



Government of Nepal
Ministry of Energy, Water Resources and Irrigation
Alternative Energy Promotion Centre (AEPC)
Private Sector-Led Mini-Grid Energy Access Project
(MGEAP)
Project ID: P149239

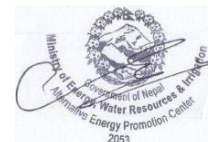
Terms of Reference (ToR)
For
Selection of
Mini Grid (Micro/Mini Hydro, Solar, Wind and
Solar/Wind) Subproject and
Energy Service Company (ESCO)

Issued on: 27 November 2019



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1. Background

Alternative Energy Promotion Centre (AEPC) is a Government Institution established on 3 November 1996, under the Ministry of Science and Technology (MoST) with the objective of developing and promoting renewable/alternative energy technologies to meet the energy needs in Nepal. Currently, it is under the Ministry of Energy, Water Resources and Irrigation (MoEWRI). Currently AEPC is implementing NRREP, RERL, SASEC, SREP, RERA, NREP, MGEAP Programs in support of Government of Nepal and various Development Partners.

2. Project Description

Private Sector-Led Mini-Grid Energy Access Project (MGEAP) supported by the Government of Nepal and the World Bank, is implemented by AEPC from June 2019 and project duration is till April 2023. The total budget of the project is 17.21 Million USD. The objective of the Project is to increase electricity access and delivery from Micro/Mini Hydro, Solar, Wind and Solar/Wind Subprojects by mobilizing and ownership of private sectors Energy Service Companies (ESCOs) in socially acceptable and environmentally sustainable manner. The Project will deliver financing support to ESCOs to facilitate financial closure and enhance financial viability of the subprojects, provided to ESCOs in the form of loans through Partner Banks (PBs). The Partner Banks (PBs) will provide loans to the ESCOs.

3. Objectives

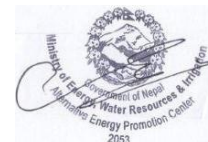
The objectives of this ToRare:

- To identify potential Micro/Mini Hydro, Solar, Wind and Solar/WindHybrid Subprojects
- To identify potential private sector Energy Service Companies (ESCOs) to establish business model of Micro/Mini Hydro, Solar, Wind and Solar/Wind Subprojects to provide energy services in areas where NEA National Grid Line has not reached

4. Project and Subproject Target

The total targeted cumulative capacity of Mini Grid Subprojects is 3.8 MW and the Subprojects which can participate in MGEAP are as below.

- a) Greenfield Mini Grid Subprojects: Subprojects with the cumulative capacity of 2.8MW
- b) Upgradation of Mini Grid Subprojects: Subprojects with the cumulative capacity of 0.5MW
- c) Grid Interconnection of Mini Grid Subprojects: Subprojects with the cumulative capacity of 0.5MW



The cumulative capacity of the above Subproject types may be changed during project implementation. All Mini Grid Subprojects must be built compatible to connect with NEA National Grid.

5. Energy Service Company (ESCO)

Under this project, ESCOs with the objective of providing energy services as commercial business entity (Private, Public, Partnership, Sole Trading, and Cooperative) will be eligible to participate. The user committee/community organizations that are not legally registered as a commercial entity will not be eligible to participate in MGEAP. The shareholders of ESCOs may be individual, institution, Provincial & Local Government.

6. Subproject and ESCO Selection Process

The Subproject identification, screening and selection process involves Pre-Feasibility Study (PFS) and Environmental & Social Screening (ESS) based on which Subprojects are selected for Detailed Feasibility Study (DFS). Detailed Engineering Design (DED) and Environmental & Social Assessment (ESA) are carried out after the approval of DFS by AEPC.

6.1. Eligibility for Subproject Intake

ESCOs owned off-grid micro/mini hydro, solar, wind and solar/wind hybrid subprojects that aim to provide energy services to Anchors/Businesses and Community(ABC) customers in their load centres can participate in MGEAP. New Subprojects should be in areas where NEA National Grid Line has not reached. The technical requirements for Micro/Mini Hydro Subprojects will be as per Guidelines for Detailed Feasibility Studies of Micro Hydro Projects and Guidelines for Detailed Feasibility Studies of Mini Hydro Projects of AEPC.

Greenfield, Upgradation and Grid Interconnection Subprojects can participate in MGEAP and all the three type of Subprojects must be of minimum installed capacity of 25 kW and up to 1 MW for micro/mini hydro and of minimum installed capacity of 5 kW and up to 1 MW for solar, wind and solar/wind hybrid.

