May 2025 to address procurement progress and technical review timelines.

c. Technical Review and Site Coordination

On 24th June 2025, a review meeting was held at AMHL's office to discuss the unresolved HT cable issue. Koju Engineering presented alternative HT cable options, which are currently under detailed technical and financial evaluation. A final decision on the cable type and specification is expected by the first week of July 2025, subject to AEPC's prior approval.

d. Factory Acceptance Test (FAT) Visit – Distribution Transformers

As part of the quality assurance and procurement protocol for the Transmission and Distribution (T&D) components of the AMHL project, a FAT visit was conducted on 29th June 2025 at the manufacturing facility of Nepal Transformer and Allied Engineering Pvt. Ltd., located in the Bhaktapur Industrial Estate, Bhaktapur. The visit was attended by Mr. Keshav Pradhanang from the Alternative Energy Promotion Centre (AEPC), representatives from Koju Engineering and Builders Pvt. Ltd. (T&D Contractor), AMHL's technical team, and Mr. Phuthundu Sherpa, Board Member of AMHL.

The purpose of the visit was to assess the manufacturing progress of distribution transformers, visually inspect the build quality and materials used, verify alignment with technical specifications approved by AMHL and AEPC, and confirm readiness for NEA-standard testing prior to delivery. During the inspection, 150 kVA, 100 kVA, and 50 kVA transformers were found to be in the final stages of completion and in good condition, demonstrating quality workmanship and adherence to design requirements, while 125 kVA and 65 kVA transformers were still under production with active assembly and winding processes. The manufacturer provided a detailed walkthrough of the production process, and the visual inspection affirmed compliance with the required technical standards.

The FAT visit confirmed that the production of distribution transformers is progressing according to schedule and meeting the required quality standards. The coordination between AMHL, AEPC, the contractor, and the manufacturer remains strong, ensuring that the procurement timeline will be maintained without compromising technical integrity.

Upon completion, all transformers will undergo standard testing procedures at the Nepal Electricity Authority (NEA), including, Ratio test, Megger test, Load current measurement, Loss measurement, Efficiency testing. The results of these tests will determine the final acceptance of the transformers before shipment to the AMHL project site. Relevant photographs regarding T&D are attached on Annex 1 below.

2.2.5 Environment & Social Safeguard

This section provides an update on the progress of environmental and social safeguards implemented at the project site. Environmental, health, and safety (EHS) rules are being followed at all ESCO construction sites. Workers have been given personal protective equipment (PPE) and life insurance to keep them safe and protected. First aid boxes are maintained on-site with clear guidelines for proper medicine storage. The installation of barricades and signage is currently in progress, supported by the preparation of all necessary documentation and ongoing printing activities. Labor camps have been established, and contractors have been instructed to improve housekeeping and waste management practices to maintain a safe and clean working environment. The Occupational Health and Safety (OHS) checklist and supporting photographs are attached in Annex 2.

Key Activities during this Quarter

- **Review of Environmental Reports**

Reviewed the Environmental Impact Assessment (EIA) and Environmental and Social Impact Assessment (ESIA) reports to ensure that site activities are carried out in full compliance with the Environmental and Social Management Plan (ESMP).

- **Orientation Program**

Conducted an orientation program in collaboration with the Alternative Energy Promotion Centre (AEPC) focusing on health, safety, and environmental (HSE) awareness.

- **Follow-up on Land-Related Documents**

Coordinated with the Department of National Parks and Wildlife Conservation (DNPWC) regarding AMHL land-related documentation. Documents are currently in the process of being forwarded to the Ministry of Forests and Environment (MOFE) for further action.

- **Finalization of Code of Conduct**

Developed and finalized the code of conduct for ESCO staff, field workers/laborers, contractors, and external visitors. The code clearly outlines expected behaviors and prohibited actions to maintain safety and discipline in the field.

- **Coordination with Contractor Representatives**

Coordinated with contractor representatives to ensure compliance with Occupational Health and Safety (OHS) standards at the construction sites. Provided detailed information regarding the content to be displayed on the project information boards and signage at project site to ensure clear communication of safety protocols and project details.

- **Stakeholder Discussions on Occupational Health and Safety (OHS)**

Conducted discussions with stakeholders to identify and implement effective measures for ensuring proper safety at the construction sites.

