

Third Annual Report under the Energy Efficiency Directive

REPUBLIC OF MOLDOVA

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MINISTRY OF ECONOMY AND INFRASTRUCTURE

October 2019

Key statistics and indicators

Estimation of key statistics and indicators in 2017	Value	Unit
Total primary energy consumption (*)	2.939	ktoe
Total final energy consumption (*)	2.671	ktoe
Final energy consumption – Transport (*)	734	ktoe
Final Energy consumption – Industry (*)	217	ktoe
Final Energy consumption – Agriculture (*)	107	ktoe
Final energy consumption – Households (*)	1.346	ktoe
Final energy consumption – Services (*)	267	ktoe
Gross value added by sector – Industry (**)	1.053,87	mil. EUR
Gross value added by sector – Services (**)	5.208,85	mil. EUR
Disposable income of households (**, per person)	107	EUR
Gross domestic product (GDP) (**)	8.486,65	mil. EUR
Electricity generation from thermal power plants (***, fossil fuels)	---	ktoe
Electricity generation from combined heat and power (***)	72	ktoe
Heat generation from heat only boilers (***)	80	ktoe
Heat generation from combined heat and power plants, incl. industrial waste heat (***)	165	ktoe
Fuel input for thermal power generation (***)	99	ktoe
Passenger kilometres (pkm), if available (**)	6.212.600	thous. pkm
Tonne kilometres (tkm), if available (**)	5.996.600	thous. tkm
Combined transport kilometres (pkm + tkm), in case that separate values for pkm and tkm are not available (**)	---	
Population (**)	2,68	millions

Table 1: Key energy statistics data.

(*) Energy statistics

(**) National Bureau of Statistics

(***) Independent System Operator (ISO), electricity generation companies.

A. Overview of energy consumption trends

The figure 2 below presents the evolution of the primary and final energy consumption, per total and per sector, for the 2015-2017 period.

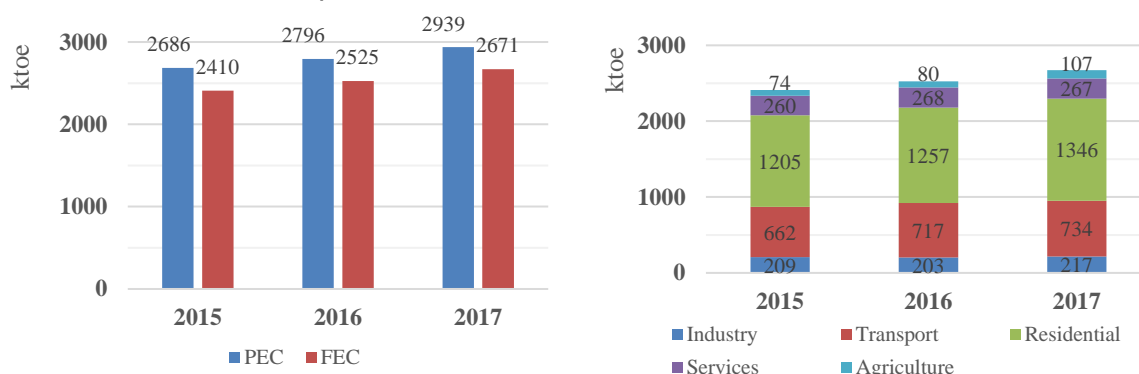


Figure 2. Final and primary energy consumption (left) and final energy consumption per sectors (right) in 2015 – 2017.

The energy consumption of the Republic of Moldova is constantly increasing over the years due to the slightly growth of the national economy and other objective factors. For the 2017, almost every sector (except services) has registered an increase of the energy consumption. The major changes in the energy consumption profile are noticed in the residential sector, heating and cooling component, where the consumption of solid biofuels has been increased for three years in row.

To be mentioned that the increasing trend was registered after the 2015 revision of the energy balance by the National Bureau of Statistics, conducting the survey “Energy consumption in households”. The results of the study demonstrated a higher consumption of solid biomass in households than the provided official statistical data at that time.

