HUNGARY

GREEN BOND FRAMEWORK

MAY 2020

I. Introduction and rationale for Hungary's Green Bond Framework

In line with international efforts, Hungary is strongly committed to fight climate change and biodiversity loss. Further to its EU's Nationally Determined Contribution ("NDC") under the Paris Agreement, Hungary supported the EU climate neutrality target at the December 2019 European Council and will strive to achieve climate neutrality by 2050. Building on the Hungarian Energy and Climate Plan and the National Clean Development Strategy (2050), the Hungarian government is implementing wide and overreaching climate, energy and environmental policies to transition the country to a low-carbon and environment-friendly economy.

This inaugural Green Bond Framework of Hungary will contribute to support this ambitious commitment and raise a part of the necessary funding from the capital markets. By issuing Green Bonds, Hungary also intends to contribute actively to the development of Sustainable Finance internationally and in Hungarian domestic capital markets specifically. Last but not least, this Green Bond Framework responds to international investors demand for Green Bonds and contributes to further diversify Hungary's investor base.

II. Hungary's climate change and environmental strategy

Within the Carpathian basin, Hungary's rich water resources, arable lands, forests and diverse ecosystem are already witnessing the consequences of climate change such as the reduction in biodiversity, the aggravation of floods and droughts, the deterioration of arable land, water and air pollution, the spreading of invasive species and pests and the growth of diseases attributable to environmental factors. The Hungarian government is determined to address these environmental challenges, to decarbonise its economy to combat climate change and to leverage this opportunity to gain energy independency.

a. Long standing commitments to address climate change and environmental challenges

Already in 2005, under the **Kyoto Protocol**, Hungary committed to reduce its greenhouse gas ("GHG") emissions by 6% compared with the average level for the period 1985–1987 (base year) during the first commitment period from 2008 to 2012.

In 2008, the Hungarian Parliament approved the first **National Climate Change Strategy** ("NCCS") for 2008-2025 defining important areas of action to mitigate GHG emissions and to adapt to environmental and socioeconomic impacts of climate change. In 2013, a revision of the Strategy was elaborated and then submitted to the Parliament in 2015.

The **Second National Climate Change Strategy** ("NCCS2") took into consideration the new context of international commitments after the *Paris Agreement*. The NCCS2, as approved by the Parliament in 2018, sets up a comprehensive framework of various policies on climate and green economy development for the period of 2018-2030, playing an important role of coordination of all the other sectoral strategies. This strategy also provides an outlook to 2050, including:

- **Hungarian Decarbonisation Roadmap (HDR):** priorities and action lines to reduce GHG emissions,
- **National Adaptation Strategy (NAS)**: covers the assessment of the expected Hungarian effects of climate change and its natural, social and economic consequences and the climate vulnerability assessment of ecosystems and industries.

Hungary has adopted several other strategic documents, such as:

- the **National Energy Strategy** 2030 with an outlook to 2040 to reduce the importation of fossil energy. Its primary objective is to strengthen Hungary's energy independency. The strategy promotes clean, smart and affordable energy via climate-friendly transformation of the energy sector, further strengthening security of supply and fostering innovation, as well as economic development. It contains the implementation of six flagship programmes (further decarbonisation of the electricity sector, improvement of the energy efficiency of the economy, greening transport, energy-efficient and modern households, energy innovation pilot projects, awareness raising campaigns) and the ~40 measures that are needed,
- as requested by EU Commission to all Member States, the **National Energy and Climate Plan**[1] to define the path to meet EU 2030 climate and GHG emissions reductions commitments. This plan set for instance the following Hungarian targets to 2030: reduction of greenhouse gas emission by at least 40% compared to 1990; minimum 21 % share of renewable energy in final energy consumption; final energy consumption should not exceed the level of 2005 (785 PJ, if it exceeds, it will be covered from zero-carbon energy sources); decreased net import dependency rates: gas (around 70%), petroleum and oil products (maximum 85%), electricity (maximum 20%),
- the **Action Plan on Climate and Nature Conservation**, to achieve 90% share of the carbon neutral domestic produced energy by 2030, to strengthen the energy security and to ensure economic development and combat climate change,
- the **National Building Energy Strategy** to improve energy efficiency by reducing the energy consumption of buildings by implementing energy modernization of the domestic building stock, Strategy objectives include harmonisation with the energy and environmental objectives of the EU, modernisation of buildings, reducing energy poverty and reducing GHG emissions,
- the **National Water Strategy** (2014-2020), to define the main goals for development of water management taking into account hydrological conditions, sustainability and professional organisations of water management in Hungary. The strategy's goals include: improvement of water retention and demand/resource-management, rain water runoff and regulation systems to reduce risk of floods and droughts, rehabilitation of wetlands and oxbows, reconnection rivers to floodplains/side channels/tributaries with water supply and dredging, increasing habitat diversity, improvement river continuity for biota and sediment transport, using nature resources as renewable energy (water, thermal water) and also the public water utilities,
- the **National Biodiversity Strategy** (2015-2020) which sets objectives in several items such as the protection of areas and species, the maintenance of landscape diversity, green infrastructure, ecosystem services, agriculture, sustainable forest management, protection of water resources, as well as combating invasive alien species.

