



TERMS OF REFERENCE

- Job title:** National Consultant to conduct a technical inspection (verification) campaign of thermal biomass fuel plants within public institutions
- Duty station:** Chisinau
- Reference to the:** "Addressing the impacts of energy crisis and initiating solutions toward energy security and addressing 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:** September – December 2022 (the estimated amount of work is 40 w.d.)

1. PROJECT OBJECTIVES AND EXPECTED RESULTS

The overall objective of the Programme is to assist the Government of the Republic 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 the Republic 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, efficiency and environment. The country is planning to fully synchronize 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 several 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 energy 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 to synchronize its electricity network with the Continental European Network (CEN), an important step towards the integration into the EU energy system and market.

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 Programme duration is envisaged between 2022 – 2023 with support from Foreign Policy Instrument (herewith FPI) of EU.

The Project Concept has been approved by FPI of the EU in February 2022, paving the way for development of the full project proposal.

In this context, UNDP Moldova is seeking to recruit one National Consultant to conduct technical inspection (verification) of thermal bio fuel plants within public institutions.

3. SCOPE OF THE WORK, DUTIES AND RESPONSIBILITIES

As a result of the Energy and Biomass Project financed by the European Union and implemented by the UNDP Moldova in 2011 – 2018, 265 public institutions from the Republic of Moldova (schools, kindergartens, community facilities and hospitals) switched from heating produced by coal and natural gas to biomass, allowing 200 thousand people to benefit from clean and affordable energy¹. According to a Report published by the

¹ Energy and Biomass Project official web page: *199,000 people have access to affordable and clean energy, produced in the Republic of Moldova with the support of the European Union* (published: October 19, 2018), available at:

Energy Efficiency Agency in 2022, more than 280 thermal plants on biomass have been installed in the country². Nevertheless, relatively low prices on natural gas before 2021, the high degree of availability of this resource and the scarcity of trained personnel to ensure efficient functioning of biomass plants resulted into a gradual decrease of the number of functioning facilities of this type. At present, more than half of the existing biomass thermal plants are not functioning. The scope of this assignment is to conduct a thorough assessment of the current situation regarding the biomass fuel plants still functioning in public institutions in the Republic of Moldova.

In this regard the UNDP Moldova intends to contract one national consultant qualified and experienced to implement a technical inspection (verification) campaign of the approximately 100 functioning biomass fuel plants. The National Consultant shall work based on the methodological approach and of a detailed action plan that shall be developed at the start of the activities, and which shall be agreed with the local public partners and approved by the Programme.

For the current assignment, the National Consultant shall be responsible of:

- 1) Establishment, in collaboration with the specialists of the Energy Efficiency Agency (EEA), of a list of all functioning biomass fuel thermal plants in public institutions of the Republic of Moldova (approximately 100 such plants). At this stage, the consultant will take into account the following three criteria in order to include thermal plants on biomass in the list:
 - The thermal biomass fuel plant is still functioning,;
 - At least one employee (or contracted individual) of the public institution has formal training in the functioning and maintenance of the plant;
 - The public institution has an ongoing thermal biomass plant maintenance contract with an authorized company.
- 2) Development of Inspection Plan of a thermal biomass fuel plant. The Plan will acknowledge the three criteria mentioned here above and will include a template of the Technical Inspection Report (TIR) that will be completed for each inspection, a tentative calendar of inspections to be conducted, as well as a description of presentation and approval stages of TIR's. If the verifier detects minor non-compliance, he can intervene in the maintenance process of the plant in agreement with the owner. This will be fixed in the TIR. The verifier can intervene with

<http://biomasa.md/en/communication-archive/199000-people-access-affordable-clean-energy-produced-republic-moldova-support-european-union/> (Accessed: August 18, 2022)

² Energy Efficiency Agency official web page: *Moldova and solid biofuel producers* (published: July 26, 2022), available at:

<https://www.aee.md/en/news/situa-ia-la-zi-privind-centralele-termice-pe-biomasa-din-republica-moldova-si-producatorii-de-biocombustibil-solid> (Accessed: August 18, 2022)

recommendations and guidance to the personnel servicing the plant. The Inspection Plan and related documents (TIR) will be agreed with the Energy Efficiency Agency and by approved by the Programme.