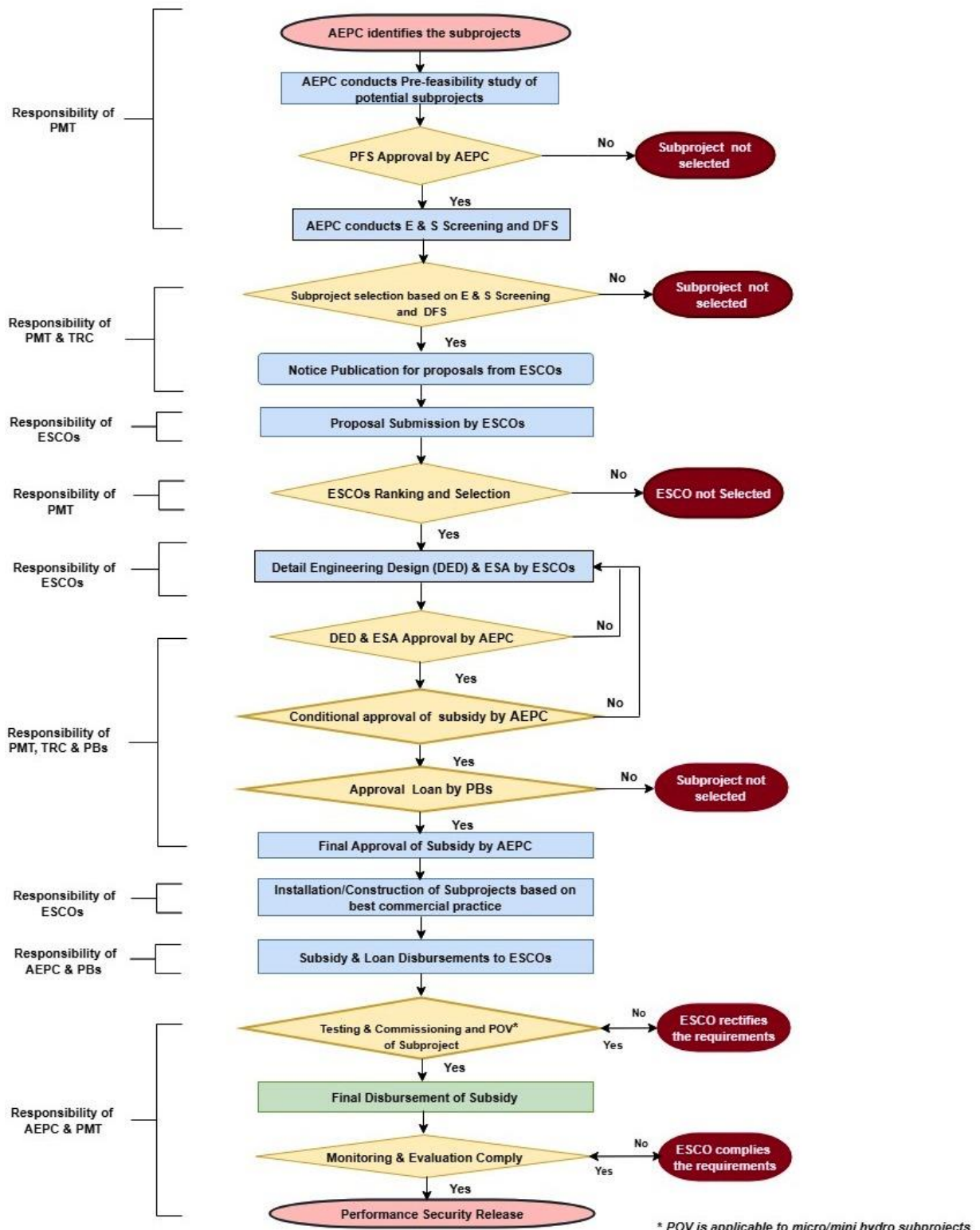
6.2. Subproject Identification, Screening and Selection

There are two approaches for Mini Grid Subproject site identification, screening and selection process as described in Case-I and Case-II below.

6.2.1. Case-I: AEPC Initiated Subprojects

Case-I, AEPC initiated Subprojects (FlowChart Figure-1), based on the application received from individuals/firms/companies, government and non-government organizations, AEPC will prepare pipeline of subprojects up to DFS on its own through the process of site

identification, PFS, ESS and DFS. After completion of ESS and DFS, the subproject is awarded to ESCOs on competitive basis. There are three stages in selection process, Subproject Site Identification, Screening and Selection which are described below.



