

Energy from Renewable Sources: Achievements and Perspectives



MINISTERUL ENERGIEI
AL REPUBLICII MOLDOVA





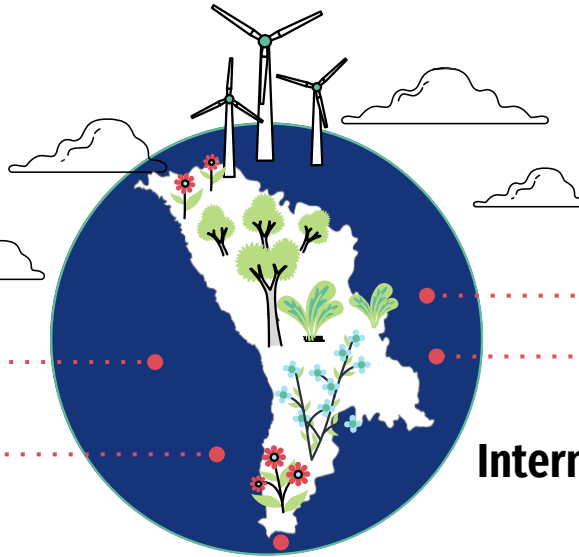
National Energy Climate Plan (NECP)

01 Decarbonisation

Reduce GHG emissions by 68.6% below 1990 base year emissions or equivalent to keep them below 9.1 MtCO₂e in 2030.

02 Energy Efficiency

To keep primary energy consumption below 3 000 ktoe and final energy consumption below 2 800 ktoe.



03 Research, innovation and competitiveness

Energy Security 05

27% of final energy consumption to derive from renewable sources.

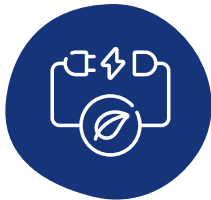
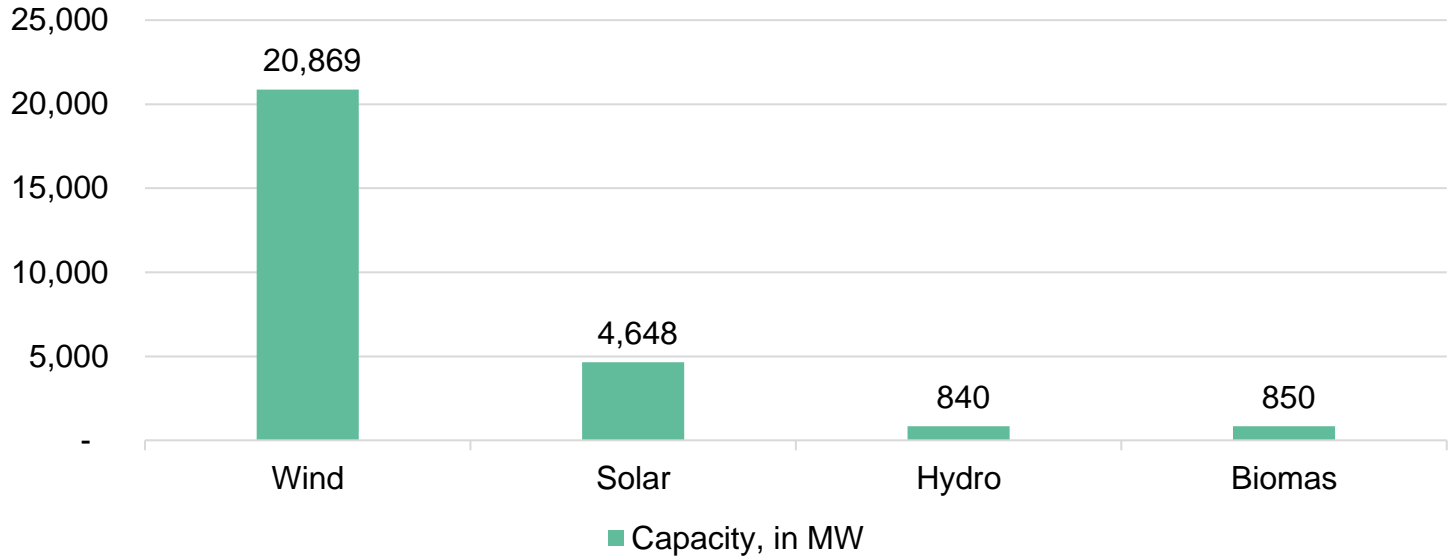
Internal energy market 04

30% of final electricity consumption to derive from renewable sources.





