

Round table

Assessment of biomass potential for the Kyrgyz Republic
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Using of biomass in heat and hot water supply systems in Moldova

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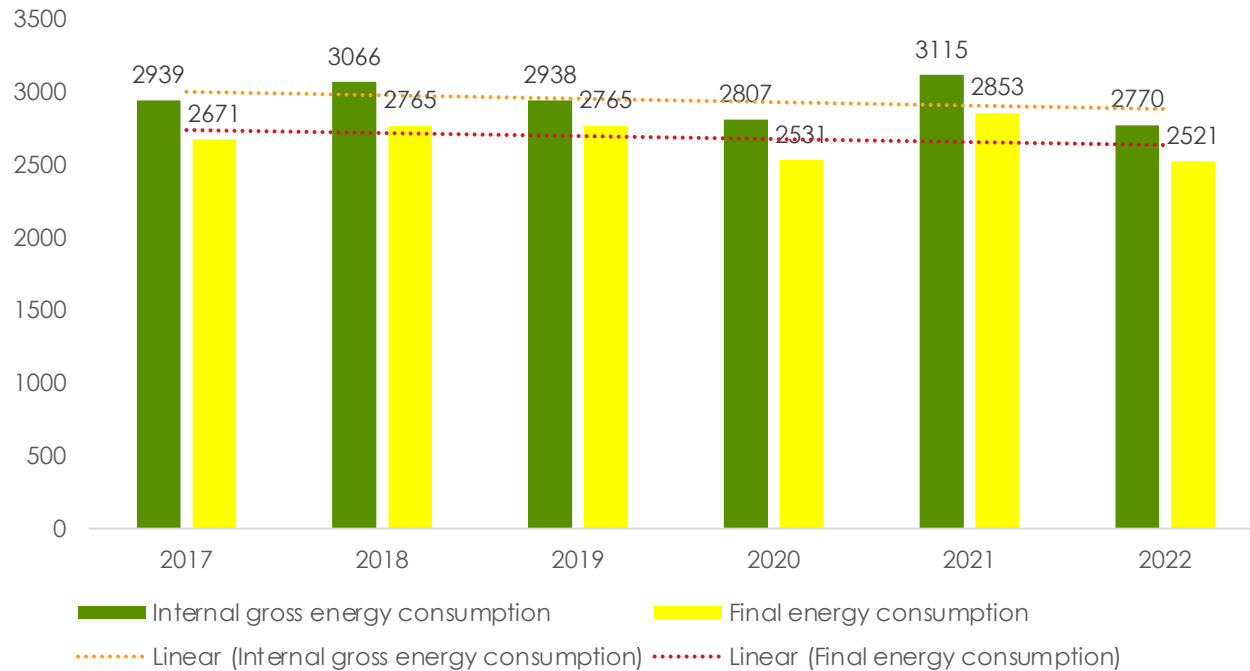
Moldova - key figures

- Area - 33.8 thou. km²
- Population - 2.513 mil.
- GDP- 16.54 bill. Euro
- Energy consumption - 2.77 mill. toe
- 70% of energy demand is imported
- Agriculture land - 19.7 thou. km² (58%)

