

**BOSNIA AND HERZEGOVINA**  
**FEDERATION OF BOSNIA AND HERZEGOVINA**  
**ADDITIONAL FINANCING FOR ENERGY EFFICIENCY PROJECT–ID P165405**

**TERMS OF REFERENCES**

**for the Contractor**

**for Provision of Services related to the assessment of the energy use and consumption and potential energy savings through implementation of the energy efficiency measures in eligible public building owned by Federal and Cantonal Governments in Federation of Bosnia and Herzegovina**

**Ref. NO BEEPAF-P165405-CQ-35-CS-21-FBIH**

**1. Background**

The Government of Bosnia and Herzegovina (BH) has recognized the importance of energy efficiency (EE) to support sustainable economic growth and move towards EU accession and has received financing for the Additional Financing for the Bosnia and Herzegovina Energy Efficiency Project (BEEP) from the International Bank for Reconstruction and Development (IBRD) credit funds. The project development objective is to demonstrate the benefits of energy efficiency improvements in public sector buildings and support the development of scalable energy efficiency financing models. The AF BEEP became effective March 2020.

The project is supported by a US\$32 million IBRD credit for BH, which is made available to the two entities, with US\$ 19.23 million allocated to the Federation of Bosnia and Herzegovina (FBH). The project consists of three components implemented separately in each entity:

**Component 1: Energy efficiency investments in public facilities**

**Component 2: Support for the development of scalable financing mechanisms and capacity building**

**Component 3: Project Management**

The project implementation unit (PIU) established within the Ministry of Spatial Planning of the Federation of Bosnia and Herzegovina (FMPP) is responsible for the preparation, coordination, management and implementation of the project in the Federation of Bosnia and Herzegovina, including procurement, contracting, and payments of all goods, works and services related to the project.

This Terms of Reference (ToR) defines the nature and detailed scope of an assignment for Contactor to conduct assessment of the energy consumption and potential energy savings in all eligible/selected public buildings owned by Federal and Cantonal Governments in Federation of Bosnia and Herzegovina.

Based on the preliminary data assessment, the expected stock of public buildings is up to 3,600. Of those, 2000 may be eligible for the EE improvements. It is expected that out of those 2,000, for up to 500 (25%) will need additional data verification through direct field visit.

The Contractor will coordinate activities with, report to and work under the direction of the PIU Project Manager/Coordinator and PIU Technical Experts.

### **Scope of Work for the Contractor**

Under this assignment the Contractor has the responsibility to, in coordination and under direction of the PIU Program Manager / Coordinator, design and implement the work plan for the energy consumption, energy efficiency investments and energy savings assessment (*hereinafter the Assessment*) in eligible public building owned by the Federal and Cantonal Governments in FBiH.

The main purpose of the Assessment is to: assess the current energy use and potentials for the energy savings in eligible, identified public buildings owned by the Federal and Cantonal Governments in FBiH, provide a report on the energy efficiency status of each building, provide a comprehensive financial analysis related to the overall necessary investments for improvement of energy efficiency status of public buildings, as well as an analysis of short term and long term benefits of these investments.

Key responsibilities of the Contractor hired under this Terms of References include:

#### **I. Collect necessary data on public buildings energy efficiency status**

1. In order to collect data on the energy efficiency status of public buildings owned by the Federal and Cantonal Governments, the Contractor will:
  - a. Design the Work Plan that will describe in details approach and methods for data collection, data collection instruments, method/s of data analysis and expected results, detailed time schedule for implementation of the assessment, and information about the team that will collect and analyze collected data, The work plan will be submitted to PIU for review and approval;

- b. Establish contact with all the owners and users of public buildings
  - c. Establish contact with all the maintenance managers of public buildings
  - d. Design and test a questionnaire for data collection
2. The Contractor should, for each public building, collect at minimum the following data:
- a. Metered floor plan of the public building (m<sup>2</sup>)
  - b. The building height (m)
  - c. Number of underground and above ground floors
  - d. Surface (m<sup>2</sup>) of the outer envelope of the building and the type of materials used for construction of outer envelope of the building, walls, floors, and ceilings
  - e. Information on thermal insulation of the outer envelope of the building and type and thickness of thermal insulation
  - f. Types of materials from which façade carpentry is made (windows and doors, the type of glazing on the carpentry, and the total area (m<sup>2</sup>) of all windows on façade walls.
  - g. Total space of heated part of the building, separately for each construction unit of the building
  - h. Total volume of heated part of the building, separately for each construction unit of the building
  - i. The height of the rooms in heated part of the building
  - j. The data on current heating energy consumption and types of heating energy
  - k. Heating system information (boilers, installations, etc.)
  - l. Information of the existing lighting system (number, type and power of lighting fixtures, time period and mode of their use)
  - m. The current annual consumption and expenditures on heating and lighting energy
  - n. Estimated energy category of the building (building energy rating)
  - o. CO<sub>2</sub> emission based on the current energy needs of the building

