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COMMISSION STAFF WORKING DOCUMENT

Analysis of the recovery and resilience plan of Hungary

Accompanying the document

Proposal for a COUNCIL IMPLEMENTING DECISION

**amending Implementing Decision (EU) (ST 15447/22 INIT; ST 15447/22 ADD 1) of 15
December 2022 on the approval of the assessment of the recovery and resilience plan for
Hungary**

{COM(2023) 748 final}

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1. EXECUTIVE SUMMARY

Hungary was significantly impacted by the effects of Russia's war of aggression against Ukraine, mainly due to Hungary's large reliance on fossil energy imports. The rising energy import bill worsened the current account deficit to 8.3% of GDP in 2022 from 4.2% in 2021. Real GDP grew by 4.6% last year, bolstered by fiscal stimulus, while the employment rate of the 15-64 age group rose to a historic high of 74.4% in 2022. However, higher energy prices pushed annual average inflation up to 15.3%. Declining real incomes and higher interest rates have pushed the economy into recession from the second half of 2022.

Hungary submitted a modified recovery and resilience plan including an additional loan element which is almost entirely used for REPowerEU objectives. For the modification of its Recovery and Resilience Plan (RRP), Hungary has relied on three legal bases of the Regulation (EU) 2021/241. First, the modification relies on a request for additional loans in accordance with Article 14(2) of Regulation (EU) 2021/241 amounting to EUR 3.9 billion. Second, Hungary provided a reasoned request to the Commission to make a proposal to amend the Council Implementing Decision on the basis of Article 21(1) of Regulation (EU) 2021/241 rely on limited elements of the modification are built upon the legal basis of Article 21(1) of Regulation (EU) 2021/241, due to objective circumstances affecting a limited number of measures. Hungary provided a reasoned request to the Commission to make a proposal to amend the Council Implementing Decision. Finally, in accordance with Article 21c of Regulation (EU) 2021/241 Hungary included a REPowerEU chapter in its recovery and resilience plan in order to benefit from the additional available resources from ETS revenues.

The REPowerEU chapter contains measures to help address important energy challenges that Hungary is currently facing and to increase its energy savings and renewable potential. The proposed measures comprise 13 reforms and 16 investments. A large part of the reforms focuses on improving the electricity system. These include the setting up of dynamic pricing in the retail electricity market, strengthening the role of energy communities and aggregators, improving regulatory reserve markets, incentivising the uptake of electricity storage, enhancing the range of consumers that are to use smart meters and harmonising the way the connection application rules are applied by the DSOs. The plan includes an ambitious target for grid connection authorisation for power plants based on renewable energy sources. Other reforms include measures aiming at levelling the playing field between households wishing to apply to EU-funded energy efficiency support schemes by providing technical assistance for their applications, supporting legislative environment for hydrogen production and use, improving the geothermal regulatory framework, developing a strategy for biogas and biomethane with biomethane action plan, as well as a national strategy on skills for the green transition and an action plan. Investments range from the strengthening of the electricity grid to enable the integration of energy from renewables, deployment of renewables, fossil-free hydrogen production and use, upskilling and reskilling workforce for the green transition skills to sustainable transport. The chapter also contains investments in decarbonising the industry and in the production capacity of products that are targeted at the transition towards the net-zero industry. Hungary also aims to set up financial instruments to stimulate private investment in the energy efficiency sector, to improve geothermal energy exploitation as well as to boost the rollout of recharging stations for electric vehicles and the uptake of electric vehicles by the private sector.

Based on the assessment of the submitted modification and the REPowerEU chapter, the Hungarian modified plan receives an A-rating on all criteria, except for costing, where the plan receives a B-rating (unchanged from the assessment of the original plan). Regarding the new assessment criteria that are relevant exclusively for the REPowerEU chapter, a rating A is warranted. Most REPowerEU measures contribute to the climate target. The REPowerEU measures are expected to effectively contribute to energy security, the diversification of the Union's energy supply, an increase in the uptake of renewables and in energy efficiency, and the necessary reduction of dependency on fossil fuels before 2030. All REPowerEU measures address at least one REPowerEU objective listed in article 21(c) of the RRF Regulation. Finally, most REPowerEU measures can be considered as having a cross-border dimension, which would be above the 30% threshold.

(1) Balanced Response	(2) CSRs	(3) Growth, jobs...	(4) DNSH	(5) Green target	(6) Digital target	(7) Lasting impact	(8) M & T	(9) Costing	(10) Control Systems	(11) Coherence	(12) REPowerEU	(13) Cross- border
A	A	A	A	A	A	A	A	B	A	A	A	A

2. OBJECTIVES OF THE MODIFICATION OF THE PLAN

2.1 Main newly emerged challenges for Hungary and how they are addressed

The high energy import dependency, low share of renewables and low energy efficiency of buildings create a challenge for the Hungarian economy. Hungary relies heavily on Russia for fossil fuels as well as nuclear and its efforts to shift away from Russian dependence are slow. Three quarters of domestic gas consumption is covered by imports from Russia. Decreasing dependency on Russian fossil fuels will require significant additional action. Electrification and the envisaged investment in energy-intensive industries will increase the need for electricity production. Despite the significant increase in solar energy capacity in recent years, the share of renewable energy capacity is still one of the lowest in the EU. Geothermal energy has been underutilised. The frequently changing regulatory environment poses several challenges to the development of renewable energy. In addition, the limitations of the electricity grid's capacity create a significant bottleneck for connecting renewables to the grid, while the lack of flexibility solutions on the demand and supply sides, and limited consumer empowerment, create a major constraint on the development of clean, renewable electricity production. Suboptimal integration into the EU balancing market is also a missed opportunity to optimise the grid for additional renewables capacity.

Hungary's modified RRP adds a new REPowerEU chapter with 13 reforms and 16 investments. In this chapter, measures are related to the strengthening of electricity grid to enable the integration of energy from renewables, increasing the deployment of renewables, improving households', companies' and the public sector's energy efficiency, decarbonising the industry and sustainable transport. The reforms aim at strengthening the electricity sector. The reforms and investments in this chapter address most of the challenges in the field of green transition and

energy, therefore, the implementation of these measures will help Hungary in the decarbonisation challenge.

In the modified RRP Hungary requested to change a limited number of existing measures in the plan based on objective circumstances. These amendments concern investments in water management, sustainable transport, energy and circular economy.

2.2 New and modified components and their associated estimated costs

Component 1: Demography and public education

Based on Article 14(2) of the RRF Regulation, as part of its loan request, Hungary proposes scaling up one already existing measure, by increasing the estimated costs of the measure by EUR 20,9 million. In particular, the modified RRP increase the number of places in creches by 519 on top of the additional places envisaged in the measure C1.I4 Creation of new crèche places. Hungary plans to use in the form of loan from the RRF to create the additional places in creches. The modification will address further the challenges related to integrating the most vulnerable groups into the labour market.

Component 4: Water management

Based on Article 21 of the RRF Regulation the plan proposes removing Investment 1 – Construction of main water replacement systems, development of new networks and systems (C4.I1). The request is justified under Article 21 by the fact that the cost of the investment is significantly higher than expected. Hungary intends to reallocate the freed-up fund to scale up the electricity grid development (C6.I1) and to compensate for cost increase of the water monitoring system investment (C4.I2).

Component 5: Sustainable transport

Hungary proposes to modify all five measures of this component (four investments and one reform) under Article 21 and to add one new investment. The ambition of the suburban rail network in Budapest (C5.I1) is decreased by reducing the number of km of railways renovated and by removing a number of elements of this investment (parking places, converters, etc). The cost estimate for this investment is modified and overall reduced. The railways central traffic management system (C5.I4) would be implemented in three instead of four railway sections. Despite this change, the cost estimate of this investment is increased. Hungary proposes to add a new measure to support sustainable mobility in Budapest, including the purchase of 51 new trams and the development of infrastructure of trams and trolley buses. The timeline of all the measures is postponed due to implementation difficulties.

Component 6: Energy

Based on Article 21 of the RRF Regulation, the modified plan removes the investment related to storage facilities to be installed by the Hungarian transmission system operator and the distribution system operators (C6.I3) by EUR 147 million, due to objective circumstances, namely the lack of applicants to the related call. The measure is replaced by a scaled-up measure to improve the electricity grid to be able to integrate additional energy from renewables (C6.I1). The latter

investment will benefit from funds that become available due to the cancellation of investments in the water management and the circular economy component of the plan. In total, the allocation of funds to this investment by Hungary will increase by about EUR 255 million. The plan also modifies the scheme supporting the installation of grid energy storage facilities for market participants (C6.I4) by changing the aid structure to such projects. The intensity of the investment aid to be granted under the RRF measure is lowered, which results in higher investment volumes. Thus, the ambition of the investment is increased, and the initial target is modified from 311 MWh to 885 MWh. The costs for the measure C6.I2. ‘Support for the use of residential solar panels and heating modernisation’ have significantly changed due to high inflation. In addition, Hungary reduces the ambition of this measure. The reduced ambition means that instead of 34 920 only 30 674 households will receive funding for their solar panel systems. Of these only 7 385 - instead of 11 600 - households will receive support for electric heating systems, window replacement and storage unit in addition to the solar panel system. Hungary will use the funds made available from the above reduction to support energy efficiency improvements of public buildings.

