

TERMS OF REFERENCE

Job title:	International Consultant to support the Government of Moldova in the transposition of the Network Code on Electricity Emergency and Restoration (emerging support)
Duty station:	home-based
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:	60 working days during January 2023 – July 2023

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 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 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.

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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 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, Moldova is required to ensure the transposition of the EU *acquis Communautaire*, which underpins the EU energy legislation on electricity, gas, oil, renewables, efficiency, and the environment. The country fully synchronized its electricity network with the ENTSO-E and relates to the 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, the Law on energy, the Law on electricity, the Law on promoting the use of energy from renewable sources, the Law on natural gas, 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.

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, mainly from Russia via Ukraine. 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 2021 but it is still rather empty and unused. 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. The development of the interconnection project that will improve the management of flows with neighboring Romania is slow. Interconnection through the back-to-back station is expected to be completed by 2024.

In accordance with the existing strategic planning documents, one of the 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 package. 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 a significant crisis in the gas sector, which outlined the need to undertake more actions towards improving the energy security of the Republic of Moldova, both in the natural gas and electricity sectors.

The acute gas supply crisis in Moldova has also been the subject of discussions at 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 for the Energy Community acquis and is in line with the EU Third Energy Package. The EU side supported Moldova to synchronize its electricity network with the Continental European Network (CEN), which happened in February 2022, an important step toward 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 the potential future energy crisis. In partnership with the EU, UNDP Moldova will, therefore, support the Government of Moldova:

- To tackle the current energy crisis and energy poverty, and address prioritized systemic elements in the energy sector to cope with the potential future energy crisis
- To build its capacities towards strengthening 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 the most vulnerable and affected groups of population and businesses.

Moldova is a Party to the Energy Community Treaty since 2010. By adopting the Energy Community Treaty, Moldova made legally binding commitments to adopt core EU energy legislation, the so-called "Acquis Communautaire".

The network codes and guidelines of the European Union are part of a regulatory framework, which is in constant evolution, always adapted / modified in accordance with the needs and situations that appear on the internal market in Europe. The need to transpose the EU Network Codes stems from the commitments assumed within Treaty establishing the Energy Community (TCE), according to which the Republic of Moldova assumed the obligation to transpose the provisions of the network codes of the European Union as adapted by the Energy Community. The Network Codes create a single regulatory framework for the entire electricity sector of the European Union and ensure a uniform interpretation of the many provisions and requirements faced by transmission system operators in all member countries. As a contracting Party to the TCE, it is essential that the Republic of Moldova harmonizes all its primary and secondary legislation with the provisions of European acquis, this being important not only for compliance with the assumed commitments, but also from the point of view of ensuring an adequate level of energy security. It is expected that within the upcoming Energy Community Ministerial Meeting, Regulation 2017/2196 establishing a network code

on electricity emergency and restoration will be included in the "Acquis Communautaire" and become legally binding for Parties to the Treaty, including Moldova.

The transposition into national legislation of Regulation No. 2017/2196, as adapted by the Energy Community allows the Transmission system operator to have the necessary tools in management and efficient and fast restoration of the interconnected transmission systems to the normal state from the emergency or blackout states.

According to art. 53 of the Electricity law no.207/2016, in the context of the obligations assumed by the Republic of Moldova within the Energy Community Treaty, the transmission system operator has the legal obligation to prepare the draft of the act transposing the EU Network codes as adapted by the EnC and send to ANRE for consultation and approval.

The evolution of the legislative/normative framework and consequently the reforms that have been and continue to be carried out at the national level ensure the swift integration of the electricity market of Republic of Moldova in the internal electricity market of the European Union.

The implementation of emergency and restoration rules harmonized with the relevant Regulation of the European Union will ensure that the TSO carries out its activities in accordance with the same processes, requirements, provisions, and principles as the counterparts from the EU and Energy Community Contracting parties.

The Regulation 2017/2196 (the emergency and Restoration Network Code) lays down the requirements for the management by the TSO and coordination of system operation across the energy community in case of emergency, blackout, and restoration states.

The regulation applies to transmission systems, distribution systems, and interconnections in the Energy Community (between EnC CPs and EU Member states), electricity market providers, defense service providers, restoration service providers, balance responsible parties, balancing service providers, and other entities designated to execute market functions as adapted and adopted by Permanent High-Level Group Decision

The purposes of the regulation are:

- safeguarding operational security of the system;
- preparation for preventing the propagation of an incident to avoid widespread disturbance and blackout;
- allowing for the efficient and rapid restoration of the electricity system.

The general principles of Regulation 2017/2196 are:

- mandatory information exchanges between the stakeholders;
- setup of communication systems;
- compliance testing for stakeholders (generation modules, demand response modules, HVDC systems, demand disconnection systems, communication systems, emergency tools and facilities);
- compliance testing plans (system defense, and restoration, communication systems) emergency tools and facilities – transfer procedures;

- monitoring, review and improve the implementation.

