Funded by the European Union

Alignment of GHG reduction targets in the context of commitments of the Republic of Moldova under the UNFCCC and the Energy Community Treaty

Dorin Dușciac, national consultant
EU4Climate, UNDP Moldova

November 30th , 2021

Zoom Online Platform

INTRODUCTION

As a Party to the UN Framework Convention on Climate Change (UNFCCC) and as a contracting party to the Energy Community Treaty (EnC), the Republic of Moldova assumed a series of commitments in the fields of climate and energy.

Convergence of these two domains in combatting negative effects of climate change by reducing greenhouse gas (GHG) emissions.

Short presentation of the EU4Climate Project.

National and international context in combatting climate change.

Main results of activities undertaken during the short consultancy mission.

Recommendations, conclusions and perspectives.

Republic of Moldova's commitments within UNFCCC

Intended Nationally Determined Contribution (INDC, 2015):

- unconditional decrease of GHG emissions by 64 – 67% in 2030, compared to the base level emissions of 1990,
- decrease of GHG emissions by 78% conditioned by the adoption and implementation of a global agreement granting to all parties access to cheap financial resources, technology transfer and technical cooperation (conditional scenario).

NDC2 (2020):

- unconditional reduction of GHG emissions by 70% in 2030, compared to the base level emissions of 1990,
- conditional reduction of GHG emissions by 88% in 2030, compared to the base level emissions of 1990.
- in 2016 the Energy sector was responsible for 72,7% of national direct GHG emissions.

Low Emissions Develoment Strategy of the Republic of Moldova up to 2030 (LEDS 2030) and the Action Plan for its implementation, adopted by Government Decision no. 1470 of 30.12.2016:

main public policy instrument for national “transposition” of NDC2 objectives

17.06.2021: public consultations of the revised and completed version of LEDS 2030.

In present (October, 2021) the document is is programmed to undergo the strategic environment assessment.

- LEDS 2030 identifies the Energy sector as a priority sector for the implementation of measures leading to the NDC2 objectives.

- In this sector the Strategy fixed a GHG emissions reduction objectives by 81% in the unconditional scenario and by 87% in the conditional scenario, compared to the base level emissions of 1990.

Republic of Moldova's commitments within the Energy Community Treaty

Recommendation 2018/01/MC-EnC of the Counsel of Ministers of EnC of 03.01.2018:

National integrated Energy and Climate Plans (NECP)

Policy Guidelines PG 03/2018 of June 2018 on the development of NECP:

- first draft ⇔ March 2020,
- final draft ⇔ before the end of 2020,
- biannual progress report ⇔ starting 2022.

NECP should cover the 5 dimensions of the Energy Union:

- Energy security,
- Internal energy markets,
- Energy efficiency,
- Decarbonization of economy,
- Research, innovation and competitiveness.

Other components of the national public policy framework in the fields of climate and energy

- Environment Strategy for the years 2014-2023 and the Action Plan for its implementation.
- Green Climate Fund's Country Program for the years 2020 – 2024.
- Republic of Moldova's National Communications to the UNFCCC.
- Republic of Moldova's Adaptation to Climate Change Strategy until 2020 and the Action Plan for its implementation.
- Coordination mechanism in the field of climate change – National Committee on Climate Change.
- Republic of Moldova's Energy Strategy until 2030.
- National action plan in the field of renewable energy for the years 2013-2020.
- Etc…

Elaboration, consultation and approval of the revised version of LEDS 2030

EU4Climate Project: financed by the European Union and implemented by UNDP Moldova.

Beneficiary: Ministry of Environment

Methodology to determine GHG emissions reduction targets, reported in NDC2:

- Sectoral approach
- Methodology elaborated and made available by the UNFCCC Secretariat
- Calculations based on policy documents available during the period: 2018 – 2020.
- Simulations performed by using the software WASP.
- CO_2 emission factors: IPCC 2006 methodology (approved and recommended by UNFCCC).
- In some sectors (agriculture, waste, forestry) national emission factors have been determined, these have been used for simulations.