Technical potential for e-RES - Capacity

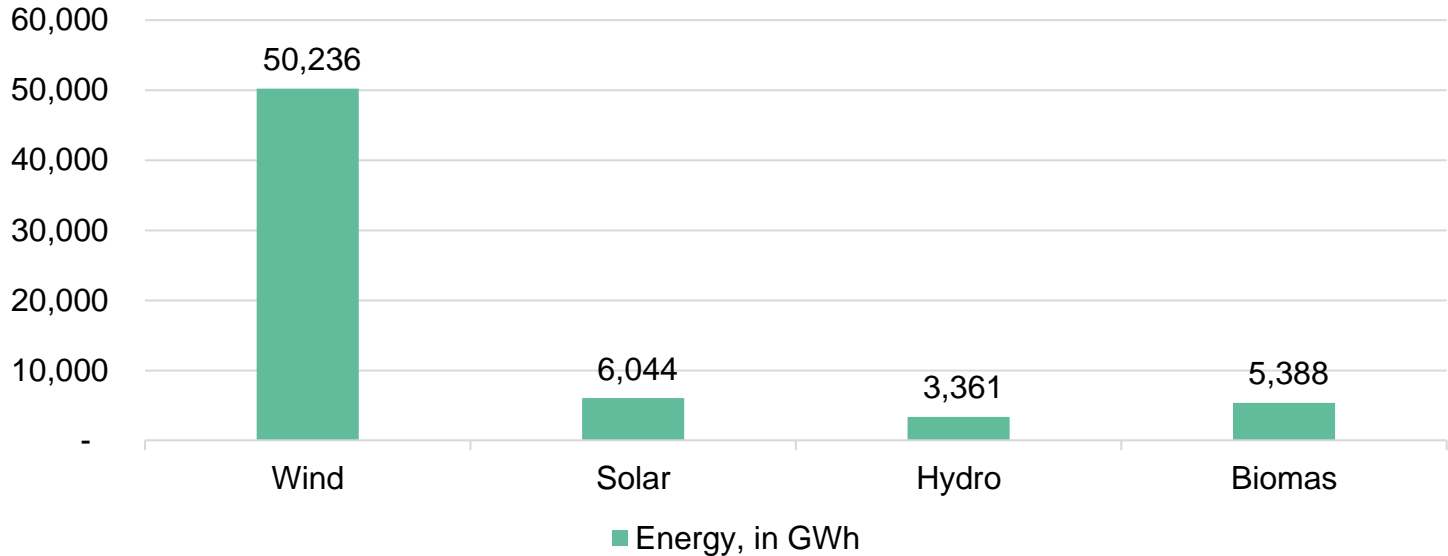


The capacity for Renewable Energy Sources (RES) is gradually increasing, with a focus on wind, solar, biomass, and hydropower resources. As of 2023, the country has allocated 105 MW for wind energy and 60 MW for photovoltaic parks, aiming to increase the share of electric energy produced from renewables by 2030.





