

REQUEST FOR PROPOSAL (RFP)

Title of Consulting Service

**Building Energy Efficiency
Analyst**

Project Name

**BUILDING Energy Efficiency in
Nepal (BEEN)**

Funding Agency

**European Union under SWITCH-
Asia Grants Programme**

RFP Calling Office

MinErgy Private Limited

Address

**Dakshinkali Chowk, Lagankhel-5,
Lalitpur**

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List of Abbreviations

BEEN	BUILDING Energy Efficiency in Nepal
EE	Energy Efficiency
EPI	Energy Performance Index
EU	European Union
GESI	Gender Equality and Social Inclusion
GKSPL	Greentech Knowledge Solutions Pvt Ltd
HVAC	Heating, Ventilation and Air Conditioning
MOU	Memorandum of Understanding
MSMEs	Micro Small and Medium Enterprises
PAN	Permanent Account Number
RE	Renewable Energy
RFP	Request for Proposal
SDGs	Sustainable Development Goals
TOR	Terms of Reference
UIBK	University of Innsbruck
UNE	Asociación Española de Normalización

Terms of Reference

A. Project Background

Nepal is now one of the fastest urbanizing developing countries. About 1.25 million houses were built in Nepal in the last decade. Most buildings in Nepal are designed without considering the local climate. Increased urbanization, changing lifestyle and lack of climatic consideration will lead to an increased energy demand of the building sector in Nepal. Moreover, the use of building materials with high embodied energy has resulted in higher carbon emission through the building sector.

University of Innsbruck (UIBK), Austria in partnership with MinErgy Pvt Ltd, Nepal; Greentech Knowledge Solutions Pvt Ltd (GKSPL), India and Asociación Española de Normalización (UNE), Spain, is implementing a four-year project entitled BUILDING Energy Efficiency in Nepal (BEEN) with funding support from European Union (EU) under the SWITCH-Asia Programme. BEEN seeks to contribute in achieving low-carbon and resource-efficiency in the Nepalese building sector by integrating Energy Efficiency (EE) and Renewable Energy (RE) measures in design and constructions of new buildings as well as in retrofitting of existing buildings. This project supports the realization of Sustainable Development Goals (SDGs) and aims to foster responsible consumption and production of resource efficient building materials in Nepal.

BEEN intends to achieve the overall objective by working across the four critical pillars of the ecosystem i.e. a) enhancing capacity of Building-MSMEs (Micro Small and Medium Enterprises) to transform their services and products towards EE building designs, construction and/or retrofitting; b) increasing awareness of Building-MSMEs and end users to create market system for the promotion and use of EE building design; c) support banking and financial institutions to develop financial products and services accessible for the promotion of EE and RE in the building and construction sector; and d) support the federal and local governmental units to devise and implement policies and standards that promote EE in the building sector.

B. Assignment Context

- A. The BEEN Project is preparing a training manual for designing and installation of Heating, Ventilation and Air Conditioning (HVAC) system targeting the HVAC MSMEs. We intend to validate with the professionals and practitioners engaged in Nepal for finalization. Training will be offered to HVAC designer and installers based on this manual.
- B. BEEN has signed the MOU with 50 out of targeted 60 municipalities. BEEN has been providing various services including capacity building of municipalities technical personnel, technical support for the integration of EE provision in building bylaws or policies, capacity building of registered MSMEs within the municipality and awareness building of policy makers and end-users.
- C. All the projects funded by the European Union require to adhere to principles of gender equality while following the Gender Equality Strategy. The BEEN Project has administered number of studies (as follows) to gather knowledge, document practices and generate evidences since its initiation in February 2022. To the possible extent “people” related data are

gathered with disaggregation in terms of sex, age, disability and ethnicity/caste. This provides an opportunity for the BEEN Project to review the gathered data and explore the possibilities of carrying of data analysis from “GESI” or “people” perspectives. The data analysis will help in identifying or defining scope for designing of follow-up activities. It is also possible that a Status Report or a Status Paper can be generated from these analyses.

Energy baseline study: The BEEN Project administered a baseline study aiming to obtain vivid and precise picture of building construction practices and energy consumption scenarios in residential, hotel/resort and day-use office buildings in four bioclimatic zones of Nepal. Representing all four bioclimatic zones, sample respondents from 1220 residential buildings, 121 hotels and 120 day-use office buildings were surveyed in three target provinces of the BEEN project i.e. Bagmati, Lumbini and Gandaki. The baseline study was carried out using the comprehensive number of questions for each of the three bioclimatic zone and building typology on i) building characteristics; ii) energy consumption, particularly on energy use, source, end-use device for space heating, cooling and lighting; iii) Energy Performance Index (EPI); iv) use of renewable energy; and v) perception and awareness on energy-efficiency measures.

