



## Questionnaire

#### Part II

Information provided by the Government of the Republic of Moldova to the Questionnaire of the European Commission

**CHAPTER 15:** 

**ENERGY** 

May 2022

The objectives of EU energy policy are competitiveness, security of supply and sustainability and protecting the population against the risks arising from nuclear energy and ionising radiation. The energy acquis consists of rules and policies notably on the internal energy market (opening up electricity and gas wholesale and retail markets), nuclear safety, as well as promoting renewable energy sources and energy efficiency with the objective of reaching climate neutrality by 2050.

As regards security of supply, the acquis requires Member States to hold oil stocks equivalent to 90 days of average daily net imports or 61 days of average daily inland consumption, whichever of the two quantities is greater. A body for managing crisis situations needs to be established.

For natural gas, Member States need to be prepared for supply disruption, through clear and effective emergency plans. Member States must ensure that in the event of a disruption of the single largest infrastructure, they are able to satisfy total gas demand during a day of exceptionally high demand. Reverse flows are to be established in all cross border interconnections. Member States must also define general, transparent and non-discriminatory policies on security of electricity supply. Finally, Member States are bound to solidarity in the face of a crisis.

Member States must ensure open and competitive markets for electricity and gas, adhering to the principles of transparency, non-discrimination, third-party access, cross-border transmission, security of supply and sustainability. Transmission and distribution system operators are to be unbundled. Universal electricity services must be guaranteed and vulnerable customers be granted adequate protection. An independent regulatory authority must be designated as responsible for the efficient functioning of the markets. An independent transmission system operator (TSO) is equally crucial for the functioning of the internal electricity and gas markets, including establishing transparent, cost-reflective and non-discriminatory tariffs.

The promotion of renewable energy and energy efficiency is part of the European Green Deal and Europe objective for carbon-neutral economy by 2050. A National Energy and Climate have to be adopted including 2030 targets for renewable energy, energy efficiency and CO2 reduction.

Regarding the use of nuclear energy, Member States must establish a national legislative, regulatory and organisational framework for the nuclear safety of installations, including a competent and independent regulatory authority, as well as a framework for the management of spent fuel and radioactive waste. They must also ensure the application of Euratom safeguards.

Parts of the *acquis* under this chapter are covered by the Energy Community Treaty which lays down specific obligations in these areas. When answering the questions below, please make reference to the state of implementation of such obligations.

#### I. GENERAL

1. Please provide information on the distribution of competences, the legislation in force and the existing and planned strategy documents (energy policy, energy saving or policies in subsectors) on energy matters.

The Republic of Moldova committed to transpose and implement the relevant EU energy acquis both as a Contracting Party of the Energy Community Treaty since 2010, and by the Association Agreement between the European Union and the European Atomic Energy Community and the Republic of Moldova signed in 2014. Consequently, the energy sector is shaped according to EU practice, with the aim to establish functional energy markets and to gradually integrate them into the EU Internal Energy Market.

The ministry in charge of energy is the **Ministry of Infrastructure and Regional Development** (MIRD). The ministry is responsible for the overall energy policymaking, including energy security, promotion of renewable energy sources and energy efficiency. As part of the unbundling measures, state owned energy companies are under the Public Property Agency, except Moldelectrica, the electricity Transmission System Operator (TSO), which is under MIRD.

The National Agency for Energy Regulation (NAER) is the independent regulatory authority on energy and water supply sectors. It was established in 1997 and since 2009 is under Parliament's supervision. It is fully funded extra-budgetary from license fees and contributions from regulated energy and water supply companies. The decisions are made by a Council of five directors, elected by Parliament through a competition of six-year fixed term, renewable only once. NAER has the following attributions:

- elaborates and approves regulations, methodologies, and other normative acts in the energy sector;
- supervises the activity of the energy sector companies;
- promotes, monitors, and ensures fair competition in regulated sectors;
- issues licenses, monitors, and controls the compliance of licensees with the conditions of conducting authorised activities;
- promotes an appropriate tariff policy;
- promotes the protection of consumers' legal rights,

- promotes market effective opening, development and regional integration, etc.

**Energy Efficiency Agency (EEA) competences.** EEA is the administrative authority responsible for the implementation of the state policy in the field of energy efficiency, energy performance of buildings, and the use of renewable energy sources, including by attracting and managing financial resources aiming at promoting implementation of projects in these areas.

**Energy legislation** is issued by the Parliament. The basic legal framework consists of the following laws:

- Law No.174/2017 on energy<sup>1</sup>;
- Law No. 461/2001 on the market for petroleum products<sup>2</sup>;
- Law No. 107/2016 on electricity<sup>3</sup>;
- Law No. 108/2016 on natural gas<sup>4</sup>;
- Law No. 10/2016 on promotion of energy from renewable sources<sup>5</sup>;
- Law No. 139/2018 on energy efficiency<sup>6</sup>;
- Law No. 92/2014 on heat and cogeneration promotion<sup>7</sup>;
- Law No. 128/2014 on energy performance of buildings<sup>8</sup>;
- Law No. 44/2014 on energy labelling requirements for energy-related products<sup>9</sup>;
- Law No. 151/2014 on ecodesign requirements for energy-related products<sup>10</sup>.

https://www.legis.md/cautare/getResults?doc\_id=110368&lang=ro

https://www.legis.md/cautare/getResults?doc\_id=111446&lang=ro

<sup>4</sup> Law No. 108/2016 on natural gas, available in Romanian at:

https://www.legis.md/cautare/getResults?doc\_id=105945&lang=ro

https://www.legis.md/cautare/getResults?doc\_id=106068&lang=ro

https://www.legis.md/cautare/getResults?doc\_id=105498&lang=ro

https://www.legis.md/cautare/getResults?doc\_id=48676&lang=ro

https://www.legis.md/cautare/getResults?doc\_id=21474&lang=ro

https://www.legis.md/cautare/getResults?doc\_id=21702&lang=ro

<sup>&</sup>lt;sup>1</sup> Law No.174/2017 on energy, available in Romanian at:

<sup>&</sup>lt;sup>2</sup> Law No. 461/2001 on the market for petroleum products, available in Romanian at:

<sup>&</sup>lt;sup>3</sup> Law No. 107/2016 on electricity, available in Romanian at:

https://www.legis.md/cautare/getResults?doc\_id=105978&lang=ro

<sup>&</sup>lt;sup>5</sup> Law No. 10/2016 on promotion of energy from renewable sources, available in Romanian at:

<sup>&</sup>lt;sup>6</sup> Law No. 139/2018 on energy efficiency, available in Romanian at:

<sup>&</sup>lt;sup>7</sup> Law No. 92/2014 on heat and cogeneration promotions, available in Romanian at:

<sup>&</sup>lt;sup>8</sup> Law No. 128/2014 on Energy Performance of the Buildings, available in Romanian at:

<sup>&</sup>lt;sup>9</sup> Law No. 44/2014 on energy labelling, available in Romanian at:

<sup>&</sup>lt;sup>10</sup> Law No. 151/2014 on ecodesign requirements, available in Romanian at:

https://www.legis.md/cautare/getResults?doc\_id=106031&lang=ro

The energy legislation is aligned to the EU energy acquis, under the supervision of the Energy Community Secretariat (EnCS).

The transposition of the **Third Energy Package** was carried out by approving the Electricity Law no 107/2016, the Natural Gas Law no 108/2016 and the Energy Law no 174/2017. NAER issued the secondary legislation necessary for the implementation of the above-mentioned Laws. In addition, a set of EU regulations have been incorporated in the Energy Community acquis (for gas and electricity) and became mandatory to be transposed by NAER. In the period 2016-2020, NAER approved all secondary legislation required by the mentioned Laws, including those that involved the transposition of the European legislation. The most important secondary legislation acts are:

- NAER Decision No. 534/2019 on Natural gas market rules<sup>11</sup>;
- NAER Decision No. 283/2020 on Electricity market rules<sup>12</sup>;
- NAER Decision No. 421/2019 on Regulation on access to natural gas transmission networks and congestion management<sup>13</sup>, transposing Regulation No 715/2009 on conditions for access to the natural gas transmission networks of the European Parliament and the Council.
- NAER Decision No. 420/2019 on Natural Gas Network code<sup>14</sup>, transposing:
- Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules
- Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems;
- Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonized transmission tariff structures for gas;
- Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks.
  - NAER Decision No. 424/2019 on Regulation on access to electricity transmission networks and congestion management<sup>15</sup>, partially transposing Regulation (EC) No 714/2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003;

<sup>&</sup>lt;sup>11</sup> NAER Decision No. 534/2019 on Natural gas market rules, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=120439&lang=ro

<sup>12</sup> NAER Decision No. 283/2020 on Electricity market rules, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=123381&lang=ro

<sup>&</sup>lt;sup>13</sup> NAER Decision No. 421/2019 on Regulation on access to natural gas transmission networks, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=120010&lang=ro

<sup>&</sup>lt;sup>14</sup> NAER Decision No. 420/2019 on Natural Gas Network code, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=120009&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=120009&lang=ro</a>

<sup>&</sup>lt;sup>15</sup>NAER Decision No. 424/2019 on Regulation on access to electricity transmission networks, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=120016&lang=ro

- NAER Decision No. 299/2017 on submission to ENTSO-E of information on the electricity market of the Republic of Moldova and their publication<sup>16</sup>, transposing Regulation (EU) 543/2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council;
- NAER Decision No. 423/2019 on Electricity network code<sup>17</sup> transposing the following EU legal acts:
- Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators;
- Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules;
- Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection.

#### **Relevant policy documents:**

**2030 Energy Strategy**. The Energy Strategy of the Republic of Moldova until 2030 was approved by the Government Decision No. 102/2013<sup>18</sup>. The document will be revised after the elaboration of the National Energy and Climate Plan (NECP) (see answer at Chapter 27, Section II, point J).

Roadmaps for energy sector 2015 - 2030 were approved by the Government Decision No.  $409/2015^{19}$  as tools completing the country's Energy Strategy. There are two Roadmaps, one for electricity and one for natural gas, which mainly provide for the new interconnection infrastructure needed to be built. Given its dating, the document requires an update.

