

PROMOTION OF THE USE OF RENEWABLE ENERGY IN THE REPUBLIC OF MOLDOVA



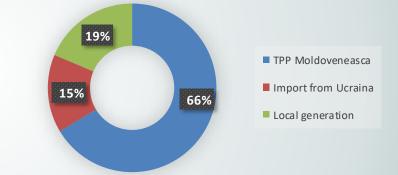
Ministry of Economy and Infrastructure

ENERGY SECTOR CHALLENGES AND THREATS



- 81% of country's electricity consumption is ensured from import
- 17% of domestic electricity consumption is being generated mainly by local Combined Heat and Power plants and only 2% from Renewable energy sources

The Republic of Moldova is very poor interconnected with European power and gas transportation infrastructure, most of the energy resources being imported from a limited number of suppliers from Eastern Europe



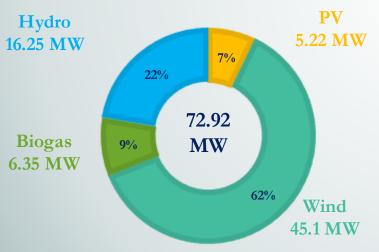


The economy of the Republic of Moldova is very energy intensive with an energy intensity more than 3 times exceeding the EU average

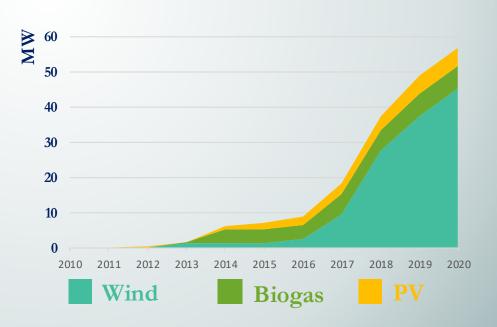
RENEWABLE ENERGY DEPLOYMENT

- 23.84% share of RE in gross final energy consumption in 2019
- 17% RE target by 2020
- Decade-long support for biomass in the heating sector
- New support mechanisms for RE in the power sector: auctions, feed-in tariffs, net metering

Installed renewable energy capacity, by source (as of 31 December 2020)



Dynamics of RE capacities growth



SECONDARY NORMATIVE FRAMEWORK ON PROMOTION OF USE OF RE (1)

 Law on the promotion of use of renewable energy sources*

Law No.10 of 26.02.2016

/ transposes the Directive 2009/28/EC and the EC Guidelines on State aid for environmental protection and energy 2014-2020/

- Regulation on carrying out tenders for providing the status of eligible producer (available in RO and RU)
- GD on approving the limits of capacity, maximum rates and categories capacity in the field of electrical energy until 2020 (Re and RL)
- Regulation on qualification of RES equipment installers
- GD on assignment of central power supplier
- Regulation on the organization and operation of the Energy Efficiency Agency

DECISION APPROVED

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^{*} MoEI is currently analyzing the Clean Energy for all Europeans package with the aim to transpose it into national legislation

SECONDARY NORMATIVE FRAMEWORK ON PROMOTION OF USE OF RE (2)

Regulation on solid biofuels

 Regulation concerning sustainability criteria for biofuels, and the procedure for the verification of compliance with the sustainability criteria to biofuels production

 Regulation for the calculation of final consumption of energy from renewable sources in transport

 Revision of National Action Plan in the field of renewable energy 2013-2020**

 Methodology for calculating the **impact of biofuels** on the emission of greenhouse gases DECISION APPROVED

PUBLIC CONSULTATIONS

DECISION APPROVED

SUSPENDED

DECISION APPROVED

^{*}Ministry of Agriculture, Regional Development and Environment

^{**} MoEI and MARDE are currently developing the National Energy and Climate Plan /NECP/

SECONDARY NORMATIVE FRAMEWORK ON PROMOTION OF USE OF RE (3)

 Methodology for determining the fixed tariffs and prices for electricity produced by eligible producers of renewable energy (NO and NI)

DECISION APPROVED

 Regulation on guarantees of origin for electricity produced from renewable energy sources

DECISION APPROVED

Mandatory clauses of the contract for the purchase of electricity
 and thermal energy produced from renewable sources as well as biofuel

