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INTERNAL



## Romania's Long-Term Strategy (LTS) and Climate Commitments



- Romania is party to the main international environmental agreements, including the:
  - United Nations Framework Convention on Climate Change (UNFCCC);
  - Paris Agreement (ratified by Romania under Law No. 57/2017);
  - Sendai Framework for Disaster Reduction:
  - Minamata Convention;
  - > Ramsar Convention: and
  - > 2030 Agenda for Sustainable Development

#### **Purpose of EU Member States' LTS**

- EU Member States' LTS are crucial instruments for enabling the economic transformation needed to achieve the United Nations Sustainable Development Goals (UN SDGs), as well as for moving towards the long-term goal set by the Paris Agreement.
- Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action sets out the process for drafting the LTS every 10 years (starting from 2020) and, where necessary, updating them every five years.

#### Romania's LTS

- Romania released its LTS in November 2023, with the following key aims:
  - Climate neutral in 2050, reaching 99% net greenhouse gas (GHG) emissions reduction in 2050 compared to the 1990 level, according to the Romania (RO) Neutral scenario
  - > First milestone: reducing GHG emissions by 78% in 2030 relative to the 1990 level
- Romania already started the decarbonization process by reducing emissions in 2019 by 62% as compared to 1990.
- Romania's decarbonisation targets were enshrined in EU law by the adoption of the European Climate Law (Regulation (EU) 2021/1) in July 2021.
- Social impact of Romania's LTS: an important benefit of the decarbonization process is the creation of green jobs. According to the LTS more than 100,000 new green employment opportunities will be created by the year 2050 in the RO Neutral scenario.

#### **Romania's Other Climate Commitments**

In addition to the NRRP (defined on next slide), Romania has created other legal, policy and institutional frameworks for implementing climate action aimed at achieving its targets under international commitments:

Framework	Key focus areas	Timeframe
Limiting Climate Change and its Impact: an Integrated Approach for Romania	7 key challenges in limiting climate change	-
The Hydrogen Law	Green hydrogen	Under SEA
National Climate Change and Low Carbon Green Growth Strategy	Climate change mitigation and adaptation	2016-2030
The Ministry of Environment's Prevention, Protection against and Reduction of Flooding and Flood Risk Management initiatives	Flood risk	2007-2023 2016-2021 2022-2027
Strategy for mobilizing investments in the renovation of residential and commercial buildings existing at national level, both public and private	Energy performance of buildings	2017-2030
The long-term national renovation strategy to support the renovation of the national stock of residential and non-residential buildings	Energy performance of buildings	-
Integrated National Energy and Climate Plan	Energy and decarbonisation	2021-2030
National Energy Strategy	Energy	2019-2030
National Strategy for Sustainable Development	UN SDGs	2030
National Strategy for Circular Economy	Circular economy	
National Strategy on Adaptation to Climate Change	Climate change adaptation	Under prep (2023-2030)
National Strategy for Education on Climate Change and the Environment	Climate education (including green schools)	2023-2030
National Strategy for the Reduction of Disaster Risk	Climate change adaptation	Under prep (2023-2035)

Other: National Strategy for Forests for 2022-2031 (2022), National Strategy for the Rehabilitation and Expansion of the Irrigation Infrastructure (2019), National Defense Strategy for 2020-2024 (2020), National Long-Term Strategy for Renovation (2020), National Management Plan for Disaster Risk Management (2020) and National Transport Master Plan (2016).

## Romania's Energy Mix and Investment Priorities



#### Romania's Energy Mix

- Romania has a balanced energy mix. Low carbon energies constitute over 60% of the total energy mix.
- Under all scenarios of Romania's LTS, all natural gas-powered plants will be 100% ready for renewable gases (green hydrogen) by 2036 and all coal and lignite-powered capacities will be closed by 2031.

### Romania Energy Mix Breakdown as of 31st December 2022 26% Hydropower Nuclear 20% Phaseout by the end Coal 19% of 2031 under LTS Hydrocarbs 19% Wind Power 12% PV **Biomass**

#### Romania's Investment Priorities: The National Recovery and Resilience Plan

- Romania's <u>National Recovery and Resilience Plan</u> (NRRP) 2021-2026 details the priority areas for investment in Romania.
- The NRRP prioritizes green and digital transitions, with 41% of the plan supporting green transition and 20.5% supporting digital transition. The below figure highlights the key green contributions of the NRRP to Romania's climate objectives.