**2019-2021 National Energy Efficiency Action Plan.** The latest National Energy Efficiency Action Plan was approved by the Government Decision No.  $698/2019^{20}$  for the period 2019 - 2021. For the next period, it will be integrated into the NECP.

The country's renewable energy policy objectives were set in the National Renewable Energy Action Plan until  $2020^{21}$ , whose role will be taken over by the NECP.

<sup>&</sup>lt;sup>16</sup> NAER Decision No. 299/2017 on submission to ENTSO-E of information on the electricity market, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=101657&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=101657&lang=ro</a>

<sup>&</sup>lt;sup>17</sup>NAER Decision No. 423/2019 on Electricity network code, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=120014&lang=ro

<sup>&</sup>lt;sup>18</sup>Government Decision No.102/2013 on Energy Strategy, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=68103&lang=ro

<sup>&</sup>lt;sup>19</sup> Government Decision No. 409/2015 on Roadmaps for energy sector 2015 – 2030, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=77316&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=77316&lang=ro</a>

<sup>&</sup>lt;sup>20</sup>Government Decision No. 698/2019 on 2019-2021 National Action Plan for Energy Efficiency, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=119890&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=119890&lang=ro</a>

<sup>&</sup>lt;sup>21</sup>Government Decision No. 1073/2013 on NREAP 2020, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=103148&lang=ro

#### II. SECURITY OF SUPPLY

2. What is the level of oil stock reserves in Moldova, calculated according to EU methodology, and how are stocks calculated and controlled? What is the level of storage capacity available for those stocks?

Moldova has not yet transposed the Directive 2009/119/EC imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products into national law. The government is currently working on a draft law, which is planned according to the Government Action Plan for 2021-2022, approved by the Government Decision No. 235/2021.<sup>22</sup>

Fuel stocks are maintained (due to commercial-based practical reasoning) by fuel importers and distributors. Their stocks are monitored by NAER, and usually cover at least two weeks of average inland consumption.

Heavy oil stocks used to produce heat and electricity in cogeneration power plants in Chisinau are under the state reserve legislation. There are also commercial heavy oil stocks of Termoelectrica, the company operating the CHP power plants in Chisinau.

#### 3. What is the legal framework governing emergency oil stocks?

Moldova does not have yet the legal framework governing emergency oil stocks. Directive 2009/119/EC has to be transposed, as a commitment in the Energy Community Treaty.

MIRD has under elaboration a draft Law on the creation and maintenance of the minimum level of petroleum products stocks, which will transpose the Council Directive 2009/119/EC of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products.

Energy Community adapted and adopted the new EU legislation regarding emergency oil stocks, Directive 2018/1581/EU of 19 October 2018 amending Council Directive 2009/119/EC as regards the methods for calculating stockholding obligations, and subsequently to instruct Contracting Parties in revising their dedicated legislation. Considering that, the MIRD draft Law on oil stocks will be updated accordingly, with the support of development partners.

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<sup>&</sup>lt;sup>22</sup> Government Decision No. 235/2021 on approving the Government Action Plan for 2021-2022, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=128407&lang=ro

- 4. In terms of gas supplies, in particular have Moldova authorities:
- a) Planned the roles and responsibilities of various market participants in order to ensure security of supply;
- b) Prepared any emergency measures;
- c) Planned any monitoring and reporting mechanisms in order to mitigate future gas supply disruptions?

The Law No.108/2016 on natural gas<sup>23</sup> has an entire section dedicated to the Security of gas supply, which establishes Government competences and undertakes obligations regarding security of gas supply. Based on these provisions, the Government approved the Governmental Decision No.207/2019<sup>24</sup> on approval of the Regulation for emergency situations on the natural gas market and the Action Plan for emergency situations on the natural gas market, which transposed the Regulation (EU) No 994/2010, adopting the full set of security of supply rules, which, as assessed by the Energy Community Secretariat, went beyond the Energy Community acquis in force at that time. The obligation to comply with the Regulation (EU) 2017/1938, which became part of the Energy Community acquis in November 2021, is due by 31 December 2022. Meanwhile, the legislation in force establishes, *inter alia*:

- the criteria for identifying protected consumers;
- the measures to be taken by the natural gas undertakings to ensure the supply of natural gas to the protected consumers in the following cases:
  - extreme temperatures for a peak period of 7 calendar days, statistically observed once every 20 years;
  - any period of at least 30 calendar days in which the demand for gas is exceptionally high, statistically recorded once every 20 years;
  - a period of at least 30 calendar days in the event of damage to the main natural gas networks under normal winter conditions;
- the criteria for identifying different categories of major risks for the security of natural gas supply;
- the mitigation measures for risks identified according previous point and, in particular, in the event of a disruption of the natural gas supply involving damage to the natural gas infrastructure or the natural gas supply source/route or in the event of an exceptionally high demand for natural gas;
- information on the existing and planned interconnections to be built, which contribute to the security of natural gas supply;
- the content of the report to be submitted by the natural gas undertakings regarding the security of the natural gas supply.

<sup>&</sup>lt;sup>23</sup> Law No. 108/2016 on natural gas, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=105945&lang=ro

<sup>&</sup>lt;sup>24</sup> Government Decision No.207/2019 on Regulation for exceptional (emergency) situations on the natural gas market, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=113991&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=113991&lang=ro</a>

The Government initiated changes to the Law No.108/2016 on natural gas which is currently under approval in the Parliament. Among the amendments, there are some changes which emerged as lessons learned from the October 2021 gas crisis:

- an involvement of the regulatory agency, NAER, in the security of gas supply issues on short-term, market oriented issues;
- an obligation to create gas stocks in the gas storage facilities of neighbouring countries, since the Republic of Moldova does not have gas storage facilities on its territory.

In order to ensure mutual help between neighbouring countries, MIRD concluded:

- In December 2019 a Memorandum of Understanding was signed between the Ministry of Economy and Infrastructure of the Republic of Moldova and the Ministry of Energy and Environmental Protection of Ukraine on the cooperation in the area of security of gas supply; In February 2022 a Memorandum of Understanding was signed between the Ministry of Infrastructure and Regional Development of the Republic of Moldova and Romanian Ministry of Energy, on cooperation in the field of energy security;

As referred in the Law No.108/2016, there are clear obligations imposed to the Government regarding the **monitoring of gas security of supply**, which should monitor:

- the proper implementation of the requirements regarding the security of the natural gas supply established by the Law;
- the balance between supply and demand on the natural gas market;
- the level of the foreseeable future demand for natural gas and the available sources of coverage;
- new long-term contracts for the import of natural gas from third countries;
- the useful volume of natural gas and the extraction capacity from the natural gas storage facilities;
- the degree of interconnection of the natural gas system of the Republic of Moldova with the natural gas systems of the neighbouring countries, as well as with those of the Energy Community Contracting Parties;
- additional interconnection capacities planned or under construction;
- the quality and level of maintenance of the natural gas networks, as well as monitoring the safety standards for the operation of the natural gas networks;
- carrying out the measures to cover the peak demand and the deficit in the supply of natural gas in case of unavailability of one or more suppliers, including in case of emergency situations on the natural gas market.

The Government has also the obligation to elaborate and make public an annual Report on gas security of supply which is sent to the Energy Community Secretariat<sup>25</sup>.

#### **Diversification of gas supply routes**

Among the main measures to increase the security of gas supply taken by the Government in recent years were those aimed at diversifying the gas supply routes. As a results, there are the physical reverse flow on the T1 Trans Balkan gas pipeline operational since December 2019 (up to 15 mcm/day) and the new interconnection with Romania (Iasi - Ungheni), fully functional from October 2021 (up to 5.2 mcm/day) when extensions on the Romanian side were completed.

#### 5. How has Moldova taken into account the findings of the 2022 gas sector stress tests?

Gas Transmission System Operators (TSOs) and MIRD have not yet received the findings of the 2022 gas sector stress tests performed by the European Network of Transmission System Operators for Gas (ENTSO-G). When the results and conclusions of the tests are received, we are ready to take them into account.

<sup>&</sup>lt;sup>25</sup> Moldova Security of Supply Statement: <a href="https://energy-community.org/dam/jcr:67aa937b-abd5-41db-8513-b7b7b343f7f0/SOS">https://energy-community.org/dam/jcr:67aa937b-abd5-41db-8513-b7b7b343f7f0/SOS</a> ML 2019.pdf

#### III. INTERNAL ENERGY MARKET

6. Please explain the rules on the opening up of the internal electricity and gas markets as per Directives 2019/944 and 2009/73, together with Regulation (EU) 2019/943 on the internal market for electricity, Regulation 715/2009 on conditions for access to the natural gas transmission networks and Regulation (EU) 2019/941on risk-preparedness in the electricity sector.

#### **Electricity**

Following the approval of the Law No. 107/2016 on electricity, the Republic of Moldova has transposed the provisions of the Directive 2009/72/EC on common rules for the internal market in electricity, the provisions of Annex I of Regulation (EC) 714/2009 on network access conditions for cross-border exchanges in electricity, as well as, the Directive 2005/89/EC on measures to safeguard security of electricity supply and infrastructure investment. After a period of transition, the secondary legislative framework was adjusted to the new requirements.

From a legal point of view, the electricity market complies fully with the requirements set by the Third Energy Package. The only commitment left to be achieved is the certification of the transmission system operator Moldelectrica.

The structure of the electricity market which is set by the provisions of Law No. 107/2016 on electricity and the Rules of the electricity market, is based on organised electricity wholesale and retail markets. In the wholesale electricity market, the mechanisms ensure the possibility of trading electricity through contracts but also during short periods of time in centralised day-ahead and intra-day, close to delivery time of electricity, which would allow the diversification of traded products and a better integration of renewable sources of electricity.

The new electricity market model is expected to be implemented from 1 June, 2022, once the Electricity Market Rules come into force. During the first phase of the new market model, the wholesale electricity market will not include the day-ahead market and intra-day market. These organised markets will be launched once the Government designates the electricity market operator.