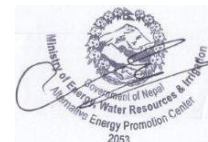


Figure 1: Selection Process for Case I

Subproject Site Identification

Anyone interested, who has basic information on potential site can submit an application (hardcopy or online) to AEPC to carry out site survey and PFS. Submission of the proposal shall in no way entitle the applicant to be the legal owner of the site automatically.

Screening through PFS

AEPC/MGEAP will evaluate the proposals received from interested individuals/entity and based on desk study, selects most potential subprojects for PFS. The list of selected/rejected subprojects will be published in its website. AEPC will carry out PFS of the selected potential subprojects.

DFS and ESS

After AEPC approves PFS and letter received from NEA explaining less possibility of National Grid extension in Subproject area within 3 years, AEPC will assign Consulting Firm (CF) to carry out DFS.

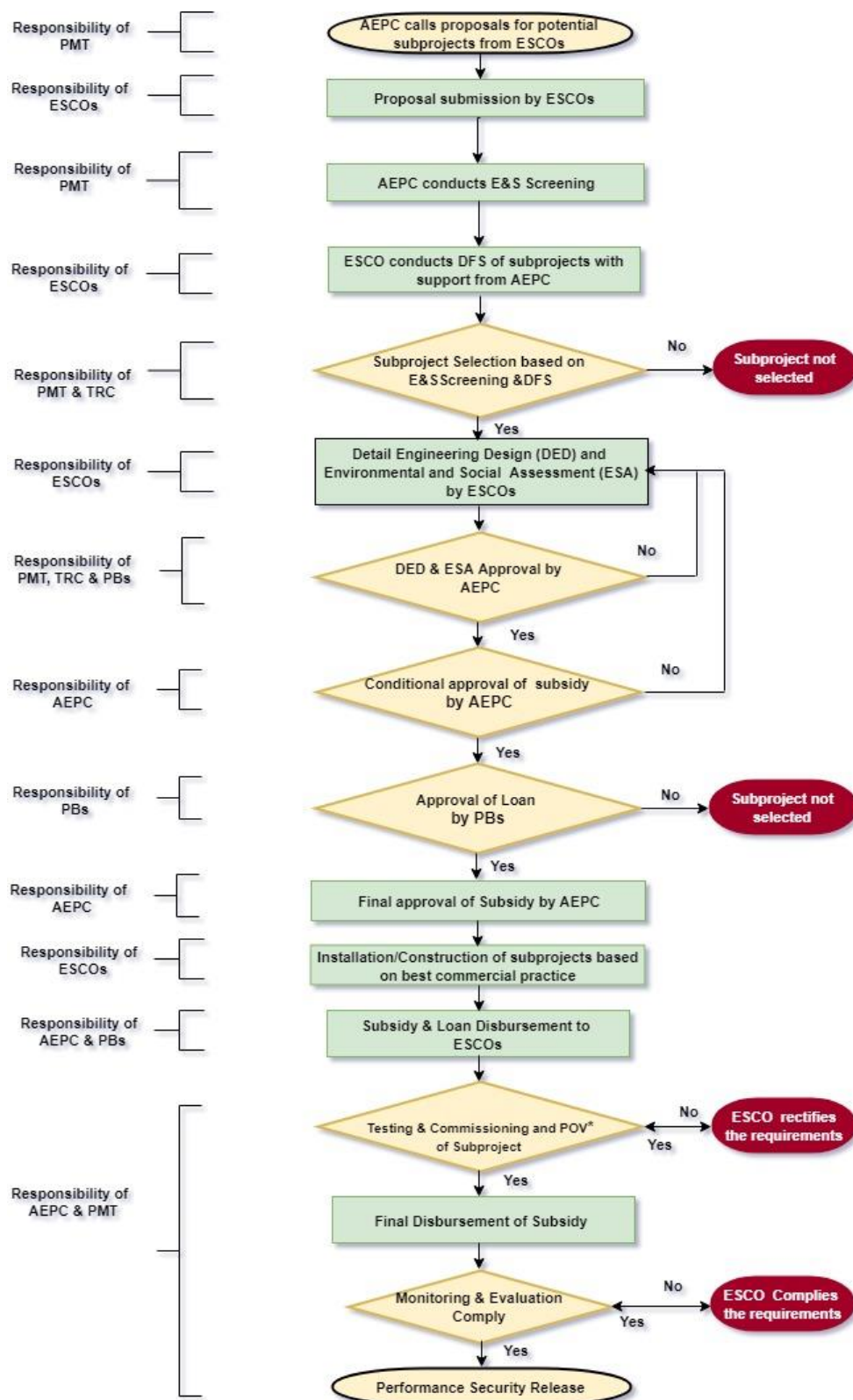
ESS will be carried out by AEPC as per Environmental & Social Management Framework (ESMF) of MGEAP.

