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

TERMS OF REFERENCE FOR CONSULTANCY SERVICES

PERFORMING AUDIT OF PROJECT DOCUMENTATION

Contract No: BEEPAF-P165405-CQ-04-CS-20-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) define the nature and detailed scope of an assignment to provide engineering services to perform an audit of project documentation/design for buildings to be retrofitted under BEEP AF.

2. Objectives

For the preparation and implementation of energy efficiency investments in public buildings (financed under Component 1 outlined above) in the period 2020-2024, the PIU on behalf of the FMPP (‘the client’) intends to

hire a Consultant Company ('the consultant') who will perform audit of project documentation/design for buildings to be retrofitted under BEEP AF.

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 Annex 2 includes the DEAs for the public buildings listed in Annex 1. The services to be provided by the Consultant are described in detail in the task description in section 3.2. The assignment will be compensated on the basis of Lump-Sum contract provisions.

3.2 DETAILED SCOPE OF WORK

Task description: 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 documentation (Design Consultant) and already initiate 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 and related audit work;
- Verify that the design documentation complies with the requirements relating to safety and environmental protection, mechanical strength and structural stability, noise and vibration, energy saving measures and fire protection;
- Submit a final Auditor's report (based on individual auditors reports related to the different aspects of design, including architecture, mechanical and electrical), which includes suggestions that the Design Consultant preparing the project documentation must adopt and incorporate into the project;
- Be available to the Client (or the Design Consultant) for questions within the scope of this task;
- Verify that the Design Consultant preparing the 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 listed in Annex 1.

4. Output/Deliverables and Time Schedule:

The deliverables include the following documents for each building separately:

- Individual audit reports (refers to audit report of technical documentation per building) 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 business days from delivered Design draft documentation;
- Final Audit Reports with confirmation of compliance with the individual Audit suggestions provided, will be delivered to the Client within 3 business days from delivered revised Design documentation.
- Expected duration of assignment is 120 calendar days. Planned period of time is from January 2021 to July 2021.

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 audit of project documentation/design. 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 Design 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, ten (10) 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 four(4) graduate architect and/or civil engineers with competency exam passed and at least five (5) years of work experience in relevant field;
    - At least four (4) 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);

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 subject to change.

No.	Building Name	Canton	Location	Selected scenario (ENG)	Heated area (m2)	Total investment estimation (BAM with VAT)
1.	JU Medicinska škola Zenica	ZDK	Crkvice b.b., Zenica	(S2) - Scenario 2 - 1.Thermal insulation of the exterior walls, 2.Windows and doors replacement; 3.Thermal insulation of the flat roof, 4.Thermal insulation of the ceiling under the sloping roof; 5.Partial lightening replacement (CFLs); 6.Installation of thermostatic valves; 7.Installation of heat exchanger; 8. Installation of automatic control of heating (S2) 9.Establish the energy management team	3448	548.813,00
2.	JU Osnovna škola „1. mart“ Jelah	ZDK	Husein Kapetana Gradaščević a, Jelah, Tešanj	(S3) - Scenario 3: - 1. External windows and doors replacement; 2.External wall insulation; 3. Roof insulation; 4.Boiler and energy products replacement (pellet); 5. Hydraulic balancing of the heating system; 6. Installation of three frequency controlled pumps for the heating system; 7. Installation of thermostatic valves; 8. Installation of heating performance measures; 9. Partial lightening replacement (CFLs);.	1.919	389.512,20
3.	JU OŠ Safvet-beg Bašagić	ZDK	Donja Mahala 42, Visoko	(S5) - Scenario 5: -1.External wall insulation and thermal insulation of the ceiling under the sloping roof; (school building and sports hall) 2. External windows and doors replacement; 3. Heating system improvements.; 4.Boiler and energy products replacement; 5. Partial lightening replacement (CFLs);.	2.740	410.957,50
4.	JU Mješovita srednja stručna škola Kakanj	ZDK	Šehida, Kakanj	(S3) - Scenario 3: - 1. External wall insulation; 2. Roof insulation; 3. External windows and doors replacement; 4. Installation of thermostatic valves; 5.Installation of new pellet boiler; 6. Partial lightening replacement (CFLs);.	2.659	484.636,12
5.	JU OŠ "Safvet-beg Bašagić" Breza	ZDK	Breza	(S2) - Scenario 2: -2.1.External wall insulation; 2.2. Thermal insulation of the flat roof; 2.3. External windows and doors replacement; (S1) - Scenario 1: -1.1.External wall insulation; 1.2. Thermal insulation of the ceiling above heated area and flat roof; 1.3. External windows and doors replacement;	2.260	410.957,50
6.	JU OŠ "Novi Šeher"	ZDK	Novi Šeher, Maglaj	(S2) - Scenario 2 - 1.Thermal insulation of the exterior walls, 2.Windows and doors replacement; 3.Thermal insulation of the ceiling under the sloping roof; 4.Partial lightening replacement (CFLs); 5.Boiler and energy products replacement; 6.Installation of thermostatic valves; 7.Establish the energy management team	1.082	337.001,00

