

REQUEST FOR PROPOSAL (RFP)

Title of Service	PREPARATION OF SHOWCASE ENERGY EFFICIENT MODELS
Project Name	BUILDING Energy Efficiency in Nepal (BEEN)
Funding Agency	European Union under SWITCH- Asia Programme
Applications Calling Office	MinErgy Private Limited
Address	Dakshinkali Chowk, Lagankhel-5, Lalitpur

1. Project Background

MinErgy Pvt Ltd (MinErgy) in partnership with Universität Innsbruck, Austria (lead) and Greentech Knowledge Solutions Pvt Ltd (GKSPL), India and Asociación Española de Normalización (UNE), Spain is implementing a four-year project BUILDING Energy Efficiency in Nepal (BEEN) with funding support from European Commission under its SWITCH-Asia Programme. The overall objective of BEEN is to contribute to the development of low-carbon and resource-efficiency in the Nepalese building sector by integrating energy efficiency (EE) and renewable energy (RE) measures in design and construction of new buildings and in retrofitting of existing buildings. BEEN aims to achieve the overall objective through capacitating Building-MSMEs (Micro Small and Medium Enterprises) to adapt/transform their services and products for EE building design, construction and/or retrofitting; increasing awareness of the market on EE design and construction services, products and practices; increasing availability of financial products and services targeting EE and RE in building and construction sector and capacitating local, provincial and federal government units to devise and implement policies/standards to promote EE in building sector.

2. Purpose of the call

The concept of energy efficiency in buildings is relatively new in context of Nepal. Awareness and capacities of building sector MSMEs on energy efficient buildings and service offerings remain low. Also, the level of awareness among end users including building owners is also limited due to which energy-saving measures are not prioritized in their construction or operation decisions.

While structural stability of buildings has received attention in Nepal due to earthquakes, consideration of climate responsiveness and energy efficiency are lacking in most new building designs. Efficiency issues need to be addressed by integrating passive strategies to design climate-responsive buildings and use of energy efficient space heating and cooling system. In addition, materials that use low energy and resource-efficiency during production and over their use times also need to be prioritized. Similarly, integration of renewable energy measures in building design and operation needs to be fostered to further reduce building's carbon footprint.

It is therefore necessary to increase awareness to promote energy efficiency and sustainable building practices in Nepal which would play a crucial role in addressing the gaps and creating a positive change. In line with this, the project aims to develop showcase models that will serve as a tool in raising awareness about energy efficient buildings and the approaches. The development of a showcase models will aid to effectively demonstrate the benefits and possibilities of energy efficiency in buildings during the workshops, promotional events organized or participated by BEEN.

In order to make the energy efficient showcase models, MinErgy is seeking Expression of Interest (EoI) from qualified architectural/engineering firms, herein referred as consultant, based in Nepal with experience in preparing the architectural models.

3. Objectives

The main objective of the assignment is to develop the showcase models to effectively demonstrate the concept of energy efficiency focusing on climate responsive design, including construction technologies and approaches.

4. Scope of Work

The scope of the assignment includes but is not exclusively limited to the points below:

a) Preparation of a consolidated model showcasing sun path diagram along with informative box model depicting EE features.

Consultant must prepare a consolidated 3D printed model in the scale of 1:100 with the following features integrated in it.

- Heliodon-Three paths i.e., equinox, winter solstice, and summer solstice in context of latitude and longitude of Kathmandu. Light bulbs to be installed as a representation of Sun that can be turned on and off. The lightbulb should be movable and adjustable along the rings.
- Orientation (EWNS)
- 2 Representative box model of the building which will be showcasing
 - Spatial diagrams and configuration
 - Impact of Building Envelope: Walls, Roofs and Openings
 - Solar radiation and shadings
 - Thermal heat transfer

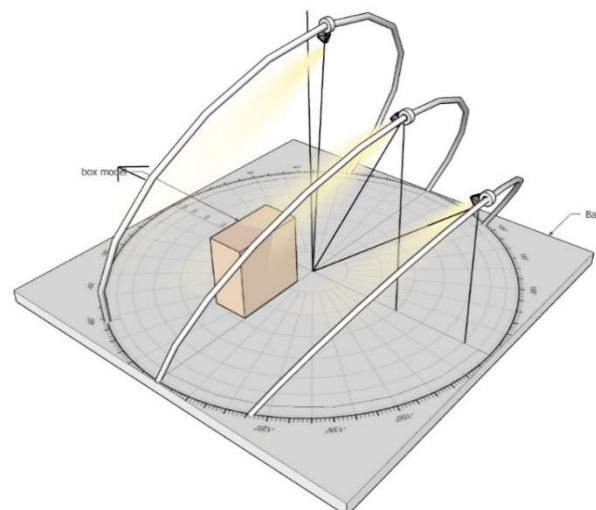


Figure 1 Heliodon Model with Representative Box Model

Note: The details for the box model will be provided by BEEN. The details required for 3D printing need to be prepared by the consultant themselves. The model needs to have tongue and groove joints with the mechanism to interchange the face. And the model should be portable.

b) Preparation of EE building model.