Perception study to couple with performance monitoring of buildings: The BEEN Project intends to carry out 12 performance monitoring of energy-efficient buildings. In this regard, buildings, performance monitoring of the showcase building (Ms. Kalpana Shrestha) has been carried out with the objective to i) measure thermal comfort of naturally ventilated space; ii) compare study between simulated performance and actual performance; iii) measure the effect of any passive strategy on thermal comfort including performance of perforated bricks. Cashing upon this task, a perception study on thermal comfort by occupants has been carried to. Some important data has been generated during the perception study among the occupants of this building.

Mapping of technical team within the Building Permit Unit (BPU) at the municipality level: We have gathered a GESI-disaggregated demographic data of all the technical staff engaged within the BPU of 27 partner municipalities. Data of total 208 population have been gathered and documented. The analysis of this data will provide an overview of GESI-disaggregated participation in public decision-making at municipality level.

Market Baseline Study of MSMEs: The baseline study of MSMEs conducted by the Project in the Year 2 has generated GESI-disaggregated demographic data about 4,425 MSMEs along with their market share on EE & RE services. Analysis on this data will provide an overview of the GESI participation in the private sector.

C. Objectives

For above-mentioned assignment contexts, the BEEN Project intends to seek the support of an external analyst to assist the BEEN team in convening the tasks defined in the following scope of work.

The specific objectives of the assignment are to:

- Carry out analysis of available data with the BEEN Project and generate results with GESI perspectives
- Support in development of HVAC training manual and organization of training programs
- Provide technical support to partner municipalities in collaboration with BEEN

D. Scope of Work

Analysis of data and generate results

- Review available data (to be provided by BEEN Project in excel form) for the above-mentioned studies
- Based on the available variables, propose and finalize scope of data analysis with GESI perspectives in collaboration with the BEEN team.
- Draft and finalize graphs and illustrations.
- Provide recommendations for possible analysis in future.

HVAC manual and training

- Support BEEN in preparing and finalizing the HVAC design manual.
- Coordinate for HVAC training programs
- Support in organizing the HVAC training programs.
- Prepare meeting minutes and training reports.
- Provide technical support in designing HVAC systems.
- Provide necessary guidance on HVAC design to end users upon the request from BEEN.

Technical support to partner municipalities

- Support BEEN in organizing capacity building programs in partner municipalities.
- Serve as a resource person in capacity building programs.
- Carry out awareness and orientation programs in partner municipalities.
- Prepare meeting minutes and training reports as required.

E. Timeline

The tentative number of days required for the above-mentioned scope of work will be 40 working days over a period of 12 months.

F. Deliverables

In addition to carrying out the tasks in scope of work, the consultant is needed to submit the following documents wherever applicable:

- Scoping report for data analysis
- Report with graphs, illustrations and recommendations
- Meeting minutes and training reports for HVAC training programs
- Meeting minutes and training reports on technical support to partner municipalities

G. Qualification and Experience

i. Educational Qualification

- Master's degree in energy, mechanical engineering, civil engineering or architecture

ii. Skills and Competencies

- Reading and interpreting blue prints and technical diagrams
- Strong fundamentals on relevant subjects like heat transfer and thermodynamics
- Familiarity with building physics, electrical and mechanical systems related to HVAC
- Knowledge and skills on energy simulation tools for buildings
- Knowledge of local building codes and regulations

iii. Experience

- Atleast 5 years of working experience.
- Atleast 2 years of experience on EE building sector, building simulation and data analysis
- Atleast 1 year experience of working in building physics, electrical and mechanical systems related to HVAC

H. Proposal submission details

Interested applicant is requested to submit the proposal at info@beenproject.org . The proposal must include the following:

1. Permanent Documents

- Signed and updated resume
- Certificate of highest educational attainment
- PAN registration certificate
- Citizenship certificate
- Latest tax clearance certificate, if applicable

2. Technical proposal (Annex 1 to 4)

3. Financial proposal (Annex 5)

- RFP documents shall be submitted via mail by 5:00 PM on 11th August, 2024 attaching all the documents and writing a mail to info@beenproject.org with subject line “***RFP for Building Energy Efficiency Analyst***”
- Document received after the closing time for submission of proposals shall not be considered for evaluation.

I. Preparation of Proposal

- The proposal shall have two components:
 - i. the Technical Proposal
 - ii. the Financial Proposal
- The proposal, and all related correspondence exchanged by the proponent shall be in English language.
- The proponents are expected to examine in detail the documents constituting this RFP.
- Deficiency in providing the information required for scoring will result in rejection of a proposal.
- It is required that the proposer is responsive and incorporates ways to ensure Gender Equality and Social Inclusion (GESI) and greening the initiatives (*such as avoiding single use of plastic, green transportation, green events) in the proposal.

Technical Proposal

Technical proposal should comprise of the following documents:

- An application letter regarding the submission of a technical proposal should be filled in the format of *Annex 1*.
- Experience summary should be submitted as *Annex 2*. Proof of specific experience should be submitted.
- A description of the methodology and work plan must be provided. This should be attached as *Annex 3*.
- A time schedule showing the time proposed to undertake the activities indicated in the work plan should be attached as *Annex 4*.
- The technical proposal shall not include any financial information.