Technical potential for e-RES - Energy



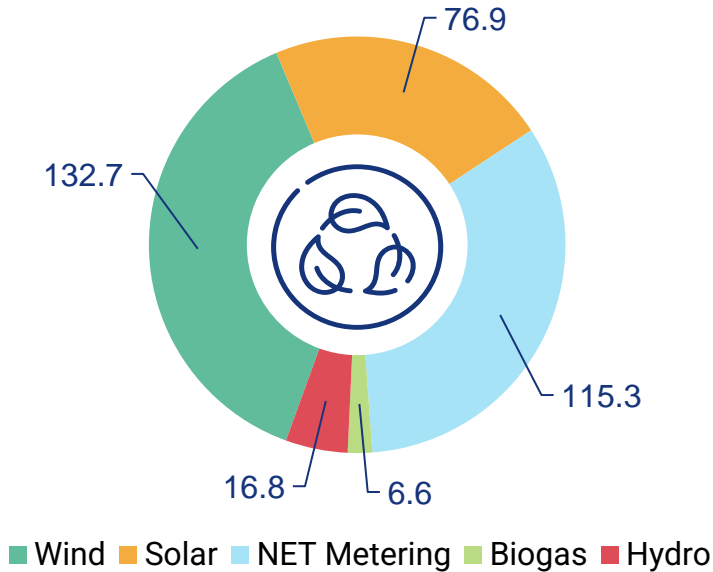
RES contribute approximately 3% to Moldova's electricity consumption, with wind, solar and hydropower being the main sources. Biomass is the most developed renewable sector, primarily used for heating purposes, and the country has a technical potential of 65,029 GWh for renewable energy generation.





