

Romania
Energy Efficiency in Public Buildings
Municipality of Brasov, Romania,

Terms of Reference

1. BACKGROUND

The European Bank for Reconstruction and Development (the “EBRD” or the “Bank”) helps governments and municipalities to identify, prioritise and implement green investments in public buildings. This helps our clients to reduce operational costs, extend the life of buildings and improve standards of health, safety and comfort.

Since 2011, the Bank has invested over EUR 1 billion in green public buildings projects and can offer a range of financial products and services to support investment in public buildings. To encourage early movers to adopt advanced technologies, the Bank also mobilises comprehensive technical assistance involving energy audits, analysis of energy performance of buildings and procurement support. Moreover, the Bank engages with governments to support policy reforms aimed at promoting energy efficiency in buildings.

The EBRD Green Cities¹ is the Bank’s urban sustainability programme that strives to build a better and more sustainable future for cities and their residents. The programme achieves this by supporting cities to develop a Green City Action Plan (“GCAP”) that identifies, prioritises and connects cities’ environmental challenges with sustainable infrastructure investments and policy measures.

All investments under the EBRD’s Green Cities must meet specific impact thresholds to be eligible:

- i) All projects with climate mitigation impacts will reduce GHG emissions by at least 20 per cent or improve energy efficiency by at least 20 per cent;
- ii) All projects with climate adaptation impacts will have a Climate Resilience Benefit Ratio of at least 10 per cent.
- iii) All projects targeting environmental impacts beyond climate change will:
 - a. employ EU environmental standards, including Best Available Techniques, or where EU standards do not exist, recognised GIP of pollution prevention and control techniques and standards, for example the World Bank Group/IFC Environmental, Health and Safety Guidelines , or
 - b. reduce local pollution from the relevant municipal activity by at least 20 per cent, or
 - c. improve resource efficiency by at least 20 per cent.

The project proposed herein under the Green Cities Programme is in the city of Brasov (the “City”), one of the largest cities in Romania, with a population of approximately 400,000 inhabitants. The City requested a loan from the EBRD of up to EUR 10 million (or RON equivalent) for the energy efficiency rehabilitation of public buildings.

¹ EBRD Green Cities: <https://www.ebrdgreencities.com/>

In 2019, out of its ageing building stock, the City has prioritised a pool of 6 (six) public buildings (please see the table in *Annex 1*). Due to lack of major investments, outdated construction standards and insufficient maintenance, those buildings in Brasov (4 schools and 2 public administration buildings) are in poor condition and characterised by low energy performance.

The investments foreseen under the EBRD loan to the city of Brasov are expected to significantly improve the buildings' performance, health and comfort levels through energy efficient rehabilitation of the buildings envelop, cooling and heating systems, lighting, and water and power management (the "Project"). The overall purpose of the Project is to increase energy efficiency of the buildings, reduce CO2 emissions, reduce operating costs and improve local air quality.

NB: The City has already elaborated studies for 3 of the 6 buildings, including 2 DALIs² (documentation for approving the intervention works). The current status for each of the 6 buildings is presented in Annex 1.

Considering the loan request from the city of Brasov, the Bank intends to select a suitably qualified consultant (the "Consultant") to:

- (i) Review the existing documentation, update and finalise the energy audits and CAPEX plan for the proposed buildings
- (ii) check that the resulting indicators satisfy the eligibility thresholds for financing under the EBRD Green Cities programme and suggest further measures to improve the energy efficiency and other indicators, as needed
- (iii) undertake (i) an Environmental & Social (E&S) gap analysis, of the City and the project in relation with the Bank's Performance Requirements (available at <https://www.ebrd.com/who-we-are/our-values/environmental-and-social-policy/performance-requirements.html>) based on an EBRD's questionnaire to be prepared by the City with Consultant's support; and (ii) prepare an E&S action plan addressing the identified gaps.

Subject to confirmed eligibility, the consultant will further support the City as follows:

- (iv) review, update and finalise the technical and economic documentation according to Romanian legislation ("DALI") for the Bank and the City, based on the existing studies prepared by the City in the case of 2 buildings, and prepare the DALI for the other 4 buildings, for which the City has not finalised the needed studies to date
- (v) prepare the procurement documentation and
- (vi) support the City during the tendering and contracting process, by taking into account EBRD's Technical and Procurement Policies and Rules ("PPR"), available at <https://www.ebrd.com/work-with-us/procurement/policies-and-rules.html>

² DALI – means "documentation for approving the intervention works"; its structure is partially similar to a Feasibility Study, but the main difference is that, according to the relevant Romanian legislation, a DALI must be done whenever rehabilitation/ modernisation works are implemented on **existing** constructions.