- The NRRP is expected to lift Romania's gross domestic product by 1.8% to 2.9% by 2026 . This boost to the economy is expected to create jobs for up to 90,000 citizens.
- Romania will also benefit from the Recovery and Resilience Plans of other Member States: these spillover effects are expected to account for 0.2% of gross domestic product in 2026.

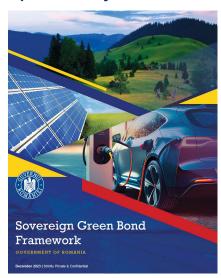
Source: Romanian Government

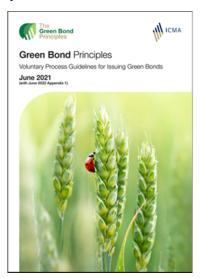


## Overview of the Framework and SPO



Romania's Sovereign Green Bond Framework is aligned with The Green Bond Principles (2021 with June 2022 Appendix 1) published by the International Capital Markets Association





Romania's Sovereign Green Bond Framework is aligned with the Green Bond Principles (GBP) pillars:

- 1. Use of Proceeds
- 2. Project Selection and Evaluation
- 3. Management of Proceeds
- 4. Reporting

The Framework also complies with the key recommendations of the GBP, including the need for External Review

Romania's Sovereign Green Bond Framework received a Second Party Opinion (SPO) from S&P Global Ratings

# **S&P Global**Ratings

Powered by Shades of Green

- Overall Shades of Green assessment score: <u>Medium Green</u>
- In S&P's view, Romania's Sovereign Green Bond Framework is aligned with the 2021 Green Bond Principles (with June 2022 Appendix)
- The use of proceeds, project selection and evaluation, management of proceeds and reporting pillars are considered aligned and all of the Framework's green project categories are shaded in green



#### ICMA Pillar 1: Use of Proceeds - Eligible Green Project Categories (1/2)

Eligible Green Projects may include assets, capital expenditures, operational expenditures including research and development expenses and are limited to those occurring in the three (3) calendar years prior to issuance (look-back period), the calendar year of the issuance and the three (3) calendar years following issuance (look-forward period)

ICMA Eligible Green Project Categories	UN SDGs	Eligibility Criteria
Renewable Energy	7 AFFRIDAME AND CLAN DINKY	Investments and expenditures (including subsidies/grants) in generation and transmission of renewable energy, including:  Solar photovoltaic (PV) and solar thermal heating;  Onshore and Offshore wind energy facilities;  Hydropower which meets any of the criteria: Lifecycle GHG emissions of less than 100gCO2e/kWh, Power density greater than 5w/m2, Run of river plant and does not have an artificial reservoir;  Bioenergy derived from biofuel or biomass;  Green hydrogen produced using renewable energy which meets the criteria of lifecycle GHG emissions below 100gCO2e/kWh;  Projects supporting the integration of renewable energy into the power grid: retrofit of gas transmission and distribution networks that enables the integration of hydrogen and other low-carbon gasses in the network, smart energy grids, smart meters;  Research and development of products or technology for renewable energy generation, including the manufacture of wind turbines and solar panels
Energy Efficiency	7 AFFORMALE AND CLEAN BERGY  9 NOUSTRY, INDIVIDUAL ON AND INFRASTRICTURE	<ul> <li>Investments and expenditures for energy efficiency improvements of infrastructure that result in an energy consumption below the average national energy consumption of equivalent infrastructure;</li> <li>Research and development of products or technology and their implementation that reduces the energy consumption of underlying assets, technology, products or systems;</li> <li>Conversion of thermal plants to combined heat and power gas power plants where i) lifecycle emissions are below 100gCO2e/kWh, ii) until 2030 the following is annually verified by an independent third party (primary energy savings of at least 10%, direct GHG emissions are &lt;270gCO2e/kWh, power and heat to be replaced cannot be sufficiently generated using renewable energy sources, newly installed capacity does not exceed replaced capacity, switch to full use of renewable and/ow low carbon gaseous fuels by 31 Dec 2035), mandatory leak detection and repair at construction, physical emissions are reported and any leak is eliminated during operation</li> </ul>
Pollution Prevention and Control	12 RESPONSIBLE GONSAMPTION AND PRODUCTION	<ul> <li>Investments and expenditures for projects dedicated to reducing land pollution and waste generation, including waste prevention, waste collection and management, product recycling and re-use, waste to energy activity with materials recovery and recycling prior to incineration and soil remediation;</li> <li>Investments and expenditures for projects dedicated to reducing air pollution, and GHG emissions control</li> </ul>
Clean Transportation	11 SUSTAINABLE CITIES AND COMMUNITIES	<ul> <li>Investments and expenditures in clean transportation systems and related infrastructure that reduce GHG emissions in transportation, such as electric cars, hydrogen cars, electric trains;</li> <li>Investments in low-carbon passenger vehicles with tailpipe emissions intensity of max. 50g CO2/km until 2025 (from 2026 onwards, only vehicles with emission intensity of 0g CO2/km are eligible);</li> </ul>