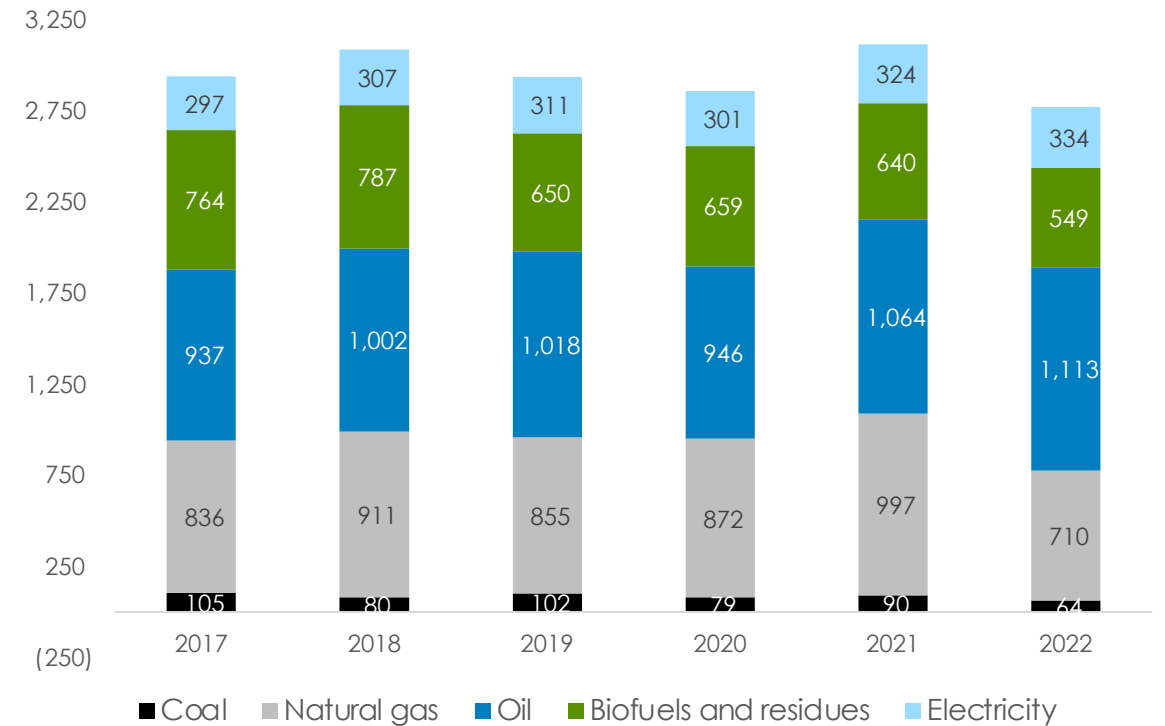


National energy statistics

Energy consumption, ktoe

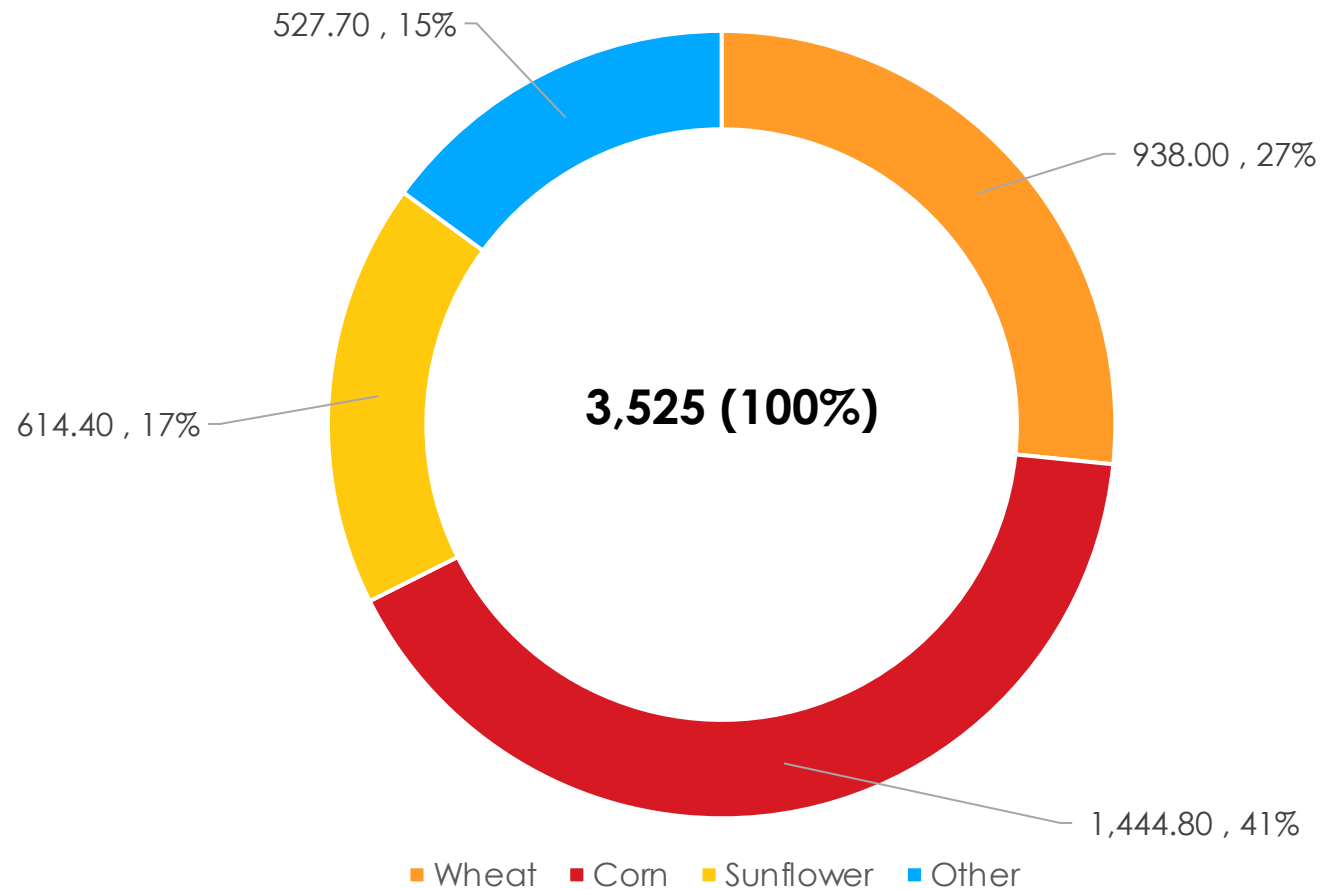


Primary energy consumption by resource, ktoe

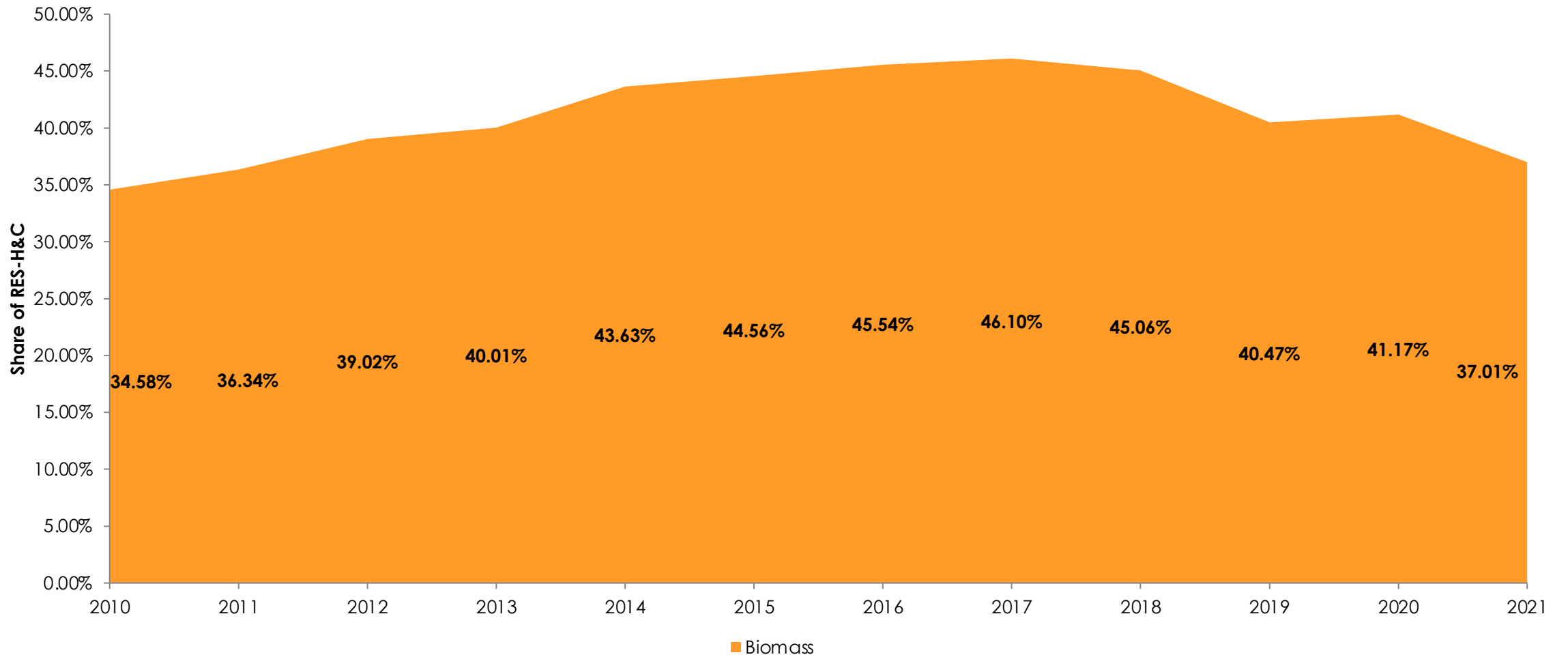


The potential of biomass for heating in Moldova

Structure of the biomass potential by crop, ktone/%



Share of biomass consumption for heating in Moldova





EXAMPLES OF IMPLEMENTED PROJECTS

Energy and Biomass Program (MEBP)

Biomass heating systems installed:	223 in public institutions
Period of activity:	Phase 1 (2011-2014); phase 2 (2015-2018).
Installed capacity:	45 MW
Area heated:	Approximately 380,000 m ²
Number of beneficiaries:	More than 200,000 people
Total Investment, incl. TA	23,410,000 EUR
Overall capital investment:	15,015,910 EUR
Community contribution:	1,853,488 EUR
New jobs:	264
Biofuel producers supported:	84
Subsidies for biofuel boilers:	1,134 households and 50 micro-enterprises received subsidies for biomass boilers between 2012-2016.