The reform regarding the introduction of separate accounting for the electricity fed into the grid and electricity consumed from the grid will also be amended. In particular, the amendment introduced provides that it will not be required for new prosumers receiving public financial support for the installation of their solar panel systems to use this separate accounting system as from 1 January 2023. Instead, the amendment provides that all existing prosumers will gradually move to the separate accounting system after a 10-years transition period starting at the time of installation of the solar panels. In addition, any new consumers having submitted their connection application after 7 September 2023 will apply the separate accounting system.

Component 7: Circular economy

On the basis of Article 21 of the RRF Regulation, Hungary requested to remove measure C7.I1 Strengthening a smart, innovative and sustainable waste management industry and secondary raw materials market, involving the construction of a plastic chemical recycling plant, because in view of supply chain disruptions, the measure requires a longer implementation period which exceeds the timeframe of the RRF. Hungary has also requested to use the freed-up resources to introduce a new measure aiming to improve the separate collection of municipal waste by investing in separate waste collection infrastructure. The rest of the freed-up funds will be used for further electricity grid development. Beyond the freed-up resources, a new reform on awareness raising is also added, which entails the development of a national framework communication strategy for local awareness raising measures.

Component 10: REPowerEU

The REPowerEU chapter is a new component of the plan. It includes 13 reforms and 16 investments.

Table of new and modified components and associated costs.

Component	Status	Costs (EUR million)
1: Demography and public education	Modified	661

Component	Status	Costs (EUR million)
2: Highly qualified, competitive workforce	Unchanged	692
3: Catching-up settlements	Unchanged	225
4: Water management	Modified	38
5: Sustainable green transport	Modified	1 444
6: Energy – green transition	Modified	1 334
7: Circular economy	Modified	60
8: Health	Unchanged	1 306
9: Governance and public administration	Modified	66
10: REPowerEU	New	4 603
Total:		10 430

2.3 Other elements not covered by assessment criteria

The description of the plan of the consultation process, security self-assessment for digital investments and the planned communication strategy as detailed in the previous Staff Working Document SWD (2022) 686 remains relevant.

Consistency with other initiatives

The modified RRP of Hungary provides detailed justification for its consistency with the objectives and priorities of other initiatives, such as the National Energy and Climate Plan, the Partnership Agreement with Hungary, the Operational Programmes of Hungary, the Just Transition Fund, the National Reform Programme of Hungary, and the Youth Guarantee Programme. The modified RRP of Hungary explains how these funds and the RRP would cover different objectives and how they are delineated from each other.

The measures in the REPowerEU chapter complement, are consistent with and will contribute to achieving the updated 2030 targets as set out in the forthcoming update of the Hungarian National Energy and Climate Plan.

National arrangements for the implementation of the plan

The previous description of the implementation and monitoring aspects of the plan, as detailed in the previous Staff Working Document SWD (2022) 686 remains relevant. Concerning the EUR 1.53 billion allocated to financial instruments in the modified RRP, the management of the instruments will be the responsibility of an Implementing Partner (the Hungarian Development Bank) with a proven track record and operational capacity. The governance arrangements will ensure that the instruments are managed in a manner that is transparent, independent, and market-conform.

Gender equality and equal opportunities for all

The previous description of the Hungarian RRP's focus on gender equality and equal opportunities for all, as detailed in the previous Staff Working Document SWD (2022) 686, remains relevant.

In addition, the modified RRP contains measures to skill and upskill workforce needed for the green transition, including through micro-credentials courses. In selecting training participants in green skills courses, priority is expected to be given to unemployed, inactive labour force and workers from micro and small enterprises, thus ensuring equal opportunities for all. The modified plan also includes a scaled-up investment to create new creche places in addition to those envisaged in the initial RRP. This measure aims to contribute to higher employment rates among parents, notably women, thus increasing gender equality and social inclusion.

Stakeholder consultation

Hungary indicated that it had conducted dialogues with professional, social and economic organisations during the preparation of its REPowerEU chapter. The discussions on the REPowerEU chapter were occasionally linked to consultations on the National Energy Strategy and the National Energy and Climate Plan. Hungary launched a consultation on its intended REPowerEU chapter 28 July 2023, open until 11 August 2023¹. Fourteen civil organisations, public and private companies as well as the municipality of Budapest provided observations on the dedicated web page. Six comments were submitted to the government via other communication channels. The dedicated web page provides access to the observations received via the dedicated digital channel, together with the explanation of the government on whether and how the comments were taken into account. Most comments received from stakeholders related to fossil fuel and energy efficiency investments. Hungary described its consultation process and the stakeholders who provided their opinion during the process as part of the submitted.

State aid

State aid and competition rules fully apply to the measures funded by the Recovery and Resilience Facility. Union funds channelled through the authorities of Member States, like the RRF funds, become State resources and can constitute State aid. When this is the case and State aid is present, these measures must be notified and approved by the Commission before Member States can grant the aid, unless those measures are covered by an existing aid scheme or comply with the applicable conditions of a block exemption regulation, in particular the General Block Exemption Regulation (GBER) declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 TFEU². When State aid is present and it requires notification, it is the duty of the Member State to notify State aid measures to the Commission before granting them, in compliance with Article 108(3) TFEU. In this respect, the State aid analysis carried out by Hungary in the recovery and resilience plan cannot be deemed a State aid notification. In as far as Hungary considers that a specific measure contained in the recovery and resilience plan entails de minimis

¹ Hungary published its consultation at:

<https://www.palyazat.gov.hu/kozlemenyek/rrf-repower-eu-tarsadalmasitasa>

² Annex to the Communication to the Commission of 9 March 2023 on the Approval of the content of a draft for a Commission Regulation amending Regulation (EU) 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty and Regulation (EU) 2022/2473 declaring certain categories of aid to undertakings active in the production, processing and marketing of fishery and aquaculture products compatible with the internal market in application of Articles 107 and 108 of the Treaty; available at: https://competition-policy.ec.europa.eu/system/files/2023-03/GBER_amendment_2023_EC_communication_annex_0.pdf

aid or aid exempted from the notification requirement, it is the responsibility of Hungary to ensure full compliance with the applicable rules.”

3. SUMMARY OF THE ASSESSMENT OF THE PLAN

3.1. Comprehensive and adequately balanced response to the economic and social situation

The modified RRP, including the REPowerEU chapter, cover in a comprehensive manner the six pillars structuring the scope of application of the Facility: (i) green transition, (ii) digital transformation, (iii) smart, sustainable and inclusive growth, (iv) social and territorial cohesion, (v) health and economic, social and institutional resilience, and (vi) policies for the next generation. The coverage of the Hungarian plan’s components towards the six pillars is summarized in table below. All pillars are covered by at least one component, while a component may contribute to several pillars.

The range of actions of the modified RRP, including the REPowerEU chapter corresponds to the objectives of the Facility with an appropriate overall balance between pillars. The allocations to green and digital transitions (of respectively 67,1% and 29,1%) exceed the requirements of the RRF Regulation (respectively 37% and 20%), and the modified plan therefore contributes significantly to those objectives.

The measures included in the modified plan and REPowerEU chapter contribute to the following pillars:

Green transition

The RRP revision presents reforms and investments aiming at decarbonising the economy and strengthening energy independence, security, and efficiency. The REPowerEU chapter includes 4 main intervention directions: (i) the development of energy infrastructure to facilitate the further deployment of renewable energy sources; (ii) greening industry as a major energy user and boosting green economic capacities; (iii) increasing the use of renewable energy and improving energy efficiency of households, companies and the public sector; and (iv) promoting alternative mobility both electric and hydrogen. In addition, dedicated reform and investment are directed to the development of green skills through skilling, upskilling and reskilling the workforce and increasing public awareness on energy and environmental issues. The removal of investments “Construction of main water replacement systems, development of new networks and systems”, “Strengthening a smart, innovative and sustainable waste management industry and secondary raw materials market” and of the investment “Installation of energy storage facilities for the transmission system operator and distribution system operators” lower Hungary’s ambition in the dimensions of water management, secondary raw materials as part of circular economy, and energy storage.

Digital transformation

The digital transformation still represents a significant part of Hungary’s modified RRP and the ambition has not been reduced compared to the initial plan. The modified RRP continues to significantly contribute to the digital targets through investments in digital infrastructure, skills

development programmes and related education content and materials, deployment of digital information systems in transport systems, digitalisations in the energy sector and water management monitoring systems.