Source: Romania's Sovereign Green Bond Framework, December 2023

upgrades)

Investments in transportation infrastructure for mass transportation (expansion of train/metro networks, projects in relation to capacity improvement, station

Investments in infrastructure to support the use of zero-carbon and low-carbon vehicles;



ICMA Pillar 1: Use of Proceeds - Eligible Green Project Categories (2/2)

ICMA Eliç	gible (	Green
Project (	Categ	ories

#### **UN SDGs**

#### **Eligibility Criteria**

Sustainable Water and Wastewater Management



 Investments and expenditures in projects and infrastructure dedicated to reducing water consumption, sustainably-managed water resources, and reducing water pollution, including developing and improving water supply and management infrastructure and urban drainage

#### Climate Change Adaptation



Investments and expenditures in projects and infrastructure that would reduce risk exposure and/or severity of impacts of physical climate hazards, such as flood
early warning systems, flood control systems, drought management projects, infrastructure for disaster resilience, and upgrade of transportation network to higher
climate resilient design standards

#### **Green Buildings**



- Investments and expenditures in internationally, regionally, and nationally certified green buildings, including construction of new buildings or renovation of existing buildings (including public service, commercial, residential and recreational), such as but not limited to:
  - > obtaining a minimum certification of "BREEAM Excellent," or "LEED Gold," or similar recognized standard
  - having primary energy demand at least 20% lower than the one resulting from the local Nearly Zero-Energy Buildings (NZEB) (for buildings built after December 31, 2020)
  - > having reached at least EPC A level
- Investments and expenditures to building retrofits leading to an increase of minimum 30% in energy efficiency of buildings

## Environmentally Sustainable Management of Living Natural Resources and Land Use



Investments and expenditures related to the acquisition, maintenance and sustainable management of natural resources such as land, water, air, minerals, forests, and wild flora and fauna, including: Certified forests, Environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes, Sustainable agriculture practices and climate smart farming, Environmentally sustainable fishery and aquaculture certified by a reputable third-party organisation, Biodiversity conservation, protection and patrol programme

Exclusions: Projects that support or promote the following activities will not be considered as Eligible Green Projects under this Framework:

- Burning of fossil fuel for power generation and transportation, except for combined heat and power gas power plants meeting the criteria described in the Eligible Green Projects
- Rail or other transportation infrastructure dedicated for transportation of fossil fuels
- Renewable energy projects generating energy from biomass using feedstock originating from protected areas
- Landfill projects
- Nuclear power generation
- Transmission infrastructure and systems where 25% or more of electricity transmitted to the grid is fossil-fuel-generated
- Alcohol, defence, tobacco, gambling or palm oil industries.



#### ICMA Pillars 2 & 3: Project Evaluation & Selection Process and Management of Proceeds

#### **Project Evaluation & Selection**

- A committee comprising the State Secretary or Director from 13 ministries, chaired by the Minister of Finance, will evaluate, select, and approve projects and expenditures.
- Ministries will identify and compile an initial list of potential green expenditures/projects based on the eligibility criteria set out in the Framework and their level of preparedness (1= Ready for investment, 2= Under Development, 3= Under Conceptualization).
- Each of the projects will include metrics to best define their environmental impact.
- On a monthly basis or as needed, the Committee will evaluate the submitted projects to ensure compliance with the Framework.
- The General Directorate of Treasury and Public Debt in the Ministry of Finance will track with input from the Inter-Ministerial Committee and other relevant Government departments and line ministries any remaining Eligible Green Projects that can be financed in the subsequent year through another issuance.

#### **Environmental and Social Risk / Impact Management**

- All projects are subject to an environmental impact assessment in accordance with Law no. 292/2018 regarding the assessment of the impact of public and private projects on the environment.
- The environmental impact assessment is carried out before the initiation of any project. Environmental impact studies, as well as appropriate assessment studies, are drawn up by experts certified by a professional association, namely the Romanian Environmental Association.
- Throughout the environmental impact assessment procedure, the public is consulted by making documents available on websites and at the end of the procedure, a public debate is held.