ESCO Selection

AEPC will issue notice soliciting proposals from ESCOs who are interested to develop the Subprojects. The list of selected ESCOs will be published in the AEPC website besides being directly notified.

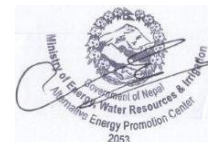
6.2.2. Case II: ESCOs Initiated Subprojects

Case II, ESCOs initiated Subprojects (Flow Chart Figure-2), the site identification and PFS of Subprojects are carried out by ESCOs at their own cost.



* POV is applicable to micro/mini hydro subprojects

Figure 2: Selection Process for Case II



Submission of Proposal

ESCOs will submit proposals of potential Subprojects they have identified and carried out PFSs per Forms, Formats and Guidelines of AEPC at their own cost. Subprojects with acceptable PFS reports will be published in AEPC Website under the title MGEAP Subprojects Tracking Chart.

DFS and ESS

After approval of PFS, ESCO will carry out DFS of the subproject with partial support (Subsidy) from AEPC. AEPC will provide 50% of the cost of the DFS study or the amount not exceeding Rs.500,000 (In words: Five hundred thousand only) as Grant, whichever is lower. The ESCO will assign competent Consulting Firm (CF)/Individual Consultants of their choice to carry out the studies as per Terms of Reference (ToR), Forms, Formats and Guidelines prescribed by AEPC for DFS.

ESS will be carried out by AEPC as per Environmental and Social Management Framework (ESMF) of MGEAP.

Applicable for Both Cases (Case – I & II):

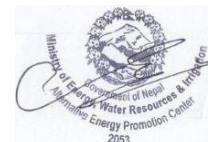
DED and ESA: The selected ESCOs will be responsible for carrying out DED at its own cost. The ESCO will assign competent Consulting Firm (CF)/Individual Consultants of their choice to carry out the studies as per ToR, Forms, Formats and Guidelines prescribed by AEPC for DED. The ESCOs will also be responsible to carry out Environmental & Social Assessment (ESA). AEPC will provide 50% of the cost of the ESA study or the amount not exceeding Rs.500,000 (In words: Five hundred thousand only) as Grant, whichever is lower.

The ESIA will be carried out as per the Subproject specific ToR provided by AEPC. The generic ToR for ESIA of mini grid subprojects are in the ESMF.

Subproject Approval for Subsidy and Loan

AEPC management will provide the conditional approval for subsidy of the Subproject. The 'Conditional Approval' by AEPC will be made only after review and receiving 'No Objection' note from the World Bank.

Then the ESCO will initiate the assurance of financial closure of Subproject, including equity and loan. ESCO will initiate the loan approval process from PB. The PB will carry out its independent review, appraisal and make decision for loan approval. PB can request support from AEPC during the process. The ESCO will submit the documents showing assurance of funds other than subsidy and licensing from concerned authority. AEPC management will provide the 'Final Approval' of subproject and subsidy.



Procurement, Installation/Construction and Monitoring of Subproject

ESCO will conduct the procurement for the installation/construction including all related task (DFS, DED and ESA) of Subprojects based on Best Commercial Practice. During the installation/construction of Subproject, AEPC will provide subsidy and PB will provide loan as per agreements. During installation/constructions works of Subprojects, AEPC and PB will conduct monitoring as per the requirement.

Rejection of Subproject/ESCO

AEPC will reject the Subproject or/and ESCO upon non-compliance of requirement of subproject or/and ESCO for any of the above mentioned stages (PFS, ESS, DFS, DED, ESA, Financial Closure).

Upgradation Subprojects

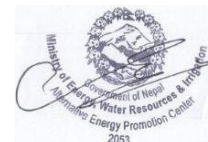
There may be demand for Upgradation of existing mini grid subprojects which are not operating or only in partial operation. Similarly, there may be requirement to upgrade existing Mini Grid Subprojects in order to meet increased load demand. In case of Upgradation Subprojects, since they will be ESCOs initiated, Flow Chart Case - II will apply.

