

**BOSNIA AND HERZEGOVINA ENERGY EFFICIENCY PROJECT-
FEDERATION OF BOSNIA AND HERZEGOVINA**

TERMS OF REFERENCE FOR COMBINED CONSULTANCY SERVICES

PERFORMING AUDIT OF PROJECT DOCUMENTATION

**Contract No:
BEEP-P143580-CQ-09-CS-18-FBIH**

1. Background:

The Government of Federation of Bosnia and Herzegovina has received financing from the World Bank towards the cost of an Energy Efficiency Project. 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 project will consist of three components:

(1) An investment component: This component will support energy efficiency investments ('subprojects') in schools, hospitals and clinic centers. A small number of other public facilities (e.g., elderly homes, orphanages, other administrative buildings) may also be included. The component will finance energy efficiency upgrades,¹ as well as related technical consultancy services (e.g., energy audits, technical and social monitoring and evaluation, technical designs, supervision and subproject commissioning). The selection and implementation of subprojects will be conducted in three annual batches. The public buildings will be selected based on the payback period of energy efficiency investments (i.e. payback periods less than 8 years) and/or the significant energy savings potential, which were both identified as part of audits conducted;

(2) A component to support the development of scalable financing mechanisms and build capacity: This component will support the development of sustainable energy efficiency financing mechanisms in the public sector, strengthen implementation capacity and help to increase public awareness on energy efficiency;

(3) A component for project management: This component will ensure effective project management by the Project Implementation Unit (PIU) through financing additional experts, trainings for PIU staff, and covering incremental operating costs.

The PIU within the Federation Ministry of Physical Planning (FMPP) will be responsible for the preparation, coordination, management and implementation of the project, including procurement, contracting, and payments of all goods, works and services related to the project. This Terms of Reference (ToR) define the nature and detailed scope of an assignment to provide combined engineering services, which will include: the nature and detailed scope of an assignment to perform audit of technical documentation and supervision of civil works.

¹ Eligible measures include upgrades to reduce the energy use of public buildings, including building envelop measures, heating and cooling systems, lighting, upgrading of electrical network if capacity is increased, and other financially viable energy efficiency measures.

2. Objectives

For the preparation and implementation of energy efficiency investments in public buildings (financed under Component 1 outlined above) in 2018, the PIU on behalf of the FMPP ('the client') intends to hire a Consultant Company ('the consultant') who will perform audit of technical documentation.

The objective of the energy efficiency investments financed as part of the project is to demonstrate the benefits related to energy efficiency (EE), including reduction of energy consumption in selected buildings, demonstration of the economic viability of investments, including reduced recurrent energy costs and associated public expenditures. In addition, the energy efficiency improvements are expected to generate demonstrable co-benefits, such as reduced CO2 emissions and improved indoor comfort levels.

3. Description and Scope of Services:

3.1 GENERAL DEFINITION OF SERVICES

The services will be performed for the public buildings listed in Annex 1 of this ToR. The services to be provided by the Consultant are described in detail in section 3.2. The assignment will be executed through Task 1 which will be compensated on the basis of the Lump-Sum contract provisions.

The realization of the required tasks is the subject to availability of credit Funds to be obtained by the relevant Canton from the Federal Ministry of finance.

3.2 DETAILED SCOPE OF WORK

Task 1. Audit of project documentations (designs)

The Consultant will be responsible for preparing and delivering the documentation related to the Audit of Design to the Ministry of Physical Planning of Federation (FMPP).

The Consultant shall:

- Cooperate closely with the Consultant responsible for preparing the technical design (Design Consultant) and starting the audit of the design while the Design Consultant is working on and finalizing the Design/Project documentations;
- Verify and approve technical documentation and detailed technical designs, verify compliance of the design work in accordance with the provisions outlined in the terms of reference for the Design Consultant and with the applicable regulations;
- Carefully review and provide concise written comments, suggestions, or approvals to the Client and the Design Consultant on any revisions and improvements needed/suggested in the design documentation;
- Provide a lead auditor who is responsible for coordinating the components of the project documentation;
- Verify that the design documentation complies with the requirements relating to safety and environmental protection, mechanical strength and stability, noise and vibration, energy saving measures and fire protection;
- Submit a final Auditor's report (based on individual auditors reports), which includes suggestions that the Consultant for preparation of project documentation must adopt and incorporate into the project;

- Be available to the Client (or the Design Consultant) for questions in the scope of this task;
- Verify that the Consultant for preparation of project documentation adequately addressed and integrated the suggestions and observations provided by the audit consultant;

The objects, for which development of Audit of design is required, are mentioned in Annex 1.

4. Output/Deliverables and Time Schedule:

The deliverables include the following documents for each building separately:

Task 1:

The deliverables include the following documents for each building:

- Individual audit reports (refers to audit report of technical documentation per building) of including all suggestions and comments on technical documentation;
- Report/approvals of the revised technical documentation confirming that all suggestions and observations of audit where adequately addressed, if necessary.
- The final audit report of review of the overall project documentation;

Individual Reports of audit shall be submitted in two (2) hard copies and one (1) copy on CD ROM (MS Word, Excel) in local language for each object..

Report / approval of the suggestions included in accordance with the audit observation must be submitted in two (2) printed copies and one (1) copy on CD-ROM (MS Word, Excel) in local language.

Final Auditor's report in two (2) hard copies and one (1) copy on CD ROM (MS Word, Excel) in local language.

The time schedule for the Consultant(s) is as follows:

- Individual audit reports shall be completed and submitted to the Client within 5 days from delivered Design draft documentation; ;
- Final Audit Reports with included suggestions in compliance with the individual Audit suggestions, will be delivered to the Client for 3 days from delivered revised Design documentation.
- Total number of work days is 45. Expected period of time is from February to April 2018.