7.	JU OŠ "Vareš"	ZDK	Put mira br.37, Vareš	(S1) - Scenario 1 - 1. Partial windows and doors replacement; 3.Thermal insulation of the ceiling under the sloping roof (school building); 4.Thermal insulation of tne roof (sports hall); 5. Heat energy meters installation; 6.Partial lightening replacement 7.Establish the energy management team (S2) - Scenario 1 - 1. Partial windows and doors replacement; 2. Thermal insulation of the exterior walls, 3.Thermal insulation of the ceiling under the sloping roof (school building); 4.Thermal insulation of tne roof (sports hall); 5. Heat energy meters installation; 6.Partial lightening replacement 7.Establish the energy management team	2.849	213.507,45
8.	JU OŠ "Vozuća"	ZDK	Vozuća bb, Zavidovići	1.Thermal insulation of the exterior walls, 2.Windows and doors replacement;	965	52.911,60
9.	JU Mješovita srednja škola Zenica	ZDK	Dr. Adolfa Goldberga 10, Zenica	(S3) - Scenario 3: - 1.External wall insulation; 2.Roof insulation; 3.External windows and doors replacement; 4.Improvements of the heating system; 5.Installation of thermostatic valves; 6.Partial lightening replacement (CFLs); 6. Installation of 12 solar panels	3.967	557.295,10
10.	JU OŠ "Musa Ćazim Ćatić" Visoko	ZDK	Veliko Čajno, Visoko	(S2) - Scenario 2: - 1.External wall insulation;2.Thermal insulation of roof; 3.External windows and doors replacement; 4.Thermal insulation of cellings above non-heated area; 5. Installation of thermostatic valves; 6.Boiler and energy products replacement (gas); 7. Partial lightening replacement (CFLs);.	2.109	286.786,78
11.	JU OŠ "Kulin Ban" Tešanjka	ZDK	Trg žrtava osmog oktobra, Tešanjka	(S2) - Scenario 2 - 1.Windows and doors replacement; 2.Thermal insulation of the exterior walls, 3.Thermal insulation of the ceiling under the sloping roof;	1.634	275.702,50
12.	JU OŠ Rašid Kadić" Kakanj	ZDK	Gradac br. 240, Brnjic Kakanj	(S2) - Scenario 2: - 1. External windows and doors replacement; 2.External wall insulation; 3.Thermal insulation of ceilings above heated area; 4. Thermal insulation of roof; 5. Heat energy meters installation; 6.Partial lightening replacement (CFLs);.	1.627	152.530,00
13.	JU "Musa Ćazim Ćatić" Olovo	ZDK	Školska bb, Olovo	(S2) - Scenario 2: 1.Installation of heating control valve; 2. Hydraulic balancing of the heating system; 3. Partial lightening replacement (CFLs);.	1.145	7.997,09
14.	JU Mješovita srednja škola "Mehmedalija Mak Dizdar" i JU Gimnazija "Mushin Rizvić" Breza	ZDK	Šehidska 34 Breza	(S2) - Scenario 2 - 1.External wall insulation; 2.Thermal insulation of roof; 3.External windows and doors replacement; 4.Installation of thermostatic valves; 5.Installation of new pellet boiler; 6.Partial lightening replacement (CFLs);.	3.328	483.408,42
15.	JU OŠ "Mak Dizdar"	ZDK	Ćurkovića put 17, Zenica	(S3) - Scenario 3 - 1.External wall insulation; 2.External windows and doors replacement; 3.2.Installation of thermostatic valves, Heat energy meters installation,Hydraulic balancing of the	5.375	737.389,80