Smart, sustainable and inclusive growth

The modified RRP includes several measures spread across different components aiming to strengthen Hungary's competitiveness and productivity, as well as to improve research, development and innovation.

Policies for the next generation

Several measures under the REPowerEU chapter support the improvement of social and economic well-being through investments in green and digital skills of youth and adults. For example, reform and the associated investment include measures supporting skilling, upskilling and reskilling the current and future workforce to acquire green skills based on labour market needs, as well as increasing public awareness on energy and environmental issues.

Social and territorial cohesion

Among the interventions under the sustainable green transport component, the development of suburban and regional railway networks is expected to increase social mobility and achieve territorial reintegration of regions previously lagging behind. The energy component includes dedicated measures in the form of energy efficiency subsidies for low-income households to support use of sustainable heating systems. Under the REPowerEU chapter, the financial instrument in the residential energy efficiency sector will reserve a share of support for energy poor households.

	Green transition	Digital transformation	Smart, sustainable & inclusive growth	Social and territorial cohesion	Health, and economic, social and institutional resilience	Policies for the next generation
Demography and public education		○				●
Water management	○	○	○	○	○	
Transport	●	○	●	○		○
Energy	●		●	●	○	
Circular economy	●		○			
REPowerEU	●	●	●	●		●

Key: "●" investments and reforms of the component significantly contribute to the pillar; "○" the component partially contributes to the pillar

Taking into consideration all reforms and investments envisaged by Hungary, its modified recovery and resilience plan, including the REPowerEU chapter, continues to represent, to a large extent, a comprehensive and adequately balanced response to the economic and social situation,

thereby contributing appropriately to all six pillars referred to in Article 3 of the RRF Regulation, taking the specific challenges and the financial allocation of Hungary into account. This would warrant a rating of A under criterion 2.1 in Annex V to the RRF Regulation.

3.2. Link with country-specific recommendations and the European Semester

The REPowerEU chapter is addressing almost all the energy-related challenges identified in the European Semester. As the size of the plan increased following an additional loan request intended to be used not exclusively for REPowerEU objectives, all 2022 and 2023 structural recommendations are considered in the overall assessment. The loan part will be used almost exclusively for REPowerEU objectives. Therefore, the assessment is focused on energy-related recommendations. The modified RRP changes a limited number of investments under Article 21 of the RRF Regulation. These changes do not affect the overall level of ambition of the plan with regard to addressing all or a significant subset of challenges identified in country-specific recommendations. While the adopted RRP addressed already the energy related country-specific recommendations of 2022, the additional reforms and investments in the new REPowerEU chapter increase the ambition level by which the relevant recommendations are addressed. In addition, the REPowerEU chapter addresses most of the new energy related country-specific recommendations of 2023.

The REPowerEU chapter includes reforms and investments with the objective to accelerate the deployment of renewables, in particular by streamlining the permitting procedures (CSR 2022 6.2 and CSR 2023 4.2). The reform on renewing the product structure of regulatory reserve markets will facilitate market access for traditional, non-traditional and renewable energy producers thereby increasing the efficiency of the balancing market. The legal incentives for the uptake of energy storage will simplify the process and requirements for grid connection and operation of energy storage. The simplification for the market entry and the operation of energy communities and aggregators will strengthen their role in the electricity market. The introduction of dynamic pricing in the residential sector on a voluntary basis will allow for demand side response, where consumers will have the possibility to make use of their flexibility by consuming at different points in time depending on the price of electricity. The roll-out of smart meters included both in the energy component and the REPowerEU chapter will be a key enabler for the introduction of dynamic pricing in the retail sector. The electricity grid connection procedure will be harmonised to establish a standardised approach to be applied by all distribution system operators when treating the applications for the electricity grid connection procedure. The REPowerEU chapter increases the ambition for grid connection authorisations issued for power plants based on renewable energy sources and raises the target envisaged in the initial plan of 10 GW to 12 GW by 2026. The new legal framework for hydrogen will encourage the development of a renewable hydrogen ecosystem in Hungary, particularly focused on the domestic production of renewable hydrogen, with industry and transport sectors. The geothermal energy regulatory framework will be reviewed to encourage geothermal research in industrial, urban and district heating, in light of the lower geological risk related to them. The greening of industrial parks for energy purposes will contribute to the deployment of renewables, development of microgrids, improvement of energy efficiency, the uptake of energy storage and the use of residual heat. One

investment in the plan supports renewable hydrogen production and the use of hydrogen for mobility. Another investment aims to increase the uptake of geothermal energy and improve access to finance in Hungary's geothermal energy sector.

Several measures in the REPowerEU chapter serve to upgrade the electricity infrastructure (2022 CSR 6.3 and 2023 CSR 4.5). This chapter also includes investments on electricity network development, which increases the ambition of the existing measure in the RRP. This investment will develop the electricity network to ensure integration of additional capacities from renewable energy sources. The chapter also adds further investments into smart meters and increases the related targets significantly. The digitalisation of the electricity network will address the challenges stemming from the reliance on different energy sources, security of supply and cost-efficiency considerations, industry-wide monitoring and data management necessities.

Several investments in the REPowerEU chapter improve the energy efficiency of buildings (CSR 2022 6.5 and CSR 2023 4.7) and these are additional measures to the ones in the other components of the plan. These additional measures include a financial instrument to improve the energy efficiency of residential buildings. Another investment in the plan aims at improving the energy performance of public buildings by improving the thermal performance of buildings, reducing heat loss; modernization of heating, implementing digital energy management systems to reduce energy demand. The plan includes a support scheme for companies to improve the energy efficiency of buildings and their production flow.

Investments in the REPowerEU chapter contribute to further addressing the challenge related to improve the sustainability of transport (CSR 2022 6.6). The REPowerEU chapter consists of an investment in the electrification of railways to reduce reliance on fossil fuels in the local transport system. It also includes subsidies for boosting the private sector's uptake of electric vehicles and recharging stations.

The REPowerEU chapter contains reform and investment on skilling, upskilling and reskilling the workforce to acquire green skills, which contribute to addressing the relevant country-specific recommendations (CSR 2022 5.3 and CSR 2023 4.9). As part of the investment at least 40 new green skills content will be developed for courses that shall be integrated into formal education and least 50 000 professionals will participate in adult training for green skills.

The modified RRP increases the ambition of one already existing measure in the adopted RRP. This investment increases further the availability of early childhood education services by creating 519 new crèche places in addition to the 3984 new creche places created under the existing RRP. This measure is expected to contribute to higher employment rates among parents, notably women, thus contributing to gender equality and social inclusion. This additional measure of the modified plan will contribute to addressing the country-specific recommendation on the integration of the most vulnerable groups in the labour market is addressed (CSR 2019.2.1 and CSR 2022 3.1).

Other modifications in the RRP do not change the overall ambition of the plan. The amended RRP removes measures from the plan and decreases the ambition of some others based on article 21 of the RRF Regulation due to objective circumstances. The modification removes one

investment in water management, the investment in energy storage capacity of distribution system operators and of the transmission system operator and the chemical recycling plant. The ambition for the investment supporting the installation of residential solar panels and heating modernisation is reduced. The new plan decreases the target level of the investments on suburban railway development and railways central traffic management system. However, ambitions in other areas are increased. The modified plan introduces a new investment to support sustainable mobility in Budapest, including the purchase of 51 new trams and the development of infrastructure of trams and trolley buses. The plan also adds a new investment on purchasing smart bins to help the separate collection of the municipal recyclable waste. The plan scales up the investment in electricity grid to be able to integrate more energy from renewables. The plan also increases the ambition of the investment on installation of grid energy storage facilities for market participants and includes a new investment to support energy efficiency of public buildings. The scope and timeline of the reform regarding the introduction of separate accounting for the electricity fed into the grid and electricity consumed from the grid will be amended, but its ambition is not lowered, as it will ensure a gradual transition of all existing consumers to the desired separate accounting system. In the field of sustainable transport and energy the new or scaled up measures constitute an equal or higher ambition than the removed or scaled down measures in the same field. As a result of the new and scaled up measures, the overall ambition level of the plan remained unchanged.

The nature and extent of the proposed modifications to Hungary's recovery and resilience plan do not have a material impact on the previous assessment (rating of A) of the contribution of the plan to addressing all or a significant subset of challenges identified in the country-specific recommendations, or challenges in other relevant documents officially adopted by the Commission under the European Semester, and of the adequacy of its response to the economic and social situation of Hungary.

3.3. Growth potential, job creation, economic, institutional and social resilience, European Pillar of Social Rights, mitigating the impact of the crisis, and social territorial cohesion and convergence

The modified RRP including the REPowerEU chapter continues to support Hungary's recovery and improve its long-term growth prospects through a range of investments and reforms. The main objectives of the plan are unchanged and aim to improve Hungary's growth potential, job creation, and economic, social and institutional resilience that should ultimately reduce the country's vulnerability to shocks.

