



INDIVIDUAL CONSULTANT PROCUREMENT NOTICE

Date: **26 April 2021**

Country: Republic of Moldova

Description of the assignment: National consultant in Energy Management Information Systems

Project name: Moldova Sustainable Green Cities – Catalyzing investment in sustainable green cities in the Republic of Moldova using a holistic integrated urban planning approach

Period of assignment/services: 60 working days till September 2021

Proposals should be submitted online by pressing the "Apply Online" button, no later than **4 May 2021**.

Requests for **clarification only** must be sent by standard electronic communication to the following e-mail: alexandru.rotaru@undp.org. UNDP will respond by standard electronic mail and will send written copies of the response, including an explanation of the query without identifying the source of inquiry, to all applicants.

1. BACKGROUND

The **objective of the project** is to catalyse investments in low carbon green urban development based on integrated urban planning approach, by encouraging innovation, participatory planning and partnerships between a variety of public and private sector entities.

The strategy of the project is to create, launch and support a new institutional mechanism called "Green City Lab" (GCL) as a vehicle for encouraging and supporting new innovative measures and approaches in addressing the urban development challenges and barriers. Green City Lab has to become the leading knowledge management and networking platform, clearing house, an facilitator of financing various green urban development projects, and a source of innovations and expertise to catalyse sustainable low carbon green city development in Moldova with a mission to transform Chisinau and other cities/towns in Moldova into modern green and smart European cities with improved quality of life for their citizens, while also demonstrating opportunities for sustainable economic growth.

The objective of the project is related to the transfer of best international practices of Energy

Management Information System (EMIS) and testing it in a group of buildings with a possibility to establish a municipal and national data base on actual consumption of energy, energy raw materials and water in public buildings.

Context:

Energy management information system – EMIS is a computer program or an internet application serving as a basic tool supporting the energy management system in public and commercial buildings. EMIS is intended primarily for monitoring and analyzing data on consumption and costs of energy and water in public buildings under the responsibility of local, regional, and the national levels. Nevertheless, irrespective of its primary purpose, its concept design is flexible which enables it to be used with equal success also for buildings which are the responsibility of other institutions and organizations, indirect budget beneficiaries, commercial buildings and public enterprises. The EMIS is designed using the relations data base platform (Oracle) and Web architecture, meaning that it can be accessed from any computer with an online connection using any Internet browsers available in the market. Also, it allows export of the data in XLS and other formats, thus providing data resource for any kind of advanced analysis. Additionally, EMIS has an integrated option of automatic data screening and if any result of the automatic analysis is critical, or out of the set limits (e.g., a dramatic increase in energy or water consumption) EMIS sends alert message to the person(s) in charge thus any unwanted and unnecessary energy or water usage and costs are avoided.

EMIS was developed initially by UNDP Croatia in 2006, within the UNDP Project “ Removal of barriers for energy efficiency in Croatia. It is used worldwide in the country (on more than 13.000 public buildings in the system) and was also replicated in Republic of Serbia, Bosnia and Herzegovina. From 2020 the same platform was deployed by Moldova Sustainable Green Cities Project and is required to be tested on a group of 40 buildings in Chisinau. EMIS will be piloted on 17 buildings from Chisinau.

Basic **EMIS** functionalities are:

- Access to technical data about buildings
- Monitoring and control of energy and water consumption on a monthly, weekly or daily basis (monthly bills and/or meter reading)
- Easy access to information about the total amount of consumed energy and water, methods and places at which energy is consumed
- Calculations and analysis in order to identify the unwanted, excessive and irrational energy and water usage and identification of EE projects and opportunities for achieving energy and financial savings
- Verification of achieved energy and water savings
- Calculation of different energy consumption indicators
- Automated alerts on critical events and malfunctions
- Different user interfaces for each user role
- Advance database searching and filtering
- Excel, pdf data export, including preparation of predefined reports
- Assortment of different building types
- Custom definition of energy bills

- Collection of automatic energy usage readings and data from energy supplier billing databases
- Internal communication and alarming system

2. SCOPE OF WORK, RESPONSIBILITIES AND DESCRIPTION OF THE PROPOSED ANALYTICAL WORK

The Consultant will work in close collaboration with Chisinau Municipality, Energy Efficiency Agency (EEA) and under direct supervision of the Green Cities Project Manager and UNDP Country Office in Moldova. Under this activity national consultant is requested to provide full support necessary to pilot EMIS platform as well as providing required support to energy managers for further utilisation.