b. Hungary's current international commitments

Hungary was the first EU member state to ratify the **Paris Agreement** in 2016 and then committed to reduce its GHG emissions by 40% in 2030 (compared to 1990 levels). Hungary is well on track to reach this goal.

Comparison of EU and Hungarian targets for 2030 *(situation 2018)*

	EU 2030 targets[2]	Hungary 2030 targets[3]	Recent Hungary situation (2018)[4]
Reduction of GHG emission *compared to 1990*	min. - 40%	min. - 40%	- 33%
Share of RES in gross final energy consumption	min. 32%	min. 21%	12.5%

Source: EU Commission and UNFCC

[1] *English extract published on April 17, 2020, available here: http://cdr.eionet.europa.eu/hu/eu/mmr/art04-13-14_lcds_pams_projections/projections/*
[2] *https://ec.europa.eu/clima/policies/strategies/2030_en*
[3] *https://ec.europa.eu/energy/sites/ener/files/documents/hu_final_necp_main_hu.pdf*
[4] *https://unfccc.int/documents/226419*

In the context of the European Green Deal of December 2019, the Hungarian Government further committed to make the country climate-neutral by 2050 and to make climate neutrality the ultimate goal of the **National Clean Development Strategy 2050,** to be finalised by the end 2020. In order to achieve this goal, the country plans to:

- reduce GHG emissions by 95% until 2050 compared to 1990 levels
- compensate the remaining 5% by enlarging sink capacities, mainly by afforestation.

New EU and Hungarian targets *(post European Green Deal in December 2019)*

	EU targets	Hungary targets
2030 GHG emission reduction *(compared to 1990)*	- 50-55%	min. - 40%
2050 goal	Net zero GHG emissions	Net zero GHG emissions
2050 GHG emission reduction *(compared to 1990)*	-	- 95%

According to estimations, achieving this goal may cost approx. HUF 50 000 bn (~EUR 139 bn) i.e. 2 to 2.5% of the annual GDP. A part of such investment needs will be funded by the private sector, while another part is provided by EU funding, by the sale of CO_2 quota in the European Emissions Trading System ("EU ETS"), or is supported by the State Budget and will be partially financed by issuing Green Bonds under this Green Bond Framework.

III. Hungary's Sustainable Finance agenda

Hungary is aware of the necessity to finance the transition to a low carbon economy and the key role of sustainable finance and Green Bonds in particular. Green Bonds provide investors with an opportunity to diversify their fixed-income portfolios with a financial instrument dedicated to the funding of green projects and providing impact reporting.

Hungary has already demonstrated early support to the Green Bond market through the initiative of its central Bank – *Magyar Nemzeti Bank* –, which became in June 2019 the first Central Bank worldwide to announce the set-up of a dedicated Green Bond portfolio, as an investor. Sovereign green bonds of Hungary, as an issuer, should provide a further signal of support to international and local markets.

Hungary supports the development of standardisation and transparency in sustainable finance, and Green Bonds in particular. This Green Bond Framework has been designed to align with the forthcoming EU Green Bond Standard and international best market practices.

All of Hungary's Green Bonds will be issued in line with the conventional sovereign Bonds of the Hungarian State and will refer directly to this Green Bond Framework for the use of proceeds and reporting commitment. As all frequent capital markets issuers, Hungary is also focussed on the diversification of its investor base; thereby, including investors in the financing of the sustainable projects of Hungary would provide a reliable and growing support. Hungary's strategic ambitions to issue Green Bonds in several international markets such as the Euro, Japanese Samurai and Chinese Panda markets will add on its investor diversification efforts. Hungary is considering Green Bond issuance in the domestic bond market (in Hungarian Forint) as well in the medium to long term. Prospectively, Hungary's endeavour to diversify its institutional investor base will pave the way to form domestic retail green bond programmes as well.