- 3) When developing the Technical Procedure, the consultant will take into account the following legal documents and bibliographical sources:
 - *Guide for thermal biomass plants operators* (2013) – the Energy and Biomass Project,
 - *Biomass heating. A practical guide for potential users* (2009) – CTG012,
 - Operator manuals of biomass thermal plants producers.
- 4) Conduct the Technical inspection (verification) of functioning thermal biomass fuel plants, according to the calendar presented in the Technical Procedure. At a mean pace of 12 inspections per week, the ~100 plants will be inspected in a 2 month-period of time, according to the Timeframe presented in the section 4 of this ToR;
- 5) Elaboration of a Final Report for the assignment, presenting in a synthetic way the main results of the Technical inspection campaign, with a specific emphasis on the number of plants inspected, their state of performance, recommendations for further actions needed in order to increase compliance with safety and efficiency criteria.
- 6) The following institutions are proposed to be consulted during this assignment:
 - 1) Energy Efficiency Agency (Chisinau) <http://aee.md/>
 - 2) Center of Excellence in Construction (Chisinau) <http://ccc.md/>
 - 3) Local Public Authorities (town halls, local councils, beneficiary public institutions, etc.)

4. EXPECTED DELIVERABLES AND TENTATIVE TIMEFRAME

The assignment will require the completion of the following tasks:

No.	Deliverables	Tentative timeframe
1	Deliverable 1: List of functioning thermal biomass fuel plants within public institutions (~100 plants) <i>i.e. task 1 (up to 2 working days).</i>	September, 2022
2.	Deliverable 2: Inspection Plan of a thermal biomass fuel plant (including the Technical Inspection Report – TIR template), approved by the Programme and coordination with EEA <i>i.e. tasks 2, 3 (up to 4 working days)</i>	September, 2022
3.	Deliverable 3: Technical inspection campaign of the functioning thermal biomass fuel plants, 1 TIR	October-November 2022

	per inspected plant <i>i.e. task 4 (up to 30 working days)</i>	
4	Deliverable 4: Final Report for the assignment <i>i.e. tasks 5 (up to 4 working days)</i>	December, 2022

Note: Deliverables and the final timeline can be amended or specified for the purpose of the assignment.

5. INSTITUTIONAL ARRANGEMENTS

This is individual contract. The timeframe for the work is September – December 2022. The National Consultant will be given access to relevant information and data necessary for execution of the tasks under this assignment. The consultant will work in close collaboration with the FPI Programme Manager and Team Leader for Component 2 - for substantive aspects of the assignment.

6. FINANCIAL ARRANGEMENTS

Payments will be disbursed in several instalments, upon submission and approval of deliverables, and certification by UNDP Moldova Programme Specialist/Cluster Lead that the services have been satisfactorily performed.

Travel expenses from the duty station to all the inspected thermal biomass fuel plants and back, and eventual on-site accommodation will be covered by UNDP Moldova.

7. SKILLS AND EXPERIENCE REQUIRED

I. Academic Qualifications:

- University degree in energy, electronic, energy efficiency, construction engineering or other related areas.

II. Experience and knowledge:

- Minimum 5 years of relevant professional experience in operating (expert level), testing, maintenance or construction (technical conception, technical design, or related) of thermal biomass fuel plants;
- Proven experience in conducting technical inspections of heating systems for buildings. Previous experience in inspection or operation of thermal biomass fuel plants is an advantage;

- Proven experience in preparing technical procedures and / or technical reports;
- Proven experience in organizing and leading meetings with a broad range of stakeholders;
- Advanced research skills and capacity to produce analyses using quantitative and qualitative data.
- Previous experience in development assistance or related work for a donor organization, development partners, UN Agencies would be an advantage.
- Fluency in written and spoken Romanian, Russian is required for this assignment. Good level of English is required.

The UNDP Moldova is committed to the 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.

8. PERFORMANCE EVALUATION

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

9. DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS

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

1. [**OFFEROR'S LETTER TO UNDP CONFIRMING INTEREST AND AVAILABILITY FOR THE INDIVIDUAL CONTRACTOR \(IC\) ASSIGNMENT**](#);
2. CV shall include Education/Qualification, Professional Certification, Employment Records /Experience.
3. Proposal, explaining why he/she is most suitable for the assignment, including experience in similar assignments, providing a brief information on above qualifications, and brief methodology on how he/she will approach and conduct the work.

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.