Due to the binding effect of the Decision of the Ministerial Council of the Energy Community No. 2021/13/MC-EnC<sup>26</sup> the EU Directive 2019/944 on common rules for the internal market for electricity, the Republic of Moldova has initiated the process on drafting the amendments to the Law No. 107/2016 on electricity, so that the national legislation can include new structural elements, introduced by the EU Directive 2019/944.

<sup>&</sup>lt;sup>26</sup> Decision of the Ministerial Council of the Energy Community No. 2021/13/MC-EnC: <a href="https://www.energy-community.org/dam/jcr:3304cadf-c63b-433f-9636-79d9ec63b186/Decision%202021-13-MC-EnC.pdf">https://www.energy-community.org/dam/jcr:3304cadf-c63b-433f-9636-79d9ec63b186/Decision%202021-13-MC-EnC.pdf</a>

According to the Decision of the Ministerial Council of the Energy Community No. 2021/13/MC-EnC the implementation deadline is set for 31 December, 2023.

#### Market opening

According to electricity Law No.107/2016, the legal market opening in electricity is 100%, all consumers have the right to change their supplier. A clear procedure for supply switching was issued by NAER, last revision approved by NAER Decision No.126/2020<sup>27</sup>. Supply switching can be achieved in a maximum of 20 days, without any extra costs.

There are 48 licensed suppliers in the Republic of Moldova, but most of them are inactive. Only five of them were active in 2021. The supply license is issued by NAER for 10 years and NAER is also monitoring the electricity market.

In 2021 the real electricity market opening was 9.2%. In early December 2021 the main supplier at non-regulated prices ended its activity, after one of its contracts for electricity acquisition ended.

In order to protect consumers there are still two regional suppliers which apply regulated prices as a public service obligation of universal service type. This obligation is established by Law No.107/2016 for 10 years to Premier Energy (private supplier in the Central and Southern part of Moldova) and Furnizarea Energiei Electrice Nord (state-owned supplier in the Northern part of Moldova). Regulated electricity prices for consumers are approved by NAER, based on calculations made by the suppliers, applying transparent tariff methodologies (Methodology for calculating, approving and applying regulated prices for the supply of electricity by the supplier of last resort and the universal service provider<sup>28</sup>, last revision by NAER Decision No. 65 of 23 February 2018).

#### **Natural Gas**

Market Opening

According to article 114 of the Natural Gas Law No.108/2016, the natural gas market was declared open in 2016 and every natural gas customer has the right to freely choose and change the natural gas supplier. However, there is no competition on the natural gas market of the Republic of Moldova. According to NAER Decision No. 408 of April 6, 2011<sup>29</sup>, the natural gas market was declared as non-competitive.

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<sup>&</sup>lt;sup>27</sup> Regulation on the electricity supplier switching procedure, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=121879&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=121879&lang=ro</a>

<sup>&</sup>lt;sup>28</sup>Methodology for calculating, approving and applying regulated prices for the supply of electricity by the supplier of last resort and the universal service provider: <a href="https://www.legis.md/cautare/getResults?doc\_id=103740&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=103740&lang=ro</a>
<sup>29</sup>NAER Decision on the natural gas market regulation:

Household customers and small enterprises are entitled to regulated gas supplies by the supplier under public service obligations. Non-household consumers which are not able to select their supplier and to enter into natural gas supply agreement on negotiable price are entitled to conclude natural gas supply agreements under regulated conditions with the public service obligation suppliers. The law envisages also a concept of supplier of last resort for all final customers.

In order to ensure the right of the consumers to be supplied with natural gas at regulated, transparent and non-discriminatory prices NAER has imposed public service obligations for the suppliers through its Decision no.487/2019<sup>30</sup> and Decision no.444/2021<sup>31</sup>.

The right of consumers to choose and change their supplier

Under the Art. 80 of the Law no. 108/2016 on Natural Gas, all customers are eligible and allowed to freely choose and switch their gas supplier. The first Regulation on the Procedure for Natural Gas Supplier Switching, was approved by NAER in 2014.

#### Third Party Access

The free access to the natural gas transmission and distribution networks is guaranteed by the Law No. 108/2016 on natural gas and the Regulation on the connection to natural gas networks and the provision of natural gas transmission and distribution services approved by NAER Decision No. 112/2019 (Regulation on connection)<sup>32</sup>.

Any natural gas supplier may import natural gas and conclude contracts for natural gas transmission and distribution services with the system operators under regulatory conditions. The models of the respective contracts as well as the list of documents required to be attached are expressly set out in the Regulation on connection and published on the website of the system operators.

NAER has approved the transmission and distribution tariffs according to the relevant tariff Methodologies. The entry/exit gas transmission tariffs for Moldovatransgaz and Vestmoldtransgaz were adopted by NAER in 2021 and 2022. The tariffs are transparent non-discriminatory, justified and predictable for each individual activity, and excludes any cross-subsidies between activities or categories of consumers.

Third party access services, capacity allocation and congestion management procedures as required by Regulation (EC) 715/2009 for the transmission system are in place. The conditions for refusal of access are in line with the gas acquis.

<sup>31</sup> NAER Decision no.444/2021 on imposing public service obligation for natural gas supply of last resort: <a href="https://www.anre.md/storage/upload/administration/reports/793/Hot%C4%83r%C3%A2rea%20CA%20al%20AN">https://www.anre.md/storage/upload/administration/reports/793/Hot%C4%83r%C3%A2rea%20CA%20al%20AN</a> RE%20nr.%20444%20din%2012.10.2021%20privind%20impunerea%20obliga%C8%9Biei....pdf

<sup>&</sup>lt;sup>30</sup> NAER Decision no.487/2019 on imposing public service obligation for natural gas supply: <a href="https://www.legis.md/cautare/getResults?doc\_id=119791&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=119791&lang=ro</a>

<sup>&</sup>lt;sup>32</sup> Regulation on the connection to natural gas networks and the provision of natural gas transmission and distribution services: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=123794&lang=ro

7. What measures is Moldova taking to ensure compliance with Regulation (EU) 2019/943, including its application in the context of the Energy Community Treaty?

The EU Regulation 2019/943 on the internal electricity market is not yet part of the Energy Community acquis. It is expected that this Regulation will be adapted to the legislative framework of the Energy Community and be proposed for approval at the next Ministerial Council meeting, scheduled for the end of the year 2022. The Republic of Moldova, as a contracting party, will be a part of this process. The transposition on the national level will follow the decision of the Energy Community Ministerial Council and will be implemented according to the established deadlines.

8. What are the policy and plans on electricity, gas or oil exchanges and network interconnections with neighbouring countries and/or regions? What projects are being carried out as regards electricity and gas interconnectors?

#### **Electricity**

The Energy Strategy of the Republic of Moldova until 2030 provides for the diversification of electricity supply by accessing the internal electricity market of the European Union. The integration with this electricity market is possible only by interconnecting the electricity system of the Republic of Moldova with the electricity system of Romania. The interconnection was considered both in the synchronous way and the asynchronous way.

The transmission system operator Moldelectrica, has included in its Ten-Year Network Development Plan - several projects related to the development of interconnections with Romania.

The interconnection of the electricity networks between the Republic of Moldova and Romania consists in developing, providing the necessary equipment and commissioning the interconnection between the Republic of Moldova and Romania, that includes:

- Back-to-back substation in Vulcanesti;
- 400 kV transmission line between Vulcanesti and Chisinau;
- Extending the Chisinau substation.

The implementation of these Projects is expected to be completed by 2025. The cost of the Project is estimated at EUR 260.94 million.

On 16th of March 2022 an emergency synchronisation of networks of the Republic of Moldova and Ukraine with ENTSO-E continental grid was successfully

performed. This brought changes to the project regarding the Back-to-Back substation in Vulcanesti, so that the project evaluated at 200 million Euros will be replaced by a more suitable device to control the electricity flows and other interconnections.

The Ten-Year Network Development Plan 2018-2027<sup>33</sup> of the TSO Moldelectrica includes an additional 400 kV line from Balti (Republic of Moldova) to Suceava (Romania) that is meant to increase the transit through the internal electricity network. To take full advantage of the new interconnection, also the construction of the 400 kV overhead line (OHL) Suceava - Gadalin, which is included in the RET Development Plan in Romania<sup>34</sup>, is needed. The construction of the 400 kV Balti - Suceava line, according to the TSO Development Plan, is scheduled for 2025-2027.

#### **Natural Gas**

The Energy Strategy of the Republic of Moldova until 2030 establishes as a priority for Moldova to strengthen the status of a transit country for power and natural gas by improving the bidirectional transmission connections. In recent years, considerable progress has been made in diversifying energy supply routes, which technically enables purchasing of natural gas from sources other than the traditional routes. There are now at least 3 natural gas interconnections with the EU and Ukraine.

Romania - Moldova Gas Interconnector has been operational since October 2021

The construction of the first phase of the Project, a segment of about 33 km (10 km on the territory of Moldova), from Iasi to Ungheni, was finalised in 2014. The interconnector Iasi – Ungheni was constructed and became operational in March 2015.

The second phase of the Project, Ungheni – Chisinau segment, is the extension of the existing Romanian-Moldovan Interconnector Pipeline on the Moldavan side. The construction was completed in august 2020, the pipeline has a length of about 110 km and a diameter of 600 mm.

In October 2021, the works on the construction of a new gas transmission pipeline with diameter of 800 mm, and a length of 165 km, Onesti–Gheraiesti–Letcani, the Romanian side were completed. Also two compressor stations were built, in Onesti and Gheraiesti.

The bi-directional flow of the Trans-Balkan Corridor (T1) Moldova – Ukraine has been operational since December 2019.