The main features of the Electricity Emergency and Restoration Code refer to:

- Tools and facilities needed to guarantee a reliable, efficient, and fast restoration of the interconnected transmission systems to the normal state from the emergency or blackout states.
- Establishment of a system defense and restoration plans with relevant measures, by the TSO.
- Planning criteria;
- Consultation;
- Assurance of consistency with the corresponding measures in the plans of TSOs within its synchronous area and in the plans of neighboring TSOs belonging to another synchronous area.
- The Secretariat shall monitor the implementation of this Regulation by the Contracting Parties.

The transposition into national legislation of Regulation (EU) No. 217/2196, as adapted by the Energy Community, will allow continuing carrying out the reforms initiated in the electricity sector, by adopting secondary legislation and completing the existing normative base, which is essential for the proper functioning of the system, in accordance with the provisions of the 3rd Energy Package, which was transposed into Law no. 107 of 27.05.2016 on electricity.

The national regulatory framework in this area consists, inter alia, of:

- Law no. 107/2016 regarding electricity¹, which's purpose is to establish a general legal framework for the organization, regulation, ensuring the efficient operation and monitoring of the electric power sector intended to supply consumers with electricity under conditions of accessibility, availability, reliability, continuity, quality, and transparency, ensuring free access to the electricity market. According to art.53 of the Electricity law no. 107/2016, in the context of the obligations assumed by the Republic of Moldova within the Energy Community Treaty, the transmission system operator has the legal obligation to prepare the draft of the act transposing the EU Network codes as adapted by the EnC and send to ANRE for consultation and approval.
- Electrical Network Code² (National Agency for Energy Regulation's Decision No. 423/2019), which establishes the regulatory framework for ensuring and managing efficient and transparent access to electricity networks by regulating the procedures for connection, development, and operation of electricity networks, in relation to cross-border flows and operation of electricity networks
- Electricity Market Rules³ (National Agency for Energy Regulation's Decision No. 283/2020) that establish the principles, rules, and mechanisms related to price formation and commercial relations in the wholesale electricity market between electricity market participants, regulate the terms and conditions for the organization and operation of the electricity market, including the market of bilateral energy contracts electricity, the day-ahead electricity market, the intraday electricity market, the balancing electricity market and the system services market, the rights and obligations of electricity producers, electricity suppliers, distribution system operators, as well as the market operator of electricity, of the transmission system operator regarding the management of the mentioned markets.

¹ https://www.legis.md/cautare/getResults?doc_id=133001&lang=ro#

² https://www.legis.md/cautare/getResults?doc_id=129524&lang=ro#

³ https://www.legis.md/cautare/getResults?doc_id=131508&lang=ro#

- Regulation on connection to electrical networks and provision of electricity transport and distribution services (National Agency for Energy Regulation's Decision No. 168/2019).
- Regulation on the development of electrical distribution networks (National Agency for Energy Regulation's Decision No. 94/2019).
- Other acts.

The institutional framework in this area is consisting of:

- Ministry of Infrastructure and Regional Development, which, according to the Law on Energy, is primarily in charge of energy sector policies and legal framework development, in addition to the energy sector itself (electricity, gas, oil, district heating, etc.).
- The National Agency for Energy Regulation of the Republic of Moldova (ANRE) is an independent public authority that supports the introduction of market mechanisms in the energy sector and regulates the sector while protecting the interests of customers and investors. For the electricity sector, ANRE approves the relevant network codes, supervises compliance legislation, promotes and ensures fair competition and efficient operation of energy markets, issues licenses for activities on the energy market, monitors the investment plans of system operators, approves standards and requirements for the transmission system operator (TSO) and distribution system operators (DSOs), and approves regulated tariffs and costs of power system maintenance and planned investments for TSO and DSO.
- SE Moldelectrica is the state-owned single-power TSO of Moldova, which specializes in centralizing the transport services and operative dispatching of the electricity system. SE Moldelectrica manages the internal transmission network in Moldova.

To enter the electricity market of Moldova, the new market participants first need to benefit from a harmonized regulatory framework and similar rules that exist in the internal market in the EU (rules regarding the balancing of the electricity system). The implementation of guidelines on electricity balancing harmonized with the relevant normative acts of the European Union will ensure that the TSO carries out its activities in accordance with the same processes, requirements, provisions, and principles as the counterparts from the EU countries and Energy Community Contracting parties.

In this context, UNDP Moldova is seeking to hire an international consultant that will support TSO and National Agency for Energy Regulation in transposing into national legislation Regulation 2017/2196.