2. OBJECTIVES

The overall objective of the assignment is to support the project preparation and advise the Bank, in order to take a decision on the prospective financing. Based on confirmed eligibility under the Green Cities Programme, the Consultant will support the City with preparation of procurement documentation as well as support during the procurement process up to contract signature.

3. SCOPE OF WORK

The Consultant shall assess the investments presented by the City for EBRD's financing. The Consultant will, taking into account the EBRD's Green Cities Programme and PPRs, verify that the investments fit within the scope of the proposed Project and within the estimated budget of the Project.

The Consultant will start with a detailed site visit in maximum one week from mobilisation, in order to properly carry out the below tasks.

NB: COVID restrictions are already significantly reduced for travel within the country, so local experts can travel on business, for site visits etc. Restrictions for international travel are expected to be reduced as well, so international experts could also travel to Romania in the future. However, in case restrictions will not be reduced or they will be reinforced, the Consultant will agree with the EBRD's Operation Leader on the best way forward.

3.1 Review existing documentation, energy audits and CAPEX plan

1. **Perform / update the energy audits** for each of the 6 (six) buildings in order to review energy efficiency measures included within the proposed investment and identify incremental, financially viable measures that could improve the project.

The energy audit shall include (but not be limited to) the following scope:

- a. Review the current conditions and performance of the buildings, including Heating Ventilation Air Conditioning ("HVAC") installations/systems and, as possible, the buildings envelop, any deficiencies or needs for refurbishment/up-grade/refitting. In addition data on the current energy use, as well as key performance indicators ("KPI") as specific annual energy/water use in absolute terms and the one adjusted to reference climatic and occupancy conditions;
- b. Analyse and comment on the current situation of the buildings with reference to buildings' physical appearance, resistance, construction quality, health & safety, energy consumptions, thermal comfort, access to utilities (water, gas, electricity), HVAC systems in place, performance (roof and windows), suitability of the buildings to services provided e.g. public education and administration etc.;
- c. Assets' inventory, to the extent possible including quantity, age, heated areas, current condition, main technical parameters, and type of the assets;
- d. Analyse the City's investment proposal and comment on the expected outcome of the measures identified by the City, namely increase energy efficiency, reduce CO2 emissions and other associated environmental and health benefits that will considerably increase the quality and efficiency of services provided by the buildings;

- e. Assess if the project will reduce CO2 equivalent emissions by at least 20 per cent or improve energy efficiency by at least 20 per cent compared to baseline.

2. Undertake a detailed analysis of the CAPEX plan for each building, in order to confirm key indicators / eligibility under Green Cities:

- a. Updating the CAPEX plan to include incremental EE investments identified during the energy audits, ensuring that the proposed measures are in line with legal requirements and reflect best international practice. Renovated buildings shall at least meet or exceed the national minimum energy performance requirements, but preferably exceed, and comply with the “cost-optimum investment level” principle;
- b. Reviewing the resulting CAPEX plan and assessment of its financial soundness;
- c. Agglomerating the CAPEX in 3 main categories:
 - i. EE investments – these shall include all CAPEX required to implement EE measures, including related structural strengthening
 - ii. Non EE measures (decoration, internal repairs, asbestos, etc.);
 - iii. Other CAPEX, including, if applicable, items that require historical, cultural heritage restoration and preservation;
- d. Assess what is the weight of the energy efficiency measures in the total investment and if the proposed pool of public buildings (schools, public administration buildings) meet the 60% level required by the Bank;
- e. Discuss the resulting measures and CAPEX plans with the Bank and the City, including comments on the required standards for quality, destination, safety, energy efficiency, CO2 emissions and other environmental and social related ones, for the two categories of buildings (schools and administrative). 2 main options have to be supported by indicative CAPEX and OPEX estimates as well as resulting indicative energy savings;
- f. Economic review in terms of the economic internal rate of return (“EIRR”);
- g. Calculate the Bank’s standard measuring indicators and Green Economy Transition (GET) impact indicators and submit a *GET Paper* – see Annex 2;
- h. Assess if the resulting investment measures comply with the eligibility criteria under Green Cities. At least 20% final energy savings (compared to baseline) and at least two classes of EPC3 improvement must be achieved after renovation and commissioning of the energy efficiency equipment.
- i. *Once eligibility confirmed*, the CAPEX plans need to be sufficiently detailed in order to provide all required inputs for preparing a tender. The format needs to facilitate the tender preparation and should be provided both as individual tenders for each building and for a single tender. It will be important to provide a separate break down of energy efficiency measures and of structural repairs, as well as the related required finance.

3. Undertake an Environmental & Social (E&S) gap analysis in relation with the Bank’s PPRs and prepare an E&S action plan addressing the identified gaps

The consultant will carry out the (E&S) gap analysis based on a questionnaire, to be made available by the EBRD and to be prepared by the City, with Consultant’s support, as needed.