Biofuel quality certification:	Compulsory since 2017
First testing laboratory:	Equipped with modern equipment

Examples from MEBP



District heating biomass project by EBRD

The installation of a new biomass boiler serves as a demonstrative effect, showcasing the use of new and sustainable technologies

Replacing the coal-fired boiler in the Molodovo district heating plant with a biomass boiler highlights the project's commitment to the green transition

Modernized the Molodovo district heating plant (operational since 2018) with a D'Alessandro CS 650 biomass boiler (**650 kW capacity**)

Significant pollution reduction:

- Eliminated SO₂ emissions
- Reduced CO and CO₂ emissions by 3.6 times



Utilizes renewable resources, contributing to environmental sustainability

Improved working conditions for operating staff. Significant reduction in the operating costs of the company

The use of biomass in Chisinau district heating system

Technical Details

Installed Capacity: 150 kW

Technology: Automated biomass boiler with pellet bunker and automated fuel transport, ignition, and combustion control systems

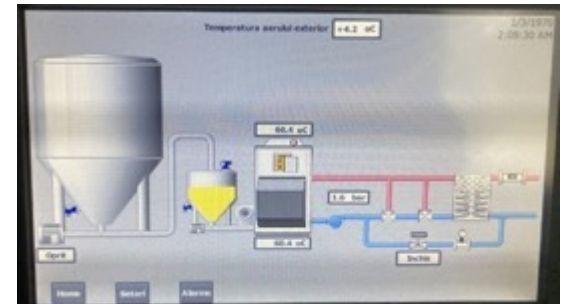
Fuel: Pellets made from the Miscanthus plant

Autonomy: The fuel bunker ensures at least 24 hours of autonomous operation

Impact and Benefits

Fuel Consumption: Estimated at 60 tonnes per heating season, equivalent to about 20,000 m³ of natural gas. **CO₂ Emission Reduction:** Approximately 43.5 tonnes of CO₂ annually

Initial Project Cost: Estimated at 1.7 million MDL, with 50% financed by the state budget through ANCD and at least 50% co-financed by "TERMOELECTRICA" S.A.



Challenges and barriers

Technical

- Lack of knowledge
- Equipment maintenance
- Spare parts deficit

Human resources

- Lack of knowledge
- Negative perception
- Low responsibility

Financial

- Lack of knowledge
- High perceived risks
- No dedicated investment capital



THANK YOU!



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