<sup>34</sup> The TSO Transelectrica Romania Ten-Year Network Development Plan 2020-2029: <a href="https://www.transelectrica.ro/en/web/tel/planului-de-dezvoltare-ret-2020-2029">https://www.transelectrica.ro/en/web/tel/planului-de-dezvoltare-ret-2020-2029</a>

<sup>&</sup>lt;sup>33</sup>The TSO Moldelectrica Ten-Year Network Development Plan 2018-2027, available in English at: <a href="https://moldelectrica.md/files/docs/TYNDP\_EN.pdf">https://moldelectrica.md/files/docs/TYNDP\_EN.pdf</a>

On the Moldovan side all the necessary works were carried out in a timely manner. Also, the gas TSO Moldovatransgaz signed all the necessary Interconnection/Interoperability agreements and other technical agreements with TSO Ukrtransgaz/GAS TSO of Ukraine and TSO Transgas from Romania.

### 9. What is the structure of electricity and gas markets (ownership, concentration, separation of activities)?

#### **Electricity**

The electricity market of the Republic of Moldova operates under a single transmission system operator - Moldelectrica (state-owned enterprise), two distribution system operators - JSC Premier Energy Distribution (private) and JSC RED Nord (state-owned enterprise) and two universal service suppliers and suppliers of last resort - Premier Energy LLC (private) and JSC FEE-Nord (state-owned enterprise).

Legal and functional unbundling of the distribution system operators is implemented.

The market is fully liberalised. All final consumers have the right to choose their electricity supplier.

There are 5 licensed producers of electricity (power plants with a capacity of more than 5 MW are required to have a license) and 48 suppliers of electricity (2 state-owned companies – JSC FEE-Nord and JSC Energocom, the others are private companies).

About 80% of the electricity traded on the wholesale electricity market is purchased by the market participants on a competitive basis, but the outcome of the transactions is influenced by the limited number of supply sources (Ukraine and/or Transnistrian region). The other share represents electricity purchased from priority dispatching power plants, which sell electricity at regulated prices (district heating power plants or renewable energy sources that benefit from support schemes).

Although Republic of Moldova has improved its legislative framework, aligning it with the EU acquis requirements and creating the necessary conditions for the liberalisation of the retail electricity market (the share of market opening is 9.2% in 2021), the market has tightened and the end consumers have returned back to the universal service suppliers and suppliers of last resort due to the energy crisis in December 2021.

#### **Natural Gas**

The natural gas market in Moldova is largely illiquid and foreclosed as it relies mainly on a single gas supplier Moldovagaz. The majority of activities related to import, supply, cross-border and national transmission and distribution are performed by Moldovagaz and its subsidiaries.

Moldovagaz is a vertically integrated joint stock company that dominates the natural gas system of the Republic of Moldova, including the upstream transit pipelines. It includes:

- two gas transmission companies: Moldovatransgaz, operating on the right bank of the Nistru river and Tiraspoltransgaz operating in Transnistrian region,
- 12 distribution system operators on the right bank of the Nistru river with branches in district centers,
- 6 distribution companies in the Transnistrian region and
- a company specialised in the import and sale of compressed natural gas.

The supply activity on the right bank of the Nistru river is performed by Moldovagaz directly, no distinct supply company was established.

Moldovagaz is owned by Gazprom (50%), the Government of the Republic of Moldova (35.33%), the de-facto Transnistrian region administration (13.44%) and other private legal and natural persons (1,23%).

Another TSO operating on the market is Vestmoldtransgaz, which is owned by Eurotransgaz, a subsidiary of the Romanian TSO Transgaz. Eurotransgaz ownsa share of 75% and EBRD - 25 % of Vestmoldtransgaz

According to the information from the NAER licensing Register, **49 license holders** operate on the natural gas market:

- 2 transmission system operators (TSO), Moldovatransgaz and Vestmoldtransgaz;
- 24 suppliers (23 private legal entities + 1 state owned, Energocom)
- 23 distribution system operators (12 DSOs affiliates of Moldovagaz and 11 privately owned), including 5 bundled DSOs with less than 100 000 customers.

According to the ECRB Market Monitoring report for the year 2020<sup>35</sup>, the market concentration indicators show that the gas market in Moldova is highly concentrated.

 $<sup>^{35}</sup>$  ECRB Market Monitoring report for the year 2020:  $\underline{https://energy-community.org/dam/jcr:f69c8bdf-db06-4c85-adee-edd92eed87df/ECRB-Gas-Wholesale-MMR\ Final.pdf}$ 

The functional, accounting and legal unbundling of DSOs was achieved in 2016-2019. NAER has approved the compliance programmes, compliance officers for all the DSOs and the Regulation on monitoring of the compliance programs. 5 DSOs with less than 100.000 customers have implemented only functional and accounting unbundling from the supply activity.

Based on the Decision of the Energy Community Ministerial Council from 2012, Moldova obtained a derogation from the TSO unbundling, until 2020.

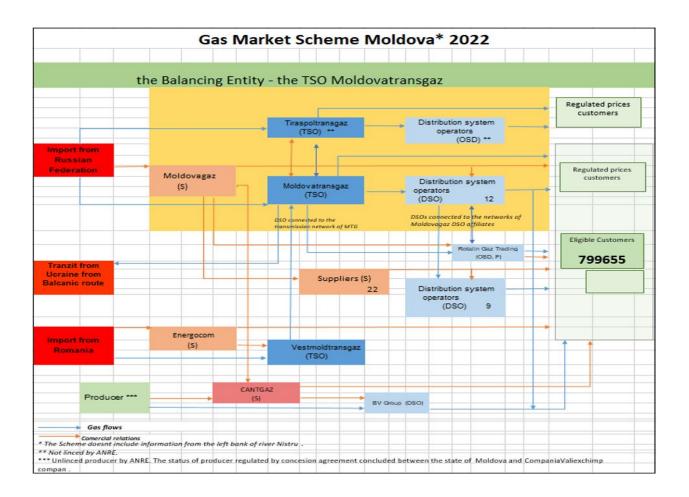
- The certification of the TSO Vestmoldtransgaz was successfully completed in 2021.
- The certification of the TSO Moldovatransgaz failed in 2019 and 2021.

NAER can issue the decision on certification of Moldovatransgaz only after the TSO fulfills the certification requirements according to the separation model required by the Gas Law No. 108/2016 and following the opinion of the Energy Community Secretariat.

New amendments to the Gas Law No. 108/2016 were approved by the Parliament in the first reading<sup>36</sup>. These amendments include the obligation for implementation of the Independent System Operator (ISO) model for the TSO unbundling and certification if the vertically integrated undertaking fails to perform unbundling by itself.

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<sup>&</sup>lt;sup>36</sup> The draft Law, available in Romanian at: <a href="https://www.parlament.md/ProcesulLegislativ/Proiectedeactelegislative/tabid/61/LegislativId/5914/language/ro-RO/Default.aspx">https://www.parlament.md/ProcesulLegislativ/Proiectedeactelegislative/tabid/61/LegislativId/5914/language/ro-RO/Default.aspx</a>



10. What are the competencies of the energy regulator, what is the level of staffing and budget? Please give an indication as to how the independence of this regulatory authority is guaranteed (appointment procedure, budget of the regulatory body, etc.).

National Agency for Energy Regulation (NAER) is a legal entity and is independent in relation to other public authorities and bodies or in relation to other public or private entities, under parliamentary and judicial control. The key **powers**, **responsibilities and competencies** of NAER includes:

- issuing, extending, suspending, resuming or withdrawing licenses;
- issuing, extending, suspending, resuming or withdrawing authorizations;
- monitoring the energy markets and licensees' compliance with the obligations established in the normative acts and NAER's decisions. Monitoring the application of the regulated tariffs;
- monitoring the level of competition and transparency on the energy market, as well as the effectiveness of electricity market opening;
- certifying the transmission system operators and monitoring the compliance of the system operators with separation and independence requirements;

- drafting and approving the secondary legislation established by law, including the tariff methodologies;
- approving the basic costs and tariffs for the regulated activities;
- ensuring that the regulated prices and tariffs, as well as, the applied methodologies are justified, reasonable, transparent, non-discriminatory, performance-based and reflect the necessary and justified expenses;
- ensuring that there are no cross-subsidies between the activities of production, transmission, distribution and supply of electricity, as well as between the categories of consumers. Monitoring the compliance of electricity producing companies with the principle of necessary and justified costs and expenses;
- initiating investigations on the electricity market;
- promoting and monitoring the protection of consumers' rights and legal interests.

According to the Law No. 174/2017 on Energy, NAER is led by **5 directors forming the Administration Council (Board of Directors).** The decisions of the Administration Council are approved with the vote of at least 3 directors. The directors of NAER have a fixed term of six years that can be renewed only once.

According to the Appendix 1 of the Decision of the Board of Directors of NAER No. 566/2020<sup>37</sup>, the staff limit is 168 people including members of the Board of Directors.

The budget of the institution consists of the regulatory fees that are paid by the energy companies and license fees, without state budget contributions. The amount of payment is set by the NAER, and according to the Energy Law No. 174/2017, shall not exceed 0.3 percent of revenue from the regulated activities of companies.

The budget of NAER is approved by the **Administration Council** in a transparent manner and is submitted to the Parliament for information.

According to the Law No. 174/2017 on energy, NAER's decisions are **fully independent** and cannot be influenced by other authorities.

<sup>&</sup>lt;sup>37</sup> Appendix 1 of the Decision of the Board of Directors of NAER No. 566/2020 of 31.12.2020, available in English at <a href="https://www.anre.md/en/organigrama-2-8">https://www.anre.md/en/organigrama-2-8</a>.

# 11. Is there an independent Transmission System Operator for electricity in place organised in line with Third package/Clean Energy Package? Is it integrated vertically and what are its competencies?

Ownership unbundling of **TSO Moldelectrica** (state-owned enterprise) was partially achieved by Government Decision No.806/2018<sup>38</sup> placing all energy companies except Moldelectrica under the State Property Agency. This fulfills the condition of having a separate state authority exercising control over electricity producers and suppliers.

Moldelectrica does not own the electricity transmission assets, which are belonging to the public domain of the state property. Because of that, the only model applicable for unbundling is the Independent System Operator model. This model was not initially provided in the electricity Law No.107/2016.