³ *Energy performance certificate*

Further to assessing the questionnaire and based on dedicated discussions / consultations with the City relevant staff, the consultant will undertake the following:

- Evaluate the compliance status of the Project with the EBRD Performance Requirements (PRs) using the format to be provided
- Elaborate the Environmental and Social Action Plan (“ESAP”) for the investments to be financed under the Project;
- Discuss and agree the ESAP with the City.

The Environmental and Social Action Plan (“ESAP”) should include specific actions required to achieve compliance with the EBRD PRs, available at <https://www.ebrd.com/who-we-are/our-values/environmental-and-social-policy/performance-requirements.html>

The key deliverables under Task 3.1 will be:

- *Review of existing documentation, energy audits;*
- *CAPEX plans & GET paper;*
- *ESAP.*

Subject to confirmed eligibility resulting from Task 3.1 above, the consultant will further support the City as follows:

3.2 Update/draft and finalise the technical and economic documentation (“DALI”) for the public buildings

The Consultant will review the existing documentation / DALIs, especially from EE perspective, and will support the city to finalise the **2 existing DALIs**, if/where needed.

4 new DALIs will be drafted by the consultant according to the provisions of Government Decision no 907/2016, considering the below:

- a. At least 2 (two) different technical-economic scenarios/options, recommending, justifying and documenting the optimal technical-economic scenario/option for achieving the investment objectives;
- b. The optimal technical-economic scenario/option recommended by the Consultant as per the above point a, will include the technical solution (measures) and the main technical and economic indicators relating to the investment objective
- c. The city will be responsible with all necessary approvals, including the urban planning certificate;
- d. The main technical and economic indicators shall include the following:
 1. maximal indicators, i.e. the total value of the investment object, expressed in RON, with VAT and excluding VAT, respectively, of which construction-assembly (*constructii – montaj* “C+M”) according to the general estimate;
 2. minimum indicators, i.e. performance indicators - physical elements/physical capacities indicating that the investment objective is achieved - and, where appropriate, qualitative, in accordance with the standards, regulations and technical regulations in force;

3. financial, socio-economic, impact, outcome/operation indicators, determined according to the specificity and target of each investment objective;
4. the estimated duration of execution of the investment objective, expressed in months.

The key deliverables under Task 3.2 will be: *finalised DALIs for the 6 selected buildings*

3.3 Preparing the procurement documentation

The Consultant shall undertake the following tasks:

- a. Advise the Bank and the City on the most adequate procurement strategy for the project (number of lots, Construction vs Design and Build, 1 stage or 2 stages tendering etc.).
- b. Prepare the key technical specifications and cost estimates;
- c. Assist the City with the preparation of procurement documentation to ensure that they are compliant with the EBRD PPR and reflect the market practice and advise on additional documentation needed for the tender to be launched. Particular attention will be given to the following:
 - ii. draft the proposed qualification criteria, to ensure that they do not unduly restrict the competition;
 - iii. draft the evaluation criteria, to ensure that they are compliant with the national and EU regulations, are in accordance with the Banks rules and offer value for money to the Beneficiaries;
 - iv. draft the special conditions of contract, to ensure that the spread of the contractual risks between the contractual parties are balanced.

The key deliverable under Task 3.3 will be: *Tender documentation.*

3.4 Support the tendering and procurement process

- a. Develop a procurement timeline having in view the best tendering option chosen for the investment;
- b. On instruction of the Bank, provide as-needed support during the tender period and until tender award. This includes the review or support in answering any technical and commercial queries received from prospective tenderers and provide any independent review and assessment or any other opinion to the Bank on any technical and/or procurement matter which is needed to answer to complaints or concerns received from tenderers;
- c. Draft any addenda to tender documents to ensure that these are not changing the scope of the tender or restrict the competition;
- d. Review the tender evaluation report sent by the City, to ensure that the process of evaluation was conducted in accordance with the requirements set in the tender documents and for the tendering process to meet the Bank's 'no objection'.

The key deliverable under Task 3.4 will be: *Final Report, including tendering and contracting support.*

4. DELIVERABLES

The Consultant shall produce in the course of the assignment the following reports:

- **Inception Report.** Based on **site visits** for each of the buildings, within **max 4 (four) weeks** of commencement of the assignment, the Consultant shall present to the City and the Bank an inception report presenting the initial findings, including a preliminary CAPEX plan and GET paper, with an emphasis on findings having an impact on the time schedule and factors affecting these Terms of Reference. The City and the Bank will provide comments on the inception report to the Consultant;
- **Key deliverables**, as per table below
- **Final Report, including all the deliverables.**

As mentioned above, the Consultant will proceed with DALI preparation and procurement support, only based on the confirmed eligibility of the Project under the Green Cities framework.