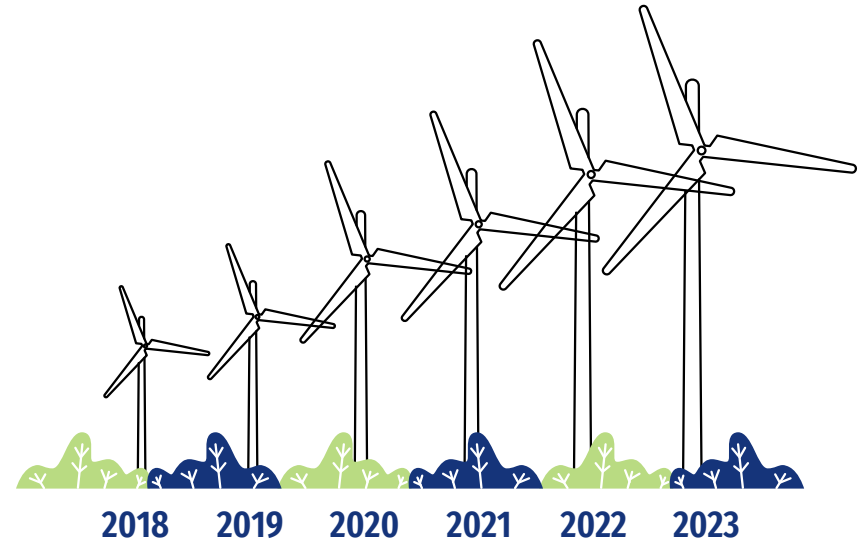
Electricity consumption from RES

Installed Capacity in 2023, in MW



% RES from Total Electricity consumption

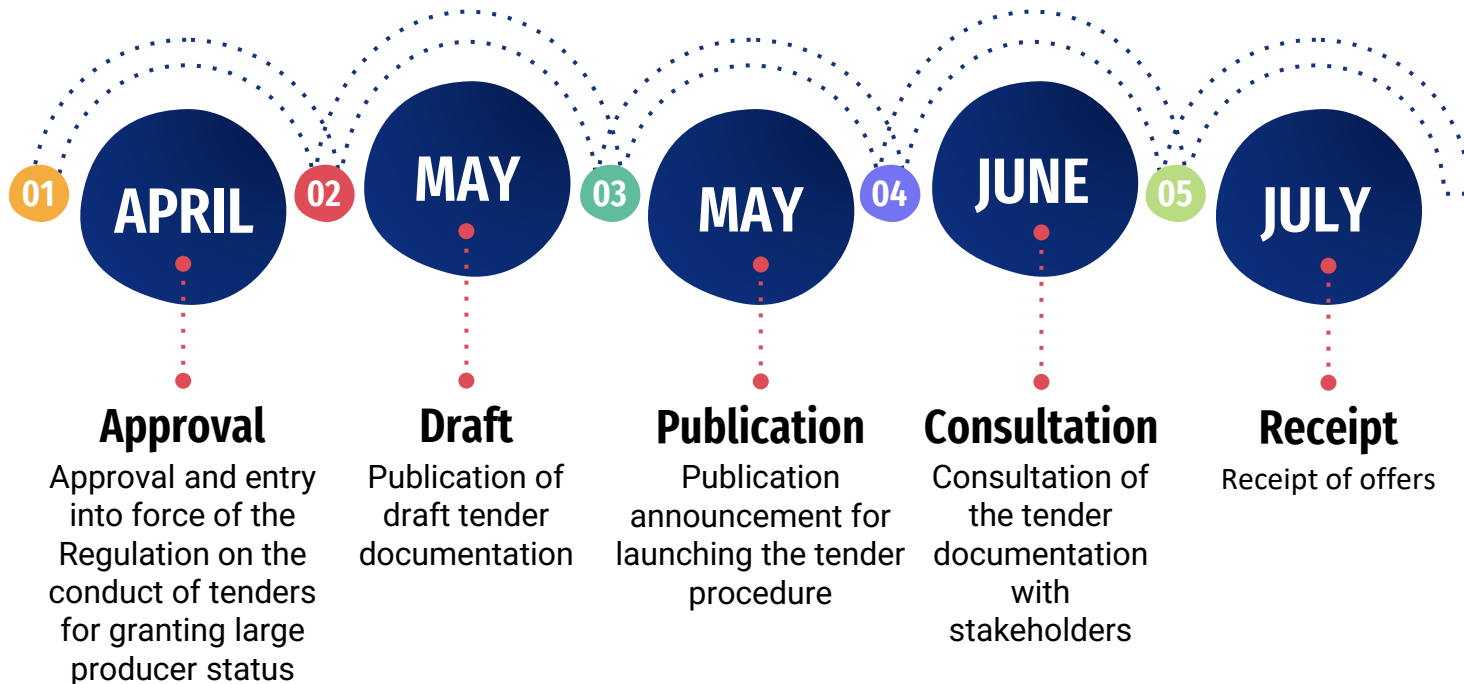
2.6% 3.0% 3.1% 3.6% 5.5% 10.5%





Timetable and Procedures for Auctions

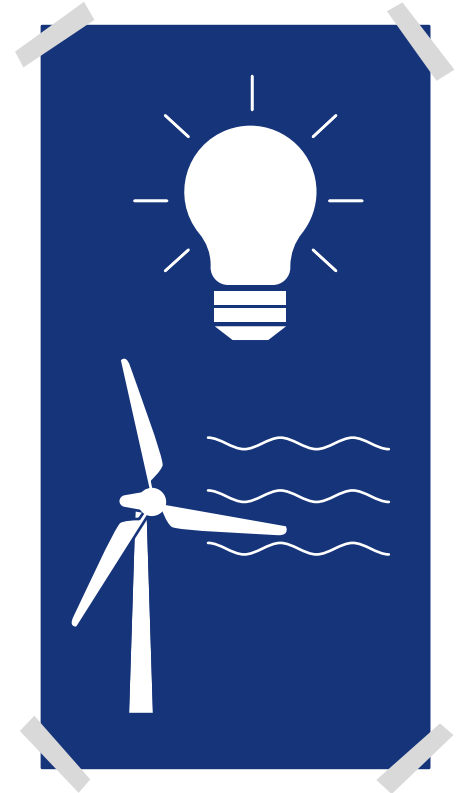
RES procedures for Auctions in 2024-2025





Capacities put out for Tender

Production Technology	Max. Capacity	Capacity Limit	Ceiling Prices
Wind Power	150 MW	4 MW	77.88 EUR/MWh 1.5 MDL/kWh
Solar Power	60 MW	1 MW	86.7 EUR/MWh 1.67 MDL/kWh
Note 1	Capacity limit represents pe installation limit per Investor		
Note 2	Ceiling prices have been approved by HANRE No.: 106/2024		





Support Programs for Renewable Power

Support Scheme	Production Technology	Renewable Capacity Allocation (MW)	
Fixed Rate	Wind Power	20	
	Biogas Cogeneration Plants	Biogas	65
		Syngas	10
		Direct Combustion	10
Net Billing	PV Solar Power	100	
	Total	205	





Electrical System Development Projects

01

Construction of a single-circuit 400 kV high voltage

Overhead power line in the direction Vulcanesti-Chisinau, with a length of about 158 km.