#### **Management of Proceeds**

- The General Directorate of Treasury and Public Debt within the Ministry of Finance will be responsible for the issuance of the green bonds and will manage the allocation of an amount equivalent to the net proceeds of its green bonds on a portfolio approach (an aggregated basis for multiple green bonds).
- Any projects to which funds were allocated are removed from the portfolio, Romania will strive to find suitable replacements on a best-effort basis within 12-24 months.
- Pending full allocation, the General Directorate of Treasury and Public Debt will manage the unallocated proceeds of green bonds according to prudential liquidity policies appropriate to a sovereign such as Romania.
- Unallocated funds will not be invested in any of the activities in the Framework's exclusion list.



ICMA Pillar 4: Allocation & Impact Reporting; and External Review

The General Directorate of Treasury and Public Debt will be responsible for the preparation and co-ordination of the post-issuance allocation and impact reports.

#### **Allocation Reporting**

- An Allocation Report will be made available to investors annually until full allocation of an amount equal to the net proceeds of the outstanding green bonds, and include the following details:
  - a) total amount allocated to Eligible Green Projects
  - b) total amount allocated per Eligible Green Project Category
  - c) remaining unallocated total amount
  - d) breakdown of refinancing versus new financing

#### **Impact Reporting**

- An Impact Report will be made available to investors on the expected
  environmental and/or social impacts of the Eligible Green Projects on an
  annual basis, subject to the availability of the relevant data, until full
  allocation, and in case of material changes, the issuer will update investors on
  a timely basis.
- Romania intends to align, on a best effort basis, with the reporting recommendations as outlined in ICMA's "Handbook – Harmonized Framework for Impact Reporting (June 2023).

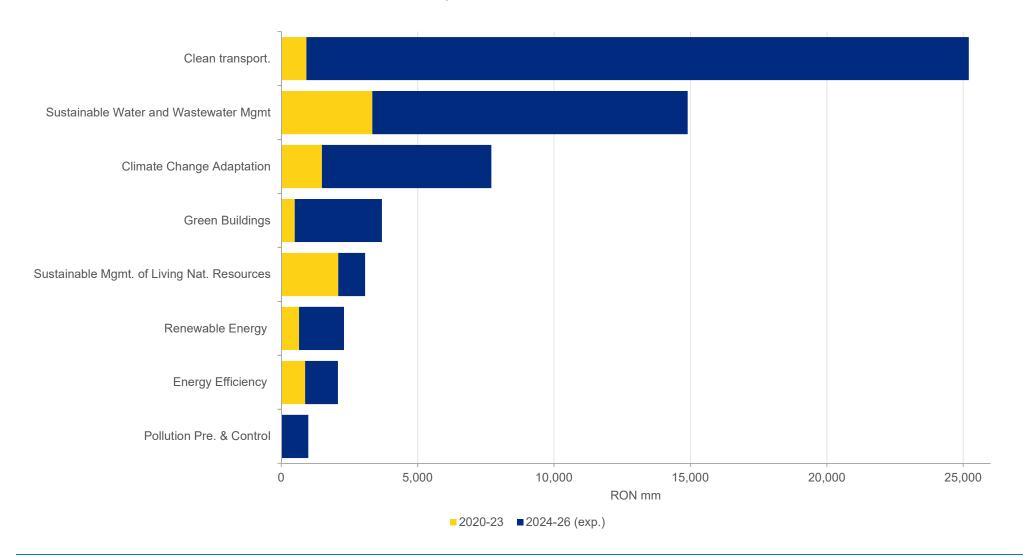
#### **External Review**

- S&P has completed an external review (Second-Party Opinion) of the Framework to confirm its alignment with the ICMA GBP.
- The Second Party Opinion will be available on Romania's Ministry of Finance's website.
- In addition to the pre-issuance Second Party Opinion, the Government of Romania will request on an annual basis, starting one year after issuance and until full allocation, an assurance report on the allocation of green bond proceeds to Eligible Green Projects, provided by an external review provider.
- The resulting report/review will be made public on the Ministry of Finance's website.

## Estimated Amounts of Eligible Green Projects by Category



The Inter-Ministerial Committee has identified Eligible Green Projects meeting the criteria set out in its Sovereign Green Bond Framework from its existing and projected budget expenditures for 2020-2026. Outlined below is an overview of the estimated amounts for these eligible assets, capital expenditures and operational expenditures (currently ~€12bn total).



## S&P Global Ratings Second Party Opinion



In S&P's view, Romania's Sovereign Green Bond Framework is aligned with the Green Bond Principles ICMA, 2021 (with June 2022 Appendix).