IV. Green Bond Framework

The Green Bond Framework of Hungary is in line with the voluntary guidelines of the Green Bond Principles (2018 edition) published by the International Capital Markets Association ("ICMA") and intends to align with the most recent market practices, in particular the proposed EU Green Bond Standard by the EU TEG[5]. The Japanese Ministry of Environment Green Bond Guidelines[6] and the

[5] *https://ec.europa.eu/info/files/190618-sustainable-finance-teg-report-green-bond-standard_en*
[6] *http://www.env.go.jp/policy/guidelines_bond_version.pdf*

Guidelines on Green Note of Non-Financial Enterprise published by the Chinese National Association of Financial Market Institutional Investors ("NAFMII")[7] are also taken into consideration when developing this Framework.

For the governance of Hungary's Green Bond Framework, the Ministry of Finance in cooperation with the Government Debt Management Agency of Hungary ("ÁKK") has set-up a Steering Committee ("SC") and an Inter-Governmental Working Group ("IWG") composed by senior officials and representatives respectively of the following Ministries:

- Ministry of Finance (Chair)
- Ministry of Innovation and Technology, responsible in particular for energy and transport policies
- Ministry of Agriculture
- Ministry of Interior
- ÁKK

a. Use of Proceeds

An amount equal to the net proceeds of Hungary's issuances under this framework is intended to finance or refinance expenditures within Hungary's central government budget contributing the transition to a low carbon, climate-resilient and environmentally sustainable economy ("Eligible Green Expenditures").

Eligible Green Expenditures might include investment expenditures, intervention expenditures, tax expenditures and selected operating expenditures. Eligible Green Expenditures may also include expenditures towards government agencies and other public sector entities, providing that these entities do not raise any Green funding themselves. Furthermore, budget expenditures which already obtain dedicated funding (e.g. a dedicated tax, proceeds from sale of EU ETS allowances or EU funding) are excluded.

Eligible Green Expenditures should fall within the definition of one of the six Green Sectors below:

Green Sector	Definition of Eligible Green Expenditures	Main State Operational Programmes and budget expenses
Renewable Energy  **EU Environmental Objective:** 1. Climate Change Mitigation	Expenditures to support the development of renewable energy generation, such as: - Solar - Wind - Geothermal (with direct emissions ≤ 100g CO^2e/kWh) - Biomass, Biogas or Biofuels (with direct emissions ≤ 100g CO^2e/kWh) - Other sources such as heat-pump - Excluding waste-to-energy	*Competitive Central-Hungary Operative Programme ("VEKOP"):* - Subsidies or subsidised loans dedicated to installation of renewable energy in for SMEs and private individuals *Environmental and Energy Efficiency Operative Programme ("KEHOP")* - Subsidies to state-owned energy company MVM - Subsidies to renewable energy projects in public sector buildings

7 http://www.nafmii.org.cn/english/lawsandregulations/selfregulatory_e/201801/t20180110_67080.html

Green Sector	Definition of Eligible Green Expenditures	Main State Operational Programmes and budget expenses
Energy Efficiency  **EU Environmental Objective:** 1. Climate Change Mitigation	Expenditures to support energy efficiency improvement in the public and private sector	*Environmental and Energy Efficiency Operative Programme ("KEHOP")* - Investments in energy efficiency retrofitting measures in public buildings, including improvement on thermal insulation *Warm at Home Programme (Épületenergetikai pályázati program*) - Subsidies to purchase energy-efficient electrical appliances (EU Energy Label of A+, A++; A+++) *Rural Development Program (15% co-financed with the EU)* - Investments in energy efficiency equipment in the agricultural and food sectors - Support to individual farm owners and local institutions to implement energy efficiency measures through education and advisory services *Operational Program for Economic Development and Innovation ("GINOP")* - Subsidies to SMEs focusing on energy efficiency solutions
Land Use and Living Natural Resources  **EU Environmental Objectives:** 1. Climate Change Mitigation 6. Protection of Healthy Ecosystems	Expenditures to promote sustainable agriculture, biodiversity and preservation of living natural resources	*National Environmental Protection Programme and the National Biodiversity Strategy* - Subsidies and operational expenditures in support of National Parks, NGOs dedicated to nature conservation, local governments and scientific institutions *Rural Development Programme (15% co-financed with the EU)* - Investments in forest management - Agri-environmental payments to farmers for using environment/climate-friendly land management practices, including organic farming - Area-based payments to support areas facing natural constraints or Natura 2000 management - Support to individual farm or forests owners to implement sustainable land use practices through education and advisory services

