



TERMS OF REFERENCE

Job title:	International Consultant to conduct a Study/cost-benefit analysis for the state incentive policy in the development of the biofuel industry in Moldova (emerging support)
Duty station:	Home-based (with travel to Moldova)
Reference to the:	Programme “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:	48 working days during October – January 2024

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 by addressing prioritized systemic elements in the energy sector to cope with the 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 enhance institutional coordination mechanisms to address and avert risks entailed in recent and potential future energy crises;
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 nationwide energy programmes and demonstrate solutions to increase energy affordability in residential and public buildings, targeting specifically the most vulnerable and affected groups of the population.

2. BACKGROUND

Moldova consumes around 4 million tons of oil equivalent (Mtoe) of energy per year (4.1 Mtoe in 2018). Around 20% of its energy demand is covered by domestic production, consisting almost fully of solid biomass; total domestic energy production was 0.82 Mtoe in 2018, of which 0.79 Mtoe solid biofuels. All natural gas consumption (2.1 Mtoe, or 2.9 billion cubic meters in 2014) is met through imports, for Transnistria from Gazprom and for the right bank from the EU. In August 2014 the Iasi-Ungheni gas interconnector between Romania and Moldova was commissioned and became operational in 2015. The pipeline became operational in the autumn of 2021. Most coal consumed must be imported as well (0.09 Mtoe in 2018).

Natural gas accounts for more than half of Moldova's total primary energy supply (53% in 2018), oil roughly a quarter (23% in 2018), and solid biomass one-fifth (19% in 2018). Most natural gas is used for electricity and heat generation, whereas oil is the most important energy source for final consumers. The residential sector is the largest energy-consuming sector (around 1.4 Mtoe in 2018), with solid biofuels covering over 50% of the sectoral consumption.

Because the country lacks energy resources, it is almost wholly dependent on electricity imports. Only 6% of electricity generation comes from renewable sources (hydro, wind, solar PV). Moldova's electricity sector is characterized by big dependence on one source, a thermal power plant in the Transnistria region.

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 signed the Association Agreement with the EU in June 2014, including the DCFTA which entered into force in 2016. Moldova was granted candidate status for the EU in June 2022. As a follow-up and as a result of Moldova's membership in the Energy Community it is required to ensure the transposition of the EU *acquis communautaire*, which underpins the EU energy legislation on electricity, gas, oil, renewables, efficiency, climate, and the environment.

The energy sector is one of the top priorities for the Republic of Moldova's Government and it is addressed in Government's plans and several policy documents, laws, and regulations. The most important are the following: "Moldova Europeana" Development Strategy 2030, the National Energy Strategy 2030 (currently under review), the National Energy and Climate Plan (under development), the Law on Energy, the Law on Electricity, the Law on promoting the use of energy from renewable sources, the Law on natural gas, the Law on energy efficiency, Law on the energy performance of buildings, Law on the labeling 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.

Currently, Moldova is revising its energy-related legislation considering the requirements of the Clean Energy Package that covers legislation in the areas of energy efficiency, renewables, governance, electricity market design, and electricity security of supply rules. Revised Renewable Energy Directive (RED II) with an implementation deadline of 31 December 2022 is also part of this process.