Planned Activities for the Next Quarter

a. Occupational Health and Safety (OHS) Compliance Monitoring

Regular follow-up inspections will be conducted at the construction site to ensure strict adherence to OHS standards, with particular emphasis on the proper use and availability of Personal Protective Equipment (PPE) among all personnel. This will include verifying PPE compliance, delivering safety training sessions, and maintaining emergency preparedness measures.

b. Documentation Review and Management

All relevant documentation related to construction site activities will be maintained and reviewed regularly. This includes safety inspection reports, incident and accident records and compliance logs. Efforts will be made to ensure that all documentation is complete, up to date, and properly filed in accordance with regulatory requirements and project standards.

c. Project Information and Stakeholder Communication

The installation and maintenance of project information boards and signage will be closely monitored to ensure clear and effective communication on site. Additionally, the grievances record system will be managed to guarantee timely logging, investigation, and resolution of any complaints or concerns raised by workers or other stakeholders.

d. Environmental and Social Impact Assessment (ESIA) Compliance

Systematic follow-up activities will be undertaken to verify compliance with ESIA requirements. Any deviations or non-compliance issues will be identified and documented, and corrective actions will be coordinated to ensure that all construction activities align with the approved Environmental and Social Management Plan (ESMP) and applicable environmental and social safeguards.

3. Financial Progress

3.1 Introduction

This quarterly report provides a comprehensive overview of the financial progress of the Amadablam Mini Hydro Project for the period covering April to June 2025. The report outlines significant developments related to subsidy disbursement from the Alternative Energy Promotion Centre (AEPC), bank loan arrangements, equity fund utilization and reimbursement, procurement financing through Letter of Credit (LC), and the management of bank guarantees. The financial progress during this quarter reflects the project's commitment to ensuring timely and uninterrupted execution of its civil, hydro-mechanical, and electro-mechanical components.

3.2 AEPC Subsidy and Viability Gap Funding (VGF) Support

As of the end of April 2025, the project was awaiting the disbursement of the second installment of the AEPC subsidy, amounting to NPR 29,835,700.00. Despite the pending release, the Energy Service Company (ESCO) ensured continued implementation by pre-financing contractor payments to avoid delays in construction and mobilization.

In May, the subsidy remained pending, but coordination with AEPC was actively pursued to expedite the release. Financial continuity was maintained through ESCO's internal arrangements.

Significant progress was achieved in June. On 2nd June 2025, the second installment of the AEPC subsidy, totaling NPR 29,835,700.00 (Nepalese Rupees Twenty-Nine Million Eight Hundred Thirty-Five Thousand Seven Hundred Only), was successfully disbursed. The amount was credited to the AEPC AMADABLAM SUBSIDY ACCOUNT (Account No. 55508914281) maintained at Siddhartha Bank Limited. This disbursement was made against the Advance Payment Guarantee (APG) and has played a crucial role in reinforcing the project's financial capacity and ensuring the uninterrupted continuation of all works.

3.3 Loan Facility for T&D Contractor Advance Payment

To meet the requirement of providing a 10% advance payment to the Transmission and Distribution (T&D) contractor, Koju Engineering & Builders Pvt. Ltd., a formal loan application was submitted by ESCO to Siddhartha Bank on 30 April 2025. AEPC endorsed the application by forwarding its recommendation to the bank.

While the loan was still under processing during May, follow-ups were actively made to ensure prompt approval. On 4 June 2025, Siddhartha Bank disbursed a Bridge Gap Loan amounting to NPR 8,798,208.00 (Nepalese Rupees Eight Million Seven Hundred Ninety-Eight Thousand Two Hundred and Eight Only). The loan was deposited into the AEPC-AMADABLAM-LOAN-ACCOUNT (Account No. 55508914379), and subsequently, Amadablam Mini Hydro Limited transferred the full amount to Koju Engineering & Builders Pvt. Ltd. as a 10% advance. This enabled the contractor's mobilization and facilitated the timely commencement of T&D works as per the project timeline.

3.4 Opening of Letter of Credit (LC) for Electro-Mechanical Equipment

In April, the project obtained the Export-Import (EXIM) Code (6095299260106NP) on 28 April 2025—a prerequisite for initiating the LC process for importing electro-mechanical equipment from Poseidon SA (Greece). However, the Performa invoice from the supplier was delayed due to national holidays.