Measures in the new REPowerEU chapter are expected to reinforce energy sovereignty and energy security, and decarbonisation through reforms and investment in renewable energy sources and electrification, improving energy efficiency and in the expansion of alternative mobility. In the REPowerEU chapter, the measure on the development of skills needed for the green transition will ensure the availability of skilled labour for the changing labour market. A share of support under the financial instrument in the residential energy efficiency sector will be reserved for energy poor households, and the combined grant and loan support provided to other households will be modulated also based on their income level. Through reforms and investments supporting

electrification through grid developments and the wider deployment of renewable energy sources such as wind or solar power, Hungary's resilience towards external energy shocks will be strengthened.

Among the revised part, the increased support for the creation of new creche places will further improve women's access to the labour market and will help reducing employment gaps.

These measures will help deliver on the implementation of the European Pillar of Social Rights Action Plan endorsed at the Porto Summit of 7 May 2021 and are expected to contribute to improving the levels of the indicators of the Social Scoreboard.

The nature and extent of the proposed modifications to Hungary's recovery and resilience plan do not have a material impact on the previous assessment (rating of A) of the plan's impact on the growth potential, job creation, and economic, social and institutional resilience of the Member State, on contributing to the implementation of the European Pillar of Social Rights, including through the promotion of policies for children and youth, and on mitigating the economic and social impact of the COVID-19 crisis, thereby enhancing the economic, social and territorial cohesion and convergence within the Union.

3.4. The principle of 'do no significant harm'

Hungary has submitted one scaled-up investment and additional scale-ups through two submeasures: the measure related to crèche places (C1.I4) which is being scaled-up has already been assessed as compliant with the 'do no significant harm' principle under the original RRP. Parts of the REPowerEU investment on electricity network development (C10.I1), namely classic grid developments and smart meters, are also scale-ups which have previously been assessed as compliant.

In addition, Hungary has submitted a REPowerEU chapter and additionally introduced new measures. The new measures are the construction of smart waste collection infrastructure and zero-emission collection vehicles (C7.I2) and the development of a tram- and trolleybus system in Budapest (C5.I5). Hungary has provided self-assessments on the compliance with 'do no significant harm' (hereinafter DNSH) as regards environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852³, as according to the DNSH technical guidance⁴.

For measures where it is relevant, the potentially harmful environmental and climate impact is addressed through appropriate assurances that the applicable criteria are to be respected. Environmental risks are mitigated ex ante by the introduction of conditions: Activities under the EU Emission Trading System (ETS) are to achieve projected greenhouse gas emissions below the relevant benchmarks, and significantly below the relevant benchmarks as far as possible. For all

³ The six environmental objectives comprise (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use and protection of water and marine resources, (4) the circular economy, (5) pollution prevention and control, and (6) protection and restoration of biodiversity and ecosystems.

⁴ COM (2021) C58/01, Technical Guidance on the Application of 'do no significant harm' under the Recovery and Resilience Facility Regulation.

financial instruments (C10.I12, C10.I13, C10.I14, C10.I15, C10.I16) and the investment on green economic production capacities (C10.I3), a list was introduced that aims to ensure activities and assets that are not in line with the principle of DNSH are not being supported. Similarly, safeguards to ensure that only sustainable biomethane and renewable hydrogen in line with RED II are being supported were introduced where necessary (C10.I2, C10.I3, C10.I4, C10.I12) and safeguards to geothermal drilling activities to ensure methane releases are being contained and equipment is not being used for the extraction of fossil fuels were added (C10.I2, C10.I4, C10.I11, C10.I12, C10.I16). Moreover, Hungary noted that compliance with the circular economy objective could not be guaranteed ex-ante for one of the rail sections (Szeged-Rendező - Rösztke – Border of the country project; C10.I9). Thus, a safeguard has been introduced to assess compliance with main provisions upon the completion of the project.

The nature and extent of those proposed modifications of Hungary's recovery and resilience plan do not have a material impact on the previous assessment (rating of A) that no measure for the implementation of reforms and investment projects included in the plan is expected to do a significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) No 2020/852 (the principle of ‘do no significant harm’).

Taking into consideration the assessment of all the measures envisaged, no measure for the implementation of reforms and investments projects included in Hungary's modified recovery and resilience plan is expected to do a significant harm to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852 (the principle of ‘do no significant harm’). This would warrant a rating of A under criterion 2.4 of Annex V to the RRF Regulation.

3.5. Green transition

The modified plan continues to fulfil the elements corresponding to assessment criterion 2.5 of Annex V to the RRF Regulation. The modified plan continues to contain measures that effectively contribute to the green transition, notably the climate change objectives.

The REPowerEU chapter makes the electricity network fit for the green transition and improves demand-side management, particularly through digital improvements. The original plan already includes a range of measures that target improvements in the electricity sector, including to enable energy produced from renewable sources to be securely and flexibly integrated into the grid. The REPowerEU chapter closes many remaining gaps: Further electricity network development (C10.I1) is necessary to ensure the electric grid is fit for the net-zero economy in which an increasing share of electricity will be generated by renewable energy sources, leading to higher grid volatility. Digital solutions at the level of the system operator but also at the level of the consumer (smart meters) support grid balancing, operational efficiency (see also C10.I5 on energy digitalisation) and efficient end-use of electricity. A more accurate weather forecast can help improve the system calibration towards an effective use of energy from wind and solar sources. These investments are supported both by reforms in the original plan aiming at the improvement of the electricity grid, as well as new reforms, notably on strengthening the role of aggregators (C10.R4) and adapting the legislation on smart meters (C10.R3) while enabling wider

use of dynamic pricing (C10.R5) on the demand side, and on renewing the product structure of regulatory reserve markets to facilitate market entry for new types of flexibilities (C10.R6), legal incentives for the uptake of energy storage (C10.R8), improving transparency, predictability and availability of the grid connection procedure (C10.R1) and setting network tariffs (C10.R2) to optimise supply in line with green transition plans.

Newly introduced measures aid emission reduction and improve sustainability in the transport sector. The timely deployment of zero-emission vehicles (C10.I6, C10.I10, C10.I15), electric charging (C10.I14) and hydrogen refuelling infrastructure (C10.I6), and the electrification of rail sections (C10.I9) help Hungary take steps forward in the decarbonisation of the transport sector, for which emissions continue to increase. Plans are aligned with national and union-wide strategies, for example the installation of two hydrogen refuelling stations along Trans-European Transport Network (TEN-T) corridors – three of which are crossing through Hungary – and investment into electrolysis for renewable hydrogen production (C10.I6) will be the basis to eventually enable long-distance freight transport based on renewable hydrogen. Decarbonisation of transport is at the same time beneficial for biodiversity through the implied reduction of harmful air pollutants.

Measures contribute to effectively decarbonising the economy. As noted in the 2023 European Semester Country Report, ambitious measures to increase energy efficiency, focused on the building sector, including residential buildings, will be necessary for Hungary to reach its 2030 targets and to preserve the competitiveness of its economy. The building sector has the highest potential to reduce energy consumption (about 40% of primary energy use). Medium depth-level renovation in the public, private and residential sectors help increase the energy-efficiency of the building stock and increase air quality through the adjustment to zero- and low-carbon heating systems (C10.R12, C10.I8, C10.I12, C10.I13). Moreover, industrial processes are being decarbonised and their energy efficiency is being improved (C10.I2, C10.I4, C10.I12). The acquisition of green skills needed to facilitate this transition is also supported (C10.R13, C10.I7). This is necessary as, as the 2023 European Semester Country Report notes, more green jobs would be created by tapping into the potential of geothermal, a further deployment of solar and wind, the roll-out of heat pumps and by boosting energy efficiency activities; activities that are all supported under REPowerEU and for which there is a labour shortage. Additionally, R&D&I activities, as well as products and services related to the decarbonisation of the economy can receive support (C10.I3).

Finally, measures incentivise the uptake of renewable energy production across a range of technologies. According to the 2023 European Semester Country Report, Hungary's share of renewable energy in gross final energy production decreased from 14.4% in 2016 to 14.1% in 2021 and lags significantly behind the EU average (21.8% in 2021). The envisioned reforms and investments are key to enabling Hungary's catch-up: Geothermal energy exploration (C10.R11, C10.I2, C10.I11, C10.I12, C10.I16), renewable hydrogen production (C10.R9, C10.I4, C10.I6), sustainable bioenergy use (C10.R10, C10.I2, C10.I4, C10.I12), renewable energy production behind the meter (C10.I2, C10.I4, C10.I6, C10.I8, C10.I12) and corresponding storage (C10.R8,

C10.I2, C10.I6) are supported. Additionally, R&D&I activities, as well as products and services related to the uptake of renewable energy generation can receive support (C10.I3).