Title of deliverable	Indicative Timeline
Review of existing documentation and Energy audits; CAPEX plans & GET paper; ESAP	M + 1 month
Finalised DALIs	M + 3 months (draft) M + 4 months (final)
Tender Documentation	M + 5 months (draft); M + 5.5 months (final)
Final report, including tendering and contracting support	M + 12 months

* M = Mobilisation

All deliverables will be submitted in draft and final versions, in English, as Word documents. Summary papers (main findings/gaps and recommendations) as well as the procurement related documents will be also prepared in Romanian, both hardcopies and softcopies.

All reports shall be delivered to EBRD (Bucharest and London offices) in English, as soft copies.

5. IMPLEMENTATION ARRANGEMENTS

The duration of the assignment is expected to be up to 12 (twelve) months.

The Consultant shall report to EBRD's Operation Leader on all aspect of the assignment.

The Consultant shall be responsible for arranging its work from its home/local offices, and for covering all costs associated with accommodation, travel and living expenses, communications, materials, printing and report preparation etc. The EBRD will provide access to all relevant information in its possession, to enable work to commence full speed under each assignment. Further information is expected to be provided by the Beneficiary. Once

mobilised, the Consultant is expected to liaise with the Beneficiary for the completion of their tasks.

The City is expected to provide furnished and serviced office accommodation for the Consultant, plus suitable office space for meetings. They will also provide access to all relevant information, studies, reports, legal documents etc. at no cost to the Consultant, although it may be expected that the Consultant will need to source considerable additional data for the assignment. The materials will be delivered to the Consultant in the original version (not necessarily in English language).

Given the assignment is funded through the EBRD's donor funded technical cooperation programme, the Consultant will be required to support the Client to ensure visibility of these resources. Support on these visibility aspects can be obtained from the Bank's Communications Department. Measures could include but not be limited to:

- All documents produced by the Consultant should mention donor support and bear the logo of the donor, when appropriate.
- Donor support to the project should be acknowledged in any public communication (press releases, launch of facilities).
- Local representatives of donors should be invited to any public event organised to promote the project (press conferences, inaugurations, possibly stakeholder participation programmes).

The EBRD will communicate the donor visibility requirements to the Consultant at the kick off meeting.

ANNEX 1**Investments proposed by the city of Brasov**

No	Investment	Address	Valoare estimata fara TVA	Status	Existing documents
			[EURO]		
1	Public buildings - str. M. Viteazu nr. 11(ISU)	Str. M Viteazu nr.11	3,638,200	DALI Building permit - obtained	DALI 2017 Building permit Energy audit 2016 Technical expertise 2017 Geo and topo 2017 CBA 2017
2	School no.12, building B	Str. Scolii nr. 6	920,600		
3	Poarta Schei nr. 14 (NC Johanes Honterus - building E)	str. Poarta Schei nr. 14	508,000	Built in 1806	DALI 2018
4	National College Andrei Saguna – buildings A, B	Str. A. Saguna nr. 1	2,284,100	Building A – historic monument	Technical expertise 2017 – buildings A and B Geo study 2017
5	National College Johanes Honterus (buildings A, B, C)	str. Poarta Schei nr. 39	1,934,800		
6	SCRAT SA Brasov (headquarters)	Str. Harmanului nr. 49	714,300		
	TOTAL		10,000,000		

Annex 2: Standard measuring indicators and GET impact indicators

Total Population benefitting from the project (individuals)		
Total area of the existing buildings (gross)	m ²	
Total area of the existing buildings (net)	m ²	
Total area of upgrade (gross)	m ²	
Total investment	EUR	
Unit price in upgrading	EUR/m ²	
Investment in energy efficiency (EE) measures (construction works, mechanical works)	EUR	
Share of EE measures in total investment	%	
Unit price in energy efficiency (EE) measures (construction works, mechanical works)	EUR/m ²	
Investment in non-EE measures	EUR	
Share of non EE measures in total investment	%	
Discount rate	%	
Economic Net Present Value (ENPV)	000 EUR	
Economic Profitability Rate (ESR)	%	
Economic Return on Investment (EROI)	%	
Discounted return period	year	
Energy saving compared to comfort level baseline (calculated baseline)	MWh/year	
Improved efficiency of buildings	kWh/m ²	
Primary Energy saving (GJ/yr)	GJ/yr	
Energy savings	%	
Reduction of emissions ⁴	CO _{2eq}	t/year
	CO	
	NO _x	
	SO ₂	
	Solid particles	

⁴ Annual emission reduction compared to comfort level baseline (calculated baseline)