TERMS OF REFERENCE

Job title:	Consultant for conducting an impact assessment of the pilot/demonstration projects to increase energy affordability in residential and public buildings, targeting specifically the most vulnerable and affected groups of population
Duty station:	Chisinau
Reference to the:	Addressing the impacts of the energy crisis in the Republic of Moldova: Initiating solutions toward energy security and energy poverty" (FPI Programme)
Payment arrangements:	Lump sum contract (payments linked to satisfactory performance and delivery of outputs)
Contract type:	Individual Contract (IC)
Contract Duration:	May 2024 – July 31, 2024 *(the estimated amount of work is 30 wd)*

1. BACKGROUND

Moldova is part of the EU's European Neighborhood Policy (ENP) and in the Eastern Partnership framework, which aims at strengthening individual and regional relationships between the EU and countries in its neighborhood. Moldova is also part of the Energy Community Treaty since 2010 and has signed the Association Agreement with EU in June 2014, including the DCFTA which entered into force in 2016. As a follow-up, Moldova is required to ensure transposition of the EU acquis Communautaire, which underpins the EU energy legislation on electricity, gas, oil, renewables, energy efficiency and environment. The country has recently synchronized its electricity network with the ENTSO-E to connect to European electricity market.

The energy sector is one of the top priorities for the Government and it is addressed in Government's Plans and a number of policy documents, laws and regulations. The most important are the following: the draft National Development Strategy 2030, the National Energy Strategy 2030, Law on energy, Law on electricity, Law on promoting use of energy from renewable sources, Law on natural gas, Law on energy efficiency, Law on the energy performance of buildings, Law on the labelling of products with energy impact, Law on eco-design requirements for energy-related products, etc., as well as a list of secondary legislation, meant necessary to ensure for the implementation of the primary legislation.

In accordance with the existing strategic planning documents, one of main priorities of the Government is to diversify the energy mix with more renewable energy, which is also fully in line with commitments under the EU Clean Energy for all Europeans packages. Achieving this goal will require significant investment in the medium and long term, but also the country's ability to attract and absorb the funds. The development of renewables, such as wind and solar, will also depend on improving the balancing capabilities of the Moldovan power system and its integration with neighboring countries.

Starting with October 2021, Moldova faced significant crisis in the gas sector, which outlined the need to undertake more actions towards improving energy security of the Republic of Moldova, both in the natural gas

and electricity sectors. To enhance security of gas supply, Moldovan authorities are seeking various ways to diversify gas and electricity supply, to strengthen its energy security and enabling a transparent, fully open and well-functioning energy market.

The acute gas supply crisis in Moldova has also been subject of discussions within the Moldova-EU Association Council meeting on October 28, 2021. The EU and Moldova stressed the importance of resilience against any potential efforts by third parties to use energy as a geopolitical lever. The Association Council recalled the importance of continued energy market reform to strengthen competition and transparency in this sector. The EU has urged Moldova to ensure that the energy sector reform demonstrates full respect of the Energy Community acquis and is in line with the EU Third Energy Package. The EU side confirmed its support to the objective of Moldova for integration into the EU energy system and market, an important step being the recent synchronization of its electricity network with the Continental European Network (CEN).

Under these circumstances, the Government of Moldova is being assisted to tackle the current energy crisis and energy poverty and addressing prioritized systemic elements in the energy sector to cope with potential future energy crisis. In partnership with EU, UNDP Moldova is supporting the Government of Moldova:

a. To tackle the current energy crisis and energy poverty, and addressing prioritized systemic elements in the energy sector to cope with potential future energy crisis,

b. To support the Government of Moldova in building its capacities towards strengthening the national energy security, as well as in improving the legal and regulatory framework and operationalizing specific rapid large-scale interventions to tackle energy poverty and support most vulnerable and affected groups of population and businesses.

The project duration is envisaged between 2022- 2024 with support from Foreign Policy Instrument (herewith FPI) of EU.