In May, the invoice was received and Siddhartha Bank prepared a draft LC. The draft underwent verification by both Poseidon SA and AEPC. As of June, this verification process was in its final stages. The LC is expected to be formally opened within the first week of July 2025. Once opened, a 10% advance payment will be made to Poseidon SA using a loan from Siddhartha Bank. This advance will trigger the start of manufacturing and shipment processes for the electro-mechanical equipment—an essential phase in maintaining project momentum.

3.5 Reimbursement of Previously Utilized Equity from AEPC Subsidy

During the June reporting period, Amadablam Mini Hydro Limited formally requested AEPC to approve the reimbursement of equity funds that had previously been advanced to contractors. The requested reimbursement amount is NPR 20,751,961.52 (Nepalese Rupees Twenty Million Seven Hundred Fifty-One Thousand Nine Hundred Sixty-One and Fifty-Two Paisa Only). This amount reflects expenditures initially covered using equity prior to the release of the AEPC subsidy.

The reimbursement is proposed to be transferred from the AEPC AMADABLAM SUBSIDY ACCOUNT (Account No. 55508914281) to the AEPC AMADABLAM EQUITY ACCOUNT (Account No. 55504006450). This transfer will restore the project's equity fund, contributing to its long-term financial balance and compliance with the agreed financial structure.

3.6 Request for Additional Operational Advance

In June 2025, the project also initiated a request for an additional operational advance of NPR 5,000,000.00 (Nepalese Rupees Five Million Only) from AEPC. This request follows the settlement of NPR 2,391,689.80 (Nepalese Rupees Two Million Three Hundred Ninety-One Thousand Six Hundred Eighty-Nine and Paisa Eighty Only) from the previously received operational advance NPR 5,000,000.00 (Nepalese Rupees Five Million Only) from AEPC.

The remaining balance of NPR 2,608,310.20 is proposed to be adjusted from the newly requested advance. The additional advance will be used to cover verified administrative and operational expenditures necessary to ensure smooth project execution.

3.7 Equity Contributions

There were no additional equity contributions made by either ESCO or Khumbu Pasanglhamu Rural Municipality during this quarter. The equity position remains as follows:

ESCO has contributed a total of NPR 37,930,000.00 to date. Khumbu Pasanglhamu Rural Municipality has contributed NPR 4,000,000.00. These equity contributions continue to support project activities, and the previously contributed funds remain intact in the designated project accounts.

3.8 Bank Guarantee and Performance-Based Agreement (PBA) Updates

Throughout this quarter, the project remained fully compliant with institutional and financial requirements related to bank guarantees and agreements.

In April, the validity of all Advance Payment Guarantees (APGs) and Performance Guarantees (PGs) was extended in alignment with the revised project implementation schedule.

In May, the original guarantee documents were submitted to the Central Renewable Energy Fund (CREF), and the second amendment to the Performance-Based Subproject Agreement (PBA) with AEPC was finalized and signed. The amended PBA now remains valid up to 1 September 2026.

In June, the civil contractor (CRC Nepal DL Structure and Builders JV) and the hydro-mechanical contractor (Maa Shakti Engineering & Hydropower Pvt. Ltd.) submitted revised APGs and PGs reflecting the updated implementation timeline, thereby ensuring continued compliance and financial assurance to AEPC.

Conclusion

The second quarter of 2025 marked substantial financial progress for the Amadablam Mini Hydro Project. Major achievements include the successful disbursement of the AEPC subsidy, facilitation of a bridge loan for T&D contractor mobilization, finalization of the LC process for electro-mechanical procurement, and the initiation of equity reimbursement.

The equity position of the project remains stable, and compliance with financial safeguard mechanisms has been maintained through timely submissions and amendments. With all critical financial instruments either in place or progressing, the project is well-positioned to continue implementation without disruption in the upcoming quarter.

4. Quality Assurance and Quality Control

Assurance of the quality was taken as the most priority even in the initial phase of the work. Quality assurance of the penstock pipes were conducted by the Third Party Inspection which covers VT, DPT and other required physical measurements & technical inspections. AMHL is planning to collect the penstock sample and send it for testing in the lab for strength tests. AMHL is planning to test the bifurcation by Computational Fluid Dynamics (CFD) test before dispatch to the site.