Green Sector	Definition of Eligible Green Expenditures	Main State Operational Programmes and budget expenses
Waste & Water Management  **EU Environmental Objectives:** 3. Sustainable use and protection of water and marine resources 4. Transition to a circular economy 5. Pollution prevention and control	Expenditures to support, water treatment and supply; waste management; and waste water collection and treatment	*Local operators and NGOs support* - Investments and subsidies to municipalities and local utilities to support water and waste management services - Ecological monitoring (including air and water quality and biodiversity) *State Reconstruction Fund for Water Utilities* - Intervention expenditure to support reconstruction of drinking water and wastewater pipelines *Environmental and Energy Efficiency Operative Programme ("KEHOP")* - Investment in environmental remediation of the polluted sites *Irinyi Plan* - Subsidies to SMEs to technology development in waste separation and reutilisation as energy resource *Rural Development Programme (15% co-financed with the EU)* - Subsidies to individual farm owners and local institutions to increase water efficiency
Clean Transportation  **EU Environmental Objectives:** 1. Climate Change Mitigation	Expenditures to promote clean transport services and modal shift towards public transportation	*Integrated Transport Operational Programme* - Investment expenditures related to the extension, improvement and maintenance of the rail infrastructure such as railway tracks, electric power stations, bridges, signalling networks - Investment in electric rolling stocks and high capacity passenger trains - Investment in metro, tram and bus lines development and upgrade - Financing of the railway public transport services (i.e. the public service share of the railway infrastructure management and operation, as per EU Directive) - Registration tax exemption for electric and plug-in hybrid vehicles for private individuals
Adaptation  **EU Environmental Objective:** 2. Climate Change Adaptation	Expenditures to develop climate change extreme weather events observation systems and support adaptation related infrastructure	*Environmental and Energy Efficiency Operative Programme ("KEHOP")* - Monitoring and information system on Hungarian water resource and flow conditions, facing climate change *Meteorological services* - Air quality protection

Any expenditure related to the following activities will be excluded from Green Eligible Expenditures:

- Nuclear power
- Armament and defence sector
- Fossil fuel production and power generation

b. Process for Expenditure Evaluation and Selection

The evaluation and selection of Eligible Green Expenditures is performed on an annual basis by the IWG. Each relevant ministry is requested to provide a list of budget expenses with the necessary level

of details to demonstrate alignment with Hungary Green Bond Framework's definition of Eligible Green Expenditures (i.e. in line with section 2.a. above). The IWG reviews the potential eligible expenditures, verifies whether the expenditures comply with the criteria and definition of Eligible Green Expenditures. The Ministry of Finance is in charge of coordinating the process.

Steering Committee approves the selected expenditures as Eligible Green Expenditures.

Process for Eligible Green Expenditures evaluation and selection	
Steering Committee and IWG chairmanship **Coordination of identification process**	Ministry of Finance
Identification of potential green budget expenses	Each relevant ministry, and in particular: • Ministry of Finance • Ministry of Innovation and Technology • Ministry of Agriculture • Ministry of Interior
Evaluation and selection of potential green expenditures	Inter-Governmental Working Group
Approval of Eligible Green Expenditures	Steering Committee

c. Management of Proceeds

The Ministry of Finance is in charge of Green Bonds proceeds management, which will be performed annually on a notional basis, as follows:

IWG will collect the data and monitor the level of Eligible Green Expenditures, which may include expenditures i) within the 2 budget years preceding the year of issuance, ii) made in the same year as the issuance and/or iii) future budget expenditures.

The allocation of the proceeds of the Green Bonds issued by Hungary will be reviewed by the IWG and approved by the Steering Committee, on an annual basis and until full allocation. For that purpose, IWG will hold meetings on a regular basis, and Steering Committee will meet annually.

The smooth process management will be supported by a Rules of Procedures set up among the participating ministries which would lay down the procedure, the responsibilities and the division and schedule of tasks.

Pending the full allocation of the proceeds of the newly-issued Green Bonds to Eligible Green Expenditures, the Ministry of Finance will keep record of the unallocated proceeds

In specific cases, such as the potential issuance of Green Panda bonds, the Green Bond allocation process will be adjusted to satisfy the local reporting requirements.

