



TERMS OF REFERENCE

Job title:	Lead Engineer to provide technical support and expertise to the project in implementation of energy efficiency and renewable measures
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:	January 2023 – August 2023 (<i>the estimated amount of work is 50 w.d.</i>)

1. 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:

1. put in place the legal and regulatory framework in the energy sector with mainstreamed social and climate considerations in line with the EU requirements;
2. 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;
3. increased awareness and communication among the population to adopt the best energy saving practices and measures and to encourage the use of renewables;
4. 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.

2. 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 will be 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 will therefore, support the Government of Moldova:

- 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
- 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- 2023 with support from Foreign Policy Instrument (herewith FPI) of EU.

One of the components of the project is *Demonstration/pilots of energy efficiency and renewable measures to increase energy affordability and development of sustainable financing mechanisms with primary focus on vulnerable households and public sector*. The main project activities where the support of the Lead Engineer is required are:

- Design and pilot of the Green Home Grant Programme;
- Refurbishment of the distribution heating system form the multi-story residential buildings connected to CHP in the cities where it is operational;
- Promote the use of renewable energy within medical institutions.

The Green Home Programme aims to help households affected by energy poverty to reduce their bills by implementation of energy efficiency measures and renewable energy solutions in households. Under this action about 100 households will benefit of measures such as: thermal insulation of building envelope, changing the heating source, installation of photovoltaic systems etc.

Refurbishment of the distribution heating system form the multi-story residential buildings initiative aims to help the apartment buildings to reduce their bills by refurbishment of the distribution heating system from the selected multi story residential buildings connected to CHP. The intervention will consist 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.

To promote the use of renewable energy within medical institutions at least three medical institutions will benefit of photovoltaic system. The initiative aims to help the beneficiary medical institutions to reduce their bills on electricity by applying the net metering mechanism. The intervention will consist in installation of the photovoltaic systems of about 200 kW power each in three medical institutions. Installation of photovoltaic systems according to the net

metering scheme will allow the beneficiary medical institutions to save significant amount of energy and ensure a higher level of security

In order to ensure a high level of quality of the works a team of 5 engineers with relevant experience in the specific fields will be available as follows:

- Two (2) technical supervisors, *certified for Category no. 1 “Civil, industrial, and agro-zootechnical constructions” with relevant experience in the field of civil constructions;*
- One (1) Technical supervisor, *certified for specialized works, Category no. 1) „Installations and internal networks: b) heating installations and networks” and/or Technical supervisor certified for civil construction Category no. 1 “Civil, industrial, and agro-zootechnical constructions” with relevant experience in interior heat energy supply networks;*
- Two (2) technical supervisors, *certified for specialized works, Category no. 2) “Installations and external networks: g) installations and electricity supply networks” and/or technical supervisors, certified for specialized works, Category no. 3) “Installations and external electrical networks” with relevant experience in photovoltaic installations.*

The work of the team of engineers is expected to be coordinated by a Lead Engineer.

In this context, UNDP Moldova is seeking to recruit a Lead Engineer to provide expertise and technical assistance in implementation of project activities.

3. SCOPE OF THE WORK, DUTIES AND RESPONSIBILITIES

The scope of the current assignment is to provide expertise to the project team in contracting the design and/or construction companies for works and technical assistance in monitoring the progress of implementation the construction works foreseen in the component 4 of the project.

More specifically, the Lead Engineer is expected to perform the following tasks:

1. Provide technical assistance for contracting the technical design services (support for preparation of the specifications, support for the evaluation etc.).
2. Provide support for contracting the works (support for preparation of the specifications, support for the evaluation etc.).
3. Monitor the constructions works.
4. Coordinate the work of the team of engineers.
5. Provide technical assistance to beneficiaries during the implementation of works.
6. Ensure that for each construction site all required documentation and permits are obtained.
7. Conduct the committees at the substantial and final phase of completion of works.

The specific tasks are indicate din the table below:

Tasks	Estimated workload
<ul style="list-style-type: none"> - Prepares and updates the schedule of works implementation for each site; - Overall coordination of the activities of FPI Programme pool of Engineers; - Quality assurance mechanism developed and included in the engineers reporting template; - Ensure the works are performed in compliance with the local legislation and applicable standards in construction and application of the UNDP construction policy; - Provide technical assistance for the Engineers in conducting the work; - Ensure that for each construction site all required documentation and permits are obtained; - Provide technical assistance for contracting the technical design services (support for preparation of the specifications, support for the evaluation etc.); - Provide support for contracting the works (support for preparation of the specifications, support for the evaluation etc.); - Provide support to the committees at the substantial and final phase of completion of works; - Provide regular progress reports of works on site. - Evaluate and certify FPI Programme engineers progress reports; 	50 w.d.

4. EXPECTED DELIVERABLES AND TENTATIVE TIMEFRAME

The assignment will require delivery of the following outputs:

Deliverables	Tentative time frame
<ol style="list-style-type: none"> 1. Work plan for each site/intervention 2. Report on provided support for the Engineers in conducting the work; 3. Report on provided support for tendering, evaluation and contracting the technical design services; 4. Report on provided support for the reception committees at the substantial and final phase of completion of works; 5. Weekly progress reports of the status of works on sites. 	December 2022 - August 2023

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.

5. INSTITUTIONAL ARRANGEMENTS

The Lead Engineer 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 Programme Manager. This is a part-time consultancy. It is expected that the Consultant begins the assignment in December 2022 and completes it in August 2023. The UNDP will provide the administrative and logistical support in organization the travels on sites outside of Chisinau.

6. QUALIFICATION AND SKILLS REQUIRED

The incumbent should prove sound 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, architecture or other relevant related area.
- Certificate of Technical Supervision of construction works (certificat de atestare tehnico-profesională a specialiștilor în construcții).

II. Experience and knowledge

- Work experience: at least seven (7) years of work experience in the field of civil engineering;
- Extensive experience in construction of small-scale infrastructure and civil works, preferably buildings renovation;
- Experience in management and supervising the team of experts/consultants;
- Knowledge and experience in checking the bill of quantities (BoQs);
- In depth knowledge of national legislation pertaining to the construction works;
- 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;
- Strong leadership/team coordination skills and experience in project management;
- 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.

7. PERFORMANCE EVALUATION

Contractors' performance will be evaluated against timeliness, responsibility, initiative, creativity, communication, accuracy, and overall quality of the delivered products.

8. PAYMENT MODALITIES

The engineer 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.

9. APPLICATION PROCESS

Applicants shall submit the following documents:

- Offeror's Letter confirming Interest and Availability, including financial offer, according to Annex 2;
- CV, including information about experience in similar assignments with at least 3 references;
- Copies of technical attestations/certificates.

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.

A retired government official is not considered in this case a government official, and as such, may be contracted.

10. 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).