2. PROJECT OBJECTIVES AND EXPECTED RESULTS

The overall objective of the Programme is to assist the Government of Moldova to tackle the current energy crisis and energy poverty in addressing prioritized systemic elements in the energy sector to cope with potential future energy crisis.

Specific objectives are to support the Government of Moldova to:

a. put in place the legal and regulatory framework in the energy sector with mainstreamed social and climate considerations in line with the EU requirements;

b. strengthen the capacities of the energy-related actors and enhancing institutional coordination mechanisms to address and avert risks entailed in recent and potential future energy crisis;

c. increased awareness and communication among the population to adopt the best energy saving practices and measures and to encourage the use of renewables;

d. operationalize nation-wide energy programmes and demonstrate solutions to increase energy affordability in residential and public buildings, targeting specifically the most vulnerable and affected groups of population.

One of the components of the project focuses on implementation of *demonstration/pilots of energy efficiency and renewable measures to increase energy affordability*. *This component emphasizes also the development of*

sustainable financing mechanisms with primary focus on vulnerable households and public sector. Specifically, the following four () programs were conducted:

1. "The Green Home Programme" aiming to help households affected by energy poverty to reduce their bills by implementation of energy efficiency measures and renewable energy solutions. Under this pilot program about 250 households benefited of measures such as: thermal insulation of building envelope, changing the heating source, installation of photovoltaic systems etc.
   Key accomplishments of the program include:
   - Installation of photovoltaic systems in 22 individual households, allowing these homes to generate their own clean electricity.
   - Thermal insulation improvements, along with the replacement of doors and windows in 40 households, significantly reducing energy loss and heating costs.
   - Installation of 22 biomass boilers, providing a renewable and cost-effective heating solution.
   - Equipping 11 homes with solar collectors to harness solar energy for heating purposes.
   - Currently, the program is in the process of equipping an additional 150 households with photovoltaic systems, with the work underway.

2. "Eco-voucher/Rabla Electrocasnice" designed to help households replace outdated and energy-consuming appliances such as refrigerators, washing machines, and electric stoves, including ovens and bulbs, with newer, more energy-efficient models. The Programme targets at least 50,000 vulnerable households that are a part of the highest vulnerability category. Beneficiary households receive e-vouchers subsidizing up to 80% of the new appliance's cost, with the remaining 20% to be covered by the household as contribution. The program is anchored in an integrated IT module that facilitates seamless voucher issuance, redemption, and subsequent appliance recycling, while ensuring full transparency and efficiency in operations.

3. "Refurbishment of the distribution heating system from the multi-story residential buildings" aims to help around 450 apartments in multilevel residential buildings to reduce their bills by refurbishment of the distribution heating system in 4 multi story residential buildings connected to CHP. The intervention is consisting in switching from vertical to horizontal distribution of heat with installation of modern meters and individual heating substations to allow efficient and automatic operation of heating system in autumn and spring period and offering the possibility for beneficiaries to adjust the heat comfort in each apartment by adjusting the desired temperature.

4. "Renewable energy for public buildings" initiative is designed to encourage the adoption of renewable energy sources within medical facilities, which are considered essential infrastructure. This pilot project aims to equip at least five (five) medical institutions with photovoltaic (solar) systems. By implementing these systems, which range in power from 60 kW to 200 kW, the initiative seeks to help these institutions significantly reduce their electricity expenses using a net metering mechanism. By implementing this pilot, it is expected that these institutions can achieve significant energy savings and enhance their security and reliability in energy provision.

In this context, UNDP Moldova is seeking to recruit a consultant to collect and study quantitative data with respect to the pilot projects and demonstrations mentioned above. The aim is to assess the estimated CO2 reductions, energy and cost savings among beneficiaries, and efficiency improvements resulting from the

implementation of all 4 programmes. In addition, the evaluation will capture key learnings and provide recommendations for further improvements and enhancements for scale-up and/or replication.