DECISION APPROVED

- Regulation concerning the confirmation of the status of eligible producer (and)

DECISION APPROVED

Decision on fixed prices (caps for tenders) and fixes tariffs (classic
 FiTs) (mand m)

DECISION APPROVED

NEW SUPPORTING SCHEMES FOR RE INVESTMENTS

ACCORDING TO THE NEW LAW ON PROMOTION OF THE USE OF RENEWABLE ENERGY

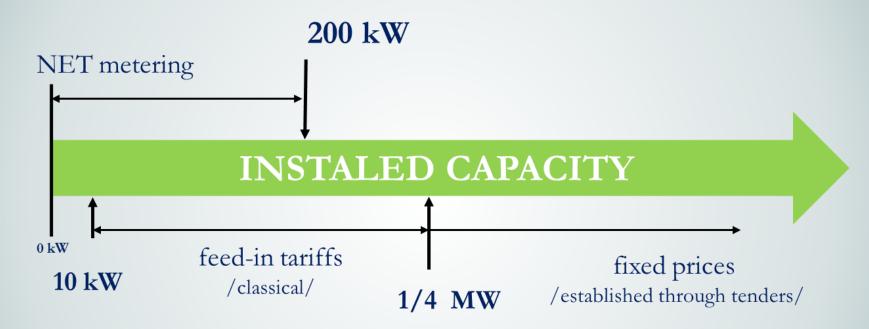
In order to increase the production and use of electricity from RES the following supporting scheme will be applied:

 fixed price 	for producers who holds or will hold power plants with a
(auctions) –	power greater than the cumulative capacity limit set by
	government

- fixed tariffs for producers who holds or will hold power plants with cumulative power capacity not exceeding the limit set by the government, but not less than 10 kW
- NET metering for small RES investors who aim at covering their own electricity consumption
- The concept of Single Buyer will be applied
- Electric system operator/TSO/ and DSOs will give priority to RES-E producers

SUPORT SCHEMES IN FIELD OF RE

PRODUCTION AND USE OF RE-E



Capacity limit/threshold

(established by the Government for different type of technologies)

RES-E GENERATION CAPACITIES ISSUED CAPACITIES

limits of capacity, maximum rates and categories capacity, established by G.D. no. 689/2018 (no longer in force)

Type of technology	Applicable supp	Capacity limits/quotas	
	Classic feed-in tariff (fixed rate)	Auctions (flat rate)	(for differentiation of small- scale investors and large, MW)
Wind plant	20	80	4
Solar PV	15	25	1
Cogeneration plants, biogas	12	8	1
Biomass cogeneration plants	5	-	1
Small hydroelectric power plants	3	_	1
TOTAL	55	113	-

- Allocated Capacities

RES-E GENERATION CAPACITIES KEY CHARACTERISTICS, DRAFT GOVERNMENT DECISION

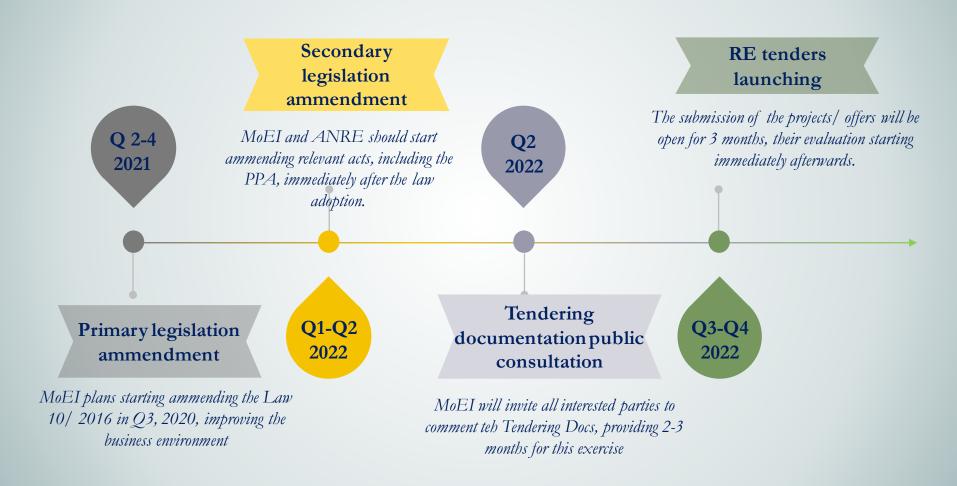
Capacity limits, quotas and and RE categories are established in the project G.D. /currently under pubic consultations; to be aproved by the end of Q3, 2021/