Process for Management of Proceeds	
Data collection and monitoring of Eligible Green Expenditures	Inter-Governmental Working Group
Approval of proceeds allocation	Steering Committee
Keeping record of unallocated Green Bonds funding	Ministry of Finance

d. Reporting

Hungary is committed to provide investors with transparent reporting:

- on the allocation of proceeds towards Eligible Green Expenditures ("Allocation Reporting") on an annual basis and
- on the environmental impact of those expenditures ("Impact Reporting") after the full allocation of the bond proceeds or more frequently as Hungary deems necessary

(together the "Green Bond Report").

The IWG is responsible for the preparation of the Green Bond Report, which is intended to be published in Q4 each year following the annual State Budget audit and available on the ÁKK's website Green Bond section. Hungary may choose to report on allocation on more frequent basis to accommodate for specific regulatory requirements of local markets, such as NAFMII's Guidelines, in the case of the issuance of Green Panda Bonds.

Each relevant Ministry will collect the reporting data and draft the Green Bond Reports sections. Each relevant Ministry is responsible to monitor the allocation of respective Green Eligible Expenditures in cooperation with their Budget Department. The IWG will be responsible for the review and the Steering Committee will be responsible for the validation of the Green Bond Report. The Ministry of Finance is in charge of coordination.

The ÁKK will coordinate the review process of the Allocation Reporting by an independent third-party, ahead of final validation by the Steering Committee (see section V. b.).

Process for Green Bond reporting	
Coordination of reporting process	Ministry of Finance
Data collection and Green Bond Report drafting	Each relevant ministry, and in particular: • Ministry of Finance • Ministry of Innovation and Technology • Ministry of Agriculture • Ministry of Interior
Review and pre-validation	Inter-Governmental Working Group
External review[8]	CICERO Shades of Green
Final validation	Steering Committee

In addition to basic information (e.g. ISIN references, reporting period, frequency of reporting and name of the external providers), the **Allocation Reporting will include information on the Green Bonds**, such as the total proceeds raised, the amount allocated to Eligible Green Expenditures as of the end of the reporting period and its breakdown by green sectors.

The **Impact Report will provide information on the Eligible Green Expenditures**, based on existing publicly available data and subject to the availability of the relevant information. The approach to impact reporting may be updated over time to align with emerging reporting standards and depending on Hungary's own information reporting and collection system. The Impact Report aims to provide information on output indicators, such as the contribution to EU Environment Objectives and others indicators indicated in the table below. Environmental impact indicators are expected to focus on carbon impact metrics (GHG emissions avoidance) where it can be quantified. For illustration purposes, the Impact Report may provide information such as:

Eligible Green Expenditures	Impact reporting indicators Output indicators	Environmental impact indicators
Renewable Energy	- # of projects - Total renewable energy capacity (in MW)	- Annual energy production (in MWh) - Annual GHG emission avoidance (in CO_2 equivalent)
Energy Efficiency	- # of applications - # and nature of beneficiaries - # of building subject to energy performance improvements	- Annual energy savings (in MWh) - Annual Greenhouse Gas emission avoidance (in CO_2 equivalent)
Land Use and Living Natural Resources	- # of Natura 2000 sites - Hectares of sustainable forest - Hectares and share of protected areas	-
Waste & Water Management	- Water networks efficiency rate - Rate of water network leakage	-

[8] *See section V "External Review" below*

	- Amount of waste diverted from landfill	
Clean Transportation	- KM of new public transport lines created / maintained - Number of people in new environmentally friendly means of transportation	- Annual energy savings (in MWh) - Annual GHG emission avoidance (in tonnes of eq. CO_2 per passenger/tonne-km)
Pollution Prevention and Control	- # of polluted sites under remediation - # and nature of ecological monitoring projects	-
Adaptation	- # and nature of projects that support climate change adaptation / resilience	-

V. External Review

Hungary is providing pre-issuance verification and will seek to provide post-issuance review. Hungary will also consider to engage external reviewer(s) as deemed necessary to fulfil local issuance requirements.

a. Green Bond Framework pre-issuance verification

Hungary has engaged CICERO Shades of Green to provide an independent Second Party Opinion on this Green Bond Framework. Second Party Opinion documents are publicly available, and updated as the case may be, on the ÁKK website Green Bond section.

b. Allocation Reporting post-issuance review

Hungary will engage an independent third party to provide assurance on the Allocation Reporting and its conformity with this Green Bond Framework. The initial Allocation Reporting is expected to be provided by CICERO Shades of Green. This process will be made on an annual basis until full allocation.