Consultant should develop 3D printed building model showcasing energy-efficient measures/solutions (scale 1:50).

- The building is 2.5 storey and base of the model should be detachable.
- Building cross-section including details of roof, walls should be seen in the cross section and needs to be detachable to fit in a suitcase for travel for which the details of the energy efficient measures for wall and roof will be provided by BEEN.
- Flexibility in material use but needs to be sturdy.
- Windows needs to be openable, sliding or fixed with external/internal movable shading as per the detailed architectural drawings.
- The model should be detachable with magnetic joints vertically (cross sectional details) and horizontally (floor wise).



Figure 2 Representative Model for Sectional Details (It is a representative illustration of the building cross-section and is only for reference)

Notes: The architectural drawings and 3D of the model will be provided by BEEN to the consultant selected. The sectional and other required details need to be prepared by the consultant themselves. And the model should be portable.

c) **Preparation of a sectional model showcasing the construction technology of the building envelope: walls, roofs and openings**

Consultant must prepare a sectional model, which should be 3D printed model in the scale of 1:10 with the following options of the construction technologies. The sectional model will be the detailed-out model of the representative box model as per the *Scope (a)* where the sections of the walls, roofs, have to be detailed out and clearly understandable. The details of the model will be provided by the BEEN to the consultant.

- Options for the wall
 - Stone masonry wall with insulation
 - Cavity wall with insulation
- Options for the roof details
 - Roof with Insulation
- Thermal Bridge

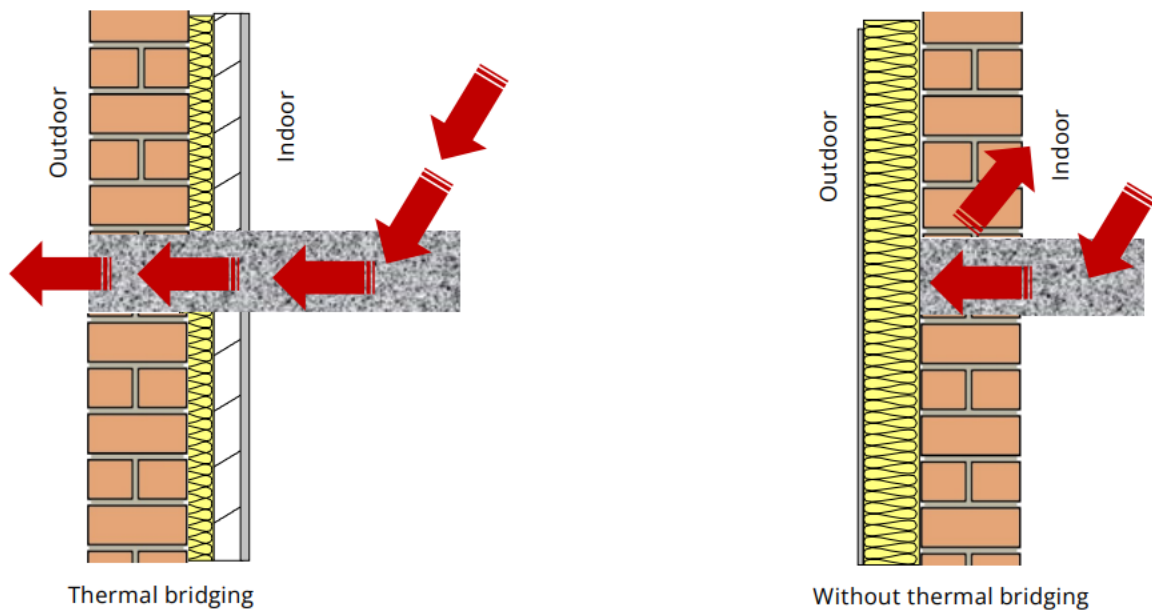


Figure 3 Representation of Thermal Bridge

Notes: The information about the options mentioned above will be provided by BEEN to the consultant. The sectional and other required details need to be prepared by the consultant themselves. And the model should be portable.

5. Deliverables and timeline

The duration for the assignment will be approximately 4 weeks. The consultant is expected to start work from 1st of January, 2024 and complete the assignment by 26th of January, 2024.

6. Qualification

The qualification of the consultant must be:

- Experience in building design and construction
- Experience in architectural model making
- Knowledge of EE and RE in buildings/ settlements

7. Preparation of Proposal

The proposal shall have two components:

- a) Technical Proposal
- b) Financial Proposal

a. Technical proposal

Technical proposal should comprise of the following documents:

- An application letter regarding the submission of a technical proposal should be filled in Annex 1
- Applicant's information should be filled in the format of Annex 2
- Specific experience in the past 5 years should be filled in Annex 3. Proof of specific experience should be submitted.
- The proposed team should be attached as Annex 4
- The resume of team members should be attached as Annex 5
- A description of the general methodology should be attached as Annex 6. 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.