3. SCOPE OF THE WORK, DUTIES, AND RESPONSIBILITIES

The general objective of the assignment is to support TSO and National Agency for Energy Regulation to transpose into the national regulation framework the Commission Regulation (EU) 2017/2196 of 23 November 2017 establishing a network code on electricity emergency restoration

Being supervised by Programme Manager and/or Team Leader for Component 1, and in close cooperation with the national consultant, and the relevant staff of the National Agency for Energy Regulation and TSO, the international consultant is expected to perform the following tasks:

1. To develop the draft act that transposes into national legislation Regulation no.2017/2196 on establishing a network code on electricity emergency and restoration as adapted and adopted by the Energy Community, without prejudice if the transposition act will be an amendment of a set of primary

and secondary acts or a new act on itself.

2. To provide capacity building to the TSO and ANRE in understanding the requirements and EU/Energy Community practice.

3. Consult with stakeholders the draft transpositions and provide the final consolidated draft of transpositions.

4. Draft list of actions needed and requirements for alignment of the transposed Network Code with the Balancing Network Code and System Operation Guideline

5. To draft the list of actions needed and requirements for alignment of the transposed Network Code on Electricity Emergency and Restoration with the Balancing Network Code and System Operation Guideline, including the roadmap for implementation and activation phase.

4. EXPECTED DELIVERABLES AND TENTATIVE TIMEFRAME

The international consultant is expected to deliver the following outputs per the below-identified timeline and anticipated workload:

Key Deliverables and the Anticipated Workload	Tentative Timetable/Deadline
Deliverable 1: A detailed Work Plan and Implementation Schedule (1 working day)	By early-January 2023
Deliverable 2: Draft legal act that transposes into national legislation Regulation no.2017/2196 on establishing a network code on electricity emergency and restoration as adapted and adopted by the Energy Community, without prejudice if the transposition act will be an amendment of a set of primary and secondary acts or a new act on itself (15 working days)	By early-March 2023
Deliverable 3: To conduct one capacity building event to the TSO and ANRE in understanding the requirements and EU/Energy Community practice on network code on electricity emergency and restoration (concept of the event, agenda, information materials, presentations, other documents), inclusive to present the transposition act (7 working days)	By end-March 2023
Deliverable 4: The final draft of legal act that transposes into national legislation Regulation no.2017/2196 (5 working days)	By mid-April 2023
Deliverable 5: Draft list of actions needed and requirements for alignment of the transposed Network Code with the Balancing Network Code and System Operation Guideline (5 working days)	By end April 2023
Deliverable 6: Draft the defense and restoration plans, including the roadmaps for implementation and activations (25 working days)	By end June 2023
Deliverable 7: Deliver an event to present the defense and restoration plans (2 working days)	By mid-July 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 January 2023 – July 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, and with national consultants. The international consultant will also closely cooperate with the TSO Moldelectrica and NAER from the beginning of the assignment to ensure that the draft 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 contract assignment will be for a fixed all-inclusive amount. Payments will be provided in several installments. The first disbursement will account for 35% of the contract amount, upon the presentation of deliverables 1&2, i.e., by mid-March 2023. The second disbursement will account for 25% of the contract amount upon presentation of deliverables 3&4, i.e. by mid-April 2023. The last disbursement will be issued upon submission and approval of deliverables 5&6, and certification by the FPI Programme Manager that the services have been satisfactorily performed, i.e. by mid-July 2023.

7. SKILLS AND EXPERIENCE REQUIRED

I. Education:

- University degree in the economics, electrical engineering, machinery, law, or other related areas is required.

II. Experience:

- At least 6 years of professional experience in the energy market (experience with TSO, DSO, market participant, or energy regulatory authority);
- At least 5 years of international working experience in institutional consultancy.
- Proven professional record of involvement in Moldova's electricity-related tasks will be a strong asset.

III. Competencies:

- Excellent knowledge of the Commission Regulation (EU) 2017/2196 of 24 November 2017 network code on electricity emergency restoration;
- Familiarity with Moldova TSO responsibilities and activity regarding electricity emergency restoration
- Familiarity with the RM-EU Association Agreement, Energy Community Treaty, and other international and regional commitments of Moldova;
- Strong analytical and report-writing skills demonstrated by previous assignments;
- Strong interpersonal and communication skills, ability to work with Government 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.

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

1. Proposal, explaining why he/she is most suitable for the work, including experience in similar assignments, providing brief information on the above qualifications and methodology on how he/she will approach and conduct the work (if applicable).
2. [OFFEROR'S LETTER TO UNDP CONFIRMING INTEREST AND AVAILABILITY FOR THE INDIVIDUAL CONTRACTOR \(IC\) ASSIGNMENT.](#)
3. CV with at least three names for a reference check.

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.