5. 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 conducting technical monitoring and evaluation of energy efficiency measures, and supervision of works (of several sites at the same time). 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 his 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);
- Hold a license from Federation Ministry of Physical Planning for Design;
- Balance sheet and income statement for the previous 3 (three) years;
- Proof or statement of financial capability from the Bank whose client is a Consultant firm (may not be older than one (1) month);
- Details of experience in minimum five (5) 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, three (3) 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 seven (7) years of experience in relevant field, including project management of similar assignments;
 - At least one (1) 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;
 - One (1) administrative assistant (support personnel, not needed CV);
- Form of association (sub-contractor/joint venture up to three members) for the execution of the contract, if the case may be, and identification of the leading company. Same information shall be submitted for the leading company and the associate companies except holding license from Federation Ministry of Physical Planning for Design which is obligatory for leading company;
- Detailed work schedule and methodology for all tasks/activities of this TOR, taking into account simultaneous implementation of tasks to be performed and allocation of number of staff, their qualifications and their man hours.

ANNEXES

Annex 1 – Draft List of selected public buildings

Annex 2 – Detailed Energy audits for selected public buildings

Annex 1 – Draft list of selected public buildings

This annex includes the draft list of selected public buildings and might be a subject to change.

No.	Building Name	Canton	Location	Selected scenario (ENG)	Heated area	Total investment
#					m2	BAM with VAT
1	JU „VI osnovna škola“, Mostar	HNK	Alekse Šantića 10 88000 Mostar	Scenario II: M1 - Partial replacement of existing joinery; M2- Thermal insulation of facade; M3- Thermal insulation of Ceiling Construction and Flat Roofs; M4- Installation of thermostatic valves; M5- Installation of heating / calorimeter measurements; M6- Replacement of boilers.	2.269	321.834
2.	OŠ Ivana Gundulića Mostar	HNK	Rudarska 87, Mostar	SCENARIO IV (S4): M1 - Replacement of joinery; M2 - Thermal insulation of external walls; M4 - Replacement of boiler and energy source with replacement of circulating pumps; M5 - Installation of thermostatic valves on radiators; M6 - Installation of the meter for the heat energy consumption.	1.980	433.785
3.	OŠ AB Šimića Mostar	HNK	Kraljice Katarine 38, Mostar	Scenario III (S3): M1 - Thermal insulation of external walls; M2 - Thermal insulation of the ceiling above the unheated basement; M3.1. - Thermal insulation of flat roof covering with additional thermal insulation; M3.2. - Thermal insulation of the ceiling with additional thermal insulation; M4 - Replacement of joinery; M5 - Replacement of equipment and improvement heating system; M6 - Improvement of the Electricity Consumption System.	3.585	877.118
4.	JU SŠ Gimnazija "Muhsin Rizvić"	ZDK	Ulica šehida 32, Kakanj	Scenario 2: M-2.1. External wall insulation; M-2.2.Flat and pitched roof thermal insulation M-2.3. Replacement of exterior openings with thermally high quality openings	2.240	142.609

5.	Mješovita srednja škola Stjepan Radić	ZDK	M4, Usora	Scenario 2: 1. Installation of a new boiler on biomass; 2. Replacement of roof windows; 3. Installation of motion sensors; 4. Installation of the daylight sensor.	2.162	58.522
6.	JU Druga osnovna škola Zavidovići	ZDK	Ul. 8.Mart, Zavidovići	SCENARIO II (S2): 1. Partial replacement of existing joinery of poor thermal characteristics; 2. Thermal insulation of ceiling of the building; 3. Replacement of the boiler on the fuel oil with pellet boilers; 4. Partial replacement of the lighting;	2.726	148.186
7.	JU "Gimnazija" Visoko	ZDK	Musala 23, Visoko	Scenario 2: M-1. Thermal insulation of external walls; M -2. Sanation of ceiling and flat roof; M- 3. Replacement of the heating system.	1.858	157.481
8.	JU Osnovna škola“ Vladimir Nazor“	ZDK	Ul.Sara jevska 20, Zenica	Scenario 2: 1. Thermal insulation of facade; 2. Replacement of the openings; 3. Thermal insulation of ceiling construction; 4. Partial Replacement of the lighting; 5. The transition to the two-tariff electricity meters;; 6. Installation of thermostatic valves; 7. Installation of Heat Recuperation; 8. Installation of automatic heating system regulation.	2.444	671.581
9.	JU OŠ „Izet Šabić“, Vogošća	SK	Donji Hotonj bb, Vogošća	SCENARIOS I (S1): M1 thermal insulation of external walls; M2 thermal insulation of roofs; M3 replacement of façade joinery; M4 installation of thermostatic sets; M5 installation of frequency regulated circulation pumps; M6 installation of control valves; M7 installation of the control system and operation of the heating installation; M8 replacement of glow bulb of power of 60 W with fluorescence bulbs of 26 W power; M9 Incorporating reactive energy compensator.	2.530	346.167
10.	JU „Peta osnovna škola“, Ilidža	SK	Sokolovići, Ilidža	Scenario 2: 1. Replacement of joinery; 2. Partial replacement of the lighting; 3. Installation of heat pumps with heat accumulator; 4. Installation of thermostatic valves.	2.887	298.285

11.	JU „Srednja elektrotehnička škola“, Sarajevo	SK	UI. Safeta Zajke br.2, Novi Grad	Scenario 3: 1. Replacement of the openings; 2. Thermal insulation of external walls; 3. Thermal insulation of the roof of the school and the gym; 4. Boiler replacement; 5. Installing a Calorimeter.	4.495	341.696
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Annex 2 – Detailed Energy audits for selected public buildings