In order to ensure the complete unbundling of Moldelectrica under the Independent System Operator model, the amendments to the Law No. 107/2016 on electricity were approved in February 2022, by the Law No. 20 of 03 February 2022 amending the Law No. 107/2016 on electricity<sup>39</sup>. Next steps to be taken in order to certify Moldelectrica as an Independent System Operator are:

- Unbundling Plan to be elaborated and discussed with NAER;
- Legislative action on the transfer of management of transmission assets to Moldelectrica;
- Provisional certification by NAER;
- Assessment of certification by the Energy Community Secretariat;
- Final certification by NAER.

<sup>&</sup>lt;sup>38</sup> Government Decision No.806/2018, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=108973&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=108973&lang=ro</a>

<sup>&</sup>lt;sup>39</sup>Law No. 20 of 03-02-2022 for the amendment of Law No. 107/2016 on electricity, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=129831&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=129831&lang=ro</a>

#### IV. RENEWABLE ENERGY

12. Please provide information on current and planned measures promoting renewable energies in electricity, heating & cooling and the transport sector (nature of measures, budget available, etc.). Please indicate accordingly which support measures are already in place and which are planned.

The support of investments **renewable energy sources**, in the Republic of Moldova, started in 2009 when the NAER approved the Methodology for determining, approving and applying tariffs for electricity produced from renewable energy sources and biofuel by the Decision No. 321/2009.

The methodology was developed under Article 12 of the Renewable Energy Law No. 160/2007<sup>40</sup> (repealed by Law No. 10/2016 on the promotion of the use of energy from renewable sources<sup>41</sup>) allowing for the recovery of investments in production of electricity and fuels from renewable energy sources, including second-hand installations, within a maximum period of 15 years. The support scheme was based on the investment-tailored cost plus pricing principle, i.e. a dedicated tariff approved for each investment in a specific installation for generation of electricity from renewable energy sources or production of biofuels, allowing for the recovery of investments and actual operational and maintenance costs plus a profit margin.

Thus, subject to the year of investment, during the period from 2009 to 2018, 58 investors obtained tariffs, valid for a period of 15 years.

Therefore, during the application of the support mechanism, offered under the Law No. 160/2007, there were developed projects for electricity generation based on hydro, wind, solar and biogas technologies with a total installed capacity of 37.5 MW.

In 2016, a new Law No. 10/2016 on the promotion of the use of energy from renewable sources was adopted, aiming at transposing the provisions of the Directive No. 2009/28/EC. The entry into force of the new law was postponed by 24 months, allowing for a transitional period from the old to the new mechanism for supporting renewable energy sources. The Law No. 160/2007 was repealed upon entry into force of the Law 10/2016.

The support mechanism under the Law No. 10/2016 is concentrated on promotion of electricity generation from renewable energy sources, targeting only new equipment manufactured latest 36 months before commissioning date of the installation. The law provides for the application of support schemes, the distinctive element of which is the capacity / power of the power plant in which it is decided to invest by the economic agent, as well as the intentions it pursues (commercial or non-commercial).

<sup>&</sup>lt;sup>40</sup> Renewable Energy Law No. 160/2007, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=91763&lang=ro

<sup>&</sup>lt;sup>41</sup> Law No. 10/2016 on the promotion of the use of energy from renewable sources, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=130209&lang=ro#

The distinctive feature of the supporting scheme is the power plant capacity in which the investor decides to invest, as well as the objective followed by the investor – non-commercial or commercial oriented. Thus, the current support measures for electricity generation are based on the following mechanisms:

**Net Metering** - aimed at the final consumer, owner of the power plant with an installed capacity of up to 200 kW, but not higher than the power contracted with the electricity supplier according to the law, which produces electricity from renewable sources for own use and is entitled to deliver the surplus electricity produced in the electricity network.

Thus, in case of a negative monthly balance (the amount of electricity delivered to the grid minus the amount consumed from the grid), the consumer shall pay for the difference between the amount of electricity consumed from the grid and the one delivered to the grid by his own installation, on a monthly basis, as per the electricity tariff of his own supplier. If, at the end of the year the supplier determines that the final consumer has delivered to the electricity network an amount of energy that exceeds the amount consumed from the network, this supplier is obliged to determine and pay to the final consumer the equivalent value of unused electricity at the average electricity purchase price to the universal service supplier in the year of operation (less than 1 MDL / kWh today).

According to the information collected by the Agency for Energy Efficiency, since the entry into force of Law No. 10/2016 and until the end of 2020, 452 consumers benefited from the "Net Metering" support mechanism, most of them using photovoltaic panel technology, of which only 2 consumers used small wind turbines.

**Fixed price** - established as a result of competitive bidding procedure for the status of eligible producer, who owns a power plant with a cumulative power higher than the capacity limit set by the Government, (1 MW for photovoltaic plants and 4 MW for wind farms).

Thus, all large investors will be invited to submit their bids in a procedure announced by a government commission set up for this purpose. The competition among the respective investors would ensure the lowest price for the electricity produced from renewable energy sources.

The auctions to be announced by the Government, will be carried out according to the provisions of the Regulation on the conduct of tenders for offering the status of eligible producer, approved by Government Decision No. 690/2018<sup>42</sup> and will include a series of criteria for pre-qualification of investors.

<sup>&</sup>lt;sup>42</sup> Regulation on the conduct of tenders for offering the status of eligible producer: <a href="https://www.legis.md/cautare/getResults?doc\_id=128903&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=128903&lang=ro</a>

Since the entry into force of Law No. 10/2016 and so far no tenders have been organized, given the need to prepare the tender documentation.

To this end, the Ministry on Infrastructure and Regional Development is receiving technical assistance from the European Bank for Reconstruction and Development, which, in addition to supporting the development of tender documentation, has come up with a number of proposals to improve the primary legal framework to reduce investor risk, transferring risk to account of the state of the Republic of Moldova, which would increase the possibility of obtaining lower price offers.

Thus, the Ministry of Infrastructure and Regional Development planned for 2022 the promotion of the draft amendment to Law No. 10/2016 and, therefore, the tenders will be announced after its adoption by the Parliament.

**Fixed tariffs / feed-in /** - support scheme for eligible producers with a power plant not exceeding the capacity limit set by the Government, (1 MW for photovoltaic plants and 4 MW for wind farms) but not less than 10 kW.

Fixed tariffs are calculated in accordance with the methodology approved by NAER, for each type of technology for producing electricity from renewable sources and by capacity categories, using data from international practice for the plant operation period, investment costs, costs related to maintenance and the operation of the plant, the rate of return on investment, determined on the basis of the weighted average cost of capital method, and the amount of electricity expected to be produced.

Fixed price and fixed tariff support schemes, 2 Government Decisions were approved setting up the capacity limit, the maximum quotas and the capacity categories in the field of electricity from renewable energy sources.

Government Decision No. 689/2018 on the approval of capacity limits, maximum quotas and capacity categories in the field of electricity from renewable sources by 2020<sup>43</sup>, allocates a total of 168 MW to be applied under the "fixed tariff" support schemes and "fixed price", according to the table below.

Following the approval by the Government Decision No. 689/2018, NAER elaborated the Regulation on the confirmation of the status of eligible producer<sup>44</sup> approved by NAER Decision No. 251/2019, as well as approved the fixed tariffs and ceiling prices for electricity produced from renewable energy sources by producers who will obtain the status of eligible producer in 2020.

<sup>&</sup>lt;sup>43</sup> Government Decision No. 689/2018 on the approval of capacity limits, maximum quotas and capacity categories in the field of electricity from renewable sources by 2020:

https://www.legis.md/cautare/getResults?doc\_id=130730&lang=ro

<sup>&</sup>lt;sup>44</sup>Regulation on the confirmation of the status of eligible producer: https://www.legis.md/cautare/getResults?doc\_id=130730&lang=ro

As a result of the actions implemented by the Government and NAER, it was possible to apply the "fixed tariff" support scheme, and respectively, during 2020, the status of eligible producer was granted to 6 investors in wind technology with a total installed capacity of 20 MW, 20 investors in solar photovoltaic technology with a total installed capacity of 15 MW, only 1 investor in biogas cogeneration technology with a capacity of 637 kW and zero investors in other technologies (solid biomass and hydro).

In order to increase investor interest in other types of renewable energy technologies, as well as to extend the state support through fixed tariff and fixed price support schemes by the end of 2025, the Ministry of Infrastructure and Regional Development has developed and promoted the Government Decision No. 401/2021 on the approval of capacity limits, maximum quotas and capacity categories for electricity from renewable sources valid until 31 December 2025<sup>45</sup>.

Thus, the capacities provided by the Government Decision No. 401/2021, to be supported under the "fixed tariff" and "fixed price" support schemes until the end of 2025, have been considerably increased, being allocated a total of 400 MW, of which 250 MW to intermittent sources (solar and wind) and 150 MW to non-intermittent sources (cogeneration on biogas, solid biomass, municipal waste and small hydro).

According to the latest available statistical data, the share of renewable energy in the heating and cooling sector in the Republic of Moldova is 41,17%. The firewood, delivered by the enterprises of the State Agency "Moldsilva", those collected by individuals in the forest strips, forests, as well as agricultural residues, represent cumulatively approx. 669 ktoe (according to statistical data for 2020).

However, the Ministry of Infrastructure and Regional Development considers that the use of wood for heating, by burning it in inefficient installations (stoves), in addition to polluting areas with combustion products stimulates deforestation, is a phenomenon that does not correspond to national commitments for sustainable development and targets for increasing the country's afforestation rate (only 9.76% of the country's land area), which is one of the lowest on the European continent.

Therefore, in the Government Decision No. 401/2021, a total capacity of 30 MW was allocated to cogeneration plants using direct combustion, however, in order to promote the power plant sector, the use of raw materials from forestry was prohibited.

Additionally, the Government is going to develop and implement a National Program on Sustainable Development of the Biomass Sector, the main focus point, of which, should be the provision of incentives for establishment of energy crops.