Deadline: 4Q 2025

02

Construction of the 400 kV overhead power line

Power interconnection line between Straseni (MD) –Gutinas(RO) with extension of Straseni station. In the framework of Energy Connectivity in Central and South-East Europe (CESEC).

Deadline: Feasibly Study and Environment Impact Assessment.

03

Construction of 400 kV overhead power line

Power line in the direction of Balti (MD) – Suceava (RO) with a length of 40km in Moldova. Including reconstruction of Balti 400kV power station

Deadline: 4Q 2027





Liberalization of Energy Markets



Operators of Centralised
Markets



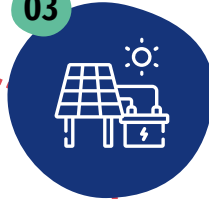
01 Day Ahead Market (DAM)

Purchase/sell electricity of the following day, for efficient price discovery.

01



03



Increased Liquidity

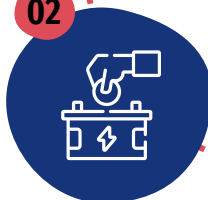
Increasing the liquidity of markets to EU comparable levels.

03

02 Intraday Market (IM)

Platform for trading electricity closer to real-time, enhancing flexibility in electricity system.

02



04



Coupling

Coupling the national DAM and IM with similar markets in Member States by 2025.

04

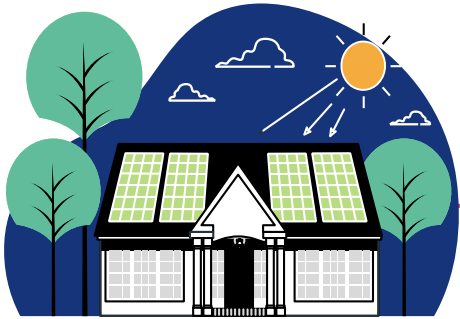




Migration from Net Metering to Net Billing

Net Billing

Starting in 1 January 2024; it will create Remote Prosumers within 12 months.



Net Metering

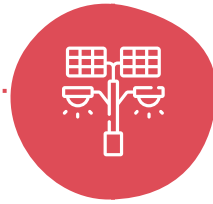
New Beneficiaries until 31 December 2023 and valid until 31 December 2027.

Prosumer's Benefits

Government approved capacity quotas and ceilings for net billing.

Suppliers purchase surplus electricity at a price set by ANRE.

Surplus is transferable monthly and annually.



The concept of "remote" prosumer is introduced.



The concept of "remote" prosumer is introduced.