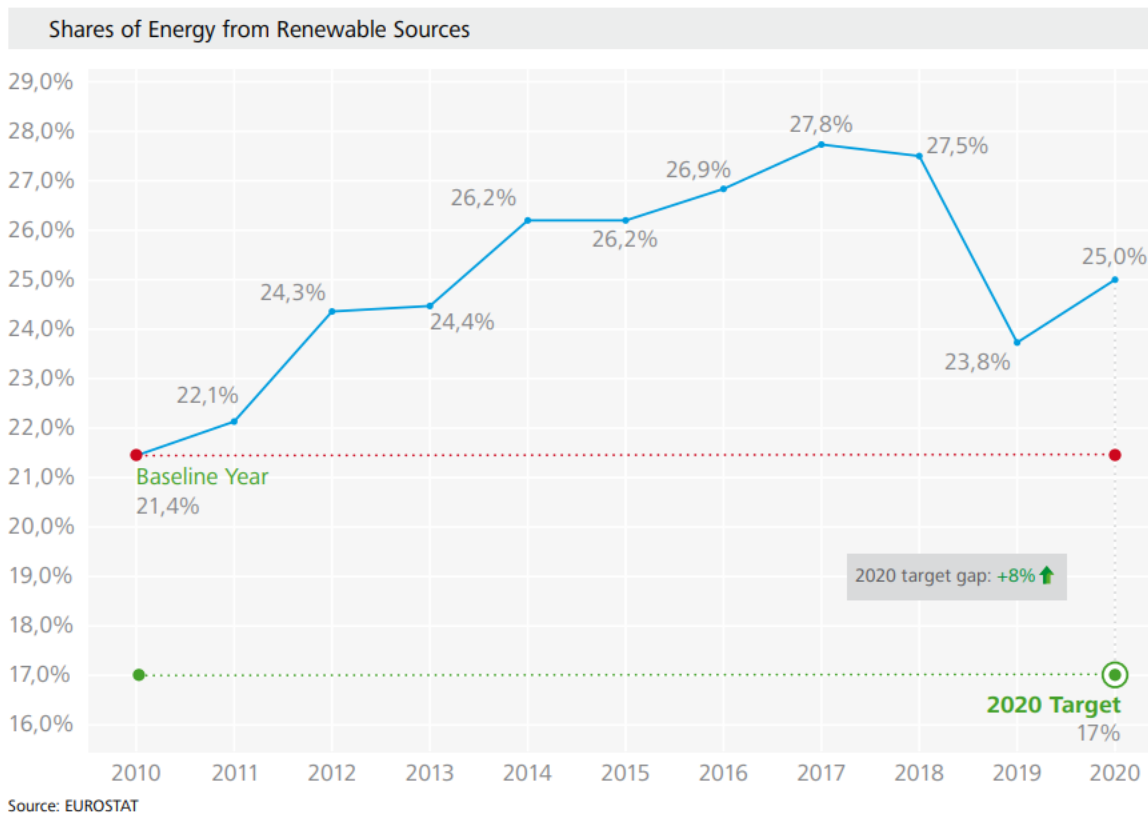
According to Law 10/2016 on promoting the use of energy from renewable sources¹, that transposed Directive 2009/28/EC on the promotion of the use of energy from renewable sources, establish the following RES-related targets at the national level:

- achieving a share of energy from renewable sources of at least 17% in the final gross energy consumption in 2020;
- achieving a share of energy from renewable sources of at least 10% in the final energy consumption in transport in 2020.

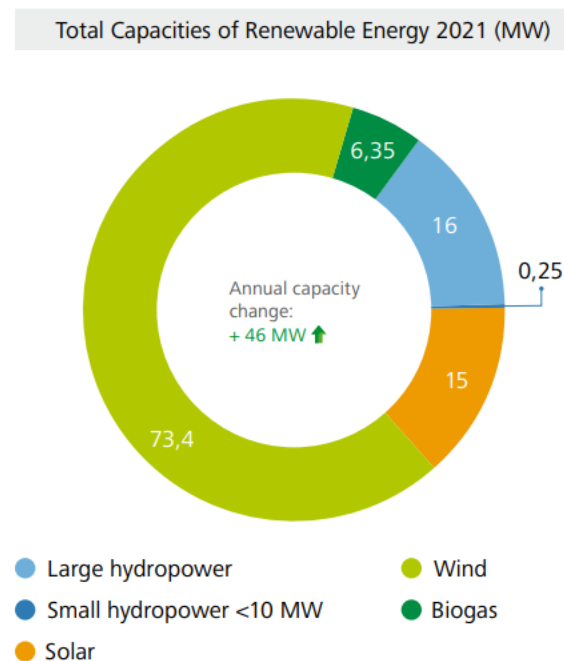
According to the Moldova Annual Implementation Report 2022², Moldova exceeded its overall 2020 target of 17% by reaching 25,06% of renewable energy in 2020. However, only the sectoral target for heating and cooling was overreached, while contributions of renewable energy to electricity and transport are still very low.

¹ https://www.legis.md/cautare/getResults?doc_id=106068&lang=ro

² <https://www.energy-community.org/implementation/report/Moldova.html>



In 2021, the total capacities of renewable energy were 111 MW, the below diagram shows the share of each type of source that is present in Moldova.