The technical proposal shall not be more than 3 pages and not to include any financial information.

b. Financial proposal

- Application letter for financial proposal should be filled in the format of Annex 7
- The proponent is requested to submit an estimated budget with detailed breakdown comprising human resources (segregated by time involvement of team members). Proposed cost must be inclusive of all applicable taxes in Nepalese currency. Annex 8
- Activities and items in the technical proposal but not priced shall be assumed to be included in the prices of other activities or items

8. Evaluation of RFP Application

The proposals will be evaluated on following basis:

a. Eligibility Criteria

First of all, the eligibility of proposals will be examined. Proponents should have submitted a complete set of following documents:

S.No	Criteria	Compliance
1	Company/Firm Registration Certificate	
2	Tax Clearance of FY 2079/80 (Tax extension accepted)	
3	VAT/PAN Registration	
4	Technical Proposal (Annex 1 to Annex 6)	
5	Financial Proposal (Annex 7 and 8)	

b. 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.

- Organizational Experience – 30

Type of Experience	Criteria	Score
General Experience	<ul style="list-style-type: none"> • General Experience of firms/company/organizations in the basis of business registration 	10

Specific Experience in last 5 years	<ul style="list-style-type: none"> • Experience in any sort of Building Design and Construction Sector • Experience in Model Making • Experience in working in Energy Efficient Buildings 	20
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ii. Team Member’s Experience – 20

Personnel	Criteria	Score
Team Member’s Experience	<ul style="list-style-type: none"> • Team leader should have specific experience in model making 	20

iii. Methodology – 50

	Criteria	Score
General Methodology		50

c. 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.
- This is a fixed budget call. Only the qualified technical proposals which are within the budget determined by the organization will be considered.
- The technical proposal with highest score and within the budget for the assignment will be awarded the contract.

9. Method of proposal submission

- This call is open to all eligible firm / company/ organization.
- RFP application should contain following documents:

i. Organization Documents

- Copy of company/firm registration certificate
- Copy of VAT /PAN registration certificate
- Copy of tax clearance certificate of Fiscal Year 2079/80 (Tax extension acceptable)

ii. Technical Proposal

iii. Financial Proposal

- RFP documents shall be submitted via mail by 5:00 PM by 24th December, 2023 attaching all the documents and writing a mail to info@beenproject.org with subject line “RFP for Preparation of Showcase Energy Efficient Models”
- Document received after the closing time for submission of proposals shall not be considered for evaluation.
- 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.

10. Information session

BEEN will organize a virtual information session to explain about the call and model design on 18th of December, 2023 at 11.30 am. Interested organizations shall register for information session by sending a mail to info@beenproject.org no later than 5 pm, 15th of December 2023.

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

12. Principal Point of Contact

Any queries regarding this call should be sent by email to info@beenproject.org by 17th December 2023 & response to those queries will be collectively addressed on virtual session of 18th December, 2023.

Annex 1: Letter of Application

Date:

MinErgy Private Limited

Dakshinkali Chowk, Lagankhel-5

Sir/Madam

1. We “*the Applicant name*”, having reviewed and fully understood all the information provided, hereby submit the technical proposal for Preparation of Showcase Energy Efficient Models.
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. We declare that -we have no conflict of interest in the proposed procurement proceedings by MinErgy Pvt Ltd and we have not been punished for an offense relating to the concerned profession or business.
4. We declare that we have not been blacklisted for this service.
5. We declare that no case of corruption is pending against us.
6. We, the undersigned declare 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 Information Form

1. Name of Firm/Company:
2. Type of Constitution (*Partnership/ Pvt. Ltd/Public Ltd/ Public Sector/ NGO*)
3. Date of Registration / Commencement of Business:
4. Country of Registration:
5. Registered Office/Place of Business:
6. Telephone No; E-Mail Address
7. Name of Authorized Contact Person / Designation/ Address/Telephone:
10. Total number of staff:
11. Number of professional staff:

Annex 3: Applicant’s Specific Experience

Details of similar assignments undertaken

Assignment 1:

Assignment name	Name of Client:
Country: Location within country:	Duration of assignment (months): Start date (month/year): Completion date (month/year):
Approx. value of the services provided by consultant under the contract (in current NRs)	Name of joint consultants, if any:
Description of assignment	
Description of actual services provided in the assignment:	

Annex 4: Proposed Team

S. N	Name	Position	Highest Qualification	General Work Experience	Specific Work Experience	Nationality

Annex 5: Signed Resume of Proposed Team

Annex 6: General Methodology

Annex 7: Financial Proposal

Date:

MinErgy Private Limited

Dakshinkali Chowk, Lagankhel-5

Sir/Madam

We, the undersigned, offer to provide the consulting services for *Preparation of Showcase Energy Efficient Models* in accordance with your Request for Proposal (RFP) dated 13th December 2023. Our attached Financial Proposal is for the sum of [Amount in words and figures]. This amount is inclusive of the local taxes, which we have estimated at [Amount(s) in words and figures].

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations.

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

We 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:

For and on behalf of (name of Applicant):

Official Stamp

Annex 8: Detailed Budget Breakdown