The modified RRP leads to a decrease in ambition with regard water management and circular economy but includes new measures maintaining the overall green transition ambition. The removal of investment 1 “Construction of main water replacement systems, development of new networks and systems” under Component 4 (Water management) constitutes a reduction of ambitions with regards sustainable water management. The replacement of the building of a chemical recycling plant with the adoption of a communication strategy for local awareness-raising measures and sorted waste-collection infrastructure is not comparable in nature; both the original RRP and the modified RRP aim at improvements in circular economy. While Hungary's ability to recover raw materials is no longer improved through the RRP, it addresses one of the gaps identified in the 2023 European Semester Report; the achievement of 50% municipal waste recycling (2021: 34.9%, far below the EU average of 49.6%) and reduction of illegal waste dumps. REPowerEU measures have an overall positive effect on biodiversity, notably through the indirect effect of preventing pollution through decarbonisation and energy savings.

In accordance with Article 17 of Regulation (EU) 2021/241, the modified RRP is consistent with the information included in the National Energy and Climate Plan 2021-2030 (NECP). Hungary's climate law of 2020 sets the 2030 objective to reduce all domestic greenhouse gas emissions by 40% relative to 1990 levels. Hungary was considered not to be on track for reaching final energy consumption targets (including a 21% share of energy from renewable sources) as notified in its NECP, according to the 2023 European Semester Country Report. Many of the measures of the REPowerEU chapter, as outlined above, can help achieve more rapid progress on this target. Reduction of energy consumption in public institutions, industry and transport are focus areas of the NECP; specific measures such as the increase of electromobility and the use of smart meters are fully aligned with the measures of the modified RRP.

The tagging is based on a correct application of the methodology for climate tracking as set out in Annex VI to the RRF Regulation, by identifying intervention fields, and corresponding coefficients for the calculation of support to climate change objectives. With its modified RRP, Hungary provided a table indicating for each measure whether it contributes 0%, 40% or 100% to climate change or environmental objectives. The choice of intervention fields relevant for climate change is well-justified. As in the original plan, for broad measures, the climate contribution is computed at sub-measure level to ensure that intervention fields are accurately selected and to avoid any overestimation of the overall contribution of individual measures to the climate objectives. Whenever a selected intervention field includes specific additional conditions, these are substantiated in the description of the respective measure as well as reflected by specific provisions in the milestones and targets to ensure that the characteristics of the measures conform to the conditions set out in Annex VI to the RRF Regulation.

Based on plausible and reasonable cost estimates, the amounts attributed to investments included in the REPowerEU chapter and contributing to climate change objectives account for 91,7% of the total estimated costs of the measures in the REPowerEU chapter. All reforms of the REPowerEU chapter are zero-cost and thus do not impact the climate change objectives.

The contribution of the revised RRP including the REPowerEU chapter to climate change objectives account for 66,7% of the estimated total costs.

The newly proposed and modified measures establish legal and institutional frameworks that contribute to lasting structural changes. Building on a set of reforms in the original plan, new reforms contribute to accelerating the green transition by removing bottlenecks towards a swift increase in renewable energy generation and -use (e.g. energy communities, grid connection reforms), by optimising the energy system subject to increasingly volatile demand (e.g. energy storage, aggregators, network tariffs, dynamic pricing and smart meter reforms), and by legally embedding actions that are central to the green transition (e.g. grid access and balancing, as well as elements of the biogas/biomethane and renewable hydrogen strategies). Structural improvements are also achieved via energy and transport infrastructure investments and reforms such as the installation of electric recharging and hydrogen refuelling stations, and measures to ensure a balanced grid. Finally, investments into energy efficiency and decarbonisation of the building sector and industry lead to permanently reduced carbon emissions and demand shifts to lower- and zero-carbon alternatives.

Taking into consideration the assessment of all the measures envisaged, the recovery and resilience plan is expected, to a large extent, to make a significant contribution to the green transition or to address the challenges resulting from it and ensures that at least 37% of its total allocation contribute to the climate target. This would warrant a rating of A under criterion 2.5 of Annex V to the RRF Regulation.

3.6. Digital transition

Digital target

The modified plan's (excluding the REPowerEU chapter) contribution towards the digital objectives amounts to 29.1% of the plan's allocation. As such, the digital target of 20% continues to be met. The modifications proposed to the original plan, including new measures without a digital tag, do not significantly impact the ambition towards the digital transition, therefore the assessment remains unchanged. In the modified plan, a vast range of reforms and investments keep contributing to the digital transformation of the economy and society. These reforms and investments range from developing digital skills, the digitalisation of public services, to the deployment of national single tariff, ticketing and passenger information system based on digital technologies.

In the new REPowerEU chapter of the plan, various investments and reforms contribute to the digital transition. While the REPowerEU chapter is not taken into account for the digital objectives in line with Article 21c(5) of Regulation (EU) 2021/241, as part of the investment 'C10.I1: Electricity network development and digitalisation', digital developments at the level of the systems operator will be supported as well as additional support will be provided to the purchase and installation of smart meters. The investment in energy digitalisation will support digital solutions at energy companies to improve the security of electricity supply and the operational efficiency of the electricity system. The new chapter will also further improve the

digital skills through the investment ‘C10.I7: Strengthening human resources in the green economy’ by supporting the development of digital learning materials related to green skills areas.

The nature and extent of the proposed modifications to Hungary’s recovery and resilience plan do not have a material impact on the previous assessment (rating of A) of the contribution of the plan to the digital transition and to the digital target.

3.7. Lasting impact of the plan

The modified recovery and resilience plan with the addition of the REPowerEU chapter is expected to have lasting positive effect on the Hungarian economy, increasing the ambition of the initial plan in the field of energy and climate. Investment and reforms in the REPowerEU chapter reinforce the energy security of the country and contribute towards reducing the country’s reliance on Russian fossil fuel imports. By supporting the electrification of the mobility and industrial sectors, investing in the energy efficiency of public and residential buildings, and further exploring the use of alternative energy sources such as geothermal energy, the modified Plan is expected to have lasting positive effects on the Hungarian economy and further boost its green transition.

With the measures and investments Hungary is addressing various systemic challenges identified in the context of the European Semester. Reforms such as the facilitating the wider use of dynamic pricing in electricity purchase agreements, and investments such as energy efficiency investment in residential buildings tackling energy poverty address earlier identified challenges and contributes to the longer-term sustainability of the energy sector.

The nature and extent of the proposed modifications to Hungary’s recovery and resilience plan do not have a material impact on the previous assessment (rating of A) of the lasting impact of the measures proposed by Hungary.

3.8. Milestones, targets, monitoring and implementation

Adequacy of the structure tasked with the implementation of the plan, monitoring of progress and reporting

The modification of the Hungarian recovery and resilience plan includes an update of the monitoring and implementation framework to reflect the ongoing work to further streamline the monitoring and implementation set-up. The revised plan reflects the amended government decree 373/2022 that identifies new implementing bodies and regulates the task allocation between the National Authority - which remains the coordination body for implementation – and the implementing bodies. The modified RRP also includes an extension of the monitoring framework to align with the introduction of new measures consisting of the set-up of financial instruments. The Implementing Partner (Hungarian Development Bank) entrusted with the management of the financial instruments is deemed to have the financial and operational capacity to manage the proposed instruments.

Milestones and targets

The milestones and targets of the modified Hungarian RRP enable an adequate monitoring of the plan's implementation. Each of the new reforms and investments introduced under the new REPowerEU chapter includes at least one target and/or milestone that contains the key elements of the measure and allows for the assessment of the achievement of its objectives. The modified RRP includes a set of 108 new milestones and targets (including the 93 milestones and targets in the REPowerEU chapter), while 7 milestones and targets have been deleted from the original plan. Milestones set for reforms are based on the achievement of decisive steps in the implementation process, such as the entry into force of legal acts, the amendment of legislative framework, and the development of strategy. These milestones are clear and realistic as they reflect decisive steps towards the complete implementation of each reform.

The performance of the investments included in the new components and REPowerEU chapter will be assessed on the basis of the achievement of multiple milestones and targets monitored by each public entity in charge of implementing the measures and capturing the key implementation stages of each investment. The targets chosen – some of which build on existing targets for scaled up measures - are consistent with the objectives, cost estimates and implementation schedule of each measure and quantified by specific indicators reflecting the result of the works undertaken.

The adjustments made to the plan's original milestones and targets under Article 21 of the RRF Regulation do not affect the plan's overall level of ambition and are expected to contribute to its timely delivery by addressing current implementation challenges. In some cases, the amendments correct clerical errors and help to align the intent of the original plan and the description of investment and reforms with the content of milestones and targets to better assess the achievement of measures.