According to the Moldova Annual Implementation Report 2022, despite transposing enabling provisions into its primary legislation, Moldova failed to define the biofuels sustainability criteria and the overall implementation framework for these policies is missing. Therefore, the only technology that counts towards the sectorial target is the use of renewable electricity by local electric public transport. For 2020, the Ministry of Energy reported a value of 0,18% as opposed to the objective of 10%.

As per the Report “Modalities to foster the use of renewable energy sources in the transport sector by the Energy Community Contracting Parties”³ (December 2020), no one of the Contracting Parties of the Energy Community achieved the RES-T target.

According to the decision of the Ministerial Council no. 2022/02/MC-EnC, the target share of consumption of renewable energy in the gross final consumption of energy, in 2030, is at least 27%. This target is also confirmed by the modeling results performed under the National Energy and Climate Plan development process. Under the same process, calculations were performed to establish the target share of renewables in the final energy consumption in transport and the target is 9% of RES-T by 2030. National Energy and Climate Plan is at its late stage of development and soon will be presented for public consultations.

Moldova is in the process of transposition of the RED II provisions into national, by amending Law 10/2016 on promoting the use of energy from renewable sources. The law defines the rules regarding support schemes, guarantees of origin, procedures applicable to administrative regulations, self-consumption of electricity from renewable sources, regional cooperation, renewable energy producers' access to grids, as well as other necessary provisions to promote greater consumption of energy from renewable sources of the national economy. The amended Law is now under public consultation process.

According to the RED II transposition package, the use of renewable energy in the transport sector practically does not take place. The use of RES by urban public transport (e.g. trolleybuses) is practically the only segment where this is taking place. This is confirmed by the value of 0.18% share of renewable energy consumption in the final energy consumption in the transport sector. At the same time, the use of biofuels by mixing with classical fossil fuels has not developed and must be promoted more categorically to reach the national target for 2030. The lack of this segment costs the Republic of Moldova economically, as this sector, which has potential for development, is stagnating.

Amendments to the law 10/2016 on the promotion of the RES aim to speed up the use of renewable energy in transport and achieve the target of 9% in 2030:

- The share of biofuels and bioliquids, as well as biomass fuels consumed in transport, produced from food and fodder crops - is limited to 2%;
- The share of biofuels and biogas produced from used cooking oil and animal fats - is limited to 1.7%;
- The share of advanced biofuels and biogas produced from specific feedstock – is at least 1% in 2025 and 3.5% in 2030.

Currently, the share of transport in final energy consumption fluctuates around 26%. The vast majority of energy is consumed by road transport. There is only a small amount of energy used for rail transport and non-specified transport. Almost all energy for transport is oil and petroleum products. Since 2015, there has been a small share of natural gas. As mentioned, renewable energy in transport is only consumed as electricity and is related to

³ https://www.energy-community.org/dam/jcr:ab72cdbe-4900-4b8f-906c-3c61e0e7b728/LSBT_RES_transport_122020.pdf

consumption by trolleybuses, which have been operated for many years in Moldova.

Considering the new targets of share of RES-T and the complexity of the process to achieve it, the Ministry of Energy and the Ministry of Infrastructure and Regional Development requested to conduct a Study/cost-benefit analysis for the state incentive policy in the development of the biofuel industry in Moldova, that aims to evaluate the potential of biofuel and would cover (not limited to) the agricultural, technological and infrastructure aspects.

The study will be limited to biodiesel and bioethanol only. It shall:

- (1) present the current situation of the biodiesel and bioethanol market in Moldova and trends in the EU;
- (2) identify and assess the maximum potential demand for bioethanol and biodiesel according to the Amendments to the law 10/2016 in Moldova and the potential for production of both types of biofuels in Moldova (for domestic consumption and export);
- (3) analyze the current supply of bioethanol and biodiesel in Moldova, identify the potential producers, and explore needed economic mechanisms to support increased production;
- (4) present a few (at least six) legal solutions from the EU and Energy Community intended to increase biofuels consumption and propose needed changes to the legal framework of the Republic of Moldova to increase consumption of bioethanol and biodiesel to the maximum quantities according to the Amendments to the Law 10/2016;
- (5) present a few (at least six) legal solutions from the EU and Energy Community intended to increase biofuels production and propose potentially needed changes to the legal framework to support domestic production of sufficient (according to the Amendments to the law 10/2016) quantities of bioethanol and biodiesel.