Table 1. National energy efficiency targets and results achieved, 2016-2020, [ktoe]

INDICATOR	2016	2017	2018	2019	2020
OVERALL TARGET /EED art. 3/	83,52	102,93	122,79	144,4	167,2
Central Governmental bd /EED art. 5/			---	---	0,24
EEOs /EED art. 7/		---	---	9,27	27,51
PEC	2796	2871	2903	2936	2968
FEC	2525	2633	2678	2723	2769
FEC - RESIDENTIAL S.	15,87	20,33	26,33	62,33	72,2
FEC - INDUSTRY	51,97	59,54	67,93	12,96	15,0
FEC - TRANSPORT	0,36	0,49	0,59	25,92	30,0
FEC - PUBLIC S.	15,32	22,56	27,94	43,18	50,0
PRIMARY ENERGY INTENSITY [ktoe/mil.EUR]	0,455	0,346	n/a	0,22	0,19
FINAL ENERGY INTENSITY [ktoe/mil.EUR]	0,411	0,315	n/a	0,20	0,18
	ACHIEVED RESULTS			TARGETS	

Note: Moldovan authorities (MoEI and EEA) have assessed in 2019, within the NEEAP drafting exercise, the impact and savings generated by energy efficiency measures that were implemented with the financial support of local commercial banks

B. Update of measures implemented in last year

• Legislative measures

In order to promote energy efficiency at national level, the Government has taken the following legislative measures:

- Adoption of the new Law on Energy Efficiency, which fully transposes the Directive 27/2012/EU on energy efficiency. Moreover, the Ministry of Economy and Infrastructure has initiated the elaboration of the secondary legislation, to be promoted and approved by the end of the 2019 - beginning of 2020;
- Approval of the GD no. 45/2019 on approving the Regulation on the organization and functioning of the Energy Efficiency Agency;
- Approval of the GD no. 688/2018 to complete the GD no. 1003/ 2014 on approving the energy labelling requirements applicable to energy-related products, that comes to transpose three delegated regulations on energy labelling for the following energy related groups of products:
 - vacuum cleaners;
 - water heaters, hot water storage tanks and packages of water heater;
 - solar device and space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar device;
- Approval of the GD no. 685/2018 on approving the regulation on tyre labelling which transposes 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;

A list of ongoing activities, that are to be finalised soon, are listed below:

- Drafting of the Program on energy efficiency obligation scheme implementation for 2019-2020 period and the methodology to determine the obligated parties' contribution (art. 7 EED);
- Drafting of the Program for the renovation of buildings owned and occupied by central governmental authorities for the period 2019-2020 (art. 5 EED);
- Drafting of the National Energy Efficiency Action Plan for 2019-2021;
- Drafting of the Long-term strategy for mobilizing investments in the renovation of the national building stock (ongoing activity);
- Revision/ update of the regulation MBN M.01.01:2016 "Minimum energy performance requirements, including definition of the reference buildings, calculation of the cost-optimal level of energy performance, setting minimum energy performance requirements for technical building systems and energy from RES".
- Revision/ update of the Methodology for calculation of energy performance of buildings in Moldova (including the Excel tool).

Regarding renewable energy, during the year 2018, the Ministry of Economy and Infrastructure promoted the Law no. 34 to amend the Law 10/2016 on the promotion of the use of energy from renewable energy, which was adopted by Parliament in March, 2018. Thus, the country's primary law on renewable energy was aligned with the provisions of the new electricity law (Law 107/2016) as well as the country's commitments under the Energy Community Treaty - in particular to the provisions on state aid for environmental protection and energy.

During the same period, most of the secondary legislation under the RES Law was drafted and consulted with the main interested parties and approved afterwards. The table below provides the state of play regarding to the secondary legislation adoption:

Competence of the Ministry of Economy and Infrastructure

Regulation on tenders for providing the status of eligible producer	GD no. 690/2018
Government Decision on approving the capacity limits, capacity caps and renewable energy field categories of capacity until 2020	GD no. 689/2018
Regulation on certification of boilers, boilers or biomass stoves, solar photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps	GD no. 1051/2018
Methodology for calculating the impact of biofuels on greenhouse gas emissions	GD no. 107/2019
Regulation on sustainability criteria for biofuels and the procedure for verifying compliance with sustainability criteria for biofuel production	/the draft is available, under public consultation/