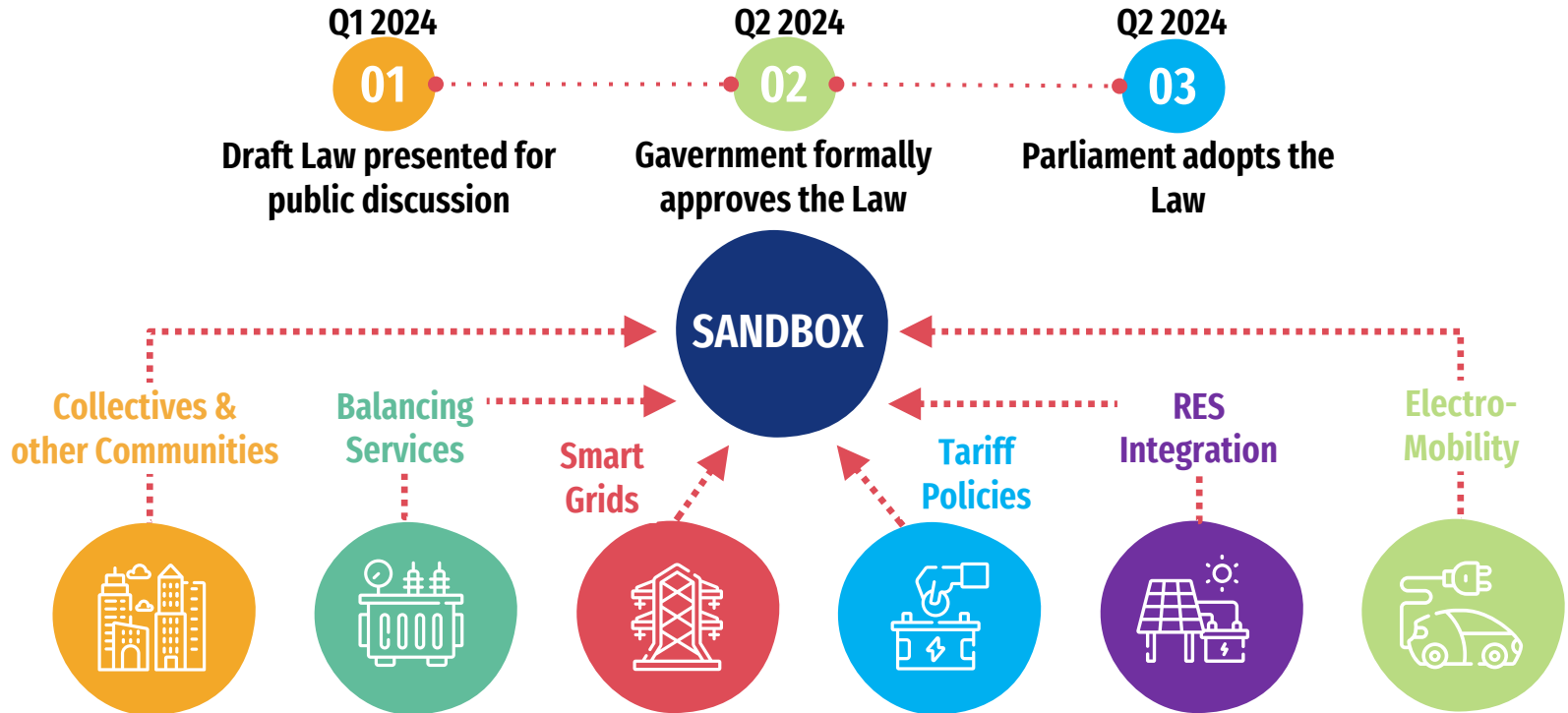
Apartment block residents can collectively become prosumers with a shared net-billing installations.





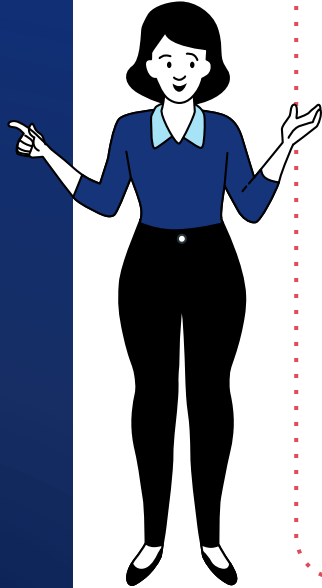
Law on Energy Sandboxes

SANDBOX – A safe space for any stakeholders to experiment and test any clean energy solutions without being subject to mandatory legislative requirements





Opportunities / Problems with Integration & Flexibility



- Competitive support schemes for renewable energy.
- Operationalization of regulated electricity markets
- Simplification of procedures for RES projects.
- Promoting active consumers in regulated energy markets.
- Increasing system flexibility for renewable energy integration.
- Energy sector integration into carbon taxation mechanisms.
- Effective utilization of waste for energy production.

- The need to develop balancing capacities of the system: Balancing of Plants (BoP) and Battery Energy Storage System (BESS).
- Harnessing biogas can provide short and long-term flexibility to contribute to balancing the power system.
- In the medium and long term, a further increase in GHG emission-free storage capacity, be it BESS or possibly pumped storage hydropower plants, could enable greater RES integration.



Thank you!



MINISTERUL ENERGIEI
AL REPUBLICII MOLDOVA