## **II. Proposal of energy efficiency measure for improvement of the energy efficiency of the public building**

1. The Contractor is expected to provide a comprehensive financial analysis related to the necessary investments in the energy efficiency measures for each public building. This will include but not be limited to estimation of necessary investment in each proposed energy efficiency measure.
2. The Contractor is expected to provide a comprehensive financial analysis related to the overall necessary investments for improvement of energy efficiency status of public buildings in Federation of Bosnia and Herzegovina.
3. The Contractor is expected to estimate for each public building the annual consumption and expenditures on heating and lighting energy, and heating energy (kWh) and lighting energy (kWh) savings after implementation of the proposed energy efficiency measures
4. The Contractor is expected to estimate the overall annual consumption and expenditures on heating and lighting energy and heating energy (kWh) and lighting energy (kWh) savings after implementation of the proposed energy efficiency measures in public building in Federation of Bosnia and Herzegovina

5. The Contractor is expected to estimate energy category of the building (building energy rating) after implemented energy efficiency measures
6. The Contractor is expected to estimate for each public building the CO2 emission and the CO2 emission reduction after implemented energy efficiency measures
7. The Contractor is expected to estimate the overall CO2 emission and the CO2 emission reduction after implemented energy efficiency measures in public buildings in Federation of Bosnia and Herzegovina
8. The Contractor is expected to calculate different economic viability indicators for each building (period of investment return, etc)

Based on the instructions provided by the PIU Program Manager/ Coordinator, the Contractor will develop a database containing all the collected and estimated data in adequate form and structure that can be transferred and used for updating the PIU's digital map based platform that will capture and visually present all the data collected.

### **Duration of Contract**

Expected duration of the contract is 6 months during the period from January 2022 to July 2022.

### **Qualification requirements and basis for evaluation**

The Consultant should be a qualified firm or joint venture of firms (up to 3 companies for a joint venture) that have demonstrated experience in developing public building stock energy retrofits. The firm must propose a team capable of successfully carrying out all aspects of the ToR with in-depth experience in executing similar consultancies. The Consultant shall demonstrate their capability to mobilize enough skilled staff for carrying out the project activities within the allocated timeframe and include all necessary engineering specialists as part of the proposal by including in the technical proposal the Curriculum Vitae of the proposed key staff, including educational background, relevant working experience in similar projects, and by confirming their availability during the period of the contract.

Interested consultants must provide information indicating that they are qualified to perform the services by fulfilling following requirements:

- Company information: name, registration, address, telephone number, facsimile number, year of establishment, contact person for the project, fields of expertise;
- Confirmation on no obligations relating to the payment of direct and indirect taxes in accordance with the relevant laws of Bosnia and Herzegovina (may not be older than three (3) months) or with the relevant law of the country from the EOI submitter;
- Hold a license from Ministry of Spatial Planning of the Federation of Bosnia and Herzegovina for performing energy audit and certification of buildings for complex building systems in FB&H or if not available will be obtained within 30 days as condition to sign the contract. Such consultant shall provide a confirmation along with

the EOI that he will secure the license in case he is selected to submit technical/ financial proposals

- Details of experience in minimum three (3) similar assignments undertaken in last five (5) years, including value of consulting services and value of works, location, name of the Client, type of services provided, contract period of execution;
- Curricula Vitae (short version, specifying experience in similar assignments, five (5) CVs of key personnel from various professions requested under such services) of key staff who will be working on the assignment(s) with minimum:
  - Team Leader, responsible for managing/overseeing the entire consultancy contract implementation; University degree (Master's equivalent) in architecture, or civil construction engineering or related field; minimum ten (10) years of experience in relevant field, including project management of similar assignments;
  - At least two (2) additional graduate architect and/or civil engineers with competency exam passed and at least five (5) years of work experience in relevant field;
  - At least one (1) graduate mechanical engineer with competency exam passed and at least seven (7) years of work experience in relevant field;
  - At least one (1) graduate electrical engineer with competency exam passed and at five (5) years of work experience in relevant field.
  - One (1) administrative assistant (support personnel, not needed CV);

### **Contractor's Reporting Obligations**

The Contractor will submit monthly report to the Project Implementation Unit of the Ministry of Spatial Planning of the Federation of Bosnia and Herzegovina (FMPP) within 5 days after each month expires with description of the realized activities and the list/specification of the reimbursable costs.

The Contractor will prepare and submit a comprehensive report on the energy efficiency status of public buildings in Federation of Bosnia and Herzegovina. The report will be accompanied with the electronic database described above.

For the purpose of payments for eligible reimbursable costs the Contractor will submit along with the monthly report related proof and appropriate supporting documents/receipts, invoices etc.