In this context, UNDP Moldova is seeking to hire an international consultant to support the Government of the Republic of Moldova in reaching the renewables consumption target in the transport sector and the development of the biofuel industry, by developing the study and proposal of legal and economic policy solutions for the state incentive policy in the development of the biofuel industry in Moldova.

3. SCOPE OF THE WORK, DUTIES, AND RESPONSIBILITIES

The overall objective of the assignment is to develop the study/ analysis for the state incentive policy in the development of the bioethanol and biodiesel consumption and industry in Moldova.

The study will have tentatively the following structure:

I. Executive Summary

The purpose and objectives of the study/ analysis
Main results of the study/ analysis

II. Introduction

Background and rationale for the study/ analysis
Description of the biodiesel and bioethanol consumption and industry in Moldova

III. Methodology

Description of the methods and data used to evaluate the quantities of bioethanol and biodiesel potentially used in the transport sector in Moldova, costs of domestically produced bioethanol and biodiesel versus imported biofuels, and costs of the state's incentive policy in the development of the bioethanol and biodiesel industry.

IV. Cost assessment

Costs associated with the increased biofuel consumption.

Costs associated with the potential state stimulus policy (tax incentives, grants, subsidies, etc.).

Identification of potential producers of biodiesel and bioethanol in Moldova and their supply chain in Moldova.

V. Legal Solutions

Overview of legal solutions intended to increase biofuel consumption and domestic production and proposals for the Republic of Moldova.

VI. Conclusions and recommendations

Conclusions regarding the feasibility of state stimulation policies in the development of the bioethanol and biodiesel industry in Moldova.

Recommendations for the implementation of the state stimulus policy, including the adjustment of the stimulus level.

To reach the proposed objective, the selected company/organization is expected to perform the following tasks:

1. Research the current market and production of bioethanol and biodiesel.
2. Present the current legal environment for biofuels in the transport sector and for the potential support measures for the consumption and production of bioethanol and biodiesel.
3. Identify the main stakeholders of the biofuels industry in Moldova and conduct consultation meetings with them with the aim to determine the level of development of the respective industry in Moldova as well as sectoral challenges. The consultation meetings will be conducted during the country visit of the expert.
4. Identify and collect the data and information needed to conduct the study/ analysis.
5. Assess existing information and data and develop the draft of the study/ analysis, in line with (but not limited to) the structure described above.
6. Consult the draft study/analysis with stakeholders and update it based on their comments and proposals.
7. Define the final version of the study/analysis.
8. Support national consultant in transposition into national legislation of the sustainability criteria for biofuels.

4. EXPECTED DELIVERABLES AND TENTATIVE TIMEFRAME

Expected deliverables and schedules are provided in the table below as follows:

Deliverables	Schedule
Deliverable 1. Activity Plan and Methodology for the assignment submitted and coordinated (2 working days)	By mid October 2023

Deliverable 2. Overview of the current market and production of bioethanol and biodiesel in Moldova and legal solutions in the EU and in the Energy Community as per task #1&2 above (7 working days)	By mid-October 2023
Deliverable 3. A report on the country visit and conducted meetings with the biofuels industry stakeholders, as well as conclusions regarding the level of development of the respective industry in Moldova, the country's commitments in this domain and sectoral challenges, as per task #3 above (7 working days)	By end-October 2023
Deliverable 4. Draft Study/analysis for the state incentive policy in the development of the biofuel industry in Moldova developed, as per task #4&5 above. (14 working days)	By end-November 2023
Deliverable 5. Conduct consultation of the draft Study/ Cost-benefit analysis for the state incentive policy in the development of the biofuel industry in Moldova (concept and agenda of the event developed, list of participants identified, PPTs developed and presented, Q&A session conducted) as per task #6 above (5 working days)	By early-December 2023
Deliverable 6. The final version of the Study/ Cost-benefit analysis for the state incentive policy in the development of the biofuel industry in Moldova, as per task #7 above. (7 working days)	By end-December 2023
Deliverable 7: A report on support provided to the national consultant in transposition into national legislation of the sustainability criteria for biofuels, as per task#8 above. (6 working days)	By end-December 2023

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

5. INSTITUTIONAL ARRANGEMENTS

This is a part-time consultancy. The timeframe for the work is October-December 2023.