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<sup>&</sup>lt;sup>45</sup> Government Decision No. 401/2021 on the approval of capacity limits, maximum quotas and capacity categories in the field of electricity from renewable sources valid until 31 December 2025: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=128987&lang=ro

The share of renewable energy in the transport sector is 0.18%, which comes from the use of the electricity in transport. According to the official statistical information, there is no consumption of biofuels in the transport sector.

Because of missing secondary legislation on biofuels, including the related provision with fiscal connotations, the sector did not develop at all. To be mentioned that all missing elements – sub-laws, standards, changes to the fiscal treatment of biofuels, are to be approached after the promotion of the regulation on sustainability criteria for biofuels.

To be mentioned that, the first version of the regulation was drafted by the Ministry of Economy and Infrastructure with the support of the Technical Assistance project "STARS", funded by the EU. However, the promotion of the regulations is delayed due to the need of transposition of the revised renewable energy Directive 2018/2001/EU, which will also update the sustainability criteria for biofuels, and should also consider the second-generation biofuels criteria.

According to NAER data, in 2019 the quantity of biofuels imported from abroad and blended with petroleum products was around 5 ktoe, out of 1029 ktoe (the total imported as per Moldovan official statistics). Considering that sustainability criteria for biofuels have not yet been approved, the amount is not counted as contributing towards reaching the RES-T target.

It should be mentioned, that considering the slow evolution in fulfilling the RES objective in the transport sector, in addition to the tax and customs facilities available to owners of electric vehicles, the Government, planned during 2022 the elaboration and adoption of a building standard in order to create a secure and sustainable infrastructure for the power supply of electric vehicles, both in the public space and in multi-storey residential blocks.

In addition to the support instruments mentioned above, investors in renewable energy sources also benefit from a range of tax and customs facilities such as exemption or reduction of import duties and the exemption or reduction of VAT quotas as follows:

- 0% import duty on diodes, transistors and similar semiconductor devices; semiconductor photosensitive devices, including photovoltaic cells, whether or not assembled in modules or mounted in panels; light emitting diodes; piezoelectric crystals mounted;
- Reduced customs duty to 8% for wind turbine generators and wind turbine converters;
- VAT for hydraulic turbines with a maximum power of 1.000 kW, generators of an output exceeding 75 kW but not exceeding 375 kW, parts of generating sets, apparatus for switching electrical circuits;
- Exemption from VAT on construction and assembly works of wind farms and photovoltaic parks;

- VAT rate reduced to 8% for solid biofuels for the production of electricity, thermal energy and hot water delivered on the territory of the Republic of Moldova, including raw material delivered for the purpose of producing solid biofuel in the form of agricultural and forestry products, agricultural and forestry vegetal residues, vegetable residues from the food industry, wood residues;
- Excise quota reduction by 50% for plug-in hybrid cars;
- Excise quota reduction by 100% for electric cars;
- Exemption from the payment of the toll for road use for electric cars.

# 13. Is there framework legislation in place (Renewable Energy Law) in line with Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources? If not, what is the calendar for its adoption?

The current Law No. 10/2016 on promotion of the use of energy from renewable sources<sup>46</sup> is fully transposing the Directive 2009/28/EC on the promotion of the use of energy from renewable sources. There is not yet a renewable Energy Law in place in line with the Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources.

Taking into consideration the decision of the Ministerial Council of the Energy Community from November 2021, to incorporate the Clean Energy Package, which, additionally to the areas of electricity, natural gas, energy efficiency and the governance of the Energy Union and climate action, is establishing also the obligation to transpose the Directive (EU) 2018/2001, the transposition deadline of which is December 2022.

## 14. Where does Moldova stand as regards the share of sustainable biofuels used in the transport sector? What measures has Moldova taken to increase this share?

The share of renewable energy in the transport sector is 0.18%, which comes from the use of the electricity in transport. According to the official statistical information, there is no consumption of biofuels in the transport sector.

<sup>&</sup>lt;sup>46</sup> Law No. 10/2016 on the promotion of the use of energy from renewable sources, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=130209&lang=ro#

Because of missing secondary legislation on biofuels, including the related provision with fiscal connotations, the sector did not develop at all. Was achieved some progress by adopting the Government Decision No. 107/2019 on approval of the Methodology for calculating the impact of biofuels and bioliquids on greenhouse gas emissions<sup>47</sup>.

To be mentioned that all missing elements – sub-laws, standards, changes to the fiscal treatment of biofuels, are to be approached after the promotion of the regulation on sustainability criteria for biofuels.

To be mentioned, the first version of the regulation setting up the sustainability criteria for biofuels was drafted by the Ministry of Economy and Infrastructure with the support of the Technical Assistance project "STARS", funded by the EU. However, the promotion of the regulations is delayed due to the need of transposition of the revised renewable energy directive 2018/2001/EU, which will also update the sustainability criteria for biofuels, and should also consider the second-generation biofuels criteria.

According to NAER data, in 2019 the quantity of biofuels imported from abroad and blended with petroleum products was around 5 ktoe, out of 1029 ktoe (the total imported as per Moldovan official statistics). Considering that sustainability criteria for biofuels have not yet been approved, the amount is not counted as contributing towards reaching the RES-T target.

https://www.legis.md/cautare/getResults?doc\_id=112852&lang=ro

<sup>&</sup>lt;sup>47</sup> Government Decision No. 107/2019 on Methodology for calculating the impact of biofuels and bioliquids on greenhouse gas emissions, available in Romanian at:

#### V. ENERGY EFFICIENCY

15. Does Moldova have or intend to elaborate a National Energy Efficiency Action Plan according to the methodology mentioned in Directive (EU) 2018/2002 on energy efficiency? Please provide information on its time framework, sectors addressed and expected/achieved savings. If energy efficiency/savings targets exist, please provide information on how they are defined and measured.

Moldova has adopted the National Energy Efficiency Action Plan 2019-2021 by approving Government Decision No. 698/2019, which was elaborated according to Directive 27/2012/EU on energy efficiency. The Plan defines energy savings targets and covers residential, public, industry and transport sectors.

The new energy efficiency target will be established in the National Energy and Climate Plan (NECP), which currently is under development. The Energy Community deadline for approving the NECP is the end of 2023, but the Ministry of Infrastructure and Regional Development plans to approve the NECP by the end of 2022.

16. Please provide information on the main current and planned legislative and non-legislative measures promoting energy efficiency (nature of measures, budget available, etc.). Is there a law on energy efficiency?

The first national normative act transposing the acquis communautaire on energy efficiency is the Law No. 142/2010 on energy efficiency, which partially transposed the Directive 2006/32/EC on energy end-use efficiency and energy services. In order to implement the law, several secondary normative acts were approved, among which the following could be listed: National Program on Energy Efficiency 2011-2020; National Energy Efficiency Action Plan 2013-2015; National Energy Efficiency Action Plan 2016-2018; Regulation on energy audit; Regulation on energy auditors' authorization; Methodology for energy audit cost calculation.

In 2018, the Republic of Moldova has adopted a new Law No.139/2018 on Energy Efficiency<sup>48</sup>, which fully transposed the Directive 27/2012/EU on energy efficiency, Moldova being the first Energy Community Contracting Party to transpose the Energy Efficiency Directive. In order to promote the effective application of the law, the following secondary legislation has been promoted and approved:

<sup>&</sup>lt;sup>48</sup> Law No.139/2018 on Energy Efficiency, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=105498&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=105498&lang=ro</a>

- Government Decision No. 45/2019 on approving the Regulation on the organization and functioning of the Energy Efficiency Agency<sup>49</sup>.
- Government Decision No. 698/2019 on approval of the National Energy Efficiency Action Plan 2019-2021<sup>50</sup>.
- Government Decision No. 372/2020 on approval of the Program for implementation of the obligation regarding renovation of the buildings of the specialized central public administration authorities for 2020-2022.<sup>51</sup>
- The Program establishes the annual renovation rate (4.250 m<sup>2</sup>), the list of buildings to be renovated (2 buildings), the energy efficiency measures to be undertaken, and the estimated investment (EUR 1.5 million).
- Government Decision No. 676/2020 Regulation on energy auditors and energy audit<sup>52</sup>.
- The new Regulation sets up 3 categories of energy auditors: Buildings, Industry and Transport. The Energy Efficiency Agency opened the registration of the energy auditors in October 2020. To date, the energy auditors registered for each category are as follows: Building – 47; Industry − 18; Transport − 16.

According to the 2021 Energy Community Ministerial Council decision the Contracting party has to transpose the EU's Clean Energy for all Europeans Package, which includes the new Energy Efficiency Directive 2018/2002. Moldova, with the support of the Energy Community Secretariat, identified the necessary amendments to the Law on energy efficiency to be done, the adoption of the new provisions is expected to be done by the end of 2022.

The transposition of the Eco-design Directive No. 2009/125/EC in the Republic of Moldova was achieved in 2014, by adopting the Law No. 151/2014 on ecodesign requirements for energy-related products<sup>53</sup>. The Law is fully transposing the provisions of the Directive, setting up the legal framework for each element of the quality infrastructure (standardisation, conformity assessment, accreditation, metrology, and market surveillance).