AMHL has strongly instructed the civil contractor to test the construction materials and concrete during construction and shall be monitored by the technical team.

5. Risks and Mitigation Measures

a) Technical Risks

There is a high risk of weather conditions during construction and we have lagged a few months as well. AMHL has been discussing with the contractors to provide the updated realistic project implementation schedule incorporating the work delays due to weather.

There has also been a problem with the transportation of goods and services to site due to weather conditions and administrative issues related to the transportation by helicopter during this month as well.

b) Financial Risks

- Risk: Financing and Interest Rate Risk & Cost Overrun Risk
- Mitigation Measures:
  - Contingency funds, fixed-price contracts, and regular cost reviews.
  - Conduct regular financial audits and cost monitoring.

c) Climatic and Environmental Risks

- Risk: Extreme weather events, natural disasters, regulatory changes, environmental impact concerns.
- Mitigation Measures:
  - Implement climate-resilient infrastructure.
  - Develop disaster recovery and emergency response strategies.

6. Challenges and Recommendations

Harsh winters, heavy snowfall, and rapid temperature fluctuations have impacted construction timelines, mobility and transport of heavy machinery and materials to the project areas. Reluctance shown by the stakeholders in disbursement of funds had impacted in day to day operation of the ESCO whereas postponement of supply and timely delivery of equipment as per the contract shall obviously been halted.

7. Next Steps/Work Plan

Implementation Schedule of Amadablam Mini Hydro Subproject

S.No.	Description of Works	2025									2026								
		Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
1	**Amadablam Mini Hydro Subproject**																		
1.1	**Civil Construction**																		
1.1.1	Camp Setup																		
1.1.2	Diversion weir																		
1.1.3	Approach canaland headrace Canal																		
1.1.4	Gravel Trap																		
1.1.5	Desander basin with Head Pond																		
1.1.6	Penstock Alignment works																		
1.1.7	Anchor Blocks and Support Piers																		
1.1.8	PowerHouse Consturction																		
1.1.9	Tailrace																		
2.1	**Hydro-Mechanical work**																		
2.1.1	Transportation of pipe from Birjunj to Surke																		
2.1.2	Camp Construction																		
2.1.3	Heli-Transport of HM Equipments from Surke To site location																		
2.1.4	Installation of Penstock Pipe																		
2.1.5	Testing and Commissioning																		
3.1	**Electro-Mechanical works**																		
3.1.1	LC opening																		
3.1.2	Design Finalization																		
3.1.3	Fabrication of machine																		
3.1.4	Transportation to Site from Factory																		
3.1.5	EM erection																		
3.1.6	Testing & Commissioning																		
4.1	**Transmission and Distribution**																		
4.1.1	Camp Setup																		
4.1.2	Transporatation to Site																		
4.1.3	Cable Trench Excavation																		
4.1.4	Trasmission Line Layout																		
4.1.5	Distribution Line Layout																		
4.1.6	Distribution Line Testing																		
4.1.7	Consumer's House connection																		
4.1.8	Electricity supply in consumers house																		
5	**Environmental & Social Safeguard Activities**																		
5.1	Orientation to Labor on Labour Management Plan (LMP) & Occupational Health and Safety (OHS)																		
5.2	ESS Compliance Monitoring , GRM functionality (in period of every 3 months)																		

Fig 1: Work implementation schedule from June 2025 to September 2026 of an entire project

8. Appendices

ANNEX 1

Figure 1. Meeting held between ESCO & T&D Contractor at AMHL Office

Figure 2. Factory Visit Conducted at Nepal Transformer & Allied Engineering Pvt. Ltd., Bhaktapur.