Overall organisational arrangements

The modified plan sets out an amended organisational structure for the implementation of the measures contained in it. The National Authority delegates the implementation tasks to Implementing Bodies, a Sub-Granting Body (for certain measures in Component C) and – for financial instruments – the Hungarian Development Bank. The detailed task allocation between the National Authority and the different bodies involved in the implementation will be defined in the delegation agreement and in case of the Hungarian Development Bank in the implementing agreement. The responsibilities of the different bodies involved in the coordination, implementation, monitoring, control, and audit of the plan are set out in the amended government decree 373/2022 , which includes the implementation of financial instruments. The administrative capacity of the additional implementing bodies helps ensure the effective absorption of the additional incoming funds.

In addition, and as further developed below (see 3.10 Audit and Control), Hungary has sufficiently described the relevant verification mechanisms, data collection systems and responsibilities that also can be qualified as clear, robust and effective to ensure effective completion of milestones and targets.

For all these reasons, the arrangements proposed by Hungary in its modified recovery and resilience plan are expected to be adequate to ensure effective monitoring and implementation of

the recovery and resilience plan, including the envisaged timetable, milestones and targets, and the related indicators. This would warrant a rating of A under the assessment criterion 2.8 of Annex V to the RRF Regulation.

3.9. Costing

Hungary has provided individual cost estimates for all the amended or new investments of its modified recovery and resilience plan. Hungary has provided sufficient information and evidence to consider that costs are overall reasonable and plausible. Most of the measures have been estimated based on a bottom-up approach, with the authorities presenting the units that make up the investment and their unit costs being estimated based on market prices or prices of similar units in past investments or on indicative offers. For other measures, a top-down approach is used where the overall cost of the project is based on similar projects from the past. In addition, the majority of costs are backed by appropriate justification and explanations that the amounts do not include costs covered by existing or planned Union financing. Costs are also commensurate with the expected economic and social impact of the envisaged measures.

Reasonable costs

Based on the assessment of individual cost estimates and related supporting documents, the cost estimates for most of the measures in the plan are deemed reasonable.

The reforms and investments included in the plan comply with the eligibility criteria set out in the Regulation. Based on the information provided by the authorities, costs supported under the RRF are incurred only for reforms and investments implemented after 1 February 2020 or 1 February 2022 for REPowerEU chapter measures, exclude value-added tax (VAT), and do not substitute recurring national budgetary expenditure. The revised plan contains some recurrent costs, such as personnel costs, which are deemed duly justified and acceptable. The plan provides justifications to show that these costs are essential for the success of the reforms and investments to which they correspond and that they do not represent a significant burden on the national budget. Hungary did not provide an independent validation of the cost estimates.

Plausible costs

Based on the assessment of individual cost estimates and related supporting documents, most of the measures in the Hungary plan are deemed plausible. The amount of the estimated total costs of the plan revision is in line with the nature and type of the envisaged reforms and investments. Hungary has submitted extensive additional costing evidence underpinning the claims presented in the plan. These documents broadly substantiate the cost estimates. For the new and scaled up investments, including those in the REPowerEU chapter, the cost estimates have been deemed, to a medium extent, as plausible.

No double funding

Hungary has indicated that new and modified measures, including those in the REPowerEU chapter, funded under the RRF will not be financed by other Union funding.

Commensurate and cost-efficient costs

The total cost of the modified RRP is commensurate with the expected social and economic impact of the envisaged measures. The new measures, included in the REPowerEU chapter, are expected to address challenges identified in climate and energy relevant CSRs. Therefore, the modified RRP is assessed as being in line with the principle of cost-efficiency and is commensurate with the expected national economic and social impact.

The justification provided by Hungary on the amount of the estimated total costs of the modified recovery and resilience plan is to a medium reasonable, plausible, in line with the principle of cost-efficiency and is commensurate to the expected national economic and social impact. Hungary provided sufficient information and evidence that the amount of the estimated cost of the reforms and investments of the modified recovery and resilience plan to be financed under the Facility is not covered by existing or planned Union financing. This would warrant a rating of B under criterion 2.9 of Annex V to the RRF Regulation.

3.10. Controls and audit

The original assessment of the robustness and adequacy of the control system and other arrangements proposed in the Hungarian RRP had concluded that these arrangements are adequate to prevent, detect and correct corruption, fraud, conflict of interest and double funding, taking also into account the 27 audit and control milestones to be implemented before the first payment request. This warranted a rating of A under evaluation criterion 2.10 of Annex V to the RRF Regulation.

The nature and extent of the proposed modifications to the RRP and the introduction of the REPowerEU chapter as such do not affect the original assessment. However, in the context of the modification of the RRP, its audit and control system needs to be reassessed on the basis of criteria 2.10 of Annex V of the RRF Regulation. Since the original assessment, the Commission obtained information on the actual implementation of legal provisions on the ground. This also includes audit findings on the protection of the financial interests of the Union carried out by the Commission in Hungary in March 2023.

In view of this information, the Commission considers that the internal control system of the Hungarian RRP is overall adequate despite some deficiencies identified by the Commission services in the context of its audit work, which Hungary should remedy. through the implementation of the audit and audit and control milestones linked to the protection of the financial interests of the Union set out in the Council Implementing Decision of 15 December 2022. These milestones cover also the necessary arrangements for newly involved bodies, such as implementing bodies and bodies involved in the implementation of financial instruments. Hungary has proposed to use the same control system for REPowerEU measures as the measures contained in its original RRP. Furthermore, in addition to these general provisions that are also to be applicable to financial instruments, specific control arrangements for financial instruments have been identified and agreed to be included in the relevant measures.

Robustness of internal control system and distribution of roles and responsibilities

The modification of the Hungarian recovery and resilience plan includes some modification in the audit and control framework as well. While the National Authority (the Office of the Deputy State Secretary of the ministry responsible for the implementation of Union support) remained the central coordinating body, the new structure assigns the implementation tasks to implementing bodies, a sub-granting body and – in case of financial instruments – to the Hungarian Development Bank. The National Authority will supervise the implementing bodies, the Hungarian Development Bank and the sub-granting body and will carry out regular controls on them. The responsibility for the control of final recipients has been shifted to the implementing bodies and the sub-granting body, while EUTAF (the Directorate General for Audit of European Funds) remained responsible for carrying out national audits related to the RRF. The responsibility of EUTAF also covers the audit of the work of the body implementing the financial instruments (the Hungarian Development Bank) with a similar approach as for implementing bodies.

Adequacy of control systems and other relevant arrangements

The control system and other arrangements to prevent, detect and correct fraud, corruption and conflicts of interest when using funds provided by RRF continue to appear adequate overall. The arrangements and mechanisms to collect, store and make available data on final recipients will be ensured through the FAIR-EUPR monitoring IT system, however it will be the responsibility of the implementing bodies to verify the adequacy of the data based on documentary and on-the-spot checks.

For financial instruments, the National Authority delegates the implementation tasks related to financial instruments under the Plan to the Hungarian Development Bank in line with the necessary legal mandate. The details of task allocation, responsibilities and controls performed by the National Authority will be defined later in the Implementing Agreement. Further amendments of Government Decree 373/2022. (IX. 30.) are necessary to ensure that the necessary legal obligations are in place with regard to the prevention, detection and correction of fraud, corruption, conflict of interest, double funding and other irregularities in the case of the implementation of financial instruments. It is also necessary to ensure by legal means that all relevant authorities, including the Hungarian Development Bank will also systematically and effectively use the Commission's Arachne risk-scoring tool to contribute to the identification of the risks of fraud, corruption, conflict of interest and double funding. These will need to be in place before the submission of the first payment request under the RRP in line with the audit and control milestones already in place. Furthermore, in addition to these general provisions that are also to be applicable to financial instruments, specific control arrangements for financial instruments have been identified and agreed to be included in the relevant measures.

Adequacy of arrangements to avoid double EU funding

The arrangements to prevent, detect and correct double funding described in the original plan, as assessed positively by the Commission remain unchanged.

Legal empowerment and administrative capacity of control function

Legal mandate of all the institutions involved in implementation, control and audit has been amended through a modification of Government Decree 373/2022. (IX. 30.) which entered into force on 5 November. In line with the Decree, the National Authority as coordinating body exercises all the tasks related to the overall coordination of the RRP and for monitoring progress towards fulfilling the milestones and targets, drawing up and signing payment requests and management declarations. The implementation of the Plan will be ensured by the implementing bodies, the sub-granting body as well as by the Hungarian Development Bank for financial instruments in line with the abovementioned amendment. The audit and control milestones should be fulfilled before the first payment request, in particular in order to set out the precise roles and responsibilities of bodies involved in the implementation of financial instruments under the RRP, how their implementation will be controlled and how rules related to the prevention, detection and correction of fraud, corruption, conflict of interest, double funding and other irregularities will be applied for such instruments. The Directorate of Internal Audit and Integrity (Hereinafter: “DIAI”) will be entrusted to carry out conflict of interest controls related to the implementation of financial instruments as well. Audits are entrusted to EUTAF. Its financial and functional independence from the coordination body and institutions responsible for the implementation of the reforms and investments should be ensured by fulfilling milestone 225. EUTAF’s audit strategy needs to be updated to adequately cover the changed implementation and control setup and all new bodies involved in the implementation of measures in the amended RRP, including in its REPowerEU chapter.