Additionally, by approving the Government Decision No. 750/2016 on approving the eco-design requirements applicable to energy-related products<sup>54</sup>, 17 Commission

<sup>50</sup> Government Decision No. 698/2019 on National Energy Efficiency Action Plan 2019-2021, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=119890&lang=ro

https://www.legis.md/cautare/getResults?doc\_id=106031&lang=ro

<sup>&</sup>lt;sup>49</sup> Government Decision No. 45/2019 on Energy Efficiency Agency, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=117667&lang=ro

<sup>&</sup>lt;sup>51</sup> Government Decision No. 372/2020 on Program for implementation of the obligation regarding renovation of the buildings, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=121818&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=121818&lang=ro</a>

<sup>&</sup>lt;sup>52</sup> Government Decision No. 676/2020 Regulation on energy auditors and energy audit, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=123164&lang=ro

<sup>&</sup>lt;sup>53</sup> Law No. 151/2014 on ecodesign requirements, available in Romanian at:

<sup>&</sup>lt;sup>54</sup> Government Decision No. 750/2016 on approving the eco-design requirements applicable to energy-related products, available in Romanian at: https://www.legis.md/cautare/getResults?doc\_id=102520&lang=ro

Regulations were transposed which are establishing eco-design requirements applicable to 17 types of energy-related products. The following Regulations were transposed:

- Commission Regulation (EC) No 278/2009 of 6 April 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies;
- Commission Regulation (EC) No 245/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council;
- Commission Regulation (EU) No 1194/2012 of 12 December 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for directional lamps, light emitting diode lamps and related equipment;
- Commission Regulation (EC) No 244/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for non-directional household lamps;
- Commission Regulation (EC) No 107/2009 of 4 February 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for simple set-top boxes;
- Commission Regulation (EC) No 1275/2008 of 17 December 2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment;
- Commission Regulation (EC) No 640/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for electric motors;
- Commission Regulation (EC) No 641/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for glandless standalone circulators and glandless circulators integrated in products;
- Commission Regulation (EC) No 642/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for televisions;
- Commission Regulation (EC) No 643/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for household refrigerating appliances;

- Commission Regulation (EU) No 327/2011 of 30 March 2011 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for fans driven by motors with an electric input power between 125 W and 500 kW;
- Commission Regulation (EU) No 206/2012 of 6 March 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for air conditioners and comfort fans;
- Commission Regulation (EU) No 666/2013 of 8 July 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for vacuum cleaners;
- Commission Regulation (EU) No 932/2012 of 3 October 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble driers;
- Commission Regulation (EU) No 1015/2010 of 10 November 2010 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household washing machines;
- Commission Regulation (EU) No 1016/2010 of 10 November 2010 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household dishwashers;
- Commission Regulation (EU) No 547/2012 of 25 June 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for water pumps.

Although the Eco-design Directive No. 2009/125/EC and the above listed Regulations were transposed, the implementation of the requirements set out in the Regulation is not yet fully achieved. The Agency for Consumer Protection and Market Surveillance is the national institution responsible for market surveillance in order to ensure the compliance of the energy related products to the eco-design and energy labelling regulations, while the Energy Efficiency Agency is responsible for distribution of information to manufacturers and importers on requirements for energy impact products and ensures the organization of information campaigns for the end users of products. The understaffing of the Agencies, the amount of tasks and the complexity of these Regulations are hampering the implementation of these Regulations.

The transposition of the Energy labelling Directive No. 2010/30/EU in the Republic of Moldova was achieved in 2014, by adopting the Law No. 44/2014 on energy labelling requirements for energy-related products<sup>55</sup>. The Law is fully transposing the provisions of the Directive, setting up the legal framework for each element of

<sup>&</sup>lt;sup>55</sup> Law No. 44/2014 on energy labelling requirements for energy-related products, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=21702&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=21702&lang=ro</a>

the quality infrastructure (standardisation, conformity assessment, and market surveillance).

Additionally, by approving the Government Decision No. 1003/2014 on approving the energy labelling requirements applicable to energy-related products<sup>56</sup>, 11 Commission Delegated Regulations were transposed, establishing energy labelling requirements applicable to 11 types of energy-related products. The following Regulations were transposed:

- Commission Delegated Regulation (EU) No 1060/2010 of 28 September 2010 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of household refrigerating appliances;
- Commission Delegated Regulation (EU) No 65/2014 of 1 October 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of domestic ovens and range hoods;
- Commission Delegated Regulation (EU) No 626/2011 of 4 May 2011 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of air conditioners;
- Commission Delegated Regulation (EU) No 874/2012 of 12 July 2012 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of electrical lamps and luminaires;
- Commission Delegated Regulation (EU) No 1059/2010 of 28 September 2010 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of household dishwashers;
- Commission Delegated Regulation (EU) No 1061/2010 of 28 September 2010 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of household washing machines;
- Commission Delegated Regulation (EU) No 392/2012 of 1 March 2012 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of household tumble driers;
- Commission Delegated Regulation (EU) No 1062/2010 of 28 September 2010 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of televisions;
- Commission Delegated Regulation (EU) No 665/2013 of 3 May 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of vacuum cleaners;
- Commission Delegated Regulation (EU) No 812/2013 of 18 February 2013 supplementing Directive 2010/30/EU of the European Parliament and of the

<sup>&</sup>lt;sup>56</sup> Government Decision No. 1003/2014 on approving the energy labelling requirements applicable to energy-related products, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=128814&lang=ro

Council with regard to the energy labelling of water heaters, hot water storage tanks and packages of water heater and solar device;

- Commission Delegated Regulation (EU) No 811/2013 of 18 February 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar device.

Additionally, the Regulation (EC) No. 1222/2009 of the European Parliament and of the Council of 25 November 2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters was transposed, by approving the Government Decision No. 685/2018 on the labelling of tyres with respect to fuel efficiency and other essential parameters.

It should be mentioned, that following the approval by EU of the new regulations on energy labelling, applicable from 1 March 2021, the Moldovan Government took the Decision No. 362/2021 to temporarily suspend the existing energy labelling requirements for 5 products categories<sup>57</sup>, in order to protect the energy related equipment distributors and importers. The Ministry of Infrastructure and Regional Development is working on transposing the new Energy Labelling regulation 2017/1369, replacing the former Energy Labelling Directive 2010/30/EU in order to fully align the national legislation to the EU requirements.

As in the case of the eco-design requirements the implementation of the energy labelling legal framework is put into the responsibility of the Agency for Consumers Protection and Market Surveillance and Energy Efficiency Agency, and the same problems/ weaknesses are encountered in this case also.

#### The following legislative measures are planned:

- Drafting and public consultation of the Regulation on conducting energy audits by the large enterprises.
- Drafting of the Long-term strategy for mobilizing investment in the renovation of the building national stock.
- Drafting and public consultation of the Methodology for determining the contributions to be paid by obligated parties in order to implement the energy efficiency obligation scheme.
- Transposition of the Regulation on New EU energy labels for fridges and freezers, dishwashers, washing machines, television sets, light bulbs and lamps.

<sup>&</sup>lt;sup>57</sup> Government Decision No. 362/2021on amendments Government Decision No. 1003/2014 on approving the energy labelling, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc">https://www.legis.md/cautare/getResults?doc</a> id=128754&lang=ro

#### **Investment projects:**

#### Second District Heating Efficiency Improvement Project

Current stage of the project: implementation phase *Project completion*: expected by 31 December 2025

Total investments costs: EUR 92 million loan (IBRD-World Bank Group)

#### Project parts are:

#### Part 1. Optimization of Heat and Electricity Generation

- 1.1. Modernization of Generation at CHP Source-1 through: reconstruction of Unit 2, and major overhaul of turbine and replacement of boiler heat surface at Unit 3;
- 1.2. Increasing Efficient Cogeneration through: installation of efficient cogeneration modular units (gas engines) at HOB West and CHP Source-3, and installation of power transformers and switch gears, and any other equipment for connection to the urban power grid at HOB West and CHP Source-3;
- 1.3. Development and installation of a Management Information System for Termoelectrica;
- 1.4. Development and installation of a Hydraulic Simulation System

#### Part 2. Energy Efficiency Investments

Provision of energy efficiency investments in the public and residential buildings, including pilot investments, but not limited to:

- installation of individual heat substations and associated piping in selected residential and public buildings;
- pilot investments for reconstruction of internal heat and domestic hot water distribution systems in selected buildings by changing from vertical to horizontal distribution to allow heat consumption control at apartment level;
- pilot investments for thermal rehabilitation of selected residential buildings with horizontal distribution systems.

#### Part 3. Project Management

#### **Chisinau Energy Efficiency in Public Buildings:**

Current stage of the project: advanced implementation stage.

Project completion: Q2 2023.

Total investments costs: EUR 25.0 million.

Including a EUR 10.0 million loan from the European Bank for the Reconstruction and Development (EBRD), EUR 10.0 million loan from the European Investment Bank (EIB) and EUR 5.0 million investment grant from the Eastern Europe Energy Efficiency and Environment Partnership (E5P).

The Project supports the City of Chisinau to implement a rehabilitation programme involving energy efficiency measures in public buildings, such as schools, kindergartens and hospitals. The investments are focused mainly on improvements to the building envelope (wall, roof, slab insulation, windows and door replacement), HVAC systems (heating, ventilation, air-conditioning). The Project also includes some individual energy efficiency measures with high economic return targeting lighting systems, heat distribution systems and the integration of renewable energy sources. Overall, the Project will increase standards in the targeted buildings in terms of energy consumption, comfort, health and safety.

#### **Balti District Heating Phase 2:**

Current stage of the project: The Project was signed on 24 December 2021.

Project completion: expected by 31 December 2024.

Total investments costs: EUR 17.0 million.

Including EUR 14.0 million loan from the EBRD, EUR 1.0 million loan from the Green Climate Fund, and EUR 2.0 million investment grant from the E5P.

The Project is aiming to enhance District Heating operational and energy efficiency through improved system control, introduce apartment level consumption-based billing to District Heating consumers and further optimize the use of the highly efficient combined heat and power plant. The Project will reduce gas consumption for space heating through better energy regulation in buildings and will reinstate the supply of affordable centralized domestic hot water to consumers. It encourages a reduction in electricity import, resulting in enhanced energy security and significant savings of CO2 emissions.

The Project will finance demand side measures, introduce digitalization and thermal storage to further modernize and improve District Heating infrastructure in Balti. The Project involves: i) installation of Individual Heating Substations and construction of Horizontal Networks in buildings; ii) construction of Thermal Energy Storage; iii) upgrading Water Treatment Facility at the central production plant to supply domestic hot water; iv) implementation of digital tools including SCADA and Thermo-Hydraulic Model and (v) Company's balance sheet restructuring.

#### **Moldova Buildings Energy Efficiency Programme:**

Current stage of the project: The Project was signed on 10 December 2021. The start of the implementation is planned for Q2 2022.