Competence of the ANRE

Regulation confirming the status of eligible producer	NERA Decision 251/2019
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- **Non-legislative measures**

The Energy Efficiency Agency, as the national institution responsible for communication and public awareness, according to National Communication Strategy in energy efficiency and renewables field, with the support of development partners, has organised more than 30 events related to energy efficiency and renewable energy sources during 2018. Among those events the following initiatives can be mentioned:

- Event dedicated to the Energy Efficiency International Day on March 05, 2018
- Participation at Moldconstruc and Moldenergy national exhibitions, March 22-25, 2018
- Information event for drivers on the tire energy labelling on April 04, 2018
- Workshop on "International Experience on Energy Efficiency Planning"
- Information event for civil servants on energy saving measures at the workplace, May 25, 2018
- Information workshop on cooperation opportunities and financing tools in the field of renewable energy sources, June 07, 2018
- SUN Day Fest, an event aimed at promoting renewable technologies and energy efficiency, organized in the Stefan cel Mare Public Garden, organized in the context of the European Sustainable Energy Week, June 11, 2018;
- Launch of an informative cartoon about renewable energy sources, July 3, 2018
- Workshop "Financing tools in the field of energy efficiency", October 16, 2018
- Workshop "Software, IT solutions and modern technologies in the field of energy efficiency", October 17, 2018
- The informational campaign "Choose smart! Save energy and money!", December 12, 2018

In addition to the above During the year 2018, several demonstrative projects in the EE and RES field were implemented/ launched, as follows:

- The project "Strengthening local capacities regarding the production of solar collectors in the Republic of Moldova", financed by the Ministry of Economy of the Republic of Poland;
- The project "Bilateral cooperation for the introduction of technologies using renewable energy resources in Moldova" financed by the Ministry of Environment of the Republic of Lithuania;
- The project "Implementation of training actions in the field of energy efficiency standards and certification", funded by Italia Lavoro S.p.A., Republic of Italy.
- "Clean Technology Innovation Program for SMEs and Start-ups in the Republic of Moldova" project, implemented with the UNIDO and GEF support;
- Project on the "Integration of Zero CO₂ public transport in the interurban routes of Moldova", financed by NEFCO.

C. Central Government buildings (Article 5)

The Ministry of Economy has drafted and started the promotion of the First Programme for renovation of the central government owned and occupied buildings for 2019-2021.

At this moment the central government buildings stock inventory (CGBSI) contains 215 records (buildings) with total declared useful floor area of the building stock amounting at 426 056 m². The first “Programme for the renovation of buildings owned and occupied by central governmental authorities 2019-2021 period” targets three priority buildings with total useful area of 11 648 m² which will result in fulfilling the one percent yearly obligation stemming from the Article 5 of the EED and Article 14 in Moldovan EE Law 139/2018.

The total investments for the first Programme was evaluated at 31,9 million MDL (about 1,6 M EUR) and shall impact the buildings energy consumption by reducing it with almost 0,8 MWh per year.

D. Energy efficiency obligations (Article 7)

With regard to the EEOS and energy savings to be achieved under art. 7 of the energy efficiency Directive (art. 8 of the national EE Law), the Ministry of Economy and Infrastructure has notified the EnC Secretariat that the cumulative target until 2020 equals to 27,51 ktoe (or 36,68 ktoe without using exemptions, as presented in the table below).

Average 2013-2015, ktoe			1,746.67	
year	annual % savings	annual energy savings		total annual savings
2019	0.70%	12.227		12.227
2020	0.70%	12.227	12.227	24.453
total cumulative savings 2017 - 2020				36.680

The analysis done by the MoEI showed that currently there are many ongoing initiatives (projects and programmes that finance the implementation of energy efficiency projects in public buildings, residential, industry, energy sector, etc.) that are contributing to the target set by national authorities as alternative measures and, implicitly, reduce the need in operationalising the EEOS (at least by 2020).

Thus, out of the 28.87 ktoe of notified expected savings, 100% of them are to be delivered by the alternative policy measures (respectively, no need in involving the EEOS mechanism).