The entrusted implementing entities’ administrative capability and professional experience to carry out their duties is confirmed, which would be constantly monitored by the National Authority. The structure tasked with the implementation, monitoring, and reporting of the RRP has been reinforced and the overall arrangements proposed by Hungary in terms of organisation of the implementation of the reforms and investments remain reliable

The arrangements proposed by Hungary in the modified recovery and resilience plan to prevent, detect and correct corruption, fraud and conflicts of interest when using the funds provided under the Facility, including the arrangements aimed to avoid double funding from the Facility and other Union programmes, are assessed to be adequate. This would warrant a rating of A under the assessment criterion 2.10 of Annex V to the RRF Regulation.

3.11. Coherence

The recovery and resilience plan of Hungary includes ten coherent components with the addition of the new, REPowerEU chapter. The modified components in the new Plan support the same objectives as specified in the Staff Working Document (2022/686) with an increased contribution to the green transition through accelerating the clean energy transition, diversifying energy sources and energy efficiency related investments. The modifications to the RRP do not negatively affect the coherence between the components, nor does it change the coherence of the overall Plan.

Mutually reinforcing measures

The addition of the REPowerEU chapter is in line with the measures under the initial RRP to support the green transition. The measures under the new REPowerEU chapter further reinforce

the ambition on energy efficiency related investments in the energy component. The new, REPowerEU chapter is built around a consistent package of both reforms and investments improving the energy efficiency of enterprises, public and residential buildings, contributing to the electrification of transportation and developing alternative sources of energy such as hydrogen or geothermal energy. For example, the investment in grid development is supported by reforms on the harmonization of the grid connection procedure and on grid connections authorization for renewable power plants in the new REPowerEU chapter.

Complementarity of measures

The modifications made to the existing components of the RRP do not negatively alter the complementarity between and within components. New investments in the REPowerEU chapter such as energy efficiency improvements of residential buildings or the use of geothermal energy are reinforced by complementary reforms developing a regulatory framework for these. At the level of the modified plan, all components pursue complementary objectives with no contradictory aims.

Taking into consideration the qualitative assessment of all components of Hungary's modified recovery and resilience plan, their individual weight (importance, relevance, financial allocation) and their interactions, the plan contains measures for the implementation of reforms and public investments which, to a high/medium extent, represent coherent actions. This would warrant a rating of A under the assessment criterion 2.11 of Annex V to the RRF Regulation.

3.12. REPowerEU

The measures included in the REPowerEU chapter will contribute to energy security, an increase in the uptake of renewables and in energy efficiency. This will contribute to decreasing overall energy demand and to replacing fossil fuels with renewable energy sources.

Hungary's REPowerEU chapter contributes to objective 21c(3), point (b) of Regulation (EU) 2021/241, through reforms and investments aimed at increasing Hungary's renewable energy potential, improving energy efficiency of buildings and decarbonising the industry.

Boosting the deployment of renewables is an important objective in many of the measures included in the REPowerEU chapter. It includes investments supporting the deployment of renewables at industrial parks. Further development is envisaged to ensure that additional capacities from renewable energy sources can be integrated in the electricity grid. The chapter contains a scaled-up commitment to reach 12 GW connection authorisations by 2026, the target in the initial RRP was set at 10 GW. The reform adjusting the legislative environment to encourage hydrogen production and use is accompanied by the investment supporting the production of renewable hydrogen. The reform improving the geothermal energy regulatory framework is coupled with an investment to support geothermal energy exploration activities and a financial instrument to support geothermal energy exploitation. The chapter also envisages developing a strategy for biogas and biomethane with a biomethane action plan.

Several investments and a reform will contribute to improving energy efficiency. A financial instrument will be set up to improve companies and households' access to finance for energy

efficiency investments. Another investment aims at improving the energy performance of public buildings.

The measure targeting industrial parks is to decarbonise their operation by supporting the deployment of renewables, installation of energy storage, the use of residual heat and energy efficiency improvements. Investments into the manufacturing of products and providing of services that contribute to the transition towards a net-zero economy as well as the investment into green technologies support the industry's decarbonisation.

Energy poverty, under objective 21c(3), point (c) of the RRF Regulation, is addressed through a reform and an investment supporting energy efficiency in residential buildings.

The reform is aimed at ensuring that potential beneficiaries of residential energy efficiency support schemes financed by EU funds, and in particular vulnerable households and households living in energy poverty, will receive technical assistance for the preparation of their applications. A part of the financial support under the financial instrument in the residential energy efficiency sector will be reserved for energy poor households.

Several investments will contribute to objective 21c(3), point (d) of the RRF Regulation, reducing Hungary's energy demand. As described energy efficiency improvements, industry decarbonisation measures, investments related to green technology and to manufacturing capacities contributing to the transition to the net zero economy will serve this objective.

Significant measures are envisaged to accelerate the integration of renewable energy sources and the reliance on storage as well as to support zero-emission transport and its infrastructure, thereby addressing objective 21c(3), point (e) of the RRF Regulation.

Several reforms aim at strengthening the electricity sector in the increasingly decentralised system. Certain reforms aim at incentivising and optimising the use of renewable energy sources. These should also contribute to the optimal use of the energy network. These include the strengthening the role of energy communities and aggregators, improving regulatory reserve markets, incentivising the uptake of electricity storage, enhancing the range of consumers that are to use smart meters and harmonising the way the connection application rules are applied by the DSOs. The introduction of dynamic pricing in the residential sector on a voluntary basis will pave the way for demand side response, where energy providers will send price signals to consumers to encourage them to use more energy at times away from system peak hours.

The investment into the roll-out of smart meters included both in the energy component and the REPowerEU chapter will provide the necessary technical background to enable the introduction of dynamic pricing in the retail sector. The REPowerEU chapter also scales up the investment into the grid development to allow for the secure and flexible integration of renewables into the electricity grid. Investing in the improvement of the weather forecast system will provide more accuracy for energy production estimation of weather-dependent renewable energy power plants. Digital improvements in the energy sector are expected to support security, flexibility and operation efficiency.

The investments in electrifying railways, supporting the uptake of electric vehicles and recharging stations, as well as hydrogen fuel-celled vehicles and refuelling stations accompanied by the reform on hydrogen mobility will contribute to the REPowerEU objectives of supporting zero-emission transport and its infrastructure.

The retraining of the workforce for the green transition, under objective 21(3), point (f) of the RRF Regulation, is addressed through a reform on developing a green skills strategy with an action plan and an investment including educational content and training measures to acquire green skills.

Taking into consideration the assessment of all the measures envisaged in the REPowerEU chapter, the chapter is expected, to a large extent, to contribute effectively to energy security, the diversification of the Union's energy supply, an increase in the uptake of renewables and in energy efficiency, an increase of energy storage capacities or the necessary reduction of dependence on fossil fuels before 2030. This would warrant a rating of A under criterion 2.12 of Annex V to the RRF Regulation.

3.13. Cross-border or multi-country dimension or effect

The Hungarian REPowerEU chapter contains many investments contributing to reduce dependency on fossil fuels or energy demand.

The electricity network development and digitalisation investment aims at supporting the uptake of renewable energy, improving the consumer and producer electricity connections and the quality of service offered by the system operators.

The greening of industrial parks for energy purposes will support activities in decarbonisation and sustainable energy use in industrial parks, energy intensive companies and logistics parks.

A financial instrument will be set up to improve companies' energy efficiency. The aim is to reduce the energy demand by at least 30% after investment compared to the baseline. Another financial instrument will be developed to improve the energy efficiency of residential buildings.

The investment in railway electrification contributes to development of electrified cargo and passenger transport network in the EU.

The total estimated costs of these measures account for a total of EUR 3 822 million, representing 82,8% of the estimated costs of the REPowerEU chapter, exceeding the indicative target of 30%.

Taking into consideration the assessment of all the measures envisaged in the REPowerEU chapter, the measures in the chapter are expected, to a large extent, to have a cross-border or multi-country dimension or effect. This would warrant a rating of A under criterion 2.13 of Annex V to the RRF Regulation.

REPowerEU measure	Costs (EUR million)	Contribution to the target in %
C10.I1: Electricity network development and digitalisation	689 ⁵	15%
C10.I2: Greening of industrial-, science and technology- and logistics parks for energy purposes	529	11.5%
C10.I3: Building green economy production capacities	526	11.4%
C10.I4: Application of green technologies for the decarbonisation of industry	111	2.4%
C10.I6: Hydrogen investments	185	4%
C10.I11: Supporting geothermal energy exploration and exploitation	68	1.4%
C10.I16: Setting up a financial instrument to support geothermal energy exploration and exploitation	351	7.6%
C10.I12: Setting up a financial instrument to improve companies' energy efficiency	461	10%
C10.I8: Energy efficiency investments in public buildings	214	4.6%
C10.I13: Setting up a financial instrument to improve the energy efficiency of residential buildings and tackle energy poverty	589	12.8%
C10.I9: Electrification of railway sections	99	2.1%
TOTAL	3822	82,8%

⁵ Excluding the digital elements of this investment.