3. SCOPE OF THE WORK, DUTIES AND RESPOSIBILITIES

Under the overall guidance and supervision of the Project Manager and the Leader of the Component 4, the Consultant is expected to develop a methodology of collection of data and calculation of the CO_2 emission reductions, energy consumption and costs reduction including energy efficiency improvement resulting from the pilot/demonstration projects.

Specifically, his/her responsibilities include, but are not limited to, the following:

- Development of the methodology for the data collection and calculation of the CO_2 emission reductions, energy consumption and costs reduction including energy efficiency improvement;
- Report regarding the calculation of reduced CO_2 emissions for each type of energy efficiency measures (photovoltaic panels, biomass boilers, solar collectors, horizontal heating systems and domestic hot water distribution). In addition to the calculation of reduced CO2 emissions, the consultant will also present the calculation of financial and energy consumption savings, estimated according to certain criteria of capacity used/energy saved, taking into account energy tariff costs at the date of the report. These calculations will also be utilized to estimate potential future savings and to determine the period of investment repurchase per program.

APPROACH AND METHODOLOGY

- The project staff will provide the consultant will necessary technical documents, project reports, and other necessary documents.
- The consultant will work closely with relevant project staff for development of the questionnaires, site visits, report outlines and products.
- The consultant is required to go for site visits and interview the staff and beneficiaries who of the demonstration/pilot projects. Questionnaire and/or surveys and interview sheets should be closely coordinated with the project staff.

4. EXPECTED DELIVERABLES AND TENTATIVE TIMEFRAME

The assignment will require delivery of the following outputs:

Deliverables	Tentative time frame	Estimated workdays
Deliverable 1: Inception report including the methodology for the data collection and calculation including tools template to conduct the assignment	May 31, 2024 (10 working days from the date of the contract signing)	5 w.d.
Deliverable 2: Report on the calculation of reduced CO2 emissions for each type of energy efficiency measures and cumulative by pilot program, yearly estimated calculation of financial and energy savings including lessons learnt and recommendation for replication/scaling up. The Report to be developed according to the described aspects in the point 3„Scope of the work, duties and responsibilities".	July 31, 2024 (60 days from the date of the approval of the of the Inception Report)	25 w.d.

The timeframe for the delivery of each activity/output shall be coordinated and agreed in advance with the UNDP Project team.

Note:

Deliverables can be amended or specified for the purpose of the assignment. The documents will be delivered in Romanian and English.

5. INSTITUTIONAL ARRANGEMENTS

The Consultant will work under direct supervision of the Team Leader– Component 4 of the FPI Programme. Overall supervision of the assignment will be the responsibility of the FPI Programe Manager a.i.

It is expected that the Consultant begins the assignment in May 2024 and completes it on July 31, 2024. The UNDP will provide the administrative and logistical support in organization the travels on sites outside of Chisinau.

Performance evaluation: The Consultant's performance will be evaluated against such criteria as timeliness, responsibility, initiative, communication, accuracy, and quality of the products delivered.

Language of the deliverables: All communications and deliverables related to the assignment will be in English and/or Romanian and Russian, as communicated prior by the Team Leader/Programme Manager.

6. FINANCIAL ARRANGEMENTS:

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. To assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump sum amount (including the daily fee, taxes, and number of anticipated working days).

7. CONFIDENTIALITY

Materials provided to the Consultant and all proceedings within the consultancy contract shall be regarded as confidential, both during and after the consultancy. Violation of confidentiality requirements may result in immediate termination of contract.

8. QUALIFICATION AND SKILLS REQUIRED

The incumbent should prove a knowledge in civil engineering, local Moldovan construction norms and standards, national building laws, as well as extensive experience in implementing energy refurbishment projects in buildings.

I. Education

- University Degree in civil engineering, energy, environment, architecture or other relevant related area.

II. Experience and knowledge

- Work experience: at least five (5) years of work experience in the field of energy efficiency.
- Demonstrated ability in applying quantitative and qualitative research methods to capture insights and assess program effectiveness.

- Ability to synthesize findings and present actionable recommendations for project enhancement.
- Previous experience in development assistance or related work for a donor organization, development partners, UN Agencies would be an advantage.