#### **Use of Proceeds**

- All the framework's green project categories are shaded in green;
- The issuer commits to allocate the proceeds to finance assets, capital expenditure, and operating expenditure, including research and development expenses
- Eligible green projects have a 3 year lookback period for refinancing. The issuer also commits to a 3 year look forward period for newly financed projects, which we view favorably.
- The framework excludes projects such as fossil fuel-based power generation and transportation, nuclear power, landfill projects, and defense investments.

#### **Management of Proceeds**

- The general directorate of treasury and public debt is responsible for issuing the green bonds and will manage the allocation of an amount equivalent to the net proceeds of these bonds, using a portfolio approach.
- The ministry of finance commits to track the proceeds through a green financing register.
- Any unallocated funds will be managed according to prudential liquidity policies appropriate to a sovereign such as Romania and held in cash or cash equivalent instruments. The issuer specifies that unallocated proceeds will not be invested in any of the activities in the framework's exclusion list.

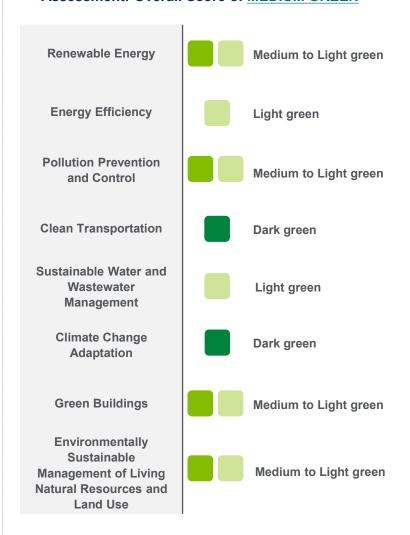
#### **Project Evaluation and Selection**

- A committee comprising the state secretary or director from 13 ministries, chaired by the minister of finance, will evaluate, select, and approve projects and expenditure.
- Each month, or as needed, the committee will evaluate the submitted projects to ensure compliance with the framework.
- All projects under the framework are subject to an impact assessment, which draws on national and European laws and guidelines and considers the environmental and social risks of the projects during their construction and operation phases.

#### Reporting

- An annual allocation and impact report will be available to investors on the Ministry of Finance's website until full allocation of the outstanding green bonds.
- Romania intends to align with ICMA's
   Harmonized Framework for Impact Reporting on a best-efforts basis; this is in line with best market practice.
- In case of any material changes, Romania commits to update investors on a timely basis. Finally, the issuer confirms that an assurance report on the allocation of green bond proceeds to eligible green projects will be provided by an external reviewer.

## Eligible Green Projects' Shades of Green Assessment: Overall Score of MEDIUM GREEN



## Case Study 1/2



#### **Bucharest M5 metroline**



- **➤ Eligible Project Category : Clean Transportation**
- ➤ The construction of the **Bucharest M5 (Eroilor lancului) metro line** is one of the eligible projects for financing under Romania's Green Bond Framework
- > Expected environmental impact:
  - ✓ a reduction in traffic (the number of own-car journeys will decrease by 5,431 per day, while the number of journeys by public transport will increase by 11,053 per day);
  - √ a 20% reduction in noise:
  - √ a reduction of CO2e emissions by 26,171.00 t/year

    - A mature tree can absorb approximately 0.02 tCO2e/year; and 1,308,550 mature trees would be needed to absorb the 26,171 tCO2 reduced by the project/year
  - ✓ an increase in the area of Green Spaces by 3% plus the development of a new Park (Zefirul Factory area – Victor Manu)



## Case Study 2/2



## Rehabilitation of the main irrigation infrastructure and the drainage infrastructure

#### Eligible Project Category: Climate Change Adaptation

- ➤ The National Program for the Rehabilitation of the Main Irrigation Infrastructure and Drainage Infrastructure is one of the flagship eligible projects of Romania's Green Bond Framework
- > The primary aim of the program is to adapt agriculture to climate change and reduce impact on agricultural production
- > The program is structured so as to have minimal negative impact on:
  - · Protected species of flora and fauna
  - Nesting, feeding, flight paths and migration of identified species
  - Conservation of natural protected areas, natural habitats

#### > Expected environmental impact:

- ✓ increase of the economically viable and marginally viable functional surface for irrigation, in an area of 2,6 mln ha, to 90% by 2030;
- ✓ number of functional irrigation facilities: 156, including the Siret-Baragan Main Canal;
- √ number of functional drainage facilities: 50;
- ✓ increasing the operating efficiency of facilities to 75%;