Intermittent sources								
	Capacity categories	Applicable support scheme, MW		Capacity limits				
Type of technology	[MW]	Classic feed-in tariff (fixed rate)	Auctions	(for differentiation of small- and bigand projects, MW)				
Wind plant	< 4	25	80	4				
Solar PV, total: Out of which:		75	70					
PV installations mounted on the roofs of	< 0,05	20						
industrial and agricultural objectives, including	0,051 – 0,2							
the tertiary sector (services)	0,201-1,0							
PV mounted on the roofs of residential	< 0,05			1				
buildings and public buildings	0,051 – 0,2	10						
	0,201-1,0							
• Other PV		45						
TOTAL		100	150	-				

RES-E GENERATION CAPACITIES KEY CHARACTERISTICS, DRAFT GOVERNMENT DECISION

Non-intermittent sources						
	Capacity categories	Applicable support scheme, MW		Capacity		
Type of technology	[MW]	Classic feed-in tariff	Auctions	limits		
Cogeneration on biogas, total: Out of which:		150				
Cogeneration on biogas produced by harnessing the energy potential of animal manure, livestock waste, agricultural waste, agricultural crops, energy plants, food industry waste, etc., including the mixture of those		50				
Cogeneration on biogas produced by harnessing the municipal solid waste		50				
Cogeneration on biogas produced by harnessing the municipal liquid waste/wastewater/		50				
Cogeneration on singas(on slid biofuel, agricultural waste, including energy crops/ plants)		15				
Cogeneration on direct combustion (solid biofuel, agricultural waste, including energy crops/ plants, municipal solid waste)		30				
Hydro		5		1		
TOTAL		200	150	-		

PRELIMINAR CALENDAR FOR THE RE TENDERING PREPARATION AND CARRYING OUT



KEY ELEMENTS TO ENSURE A LEVEL PLYING FIELD IN THE RE-E SECTOR

- 1. Ammendments to be brought to the primary legislation, (MoEI view) shall include:
 - A mechanism to reduce the RES-E producers risks by providing additional financial "guarantees" to investors

 Two options are analysed today, where i) the Government/ agency signes a tripartite agreement or ii) a financial offtaker with clear attributions is appointed/ selected
 - the balancing standard responsability is better and clearer described
 - the curtailment and related financial implications are better and clearer decribed
 - aspects as "material adverse effect", "change in law" and "termination payment" are provided
 - the PPA mandatory clauses are detailed
 - transfer to Contracts for difference is better described
- 2. The PPA shall be drafted according to international best practice
- 3. Tendering documentation will be publicly and in a transparent manner consulted with all interested parties
- 4. The **Government shall thoroughly analyse** additional modalities of increasing the number of bidders, as well as to clarify the issue of grid connection permits and agricultural land usage



FURTHER STEPS TOWARDS A BIGGER USE OF RENEWABLE ENERGY IN THE POST 2020 PERIOD

- 1. Further improvement of the sectorial legal framework
 - stringent and urgent improvements (to enable the framework needed for first RE tenders)
 - 2030 horizont RE sector targets setting
 - alignment of the Moldovan RE framework to Clean Energy for All Europeans Package
- 2. Organisation of the **first RE tenders** (wind and solar PV)
- 3. Strengthening of the biomass sector
 - development of a mid to long-term biomass sector development strategy/ program
 - development of an action plan for the development of the energy crops industry
 - implementation of the above-mentioned strategic acts (with DevPart and IFIs support)



FURTHER STEPS TOWARDS BIGGER USE OF RENEWABLE ENERGY IN THE POST 2020 PERIOD

- 4. Creation and strengthening of the **biofuels sector**
- 5. RE development supporting activities
 - continuous research in the field of national grid's penetration by intermittent sources
 - investments in power transmission lines
 - promotion of the distributed energy concept
 - "aggressive" promotion of the eco public and private EV transportation
- 6. Increasing the **public awareness** about RE and its benefits



THANKYOU