III. Competences and skills

- Language skills: excellent command of written and spoken Romanian and English is required; knowledge of Russian is an asset;
- Computer proficiency, including knowledge of MS Office products (Word, Excel, Power Point) and electronic communication platforms such as Microsoft Teams, ZOOM, Google meet;
- High level of responsibility and organization capacities, creative approach to solving issues;
- Excellent communication and reporting skills;
- Ability to meet deadlines and prioritize multiple tasks.

The consultant has to demonstrate 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.

The United Nations in 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.

Documents to Be Included When Submitting the Proposals

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

1. Signed and filled-in Offeror's letter to UNDP confirming interest and availability for the individual contractor (IC) assignment, incorporating financial proposal in Annex 2 (in USD, specifying a total requested amount per working day, including all related costs, e.g. fees, phone calls etc.). Annex 2 to the Offeror's letter, incorporating the Financial Proposal, shall be filled in mandatorily and includes the detailed breakdown of costs supporting the all-inclusive financial proposal;
2. Proposal (Motivation Letter): explaining why they are the most suitable for the work including previous experience in similar Projects (please provide brief information on each of the above qualifications, item by item, including information, links/copies of documents for similar assignments);
3. CV with at least 3 references.

Important notice: The applicants who have the statute of Government Official / Public Servant prior to appointment will be asked to submit the following documentation:

- a no-objection letter in respect of the applicant received from the Government, and;
- the applicant is certified in writing by the Government to be on official leave without pay for the entire duration of the Individual Contract.

9. PAYMENT MODALITIES

The consultant will organize and facilitate the implementation of all activities as described above. His/her payment will be lump sum amount based, disbursed in several instalments, upon submission and approval of deliverables and certification by Programme Manager that the services have been satisfactorily performed.

10. EVALUATION

Candidates will be short-listed based on the following minimum qualification criteria:

- University Degree in civil engineering, energy, architecture, or other relevant related area;
- At least (5) five years of work experience in the field of energy efficiency;
- Citizenship of Republic of Moldova

The short-listed candidates 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 70% score of the technical evaluation (at least 210 points) would be considered for the Financial Evaluation.

Criteria	Scoring	Maximum Points Obtainable
Technical		
University Degree in civil engineering, energy, environment, architecture, or other relevant related area	Bachelor's degree – 10 pts, Master/equivalent – 20 pts, PhD - 30 pts	30
At least 5 years of work experience in the field of energy efficiency	5 years – 40 pts, More than 5 years – for each additional year 5 pts, up to the max – 50 pts.	50
Demonstrated ability in applying quantitative and qualitative research methods to capture insights and assess program effectiveness.	No - 0 pts, One assignment – 10 pts, up to the max – 40 pts	40

Previous experience in development assistance or related work for a donor organization, development partners, UN Agencies	No - 0 pts, One assignment – 10 pts, up to the max – 40 pts	40
Interview evaluation criteria		
Proven knowledge and application of national legislation pertaining to the construction works	No – 0 pts Poor knowledge - 10 pts Satisfactory knowledge - 25 pts Good knowledge < 35 pts Very good knowledge < 45 pts	45
Proven experience in implementing energy refurbishment projects in buildings	No – 0 pts. One project – 10 pts, Up to the max – 40 pts	40
Language skills	Romanian, English – 10 pts each; Russian – 5 pts	25
Knowledge and experience in checking the bill of quantities (BoQs)	No – 0 pts; Yes – 20 pts.	20
Belonging to the group(s) under-represented in the UN Moldova and/or the area of assignment	No – 0 pts., to one group – 5 pts., to two or more groups – 10 pts.	10
Maximum Total Technical Scoring		**300**

Financial Evaluation Scoring	
Evaluation of submitted financial offers will be done based on the following formula: **S = Fmin / 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).

11. ANNEXES TO THE TOR

Annex 1 - Individual Consultant General Terms and Conditions

Annex 2 - Offeror's letter confirming interest and availability, including a financial proposal (template).