Dynamic evolutions between data presented in two Biannual Updated Reports (BUR) to UNFCCC: BUR2 and BUR3.

GHG emissions reported in BUR2: 14 506 kt of CO_2 equivalent (2016)

GHG emissions reported in BUR3: 12 829 kt of CO_2 equivalent (2019)

Reduction by 11.6% in three years (2016 – 2019)

Data regarding the Transnistrian region of the Republic of Moldova: included in LEDS 2030, these have been obtained by a series of extrapolations performed on sectorial indicators reported over the past 10 years.

Process of NEPC elaboration

Project: “Support for the modernization of the energy sector in Moldova” (STARS), financed by the European Union. Beneficiary: Ministry of Infrastructure and of Regional Development – MIRD

For the NECP components that are not related to the energy sector it is intended to use the data presented in the revised version of LEDS 2030.

August 2021: draft version of narrative parts of 4 Chapters (out of 5):

- Energy efficiency,
- Renewable energy sources,
- Energy security,
- Internal energy market.

The first completed draft version of NECP will be presented to the Energy Community Secretariat in the first semester of 2022.

- Data for the Transnistrian region have not been included in simulations.

- Prognoses of GHG emissions reduction: extrapolations based on the data available for 2016.

- Simulations used the software PRIMES (PRice-Induced Market Equilibrium System).

- This software performs iterative simulations of the demand and the offer by using explicit calculations of energy prices.

- PRIMES results will be included in the final version of NECP.

Evolutions of a series of indicators according to the 5 scenarios used in NECP until 2030

Scenario	Indicator			
	GHG direct emissions reduction in 2030 compared to 1990 (%)	Proportion of energy from renewable sources in production of electricity (2030)	Proportion of energy from renewable sources in transportation (2030)	Projected rise of prices for electric energy in 2030, compared to 2020 (%)
Business As Usual – BAU	66%	38%	2%	+46%
Renewable energy and energy efficiency: pessimistic (realist)	65%	45%	6%	+80%
Renewable energy and energy efficiency: optimistic	66%	64%	7%	+74%
CND2 unconditional	76%	94%	11%	+122%
CND2 conditional	83%	95%	37%	+381%

!!! In previous Table we present **initial results**, not to be taken as granted.

3 major intrinsic sources of possible divergent results:

- Use of different methodologies,
- Different simulation software (WASP in NDC2, TIMES and PRIMES in NECP),
- Inclusion or not of data referring to the Transnistrian region of the Republic of Moldova.

Experience of other EnC contracting parties in elaborating the NECP

North Macedonia:

- Expert teams for NDC (and subsequently LEDS) and NECP: very similar constituencies.
- Process of inter-institutional coordination: based on a timeline agreed upon by all stakeholders.

Ukraine:

- Inclusive approach regarding the data and results referring to temporarily occupied territories (Crimean peninsula and regions of Donetsk and Luhansk).
- Data and information may be obtained and verified through sources published by institutions or enterprises from neighboring states, etc.
- At the national level in Ukraine there is no unique vision or methodology regarding the inclusion of data referring to temporarily occupied territories in the process of elaboration of public policy documents.

RECOMMENDATIONS

1. High-level coordination of the climate and energy nexus

High-level coordination of the climate-energy nexus – respective ministries.

ME and MIRD should create a permanent framework of dialogue and cooperation in combatting climate change:

- Facilitate the creation of mixt working groups,
- Offer main orientations on climate and energy planning,
- Provide political support in interaction with development partners,
- Ensure periodical revision and approval of planned objectives and activities.

The National Committee on Climate Change may be endowed with an efficient institutional framework to create, maintain and coordination the climate-energy nexus at the highest level.

2. Simplification of the reporting process to UNFCCC and EnC

Reporting to international organizations in the fields of climate and energy should be simplified in the context of UNFCCC's and EnC's recommendations to Parties:

- Biannual Updated Reports to UNFCCC may be merged with the National Communications.
- Periodical implementation reports on NECP may be used to elaborate reports to UNFCCC, including the next NDC's.