Grid Interconnection Subprojects

The MiniGrid Subprojects, where NEA National Grid has reached, the ESCO may wish to go for Grid Interconnection. For this, ESCO will identify the Subprojects and initiate the process. The Flow Chart for Case- II will be applied for this case in which ESCO should not prepare PFS/DFS except DED and ESMP for grid interconnection. Because all grid interconnection tasks (Civil works, equipment installation, synchronization etc.) will be executed within existing infrastructures of subprojects going for Grid Interconnection.

7. Eligibility Criteria for ESCO Selection

ESCOs with an objective of carrying out energy service business and permit to do so (if such provision in place) are eligible to participate in MGEAP.



7.1. ESCO Selection Process

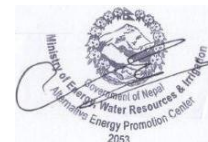
ESCOs should submit following documents to AEPC to participate in /MGEAP:

- A copy of company/firm/cooperative registration certificate with updated renewal
- A copy of Permanent Account Number (PAN) and/or Value Added Tax (VAT) registration certificate (as applicable)
- A copy of Tax Clearance Certificate of FY 2075/76 or Evidence of Income Tax Return or Time Extension for Income Tax Return for FY 2075/76
- The company/firm/cooperative having established objective of carrying out energy service business (Generation, Transmission & Distribution and Sales) commercially
- Letter of commitment (board decision) to participate in MGEAP
- Document showing the commitment to provide qualified, experience and adequate HR capacity (technical, environmental, social and commercial) during the installation/construction of Subprojects
- Commitment to comply with MGEAP requirements to fulfil Environment & Social impact risk management plan.
- Commitment for allocation of adequate budget to implement Environmental & Social Assessment (ESA) and monitoring plan
- Commitment to comply Corporate Social Responsibility (CSR) as per prevailing law of Nepal
- Self-declaration of clean track record of compliance, internal & external audits, as applicable with relevant environmental and social regulations of Nepal. For example, absence of environmental or labour-related fines or other evidence of non-compliance in the past two years
- Commitment to minimum equity contribution of 10% of Total Subproject Cost
- Commitment to minimum loan commitment of 10% and must not exceed 50% of Total Subproject Cost from the PB
- Commitment of ownership of land or long term lease agreement of minimum 10 years
- Commitment to successfully operate the mini grid subproject for minimum 10 years
- Letter from concerned Municipality/Rural Municipality about the existing electrification status of the subproject area and recommendation for development of subproject
- Letter explaining the less possibility of NEA National Grid extension in subproject area within 3 years

ESCO meeting these criteria will be selected for participation in MGEAP. The ESCO selection process entails review of ESCO proposal by PMT and on PMT's recommendation, AEPC will approve ESCO selection.

8. Subsidy

The maximum subsidy ceiling shall not exceed 60% of approved total cost of subproject as per approved DED report. The maximum subsidy amount shall not exceed Rs. 300,000 (In



words: Rupees Three Hundred Thousand Only) per kW and Rs. 360,000 (In words: Rupees Three Hundred Sixty Thousand Only) per kW for micro/mini hydro and solar, wind & solar/wind subprojects respectively.

The subsidy disbursement will be made in installment basis. The first installment may be for Advance Payment at the submission of written request by ESCO. Subsequent installments will be disbursed after verification and approval of progress of construction of civil works or/and delivery of Subproject equipment at subproject site in compliance to agreement with AEPC. The progress will be calculated based on the proportion of subsidy with total subproject cost.

9. Loan

Upon approval of the DED and ESA report, the ESCO will be eligible to apply for the SREP loan for the approved subproject at any Class 'A' Commercial Bank of its choice. AEPC will provide the SREP loan to ESCOs through selected PBs. The loan disbursements provision from PBs to ESCOs will be as per the agreement between PBs and ESCOs. AEPC will disburse the equal installment of loan amount to PBs as the loan amount to be disbursed by PBs to ESCOs. AEPC will supervise and monitor the process of SREP loan disbursement by PBs to ESCOs.

10. Documents to be Submitted along with Proposal

- Application Letter as provided
- Subproject Eligibility as mentioned in the ToR, S.N. 6.1
- ESCO Eligibility as mentioned in the ToR, S.N. 7
- Pre-Feasibility Study Report as format provided
- Filled Forms and Format as provided
 - Demand Form for Micro/Mini Hydro Subproject (In Nepali) [Download](#)
 - Demand Form for Solar, Wind and Solar/Wind Hybrid Subproject (In Nepali) [Download](#)
 - Pre-Feasibility Study Format of Mini/Micro Hydro Subproject [Download](#)
 - Pre-Feasibility Study Format of Solar, Wind and Solar/Wind Hybrid Subproject

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