Figure 3. Meeting held between ESCO & Civil Contractor at AMHL Office

Figure 4. Orientation Program for New members at AMHL Office

ANNEX 2

Environment health and safety status at project site

S.N.	Activities	Implementation Status	Remarks/Details
1.	**Occupational Health and Safety (OHS) Measures**		
1.1	No. set of PPE available at Subproject	Yes	
1.2	PPE Provided to workers	Yes	
1.3	Helmet, Gloves, Jackets, Harness and Boots	Yes	
1.4	First Box with sufficient medicines at site	Yes	
2.	**Human Resources at Subproject**		
2.1	Project Manager	Yes	Active supervision and frequent field visit as required
2.2	Environmental and Social Safeguard Staff	Yes	Available at project site
2.3	Mechanical Engineer	Yes	Available at project site
2.4	Civil Engineer	Yes	Available at project site
2.5	Electrical Engineer	Yes	Available at project site
2.6	Insurance of Workers	Yes	Group Insurance

S.N.	Activities	Implementation Status	Remarks/Details
1.	**Occupational Health and Safety (OHS) Measures**		
1.1	No. set of PPE available at Subproject	Yes	
1.2	PPE Provided to workers	Yes	
1.3	Helmet, Gloves, Jackets, Harness and Boots	Yes	
1.4	First Box with sufficient medicines at site	Yes	
2.	**Human Resources at Subproject**		
2.1	Project Manager	Yes	Active supervision and frequent field visit as required
2.2	Environmental and Social Safeguard Staff	Yes	Available at project site
2.7	Workers /Labour	Yes	Available at project site
3.	**Information Board and Suggestion Box**		
3.1	Information Board of Subproject	NA	Install after the project office has been established at the site Will be implemented at site within 15 days
3.2	Suggestion Box	NA	Will be implemented at site within 15 days
4.	**Community Consultation**		

S.N.	Activities	Implementation Status	Remarks/Details
1.	**Occupational Health and Safety (OHS) Measures**		
1.1	No. set of PPE available at Subproject	Yes	
1.2	PPE Provided to workers	Yes	
1.3	Helmet, Gloves, Jackets, Harness and Boots	Yes	
1.4	First Box with sufficient medicines at site	Yes	
2.	**Human Resources at Subproject**		
2.1	Project Manager	Yes	Active supervision and frequent field visit as required
2.2	Environmental and Social Safeguard Staff	Yes	Available at project site
4.1	Number of Consultation Conducted	NA	Will be implemented at site within 15 days.
4.2	Number of People Participated in Consultation	NA	Will be implemented at site within 15 days
5.	**Grievance Redress Mechanism**		
5.1	Grievance Redress Committee Formed	Yes	
5.2	Name of designated Grievance/ SEA/SH Handing Focal Person	Kalpana Dangol	Appointed from June,2025
5.3	Grievance Registration Book	Yes	

S.N.	Activities	Implementation Status	Remarks/Details
1.	**Occupational Health and Safety (OHS) Measures**		
1.1	No. set of PPE available at Subproject	Yes	
1.2	PPE Provided to workers	Yes	
1.3	Helmet, Gloves, Jackets, Harness and Boots	Yes	
1.4	First Box with sufficient medicines at site	Yes	
2.	**Human Resources at Subproject**		
2.1	Project Manager	Yes	Active supervision and frequent field visit as required
2.2	Environmental and Social Safeguard Staff	Yes	Available at project site
5.4	Record of Grievance Received (If any)	Not Received any till date.	
6.	**Placement of Signage**		
6.1	Signage at Subproject Site	Yes	
6.2	Suggestion Box	NA	Will be implemented at site within 15 days
7.	**Waste Management/Material Storage**		
7.1	Waste Disposable Designated Area	Yes	Regular monitoring is in place.

S.N.	Activities	Implementation Status	Remarks/Details
1.	**Occupational Health and Safety (OHS) Measures**		
1.1	No. set of PPE available at Subproject	Yes	
1.2	PPE Provided to workers	Yes	
1.3	Helmet, Gloves, Jackets, Harness and Boots	Yes	
1.4	First Box with sufficient medicines at site	Yes	
2.	**Human Resources at Subproject**		
2.1	Project Manager	Yes	Active supervision and frequent field visit as required
2.2	Environmental and Social Safeguard Staff	Yes	Available at project site
7.2	Material Storage Designated Area	Yes	Cement and other chemicals are stored in enclosed areas to avoid environmental contamination.

Annex 3: Photographs of Occupational Health and Safety (OHS) Measures

Figure 1: Labor are working at construction site

Figure 2: Labor are working at construction site