				heating system; 4.Partial lightening replacement (CFLs);.		
16.	JU OŠ "Mula Mustafa Bešeskija"	ZDK	Donje Moštre, Visoko	(S1) - Scenario 1 - 1.External wall insulation; 2.External windows and doors replacement; 3.Thermal insulation of tne roof (sports hall); 4.Installation of thermostatic valves; 5.Partial lightening replacement (CFLs);.	2.378	334.586,00
17.	JU Mješovita srednja škola "Nordbat 2"	ZDK	Zvijezda 36, Vareš	1.Thermal insulation of the exterior walls, 2.Windows and doors replacement; 3.Thermal insulation of the flat roof; 4. Installation of automatic control of heating; 5.Partial lightening replacement (CFLs);	2.161	142.010,00
18.	JU Mješovita srednja industrijska škola Zenica	ZDK	Bulevar Kralja Tvrtka I, Zenica	(S1) - Scenario 1 - 1.External wall insulation; 2.Thermal insulation of the roof; 3.External windows and doors replacement; 4.Installation of thermostatic valves; 5.Partial lightening replacement (CFLs);.	3.514	585.415,61
19.	JU OŠ "Mustafa Mulić" Šije	ZDK	Šije, Matuzići	(S2) - Scenario 2 - 1.Thermal insulation of the exterior walls, 2.Windows and doors replacement; 3.Thermal insulation of the roof, thermal insulation of the ceiling under the sloping roof; 4.Boiler and energy products replacement (pellet); 5.Hydraulic balancing of the heating system; 6. Installation of three frequency controlled pumps for the heating system; 7.Installation of thermostatic valves; 8.Heat energy meters installation; 9.Partial lightening replacement (CFLs);	950	165.649,50
20.	JU OŠ "Skender Kulenović"	ZDK	Radakovo. Zenica	(S1) - Scenario 1: - 1.External wall insulation; 2. Thermal insulation of the roof; 3.External windows and doors replacement; 4.Installation of thermostatic valves; 5.Installation of heating control valve; 6.Partial lightening replacement (CFLs);.	3.461	594.649,81
21.	JU OŠ "Kulin ban"	ZDK	Gornje Rosulje 1, Visoko	(S1) - Scenario 1: - 1.External wall insulation; 2. Thermal insulation of the ceiling below the sloped roof; 3.External windows and doors replacement; 4.Installation of new pellet boiler, and heating system reconstruction, 5.Installation of daylight sensor; 6. Installation of motion sensor;	3.008	540.162,82
22.	JU OŠ "Miroslav Krleža"	ZDK	Travnička cesta, Zenica	(S2) - Scenario 2: - 1.External wall insulation; 2.Installation of thermostatic valves; 3.Partial lightening replacement (CFLs);.	3.443	196.048,97
23.	JU OŠ "Arnauti" Zenica	ZDK	Arnauti bb, Zenica	(S1) - Scenario 1 - 1.Thermal insulation of the exterior walls, 2.Partial windows and doors replacement; 3.Thermal insulation of the ceiling below the sloped roof; 4. Reparation and thermal insulation of the roof (sports hall); 5.Heat energy meters installation; 6.Installation of new pellet boiler with with heat accumulator; 7.Hydraulic balancing of the heating system; 8. Installation of thermostatic valves; 10.Partial lightening replacement	1.472	44.731,44

				(CFLs);. (S3) - Scenario 3 - **2**.Partial windows and doors replacement; 5.Heat energy meters installation; 10.Partial lightening replacement (CFLs);.		
24.	JU "Mašinski fakultet Univerziteta u Zenici"	ZDK	Fakultetska 3, Zenica	(S3) - Scenario 3; - 1.Thermal insulation of the external walls; 2. External windows and doors replacement; 3.Thermal insulation of the roof; 4. Installation of automatic control of heating (S3) 5.Installation of thermostatic valves; 6.Partial lightening replacement (CFLs);	6.216	987.158,00
25.	JU "Metalurško-tehnološki fakultet Univerziteta u Zenici"	ZDK	Travnička cesta, Zenica	(S2) - Scenario 2; - 1.Thermal insulation of the external walls; 3.Partial windows and doors replacement; 4.Installation of thermostatic valves; 6.Partial lightening replacement (CFLs); (S3) - Scenario 3; - 1.Thermal insulation of the external walls; 2. Thermal insulation of the roorf; 3.Partial windows and doors replacement; 4.Installation of thermostatic valves; 5. district heating substations replacement; 6.Partial lightening replacement (CFLs);	5.819	839.795,00
26.	JU "Filozofski fakultet Univerziteta u Zenici"	ZDK	Zmaja od Bosne 56, Zenica	(S3) - Scenario 3; - 1.Thermal insulation of the external walls; 2.Thermal insulation of the roof; 3.Partial windows and doors replacement; 4.Installation of thermostatic valves; 5.Partial lightening replacement (CFLs); 6.Hydraulic balancing of the heating system;	2.680	447.469,00
27.	Rektorat Univerziteta u Zenici	ZDK	Fakultetska ulica, Zenica	(S3) - Scenario 3; - 1.Thermal insulation of the external walls; 2.Thermal insulation of the ceiling below the sloped roof; 3.Windows and doors replacement; 4.Installation of thermostatic valves; 5.Heat energy meters installation; 6.Replacement of heat exchange stations; 7.Partial lightening replacement (CFLs);	831	132.111,00
28.	Metalurški institut "Kemal Kapetanović" – Dokumentacijski centar - Biblioteka	ZDK	Fakultetska 3, Zenica	(S3) - Scenario 3; - 1.Thermal insulation of the external walls; 2.Thermal insulation of the roof; 3.Windows and doors replacement; 4.Installation of thermostatic valves; 5.Replacement of heat exchange stations; 6.Partial lightening replacement (CFLs);	876	287.679,00
29.	JU Gimnazija „Rizah Odžečkić“	ZDK	Stjepana Radića 43, Zavidovići	Roof replacement	1467	
30.	JU Gimnazija „Muhsin Rizvić“	ZDK	Ulica šehida 32, Kakanj	Roof replacement	2240	
31.	JZU UKC Tuzla – Klinika za plućne bolesti	Tuzla Canton	Slavinovići b.b. Tuzla	(S1) - Scenario 1; - M 1.1. Thermal insulation of the external walls and ceiling above unhited area; 1.2.Thermal insulation of ceiling below the sloped roof; 1.3.Windows and doors replacement; 3.heating system improvement: 4.partial ligtening replacement	3843	419.323,91