The consultant will have the following responsibilities:

- Providing full support during the smart meters and concentrator connectivity in order to make the platform fully operational;
- Providing full support in configure and predefining data to be collected in EMIS platform;
- In case if Chisinau Municipality will decide to integration other buildings in EMIS, consultant will have the responsibility in collecting slow changing data for each building (non-technical):
 - a. Region, district, municipality;
 - b. Address of the building;
 - c. Buildings within buildings;
 - d. Building owner;
 - e. Building user;
 - f. Source of funding;
 - g. Owner and user persons in charge;
 - h. Contact person, etc

Technical data:

- i. Surface area of building;
 - j. Number of floors;
 - k. Electricity supply (number of electricity meter, type of buyer, category of buyer, etc.);
 - l. Heating type (source of heating, energy source, etc.);
 - m. Total heated area, total volume;
 - n. Technical characteristics of the heating system;
 - o. Technical characteristics of the lighting system;
 - p. Operating processes in the building (food preparation, laundry washing, swimming pool, etc.), etc
- Entering data from invoices for energy (electricity, district heating, SHW), energy sources (gas, LPG, coal, fuel-oil, crude, firewood, etc.) and water;
 - Providing support in EMIS utilization and Chisinau energy manager, end users, and other types of users;
 - Develop a comparative analysis on benefits and bottlenecks related to integration of EMIS at national level.
 - Develop in close collaboration with Chisinau municipality, Ministry of Economy and Infrastructure (MEI), Energy Efficiency Agency (EEA) and other responsible stakeholders, an agreed Roadmap, as well as the required justification, regarding further utilization of EMIS

Platform at National Level. The roadmap will cover, technical, financial, and legal aspects, and will be commonly agreed with MEI, EEA, and Chisinau Municipality. The methodology and table of content will be preliminary agreed with Green Cities Project.

- Conceptualize and conduct Workshop with main stakeholders related to first outcomes of pilot -project.

For detailed information, please refer to Annex 1 – Terms of Reference.

3. REQUIREMENTS FOR EXPERIENCE AND QUALIFICATIONS

I. Academic Qualifications:

- University degree in Energy, Environment, Engineering, or other closely related field.
- Specialized certificates in Energy Management, smart technologies, wireless technologies, would constitute an advantage.

II. Years of experience:

- At least 5 years of professional experience in providing advice to energy management system and energy engineering.
- Proven experience in managing projects related to smart technologies, as well as required tools in energy management.
- Proven knowledge of energy efficiency, energy saving and use of renewable energy development in residential sector.

III. Competencies:

- Demonstrates integrity and fairness by modelling UN values and ethical standards;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;
- Ability to meet deadlines and prioritize multiple tasks
- Excellent communication skills; Excellent analytical skills; Strong oral and writing skills;
- Excellent computer literacy (Word, Excel, Internet, Power Point) other advanced programming tools, would constitute an advantage.
- Ability to work independently as well as part of a team;
- Proficiency (verbal and written) in Romanian and English; working level of Russian will be an asset.

Proven commitment to the core values of the United Nations, in particular, respecting differences of culture, gender, religion, ethnicity, nationality, language, age, HIV status, disability, and sexual orientation, or other status.

UNDP Moldova is committed to workforce diversity. Women, persons with disabilities, Roma and other ethnic or religious minorities, persons living with HIV, as well as refugees and other non-citizens legally entitled to work in the Republic of Moldova, are particularly encouraged to apply.

4. DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS

Interested individual consultants must submit the following documents/information to demonstrate their qualifications:

1. Proposal:

- (i) Explaining why they are the most suitable for the work;
- (ii) Provide a brief methodology on how they will approach and conduct the work (if applicable);

2. Personal CV, including information about past experience in similar assignments and contact details for referees (at least 3);
3. Offeror's Letter confirming Interest and Availability, incorporating the Financial Proposal (in USD, specifying the total lump sum amount as well as the requested amount of the fee per day) in Annex 2.