Simplification of the reporting procedures to international organizations will lead will improve the efficiency of available institutional and human capacities and will increase synergy of experts' teams working to elaborate these documents.

3. Synchronization of planning processes in the fields of climate and energy

The iterative NDC process should be merged with the elaboration and implementation reporting of NECP:

<u>2022 – 2023:</u>

- Update NECP ⇔ Energy Community Secretariat
- Initiate NDC3 ⇔ UNFCCC

<u>2024:</u>

- Presentation of the first implementation report of NECP to the EnC Secretariat
- Presentation of NDC3 to UNFCCC

In the context of synchronization, the 4th component of NECP (Decarbonization of economy) may serve as a starting point to elaborate NDC3.

Synchronization of NECP and NDC will have positive effects in the elaboration and periodical update of LEDS 2050.

4. Centralization of collecting, processing and modelling of data

Reporting documents in the planning of climate and energy need:

- collecting,
- processing,
- modelling

of large amounts of technical data and information and performing complex simulations for the prognoses of relevant indicators.

Main categories of data and tools are:

- GHG emissions inventories (past and prognoses),
- Modelling software that allow to perform simulations,
- Sets of monitoring indicators.

Production and centralized dissemination of these data and information will duplication of processing, simulation and analysis procedures and will ensure obtaining coherent and reasoned results.

5. Sectoral alignment of the planning in the fields of climate and energy

According to the EnC and UNFCCC requirements, the Republic of Moldova has elaborated and approved a series of sectoral policy documents in the fields of energy and climate:

- National Plans for Energy Efficiency,
- National Action Plans in the field of Renewable Energy,
- Republic of Moldova's Adaptation to Climate Change Strategy,
- Etc. ..

Monitoring, evaluation and updating these documents must be synchronized with elaboration and updating of periodical reports to UNFCCC and EnC (including NECP and NDC).

6. Ensuring an open, transparent and participatory communication framework

Permanent dialogue between institutions, international organizations and stakeholders in the process of energy and climate planning.

This refers also to other international organizations, development partners, civil society organizations, academia, etc.

Special attention should be drawn to permanent cooperation and dialogue with neighboring states and regional organizations.

Communication should be open and participatory, it should stem from principles of synergy of institutions, organizations, expert teams, etc.

7. Identification of a common position referring to reporting for the Transnistrian region of the Republic of Moldova

Responsible ministries should elaborate a common position regarding inclusion of the Left Bank in reporting documents to international organizations.

Divergent approaches regarding the inclusion of Transnistria should be carefully explained and argued for, eventually in separate documents.

Elaboration and use of an unique methodology for the national public policy framework in the fields of climate and energy.

Implication of other relevant institutions (ex: the Bureau for Reintegration).

An opinion on the subject should be solicited to UNFCCC and EnC.

CONCLUSIONS

In this Report a detailed analysis of factors leading to the establishment and publication of different targets of GHG emissions reduction in LEDS 2030 and NECP has been performed.

Information used to elaborate this Report have been collected through direct consultations with stakeholders' representatives and by thorough analysis of national and international documentation.

Coherence of the national public policy framework in the fields of climate and energy is an essential pre-condition to ensure fulfilment of responsibilities assumed by the Republic of Moldova as a Party to UNFCCC and to the Energy Community Treaty.

The complexity of the internal institutional context and of the existing public policy framework to combat climate change in the Republic of Moldova may explain divergent results of evaluation, processing and modelling of data.

PERSPECTIVES

In October and November 2021 the 26th CoP of UNFCCC will be held in Glasgow.

On November 25th, 2021 the Ministerial Council of the Energy Community will be held.

In the context of participation in these two international forums the Republic of Moldova has to set out its own definitive vision referring to the objectives to be attained in combatting climate change.

Promoting an unique position regarding the targets of GHG emissions reduction to be attained should form the basis of the above-mentioned vision and be an integral part of the public policy framework.

Thank you!