32.	JZU UKC Tuzla – Klinika za laboratorijsku dijagnostiku	Tuzla Canton	Trnovac b.b, Tuzla	(S2) - Scenario 2; - 1.2. Thermal insulation of the ceiling above heated area; 3.Installation of thermostatic valves; 4.partial ligtening replacement	2487	84.494,12
33.	Poliklinika za plućne bolesti "Podhrastovi"	Sarajevo Canton	Bardakčije 90, Sarajevo	(S2) - Scenario 2; - M2. Thermal insulation of the ceiling above heated area; M3.Windows and doors replacement; M5.partial ligtening replacement	3796	320.440,27
34.	Policijska akademija Sarajevo		Dobojska 32, Sarajevo	(S2) - Scenario 2: - 1.External wall insulation; 2. Thermal insulation of roof 3. External windows and doors replacement; 4.Thermal insulation of ceiling above the unheated area; 5.Installation of regulation valves and thermostatic valves; 6. Installation of heating performance measures; 7. Replacement of the heating pipe installations; 8.Partial lightening replacement (CFLs);.	9960	852.783,87
35.	UKCS Klinika za urgentnu medicinu		Bolnička 25, Sarajevo	(S1) - Scenario 1; - 1.Thermal insulation of the external walls; 2.Windows and doors replacement; 3.Thermal insulation of ceiling below the sloped roof; 4.Installation of thermostatic valves;	8482	1.928.612,23
36.	UKCS Klinika za fizikalnu medicinu i rehabilitaciju		Bolnička 25, Sarajevo	(S1) - Scenario 1; - 1.Thermal insulation of the external walls; 2.Windows and doors replacement; 3.Thermal insulation of the flat roof; 4.Installation of thermostatic valves;	1908	599.788,00
37.	Klinika za fizikalnu medicinu i rehabilitaciju, Klinika za infektivne bolesti, Klinika za kožne i spolne bolesti i Centar za kliničku farmakologij, Ravnateljstvo SKBM Objekt 1	HNC	Kralja Tvrtka b.b. Mostar	(S1) - Scenario 1 - 1.External wall insulation; 2. Thermal insulation of ceiling above the unheated area and roof 3. External windows and doors replacement; 4.Improvement of the central heating system: 5.Partial lightening replacement (CFLs);.	582	178.918,8
38.	Klinika za fizikalnu medicinu i rehabilitaciju, Klinika za infektivne bolesti, Klinika za kožne i spolne bolesti i Centar za kliničku farmakologij, Ravnateljstvo SKBM Objekt 2	HNC	Kralja Tvrtka b.b. Mostar	(S1) - Scenario 1 - 1.Thermal insulation of the external walls, 2.Thermal insulation of the flat roof, 3.External windows and doors replacement; 4.Improvement of the central heating system: 5.Partial lightening replacement (CFLs);.	835	184.611,59

39.	Klinika za fizikalnu medicinu i rehabilitaciju, Klinika za infektivne bolesti, Klinika za kožne i spolne bolesti i Centar za kliničku farmakologij, Ravnateljstvo SKBM Objekt 3	HNC	Kralja Tvrtka b.b. Mostar	(S1) - Scenario 1 - 1.Thermal insulation of the external walls, 2.Thermal insulation of the flat roof, 3.External windows and doors replacement; 4.Improvement of the central heating system: 5.Partial lightening replacement (CFLs);.	3.597	632.433,68
40.	Klinika za unutarnje bolesti sa centrom za dijalizu	HNC	Zrinskog Frankopana 34, Bijeli Brijeg, Mostar	(S1) - Scenario 1 - 1.Thermal insulation of the external walls; 2.Thermal insulation of the ceilings and roof; 3.Windows and doors replacement; 4.Installation of thermostatic valves; 5.Partial lightening replacement (CFLs);	3.845	527.568,81

Annex 2 – Detailed Energy audits for selected public buildings