The international consultant will be given access to relevant information and data necessary for the execution of the tasks under this assignment. The international consultant will work in close collaboration with the FPI Programme Manager and Team Leader for Component 1 - for substantive aspects of the assignment. The international consultant will also closely work with the Energy Policy Department of the Ministry of Infrastructure and Regional Development and representatives of the Ministry of Economic Development and Digitalization in order to ensure that the draft Study reflects their concerns, expertise, and comments.

The UNDP will provide administrative and logistical support in the organization of all required consultations and meetings.

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. 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 the daily fee, taxes, and number of anticipated working days) (see Annex 2 of the Offeror's Letter Confirming Interest and availability).

Duty Travel

All envisaged travel costs must be included in the financial proposal (Annex 2, Breakdown of Cost, Section A, Duty Travel). This includes *all travels/missions* to be to Chisinau/ Moldova. In general, UNDP should not accept travel costs exceeding those of an economy class ticket.

The travel costs to Moldova shall be indicated separately in the offer and will be paid only if the travel will take place. Please note that the mission may be considered only when it is confirmed to be safe for staff, consultant, stakeholders. The exact duration and period of the missions shall be coordinated with UNDP. For purpose of estimation of services' costs, the expected number of missions is 1 (one) and total number of mission days is 2 (two).

7. SKILLS AND EXPERIENCE REQUIRED

I. Education:

- University degree in energy, law, economy, or other areas related to the topic of the study is required.

II. Experience:

- At least 5 years of professional experience in energy/biomass/biofuel/RES-related consultancy;
- At least 5 years of international working experience in consultancy for institutions.
- At least one similar study/ analysis conducted.

III. Competencies:

- Excellent knowledge of the transport-related topics in the RED II (Renewables Directive (EU) 2018/2001).
- Familiarity with EU and Energy Community's legal solutions intended to increase biofuels consumption and production;
- Familiarity with Moldova's RES-related regional commitments.
- Strong analytical and report-writing skills demonstrated by previous assignments;
- Strong interpersonal and communication skills, ability to work with Governmental representatives, demonstrated by previous assignments;
- Proficiency in English. Knowledge of Romanian and Russian will be an asset.

The 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.

Documents to Be Included When Submitting the Proposals

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

- 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;
- 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);

- 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.

8. Evaluation

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

- University degree in energy, law, economy, or other areas related to the topic of the study is required.
- At least 5 years of professional experience in energy/biomass/biofuel/RES-related consultancy;
- At least 5 years of international working experience in consultancy for institutions.

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:

- responsive/ compliant/ acceptable, and
- 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 Obtainable	Points
<u>Technical</u>			
University degree in energy, law, economy, or other areas related to the topic of the study is required	University degree – 30 pts, Master's degree – 35 pts, Ph.D. – 40 pts.	40	
At least 5 years of professional experience in energy/biomass/biofuel/RES-related consultancy	no – 0 pts, 5 years – 30 pts, each additional year - 5 pts, up to max – 40 pts.	40	
At least 5 years of international working experience in consultancy for institutions	no – 0 pts, 5 years – 30 pts, each additional year - 5 pts, up to max – 40 pts.	40	
<u>Interview</u> (demonstrated technical knowledge and experience; communication/ interpersonal skills; initiative; creativity/ resourcefulness).			
Only the first 5 applicants that have accumulated the highest technical score shall be invited to the interview.			
At least one similar study/ analysis conducted	No – 0 pts. For each study/analysis – 10 pts.	20	

	Up to max. 20 pts.	
Excellent knowledge of the transport-related topics in the RED II (Renewables Directive (EU) 2018/2001)	Limited knowledge < 10 pts, satisfactory < 30 pts, extensive <40 pts	40
Familiarity with EU and Energy Community's legal solutions intended to increase biofuels consumption and production	Limited knowledge < 10 pts, satisfactory < 30 pts, extensive < 40 pts.	40
Familiarity with Moldova's RES-related regional commitments	Limited knowledge <10 pts, satisfactory <30 pts, extensive <40 pts.	40
Strong analytical and report-writing skills demonstrated by previous assignments;	Yes – 10 pts, No – 0 pts.	10
Strong interpersonal and communication skills, ability to work with Governmental representatives, demonstrated by previous assignments;	Yes – 10 pts, No – 0 pts.	10
Proficiency in English. Knowledge of Romanian and Russian will be an asset.	English – 10 pts Romanian and Russian – 10 pts (5 pts per each).	20
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; F_{min} – 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).