ANNEX I: Climate tracking and digital tagging

Note: while the total cost of Hungary's recovery and resilience plan exceeds the total allocation of non-repayable financial support to Hungary, Hungary will ensure that all spending related to the measures mentioned in this table as contributing to climate and digital objectives are fully financed by the funds from the Recovery and Resilience Facility.

Int. Field = intervention field

Coeff. = Coefficient for the calculation of support to climate change objectives and to digital transition, on the basis of Annex VI and Annex VII of the RRF Regulation

cros	Measure/Sub-Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
C1.R1	Development of competitive public education using 21 st century technology	391			012	100%
C1.I4.1	Creation of new crèche places - Renovation/extension of existing buildings	17.6	026	40%		
C1.I4.2	Creation of new crèche places - New buildings	111.9	025ter	40%		
C1.I5.1	Creation of additional new crèche places – Renovation/extension of existing buildings	2.3	026	40%		
C1.I5.2	Creation of additional new crèche places – New buildings	14.6	025ter	40%		
C2.R1.1	Modernisation of higher education courses – IT services and applications	0.5			012	100%
C2.R1.2	Modernisation of higher education courses – Support to digital content production and distribution	0.03			021bis	100%
C2.I1.1	Institutional innovation and strengthened activities in higher education – E-curriculum development	23			108	100%
C2.I1.2	Institutional innovation and strengthened activities in higher education – Micro-credentials	23			021bis	100%
C2.I2.1	Modernisation of infrastructure and digitalisation in higher education institutions – Capacity development activities, including	7			016	40%

cros	Measure/Sub-Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
	organisation of trainings, skill development					
C2.I2.2	Modernisation of infrastructure and digitalisation in higher education institutions - Digital equipment	76			012	100%
C2.I2.3	Modernisation of infrastructure and digitalisation in higher education institutions - Energy efficiency renovation	41	026bis	100%		
C2.I2.4	Modernisation of infrastructure and digitalisation in higher education institutions - New buildings	5	025ter	40%		
C2.I3.1	Development of digital curricula for vocational education and training - Digital learning materials	42			108	100%
C2.I4.1	Vocational education and training infrastructure for the 21 st century - Energy efficiency renovation	22	026bis	100%		
C2.I4.2	Vocational education and training infrastructure for the 21 st century - Purchase of ICT equipment	17			108	100%
C2.I5.1	Development of the Central Examination Centre - Energy efficiency renovation	5	026bis	100%		
C2.I6	Establishment of national research and development laboratories	184			021	40%
C3.I2	Production and use of renewable energy in disadvantaged municipalities	30	029	100%		
C4.R1	Awareness raising	0.1	040	40%		
C4.I2	Establishment of a monitoring system	30.8			055	100%
C4.I3	Nature protection	7	040	40%		
C5.R1	Deployment of a single national tariff, ticketing and passenger information system for bus and	23	070	40%	070	100%

cros	Measure/Sub-Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
	rail by the National Public Transport Authority					
C5.I1.1	Capacity building of suburban rail network - Rail Fixed infrastructure	304.2	069bis	100%		
C5.I1.2	Capacity building of suburban rail network - Multimodal hubs	190.8	079	40%		
C5.I1.3	Capacity building of suburban rail network - Rail Signalling and Management System	20.6	070	40%	070	100%
C5.I2.1	Rail network congestion switching on TEN-T corridor - Almásfüzitő-Komárom	51	067	100%		
C5.I2.2	Rail network congestion switching on TEN-T corridor - Békéscsaba-Lökösháza	372	067	100%		
C5.I3.1	Development of zero-emission bus transport - Electric buses	143	074	100%		
C5.I3.2	Development of zero-emission bus transport - Charging stations	16	077	100%		
C5.I4	Deployment of central traffic management on TEN-T railways	89.6	070	40%	070	100%
C5.I5.1	Development of tram and trolleybus system of Budapest (purchase of trams, and development of tram and trolleybus related infrastructure) - rolling stock	147.1	074	100%		
C5.I5.2	Development of tram and trolleybus system of Budapest (purchase of trams, and development of tram and trolleybus related infrastructure) - infrastructure	106.5	073	100%		
C6.I1	Classic and smart grid development of transmission system operator and distribution system operators	648	033	100%	033	40%
C6.I2.1	Support for the use of residential solar panels and heating modernisation – PV panels, storage and heat pumps	361.3	029	100%		

cros	Measure/Sub-Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
C6.I2.2	Support for the use of residential solar panels and heating modernisation – Renovation	54	025	40%		
C6.I4	Installation of grid energy storage facilities for energy market participants	157	033	100%	033	40%
C6.I5	Dissemination of smart metering	56	033	100%	033	40%
C6.I6	Energy efficiency investments in public buildings	55.6	026	40%		
C7.I2	Construction of smart waste collection infrastructure for separate collection and related zero-emission collection vehicles	59.9	042	40%		
C8.I1.1	Developing the conditions for healthcare in the 21 st century - New construction	137	025ter	40%		
C8.I2	Supporting the digital transformation of health	250			095	100%
C8.I3	Remote health monitoring programme for the elderly	229			095	100%
C9.R8	Upgrading the cooperation systems of the prosecution service to tackle corruption practices	9			011 quater	100%
C9.R14.2	Training scheme and support scheme for micro-, small and medium enterprises to facilitate their participation in public procurement procedures – Development of digital skills	0.8			108	100%
C9.R28	Support to the data-based decision-making and legislative process with a view to increasing efficiency, transparency and reducing risks of irregularities	4			011	100%
C9.R29	Extension of the automatic administrative decision-making system with a view to increasing efficiency, transparency and reducing risks of irregularities	6			011	100%

cros	Measure/Sub-Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
C9.R30	Strengthening the national IT equipment management system to increase the efficiency of public services	42			011	100%
C10.I1	Electricity network development and digitalisation	956.6	033	100%	033	40%
C10.I2.1	Greening of industrial-, science and technology- and logistics parks for energy purposes – Renewable energy	317.4	032	100%		
C10.I2.2	Greening of industrial-, science and technology- and logistics parks for energy purposes – Energy storage and smart systems	132.3	033	100%	033	40%
C10.I2.3	Greening of industrial-, science and technology- and logistics parks for energy purposes – biomethane	79.4	030	40%		
C10.I3	Building green economy production capacities	526.1	047bis	40%		
C10.I4.1	Application of green technologies for the decarbonisation of industry – REPowerEU-eligible carbon capture and digitalisation that indirectly contributes to GHG emission reduction	22.3	027	100%		
C10.I4.2	Application of green technologies for the decarbonisation of industry – improvements enabling the deployment of alternative gases such as hydrogen and electrification	55.8	032	100%		
C10.I4.3	Application of green technologies for the	33.4	030	40%		

cros	Measure/Sub-Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
	decarbonisation of industry - biomethane					
C10.I5	Energy digitalisation	236.8	033	100%	033	40%
C10.I6.1	Hydrogen investments – Hydrogen production	135.2	032	100%		
C10.I6.2	Hydrogen investments – Hydrogen trucks	1.9	ADHOC	100%		
C10.I6.3	Hydrogen investments – Hydrogen buses	25.9	074	100%		
C10.I6.4	Hydrogen investments – Hydrogen refueling stations	22.2	077	100%		
C10.I7	Strengthening human resources in the green economy	36.8	01	100%		
C10.I8	Energy efficiency investments in public buildings	214.5	026bis	100%		
C10.I9	Electrification of railway sections	99.3	069bis	100%		
C10.I10	Boosting companies' uptake of battery-electric vehicles (BEVs) with grant support	105.2	ADHOC	100%		
C10.I11	Supporting geothermal energy exploration with grant support	68.4	032	100%		
C10.I12	Setting up a financial instrument to improve companies' energy efficiency	461	024ter	100%		

cros	Measure/Sub-Measure Name	Budget (EUR m)	Climate		Digital	
			Int. Field	Coeff. %	Int. Field	Coeff. %
C10.I13	Setting up a financial instrument to improve the energy efficiency of residential buildings and tackle energy poverty	589.3	025bis	100%		
C10.I14	Setting up a financial instrument to increase the rollout of recharging stations for electric vehicles (EVs)	79.2	077	100%		
C10.I15	Setting up a financial instrument to support the purchase of battery-electric vehicles (BEVs) by fleet providers	52.6	ADHOC	100%		
C10.I16	Setting up a financial instrument to support geothermal energy exploration and exploitation	351.2	032	100%		