*Project completion:* The project is expected to be completed as soon as possible before the end of 2025 for Tranche 1 (and before the end of 2027 for Tranche 2).

Total investments costs: EUR 75,5 million.

Including a EBRD sovereign loan of up to EUR 30 million to the Republic of Moldova, co-financed by a EUR 30 million loan from the EIB and an investment grant of up to EUR 15,5 million from the EU NIP, managed by the EIB.

The Project will finance the improvement of energy efficiency and the rehabilitation of public buildings (state and municipal) throughout the country, including but not limited to the works of thermal insulation, associated structural works, replacement of doors and windows, installation of high-efficiency lighting and heating, cooling and ventilating upgrades including replacement of inefficient boilers, installation of thermostatic valves, renewable energy systems and energy management systems, as well as related energy audits, design and construction supervision.

#### Moldova Sustainable Green Cities

Current stage of the project: Ongoing.

Project completion: January 2024.

The objective of the project is to catalyze investments in low carbon green development in Chisinau based on an integrated urban planning approach by encouraging innovation, participatory planning, and partnerships between a variety of public and private sector entities.

The project supports the design, launching, and establishment of the Green City Lab to become a platform for the leading knowledge and networking management, a clearing house, a funding intermediary and a source of innovation and expertise to catalyze the sustainable development of the low carbon green city in Moldova. The Lab will have the mission to transform Chisinau and other urban centers in Moldova into modern, green and smart European cities with improved quality of life for their citizens.

The project implements a series of demonstration projects in partnership with Chisinau municipality, in the areas of:

- urban land use and mobility,
- residential building energy efficiency and renewable energy use.

#### VI. NUCLEAR ISSUES (INCLUDING RADIATION PROTECTION)

#### A. Nuclear safety, radioactive waste management and decommissioning

## 17. Does Moldova have a national waste management programme covering all types of radioactive waste and all management stages including final disposal?

The main provisions and principles of radioactive waste management are provided in Chapter IX - National policy and principles in the radioactive waste management of the Law No. 132/2012 on the Safe Conduct of Nuclear and Radiological Activities<sup>58</sup>.

Moldova has adopted the 2017-2026 National Strategy on Radioactive Waste Management and the 2017-2026 Action Plan for implementation of the National Strategy in Radioactive Waste Management in 2017, being approved by the Law No. 68/2017<sup>59</sup>, the Strategy and Action Plan were elaborated taking into account the Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste. Another document in force is the Government Decision No. 388/2009 on approving the Regulation on the management of radioactive waste<sup>60</sup>, as amended by the Government Decision No. 1079/2013.

18. How does the legal framework for waste management take into account Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste?

The Law No. 68/2017 approving the National Strategy on Radioactive Waste Management for the years 2017-2026, have taken into account the Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste and includes in Annex 2 the Action Plan for the implementation of the National Strategy on Radioactive Waste Management for the years 2017-2026.

<sup>59</sup> Law No. 68/2017 on 2017-2026 National Strategy on Radioactive Waste Management, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=105693&lang=ro">https://www.legis.md/cautare/getResults?doc\_id=105693&lang=ro</a>

<sup>&</sup>lt;sup>58</sup> Law No. 132/2012 on the Safe Conduct of Nuclear and Radiological Activities, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=106549&lang=ro#">https://www.legis.md/cautare/getResults?doc\_id=106549&lang=ro#</a>

<sup>&</sup>lt;sup>60</sup> Government Decision No. 388/2009 on approving the Regulation on the management of radioactive waste, available in Romanian at: <a href="https://www.legis.md/cautare/getResults?doc\_id=24671&lang=ro#">https://www.legis.md/cautare/getResults?doc\_id=24671&lang=ro#</a>

## 19. Does Moldova have any agreements in force with any other country providing for the transfer of radioactive waste generated in Moldova?

Moldova does not have any agreements in force with any other country providing for the transfer of radioactive waste generated in Moldova.

However, in this regard, the Art.27. c) of the Law No. 132/2012 on the Safe Conduct of Nuclear and Radiological Activities, stipulates the following: "Authorization of import, export, re-export, temporary admission or temporary export of ionizing radiation sources is performed in case the applicant undertakes, in case of import of radioactive sources, to ensure, after the expiry of the term of use, their return to the manufacturer and compliance with the legislation in force in the field of radioprotection and nuclear and radiological safety, physical protection of radioactive materials, as well as the observance of the international treaties in the field of atomic energy to which the Republic of Moldova is a party, to deliver products and information only to beneficiaries authorized for this purpose and to communicate to the National Agency for Regulation of Nuclear and Radiological Activities the entry into the country of the respective products, the address and other contact details of the consignee".

#### Nuclear material supply, safeguards and physical protection

20. Please provide the texts of the international agreements and conventions that have been concluded with third countries or international organisations in the field of nuclear material supply, accountancy and safeguards.

The Republic of Moldova is committed to fulfilf its international obligations and develop its legal framework in a manner commensurate with the internationally accepted principles and standards. The Constitution gives priority to international conventions and agreements in the field of human rights ratified by the country over the national legislation.

The Republic of Moldova has ratified the international instruments related to nuclear safety and radiation protection:

- Agreement with International Atomic Energy Agency (IAEA) for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons and the Protocol to that Agreement;
- Amendment to the Convention on the Physical Protection of Nuclear Material;
- International Convention for the Suppression of Acts of Nuclear Terrorism (national point of contact was designated in 2012) S/AC.44/2013/3 6 13-29734;

- Agreement on the Privileges and Immunities of IAEA;
- Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management;
- Agreement on small quantities of nuclear material;
- Additional Protocol to the Agreement with IAEA for application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons;
- Acceptance and implementation of the Code of Conduct on the safety and security of radioactive sources;
- Joint Action Plan between the Government of the Republic of Moldova and the Government of the United States of America on combating smuggling of nuclear and radioactive materials;
- Memorandum of Understanding between the Department of Energy of the United States of America and the Border Guard Service of the Republic of Moldova concerning cooperation to prevent illicit trafficking in nuclear and radioactive material.

A similar document was signed with the Customs Service of the Republic of Moldova.

The Republic of Moldova is also actively engaged in non-proliferation activities at the regional level. Moldova is a party to the Protocol signed between GUAM countries (Georgia, Ukraine, Azerbaijan and Moldova) in the field of non-proliferation. Other cooperation instruments of assistance in the analyses of nuclear material have also been signed with the National Commission for Nuclear Activities Control of Romania and the Institute of Transuranium Elements in Karlsruhe (Germany).

The Republic of Moldova has also made a political commitment to work for the principles of the Code of Conduct on the Safety and Security of Radioactive Sources, as well as the Guide on the Import and the Export of Radioactive Sources.

21. Does Moldova envisage any regulatory problems in adapting its legislation to ensure that it conforms to the provisions of chapter VII of Euratom as regards the implementation of Euratom safeguards in all nuclear installations on its territory?

The Republic of Moldova is a non-nuclear country, so there are no such problems.

22. Are any problems envisaged in suspending the existing Safeguards Agreement between Moldova and the IAEA and adhering to the Agreement INFCIRC/193 between the EU, the IAEA and the non-nuclear weapon Member States of the European Union? Please answer the same question concerning the Protocol Additional to the Safeguards Agreement between Moldova and the IAEA.

There are no such problems. A special mention should be made for the left bank of the Dniester river - the Transnistrian region which is not effectively controlled by the authorities of the Republic of Moldova and observance from central authorities is limited.

#### Radiation Protection

## 23. What is the status of compliance with the Euratom Treaty and Euratom acquis provisions concerning radiation protection?

The Republic of Moldova is part of the IAEA and is in the process of establishing the legislative basis in the field of nuclear safety and radiology as well as in the field of nuclear and radiological security. The legal framework elaborated based on IAEA standards and requirements and approved by the Parliament and the Government of the Republic of Moldova consists of:

- Laws of Parliament<sup>61</sup>;
- Government Decisions<sup>62</sup>;
- Departmental Acts<sup>63</sup>.

## 24. What is the timetable for compliance with Euratom Treaty and derived legislation provisions on radiation protection?

The Draft Law on Basic Requirements in Radiological Safety (based on the Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation)<sup>64</sup> is expected to be approved

<sup>&</sup>lt;sup>61</sup> Laws of Parliament in the nuclear and radiological field, available in Romanian at: <a href="https://anranr.gov.md/ro/post/show/coduri\_si\_legi">https://anranr.gov.md/ro/post/show/coduri\_si\_legi</a>

<sup>&</sup>lt;sup>62</sup> Government Decisions in the nuclear and radiological field, available in Romanian at: https://anranr.gov.md/ro/post/show/hotar\_ri\_ale\_guvernului

<sup>&</sup>lt;sup>63</sup> Departamental Acts in the nuclear and radiological field, available in Romanian at: <a href="https://anranr.gov.md/ro/post/show/acte">https://anranr.gov.md/ro/post/show/acte</a> departamentale

<sup>&</sup>lt;sup>64</sup> The draft Law, available in Romanian at:

by Parliament in the fall of 2022. The national reference level in radiological safety will be developed and approved by the Government in 2024.

25. Does Moldova implement the latest Basic Safety Standards Directive (Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation) and the Euratom Drinking Water Directive (Council Directive 2013/51/Euratom laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption)?

The National Agency for the Regulation of Nuclear and Radiological Activities is currently drafting the Law on Basic Requirements in Radiological Safety<sup>65</sup> on the basis of Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, which is submitted to the Government for approval.

The provisions of the Euratom Drinking Water Directive (Council Directive 2013/51/Euratom laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption) will be part of the Regulation on the national reference level of radiological safety which will be drafted and approved by the Government in 2024.

https://cancelaria.gov.md/ro/apc/sedinta-secretarilor-generali-din-4-noiembrie-2021-ora-1400

<sup>&</sup>lt;sup>65</sup> Draft Law on Basic Requirements in Radiological Safety, available in Romanian at: https://anranr.gov.md/ro/post/show/anun uri despre ini ierea consultarii publice