5. FINANCIAL PROPOSAL

Lump sum contracts

The financial proposal shall specify a total lump sum amount, and payment terms around specific and measurable (qualitative and quantitative) deliverables (i.e. whether payments fall in installments or upon completion of the entire contract). Payments are based upon output, i.e. upon delivery of the services specified in the TOR. In order to assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump sum amount (including fees, taxes, travel costs, accommodation costs, communication, and number of anticipated working days).

Travel

All envisaged travel costs must be included in the financial proposal. This includes all travel to join duty station/repatriation travel. In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the IC wish to travel on a higher class he/she should do so using their own resources.

In the case of unforeseeable travel, payment of travel costs including tickets, lodging and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed.

6. EVALUATION

Initially, individual consultants will be short-listed based on the following minimum qualification criteria:

- University degree (or equivalent) in Energy, Environment, Engineering, or other closely related field
- At least 5 years of professional experience in providing advice to energy management system and energy engineering

The short-listed individual consultants will be further evaluated based on the following methodology:

Cumulative analysis

The award of the contract shall be made to the individual consultant whose offer has been evaluated and determined as:

- a) responsive/compliant/acceptable, and
- b) having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.

* Technical Criteria weight – 60% (300 pts);

* Financial Criteria weight – 40% (200 pts).

Only candidates obtaining a minimum of 210 points would be considered for the Financial Evaluation.

Criteria	Scoring	Maximum Points Obtainable
Technical		
University degree (or equivalent) in Energy, Environment, Engineering, or other closely related field	University degree (or equivalent) – 40 pts; Master’s degree – 50 pts	50
Specialized certificates in Energy Management, smart technologies, wireless technologies, would constitute an advantage	Yes – 10 pts, no – 0 pts	10
At least 5 years of professional experience in providing advice to energy management system and energy engineering	5 years – 40 pts; each additional year 5 pts up to max – 55 pts	55
Interview (demonstrated technical knowledge and experience; communication/ interpersonal skills; initiative; creativity/ resourcefulness)		
Proven experience in managing projects related to smart technologies, as well as required tools in energy management	limited – <20 pts, satisfactory – <45 pts, extensive – <70 pts	70
Proven knowledge of energy efficiency, energy saving and use of renewable energy development in residential sector	limited – <15 pts, satisfactory – <30 pts, extensive – <50 pts	50
<ul style="list-style-type: none"> • Demonstrates integrity and fairness by modelling UN values and ethical standards • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability 	limited – <3 pts, satisfactory – <5 pts, extensive – <10 pts	10
Belonging to the group(s) under-represented in the UN Moldova and/or the area of assignment ¹	no – 0 pts, to one group – 3 pts, to two or more groups – 5 pts	5
Ability to meet deadlines and prioritize multiple tasks	limited – <3 pts, satisfactory – <5 pts, extensive – <10 pts	10
<ul style="list-style-type: none"> • Excellent communication skills • Excellent analytical skills • Strong oral and writing skills. 	limited – <3 pts, satisfactory – <5 pts, extensive – <10 pts	10
Excellent computer literacy (Word, Excel, Internet, Power Point) other advanced programming tools, would constitute an advantage	Yes – 5 pts, no – 0 pts	5

¹ Under-represented groups in UN Moldova are persons with disabilities, LGBTI, ethnic and linguistic minorities, especially ethnic Gagauzians, Bulgarians, Roma, Jews, people of African descent, people living with HIV, religious minorities, especially Muslim women, refugees and other noncitizens.

Ability to work independently as well as part of a team	limited – <3 pts, satisfactory – <5 pts, extensive – <10 pts	10
Proficiency (verbal and written) in Romanian and English; working level of Russian will be an asset	Each language – 5 pts	15
Maximum Total Technical Scoring		300
Financial		
Evaluation of submitted financial offers will be done based on the following formula: $S = F_{min} / F * 200$ S – score received on financial evaluation; Fmin – the lowest financial offer out of all the submitted offers qualified over the technical evaluation round; F – financial offer under consideration.		200

Winning candidate

The winning candidate will be the candidate, who has accumulated the highest aggregated score (technical scoring + financial scoring).

ANNEXES:

ANNEX 1 – TERMS OF REFERENCES (TOR)

ANNEX 2 – INDIVIDUAL CONSULTANT GENERAL TERMS AND CONDITIONS

ANNEX 3 – OFFEROR’S LETTER TO UNDP CONFIRMING INTEREST AND AVAILABILITY