Financial Proposal

- Application letter for financial proposal should be filled in the format of *Annex 5*
- The applicant is requested to submit a daily rate for consulting. Proposed rate must be inclusive of all applicable taxes in Nepalese currency.
- The applicant is required to submit proof that the applicant has been charging similar rates to other clients/ employers.

J. Evaluation Criteria

- The proposals will be evaluated on the basis of their responsiveness to the TOR. All the documents mentioned in Section H should be submitted, if applicable.
- The table below summarizes the evaluation criteria for the selection of consulting firm:

Technical Proposal	80%
Financial Proposal	20%

Technical Proposal Ranking Criteria

Proposals which meet the eligibility criteria will be ranked on the basis of the ranking criteria. Each responsive proposal shall be given a technical score on the following criteria

i. Qualification

Position	Criteria	Score
Building Energy Efficiency Analyst	Masters in energy, mechanical engineering, civil engineering or architecture	20

Total Score: 20

ii. Experience

Type of Experience	Criteria	Score
Relevant Experience	Atleast 5 years of work experience	10
	Atleast 2 years of experience in energy simulation in building sector, data analysis	20
	At least 1 year experience of working in building physics, electrical and mechanical systems related to HVAC	10

Total Score: 40

iii. Implementation Plan

S.N	Criteria	Score
1	Methodology in alignment with scope of work	20
2	Work plan & time schedule	20

Total Score: 40

A proposal will be rejected at this stage if it does not respond to important aspects of the TOR or if it fails to achieve the minimum technical qualifying score which is 70.

Financial Proposal Evaluation Criteria

- After completion of the evaluation of the technical proposal, the financial proposal will be evaluated for those proponents who pass the technical evaluation.
- Out of the qualifying individuals, a financial score of 100 will be given to those candidates with the lowest financial proposal.
- The financial scores of the other financial proposals shall be computed based on the formula.
- Financial Score of proposal under consideration = $100 \times \frac{\text{Price of lowest financial proposal}}{\text{Price of the Financial Proposal under consideration}}$.

Cumulative Ranking Criteria

- The proposals shall then be ranked according to their combined technical and financial scores.
- Weight given to technical proposal is 80% and Weight given to the financial proposal 20%
- Cumulative Score = Technical Score * 80% + Financial Score * 20%
- The candidate achieving the highest combined technical and financial score will be invited for negotiations.

K. Preferable

Female candidates and candidates from ethnic minorities, socially excluded and disadvantaged groups are preferred to apply.

L. Acceptance of Proposal

MinErgy reserves the right to approve or disapprove any proposal. If needed, the consultant will be asked for modifications and presentations of the proposal before approval.

Annex 1: Letter of Application

Date:

MinErgy Private Limited

Dakshinkali Chowk, Lagankhel-5

Sir/Madam

1. I, "*the Applicant name*", having reviewed and fully understood all the short-listing information provided, hereby apply to be short-listed as Consultant for "*Building Energy Efficiency Analyst*".
2. MinErgy Pvt Ltd and its authorized representatives are hereby authorized to verify the statements, documents, and information submitted in connection with this application.
3. I declare that -I have no conflict of interest in the proposed procurement proceedings by MinErgy Pvt Ltd and I have not been punished for an offense relating to the concerned profession or business.
4. I declare that I have not been blacklisted for any profession.
5. I declare that no case of corruption is pending against me.
6. I, the undersigned declares that the statements made and the information provided in the application are complete, true and correct in every detail.

Sign:

Name of Applicant:

Annex 2: Applicant's Experience

S.N.	Employer/ Client	Title of Position/ Service	From-To Dates	Period in Years	Select type of experience - General - Energy simulation in building sector - Data analysis - Building physics - HVAC

Attach proof for above experiences

Annex 3: Methodology And Work plan

Annex 4: Time Schedule

Annex 5: Financial Proposal

Date:

MinErgy Private Limited

Dakshinkali Chowk, Lagankhel-5

Sir/Madam

I offer to provide the consulting services for *Building Energy Efficiency Analyst* in accordance with your Request for Proposal (RFP) dated 21st July 2024 at a rate of Rs. **per day**. [*Amount in words and figures*].

The Financial Proposal shall be binding upon me subject to the modifications resulting from Contract negotiations.

I acknowledge and accept the Minergy’s right to inspect and audit all records relating to my Proposal irrespective of whether I enter into a contract with the MinErgy as a result of this Proposal or not. I confirm that I have read, understood and accepted the contents of the Terms of Reference (TOR) and other attachments and inclusions included in the RFP.

I understand you are not bound to accept any Proposal you receive.

The undersigned declares that the statements made and the information provided in the application are complete, true and correct in every detail.

Sign:

Name of Applicant: