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Subject: State Aid SA.102385 (2022/N) – RRF – Slovakia – State aid scheme for the decarbonisation of industry financed by the RRF
State Aid SA.102388 (2022/N) – Slovakia – State aid scheme for the decarbonisation of industry financed by the Modernisation Fund

Excellency,

1 PROCEDURE

- (1) Following pre-notification contacts, Slovakia notified on 1 June 2022 two schemes to support investments in industrial decarbonisation (the ‘schemes’ or the ‘measures’), pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU). The two schemes are similar in many aspects, they differ mainly in the sources of funding foreseen. In particular, Slovakia intends to finance one of the schemes with funds from the Recovery and Resilience Facility (‘RRF measure’ or ‘RRF scheme’) and the other scheme with funds from the Modernisation Fund (‘MF measure’ or ‘MF scheme’).
- (2) The Commission requested clarifications on the measures on 18 July 2022, 9 September 2022, 20 September 2022, 23 September 2022 and 3 October 2022. Slovakia provided these clarifications respectively on 15 August 2022, 19 September 2022, 23 September 2022, 29 September 2022, 2 October 2022 and 4 October 2022.
- (3) By letter dated 22 September 2022, Slovakia agreed to exceptionally waive its rights deriving from Article 342 TFEU in conjunction with Article 3 of

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Regulation 1/1958¹ and to have the present decision notified and adopted in English.

2 DETAILED DESCRIPTION OF THE MEASURES

2.1 Background and objectives of the measures

- (4) The EU has set an ambitious climate protection target of reducing greenhouse gas emissions by at least 55 % by 2030, with a view to becoming climate neutral by 2050².
- (5) In order to reach the 2030 climate target, far-reaching changes are required in all sectors of the economy and in particular in the industry. Because of its importance in the economic structure of the country, but also due to its extended use of outdated technologies which rely on high energy intensity, the industrial sector is a major greenhouse gas emitter in Slovakia. In 2018, it was responsible for 41% of all greenhouse gas emissions produced in Slovakia, which is the highest percentage among the EU Member States³. Out of the overall share imputable to industry, more than 80% of those emissions were produced by companies active in sectors falling under the EU Emissions Trading Scheme ('EU ETS' or 'ETS').
- (6) The Slovak authorities therefore consider that focusing on reducing the emissions of the ETS sectors is indispensable to achieve Slovakia's climate objectives. In that regard, the Slovak 2021-2030 Integrated National Energy and Climate Plan⁴ ('NECP') identifies as the main quantified energy and climate target for 2030 a reduction in greenhouse gas emissions in the EU ETS sectors by at least 43% compared to 2005. This represents an average annual reduction of 2.2% over the 2021-2030 period. Until 2018, Slovakia managed to reduce emissions in the EU ETS sectors by only 12% compared to 2005; in 2020 the reduction was almost 28%.
- (7) According to the Slovak authorities, the existing regulatory framework is not sufficient to achieve their climate objectives. While the EU ETS partially addresses the negative externalities of carbon-intensive activities, these externalities are not fully reflected in the cost of greenhouse gas emissions. This was confirmed by the Low Carbon Study for Slovakia⁵ prepared by the World Bank in January 2019, according to which the current carbon price is not high enough to, by itself, trigger the necessary investments in breakthrough

¹ Regulation No 1 determining the languages to be used by the European Economic Community (OJ 17, 6.10.1958, p. 385).

² Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'), OJ L 243, 9.7.2021, p. 1.

³ Source: Eurostat.

⁴ The 2021-2030 Integrated National Energy and Climate Plan of December 2019, available at: https://energy.ec.europa.eu/system/files/2020-03/sk_final_necp_main_en_0.pdf

⁵ https://www.minzp.sk/files/oblasti/politika-zmeny-klimy/2019_01_low-carbon-study.pdf

technologies needed to achieve net-zero emissions by 2050, but that require a higher carbon price to compete with best available technologies.

- (8) The two schemes notified by Slovakia aim at supporting investments leading to a reduction of greenhouse gas emissions and to energy efficiency improvements in ETS sectors, beyond the applicable Union environmental standards. By enabling primary energy savings, reducing final energy consumption and introducing advanced decarbonisation technologies, the schemes are meant to contribute to the achievement of national and European climate targets. According to Slovakia, the schemes should enable the future beneficiaries to decrease their greenhouse gas emissions to an extent and in a timeframe that would be impossible to achieve without aid.
- (9) One of the schemes is part of component 4 of Slovakia's Recovery and Resilience Plan ('RRP') and will be funded by the Recovery and Resilience Facility ('RRF'), while the other scheme will be financed by the Modernisation Fund ('MF'). The two schemes aim at achieving annual reductions of greenhouse gas emissions of 1.233 million tons of greenhouse gas emissions ('CO₂e')⁶ and 4 million tons CO₂e emissions respectively. If these targets were met, more than half of the required emissions reduction necessary to meet Slovakia's mitigation targets in sectors subject to the EU ETS for 2030 compared to 2005 would already be achieved.

2.2 National legal basis

- (10) The national legal basis for the RRF measure is the State aid scheme for the decarbonisation of industry included in component 4 of the Slovak Recovery and Resilience Plan. The scheme contains a suspensive clause, which stipulates that the scheme will enter into force on the date of its publication in the Commercial Bulletin, following its approval by the Commission.
- (11) The national legal basis for the MF measure is the State aid scheme for the decarbonisation of industry financed by the Modernisation Fund. The scheme contains a suspensive clause, which stipulates that the scheme will enter into force on the date of its publication in the Commercial Bulletin, following its approval by the Commission.

2.3 Administration of the measures

- (12) The aid granting authority for the measures is the Slovak Ministry of Environment.

⁶ CO₂ equivalent is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

2.4 Beneficiaries

- (13) The measures are open to undertakings of all sizes, which are active in the industrial sectors listed in Annex 1 to the Slovak Trading Act,⁷ and which correspond to the sectors subject to the EU ETS. The Slovak authorities explained that the ETS sectors account for nearly 90% of the greenhouse gas emissions from industry in Slovakia, and that Slovakia has set targets to reduce ETS emissions by 43% by 2030 compared to 2005 values. In addition, the level of emissions of these sectors is determined on the basis of an established methodology and emissions are registered. Finally, the Slovak authorities explained that the non-ETS sectors benefit from other support schemes to reduce emissions and improve energy efficiency. It was on this basis that Slovakia decided to target the scope of the measures to these sectors.
- (14) In addition, to be eligible for aid under the measures, the beneficiaries must:
- (a) be Slovak or foreign natural or legal persons with their registered office in Slovakia, and operate under Section 2(2) of the Commercial Code as a person registered in the Slovak Business Register;
 - (b) not be undertakings in difficulty, as defined in the Commission Guidelines on State aid for rescuing and restructuring non-financial enterprises in difficulty;⁸
 - (c) have no outstanding financial relations with the state budget;
 - (d) not be subject to insolvency proceedings, not be bankrupt, not be undergoing restructuring and not have had a request for bankruptcy dismissed for lack of assets;
 - (e) not be subject to pending enforcement proceedings;
 - (f) not have violated the prohibition of illegal employment according to a special regulation in the previous three years;
 - (g) not be in arrears with health insurance or social insurance premiums or contributions to the old-age pension scheme;
 - (h) not have been imposed a prohibition to receive national or EU grants or subsidies pursuant to a final sentence;
 - (i) be registered in the Register of Public Sector Partners if they are under the obligation to do so;
 - (j) not be receiving aid for the same eligible costs from other public sources;

⁷ Act No 414/2012 Coll. on emission allowance trading and on amendments to certain acts, as amended.

⁸ Communication from the Commission Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty, OJ C 249, 31.07.2014, p.1.

- (k) not have been granted aid and not be seeking aid from the same or other public sources for the same eligible costs from other schemes if it would amount to double financing.
- (15) The Slovak authorities commit to suspend the granting and/or payment of aid under the schemes to any undertaking that has benefited from previous illegal aid declared incompatible by a Commission decision (either as individual aid or as aid under an aid scheme that has been declared incompatible) until that aid has been reimbursed or paid to a blocked account the total amount of illegal and incompatible aid and the corresponding recovery interest.

2.5 Form of aid and level of support

- (16) Under the measures, aid will be granted in the form of direct grants.
- (17) In order to receive support, beneficiaries shall submit a written application to the granting authority before the start of works⁹ on the project. The application shall include the applicant's name and a description of the project to be supported. The latter shall include the location of the project, the expected dates for the start and end of the works and the amount of aid necessary to carry it out, identified on the basis of a funding gap analysis.
- (18) In case the Slovak authorities would have published before the start of works a notice of their intention to establish the proposed aid measure, conditional upon the Commission's approval of the said measure, the start of works on the project could take place before the aid application. In this instance, to be eligible for aid, the beneficiary should have informed the granting authority prior to the start of works that the proposed aid measure was considered as a condition for the investment decisions taken.
- (19) The level of aid awarded to each applicant will be defined on the basis of a competitive bidding process (Section 2.9.3). However, the aid amount may not exceed the investment costs of the project, as described in Section 2.9.2 of the present decision.

2.6 Duration

- (20) The RRF measure will apply until 30 June 2026.
- (21) The MF measure will apply until 31 December 2030.

2.7 Territorial scope

- (22) The measures apply to the entire national territory of Slovakia.

⁹ 'Start of works' means the first firm commitment (for example, to order equipment or start construction) that makes an investment irreversible. The buying of land and preparatory works such as obtaining permits and conducting preliminary feasibility studies are not considered as start of works. For take-overs, 'start of works' means the moment of acquiring the assets directly linked to the acquired establishment.

2.8 Budget and financing

- (23) The total budget of the RRF measure for its entire duration is EUR 357 343 413. This measure will be fully financed with the resources allocated to Slovakia from the Recovery and Resilience Facility.
- (24) The total budget of the MF measure for its entire duration is EUR 750 000 000. This measure will be fully financed with the resources allocated to Slovakia from the Modernisation Fund.

2.9 Basic elements of the measures

2.9.1 Eligible projects and beneficiaries

2.9.1.1 Eligible projects

- (25) According to the Slovak authorities, the schemes apply to projects that reduce greenhouse gas emissions or improve energy efficiency in the industrial sectors listed in Annex 1 to the Slovak Trading Act, corresponding to the sectors subject to the EU ETS. The Slovak authorities explained that they expect potential beneficiaries to only be in competition with undertakings that are active in sectors subject to the EU ETS, to which the schemes apply. In any event, the Slovak authorities provided justifications for the measures' design, notably as regards the limitation of eligibility to undertakings operating in sectors subject to the EU ETS. First, Slovakia explained that historical data on greenhouse gas emissions in Slovakia show that almost the entirety of greenhouse gas emissions linked to industrial activities on the Slovak territory are related to undertakings in the sectors covered by the EU ETS¹⁰. Therefore, limiting the scheme to those sectors would allow Slovakia to target sectors with highest emission reduction potential, thereby avoiding the granting of aid for marginal improvements. Second, the Slovak authorities explained that limiting the schemes to undertakings operating in the EU ETS sectors would also allow them to rely on data on greenhouse gas emissions from applicants that are known and monitored based on an established methodology, facilitating the comparison of bids and monitoring of emission reductions.
- (26) The Slovak authorities explained that the following types of projects may be supported under the schemes:
- a) the installation and modernisation of technologies reducing greenhouse gas emissions in production processes (including the modernisation, reconstruction or replacement of installations, support for substitution of coal combustion in industrial power generation and technologies, energy efficiency improvement, and promoting the use of waste heat¹¹ in industrial power generation);

¹⁰ Data from 2018 submitted by the Slovak authorities indicate that 88% of greenhouse gas emissions from industrial emissions came from EU ETS sectors, while only the remaining 12% was linked to undertakings operating in other industrial sectors.

¹¹ The notion of 'waste heat recovery technologies' refers to technologies that allow to recover and reuse heat from industrial activities that would otherwise be unused and released in the atmosphere.

- b) measures relating to changes in technological processes in order to reduce greenhouse gas emissions (including reconfiguration or electrification of production or processing facilities); and
 - c) energy efficiency measures in industrial installations.
- (27) In order to be eligible for support under any of the two schemes, projects have to fulfil a number of general conditions.
- (28) First of all, support may only be granted to projects implemented in industrial installations that already comply with Union standards. As part of their bids, applicants shall submit a comparison of the proposed projects with the applicable best available techniques¹² (BAT). Such compliance will be verified by the Slovak Inspectorate of the Environment.
- (29) In addition, to ensure the effective contribution of all selected projects to the overall objective of decarbonisation of the Slovak economy, each of them shall lead to a minimum reduction of greenhouse gas emissions. While undertakings awarded aid under the RRF scheme must reduce their emissions by at least 30%, beneficiaries of the MF scheme must decrease their greenhouse gas emissions by at least 10 000 tonnes of CO₂e compared to the average level of greenhouse gas emissions observed in the last 5 years immediately preceding the submission of the application, with the possibility to exclude one unrepresentative year ('reference period'). Furthermore, potential beneficiaries will also¹³ have to demonstrate in their applications that the projects they aim to undertake will lead to a reduction of their emissions below¹⁴ the applicable¹⁵ EU ETS benchmark for free allocation of allowances¹⁶. This will also be verified *ex post*.
- (30) Projects supported under the MF scheme shall comply with one additional condition meant to ensure that the implementation of the measure leads to

¹² Such comparison shall be conducted following the Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.

¹³ The respective conditions on minimum greenhouse gas emissions reduction and on reduction of emissions below the ETS benchmarks apply cumulatively under the schemes.

¹⁴ The Slovak authorities explained that for the RRF measure they will verify that aided projects lead to a level of greenhouse gas emissions which is below the lowest between the average value of the 10% most efficient installations in 2016 and 2017 and the benchmark value for free allowances for the period 2021-2025, as listed in the Annex to the Commission Implementing Regulation (EU) 2021/447 of 12 March 2021 determining revised benchmark values for free allocation of emission allowances for the period from 2021 to 2025 pursuant to Article 10a(2) of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 87, 15.3.2021, p. 29). Projects applying to the MF measure have to demonstrate in their applications that the projects they aim to undertake will lead to a reduction of their emissions below the applicable EU ETS benchmark.

¹⁵ When the project leads to a change in the applicable benchmark, this will be verified by reference to the ETS benchmark applicable to the production process as amended by the project.

¹⁶ As listed in the Annex to the Commission Implementing Regulation (EU) 2021/447 of 12 March 2021 determining revised benchmark values for free allocation of emission allowances in force at the time of submission of the application, pursuant to Article 10a(2) of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 87, 15.3.2021, p. 29).

significant energy savings: their implementation must lead to a final decrease in energy consumption (in GJ/year) of at least 10% compared to the reference period.

- (31) Furthermore, depending on the type of project supported, more specific eligibility conditions may apply.
- (32) Only projects that are compliant with the ‘do no significant harm principle’ (DNSH principle) may be eligible under the schemes. Under both schemes, projects involving the use of solid fossil fuels are not eligible.
- (33) As concerns fossil fuels other than solid, under the MF scheme, they may be used as part of the supported project only to start-up or shut-down the installation or ensuring the functioning requirements of the unit during its operation or maintenance. Moreover, where projects involve investments into equipment, machinery or energy generation facility that use natural gas as energy or feedstock for more than 20% of their final energy consumption, the beneficiary will have to commit to implementing decarbonisation technologies such as carbon capture and storage or carbon capture and use, or to replacing natural gas with renewable or low-carbon gas by 2045. In such case, applicants to the schemes must submit as part of their bids a plan for the phasing out of natural gas, the implementation of which the Slovak authorities will regularly monitor. Should such monitoring demonstrate that the plan for the phasing out of natural gas is not complied with, the Slovak authorities will apply a penalty.
- (34) As concerns the RRF scheme, the Slovak authorities explained that projects using natural gas as a main feedstock or energy source cannot be supported. For projects where natural gas is used in small quantities to be eligible under the RRF scheme, natural gas cannot account for more than 20% of the final energy consumption of the equipment, machinery, energy generation.
- (35) To be supported by any of the two schemes, projects involving the production or use of hydrogen must solely produce or use hydrogen that meets or exceeds the criteria for renewable hydrogen or other renewable fuels of non-biological origin developed under the EU regulatory framework¹⁷ (‘renewable hydrogen’), or hydrogen that has life cycle greenhouse gas emissions savings of 70% relative to a fossil fuel comparator of 94 g CO₂e/MJ. As regards the definition of renewable hydrogen, if part of the EU regulatory framework for renewable hydrogen under the Directive (EU) 2018/2001¹⁸ is incomplete at the time of the conduct of the auctions, Slovakia will use the criteria defined in the draft framework for renewable hydrogen published by the Commission for public consultation on 23 May 2022¹⁹. Once work to develop the EU regulatory framework for renewable

¹⁷ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82) and the relevant Commission Delegated Acts therein.

¹⁸ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

¹⁹ Available here: https://ec.europa.eu/info/news/commission-launches-consultation-regulatory-framework-renewable-hydrogen-2022-may-20_en.

hydrogen under the Directive (EU) 2018/2001 is complete, the measures will be amended, if necessary, to comply with the requirements for renewable hydrogen and other renewable fuels of non-biological origin set out in the EU framework within 10 calendar days from the date of the adoption of the relevant EU legal acts. In all cases, following national rules for hydrogen, referring to EU regulatory framework, the Slovak authorities will require that projects involving the production or use of hydrogen solely produce or use hydrogen that has life cycle greenhouse gas emissions savings of at least 70% relative to a fossil fuel comparator of 94 g CO₂e/MJ.

- (36) While the schemes do not exclude support to biofuels, bio-liquids, biogas and biomass fuels, any such support will be subject to compliance with the sustainability and greenhouse gas emissions saving criteria laid down in Directive (EU) 2018/2001. However, biofuels from food and feed crops will not be eligible under any of the schemes.
- (37) The Slovak authorities explained that they do not expect electrification projects that may be supported under the schemes to lead to an increase of indirect emissions, i.e. they do not expect a displacement of greenhouse gas emissions to the electricity generation sector. First, in the Integrated National Energy and Climate Plan for the period 2021 to 2030²⁰, the Slovak authorities already planned an increase in low-carbon electricity generation capacity by expanding the total installed capacity of nuclear power plants²¹. On this basis, the Slovak authorities expect that such additional nuclear electricity generation capacity would become operational in the short term, and that nuclear power plants will then provide a stable and abundant electricity source. Second, the Slovak authorities indicated that the change in circumstances linked to the energy crisis will require further changes in the Slovak electricity mix. Notably, the Slovak authorities expect that planned investments into fossil-based power generation would be abandoned. The Slovak authorities indicated that such change in circumstances will be considered for the purpose of the next update of the Integrated National Energy and Climate Plan, expected to occur next year. Given the uncertainties linked to the development of the Slovak electricity mix during the schemes' duration, the Slovak authorities committed to analyse, as part of the ex-post evaluation (see Section 2.12) the impact of the schemes on the level of greenhouse gas emissions from electricity generation in Slovakia, with a view to verifying that (i) the schemes do not lead to an increase in greenhouse gas emissions linked to the production of fossil-based electricity, and should that be the case, (ii) the increase in greenhouse gas emissions linked to higher electricity demand does not entirely offset the greenhouse gas emission savings that the scheme aims at achieving. Moreover, the Slovak authorities committed to take the necessary actions to achieve a net reduction of greenhouse gas emissions, if the evaluation shows that the reduction in greenhouse gas emissions achieved thanks to the schemes was

²⁰ Slovakia, Integrated National Energy and Climate Plan for 2021 to 2030 prepared pursuant to Regulation (EU) 2018/1999 of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action, December 2019, available online at: [sk_final_necp_main_en_0.pdf \(europa.eu\)](#)

²¹ This refers notably to the ongoing works on two additional blocks of the Mochovce power plant, leading to an expected total installed capacity of 2 880 MW.

entirely offset by an increase in greenhouse gas emissions in the electricity production sector.

2.9.1.2 Reference projects

- (38) Slovakia has provided the following six reference projects, which were selected after preliminary stakeholder consultations were held by the Slovak authorities:
- (a) the replacement of a steam-based technology by an electrified technology ('Project A');
 - (b) the replacement of a natural gas reformer by an electrolyser, to produce renewable hydrogen ('Project B');
 - (c) the replacement of a blast furnace by an electric arc furnace, in steel production ('Project C');
 - (d) the installation of an Organic Rankine Cycle plant²² using waste heat produced by a reheating furnace as part of a production process ('Project D');
 - (e) the installation of a biomass steam boiler replacing a coal-fired boiler in the paper industry (using biomass instead of coal or natural gas to produce steam) ('Project E'); and
 - (f) the installation of industrial waste heat recovery technologies for input material preheating (substrate, semi products, etc.) resulting in energy efficiency increase and/or substantial decrease or elimination of fossil fuels ('Project F').
- (39) These projects are considered by Slovakia as representative of the different typologies of projects that will be granted aid under the two schemes.
- (40) To demonstrate the necessity of the aid under the schemes and prove their incentive effect, Slovakia has submitted a quantification of the cost and revenues of each of the six reference projects, the main features of which are summarised in the table below.

Project	Capital expenditure (investment costs) (in million euros)	Funding gap (in million euros)
A	50	-17
B	35	-24.2
C	340	-114.4

²² Organic Rankine Cycle processes are used to convert low- to medium-temperature heat sources (in this case, waste heat) into power, using an organic substance as working fluid.

D	20	-3
E	200	-68
F	30	-7.1

Table 1: Overview of costs and revenues of the reference projects

- (41) All six projects have an expected lifetime of 10 years, from 2023 to 2032. Energy prices (electricity, hydrogen, natural gas, CO₂ allowances) have been established based on market research and were found coherent across projects. A pre-tax weighted average cost of capital (WACC) of 10% is used to discount future cash-flows (including both expenditure and revenues) for all six reference projects.
- (42) Slovakia explained that it considers that, in the absence of aid, these decarbonisation projects would not be implemented, as the concerned undertakings would have no incentive to invest in less carbon-intensive production processes. The counterfactual scenario is therefore that no investment would be carried out. The funding gap of the reference projects is thus the negative net present value (NPV) of the project in the factual scenario over its lifetime.
- (43) The Slovak authorities confirmed that they will update their analysis of the reference projects listed in recital (40) before each call for tenders, and analyse the relevant costs and revenues of new categories of projects that may emerge as a result of the competitive bidding processes. Should that analysis reveal that, following market developments or changes in market conditions, aid is no longer necessary to carry out certain projects, those categories of projects would no longer be considered eligible under the schemes.

2.9.2 *Maximum aid amount*

- (44) Aid will be paid under the measures on the basis of the bids submitted by applicants but within the limits of effectively incurred investment costs justified by original accounting documents and supporting documentation. The relevant investment costs must:
- (a) directly relate to the implementation of an eligible project;
 - (b) be specified in the grant agreement, as amended;
 - (c) be directly linked to the achievement of a higher level of environmental protection; and
 - (d) be incurred after the submission of the aid application or exceptionally before the submission of the aid application in the situations described in point 31 CEEAG.
- (45) Where the investment costs refer to acquired assets, those assets must be new.
- (46) Investment costs become ineligible under the measures for the purpose of setting the maximum aid amount if, within five years or, in the case of SMEs, three years from the final payment to the beneficiary, any of the following occurs:

- (a) the cessation or relocation of the production activity outside the programme's territory;
 - (b) a change in ownership of an infrastructure, which confers an undue advantage on the undertaking; or
 - (c) a substantial change affecting the nature of the project or the conditions for its implementation, which would undermine its original objectives.
- (47) The following costs are considered as ineligible under the measures in order to set the maximum aid amount:
- (a) interest on loans and borrowings;
 - (b) cost of leasing;
 - (c) insurance premiums paid in Slovakia and abroad, interest, fines and penalties;
 - (d) banking charges, customs duties and taxes;
 - (e) costs incurred for the acquisition of land and real estate;
 - (f) costs incurred for the acquisition of means of transport and transport equipment;
 - (g) costs incurred for the acquisition of second-hand tangible assets;
 - (h) personnel costs;
 - (i) operating costs;
 - (j) costs incurred in connection with the preparation of the grant application and project management costs,
 - (k) costs linked to public procurement carried out pursuant to the Public Procurement Act;
 - (l) recoverable value added tax (VAT);
 - (m) marketing costs;
 - (n) costs linked to compliance with obligations under national or Union law; and
 - (o) normal costs of the undertaking.

2.9.3 *Allocation procedure*

- (48) Under the schemes, aid will be allocated through competitive bidding procedures open to all undertakings and to all eligible projects as described respectively in Sections 2.4 and 2.9.1.1. This process aims at ensuring that projects compete for the available aid in a transparent and non-discriminatory manner.

- (49) Slovakia explained that under the RRF scheme, the overall aid budget will be awarded through one call for tender which is expected to take place in 2022.
- (50) Aid under the MF scheme is expected to be awarded through four calls for tender as summarised in the table below.

Calls for tender	Expected timing	Financial allocation (EUR)
1	2022	350 000 000
2	2024	150 000 000
3	2026	125 000 000
4	2028	125 000 000

Table 2: Overview of envisaged calls for tender under the MF scheme

- (51) Slovakia explained that each call for tender under the measures will be open for a period of two to three months. The granting authority will make public the content of the tenders in advance to allow potential aid applicants sufficient time to prepare and submit their applications.
- (52) In each call for tender, the applications received that meet the eligibility criteria set out in Sections 2.4 and 2.9.1.1 will be ranked on the basis of:
- (a) The level of aid requested per tonne of CO₂e emissions avoided. The amount of emissions saved will be determined by comparing the amount of emissions expected under the proposed project and the reference quantity of CO₂e emissions calculated as the average of the observed data from five verified annual greenhouse gas emission reports immediately preceding the submission of the aid application, with the possibility to exclude one non-representative year. For the calculation, the applicant must take into account any difference in CO₂e emissions from processes directly related²³ to the project submitted even if they are transferred to another entity under the control of the applicant.
 - (b) The contribution to the achievement of the greenhouse gas emission reduction objective of the schemes (i.e., the total level of CO₂e emissions mitigated thanks to the project).
- (53) The applications will be assigned a score from 1 to 70 for the former criterion (recital (52)(a)) and a score from 1 to 30 for the latter (recital (52)(b)).
- (54) If the application of these selection criteria would result in several applications being ranked equally, two differentiating criteria will be applied. The first of these

²³ Emissions from linked processes include e.g. emissions that arise as an unavoidable side-effect of industrial activities subject to the ETS.

criteria requires aid applications to be ranked according to the project completion date, starting from the grant application with the earliest project completion date to the one with the latest project completion date. For the applications that still have the same ranking after the application of the first differentiating criterion, the second criterion will be applied and aid applications will be ranked on the basis of the level of reduction of particulate matter emissions they are expected to achieve.

- (55) The amount of aid awarded to each of the selected project will be determined based on the bid, in terms of EUR per tonne of CO₂e emissions saved, submitted in the aid application but cannot exceed the total amount of investment costs of the project as defined in Section 2.9.2.
- (56) In addition, Slovakia explained that the granting authority will monitor the greenhouse gas emissions generated by the supported projects according to EU ETS monitoring and reporting rules²⁴. If a project would not be carried out or if the emission savings achieved by the project would be below the level declared in the aid application, the level of support will be reduced through a penalty clause.
- (57) Slovakia confirmed that *ex post* adjustments to the outcome of the tendering procedure will not be possible under the schemes.
- (58) Slovakia explained that the budget of the measures takes into account the expected supply of projects and is set at a level that should ensure that the budget constitutes a bidding constraint in a competitive allocation process, meaning that it expects that not all tenderers will receive aid. In particular, in a preliminary consultation, Slovakia received 30 projects which could apply for funding under the schemes. On the basis of these projects, Slovakia estimated a cumulative investment cost for the potential applicants of over EUR 2 000 000 000 and a cumulative funding gap between EUR 680 000 000 and EUR 1 300 000 000. Slovakia also explained that the projects collected in the preliminary consultation are likely not to be an exhaustive list of the projects that could apply for support.
- (59) In case of undersubscription of any of the calls for tender, Slovakia committed to adjust the design of the competitive bidding process to restore effective competition. The necessary adjustments to the design of the process will be based on the causes identified for the undersubscription and, if necessary, will be subject to a stakeholder consultation. Slovakia committed to notify to the European Commission any resulting modification to the schemes.
- (60) Slovakia also explained that the first call for tender under the MF measure will take place after the call for tender under the RRF measure. This will ensure that, in case of undersubscription of the former, the design of the latter could be immediately adjusted to ensure effective competition.

²⁴ Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012 (OJ L 334, 31.12.2018, p. 1).

2.10 Cumulation

- (61) Cumulation of aid for the same project is only possible up to the amount that the beneficiary has bid for in the competitive bidding process described in Section 2.9.3.

2.11 Transparency

- (62) The legal basis of the measures includes a requirement for the Ministry of Environment to ensure compliance with the transparency requirements laid down in points 58 to 61 of the Guidelines on State aid for climate, environmental protection and energy 2022 ('CEEAG')²⁵. The relevant data of the measures will be published on a national website (www.minzp.sk) and on the Commission's transparency register.
- (63) In addition, the Ministry of Environment will be required to comply with the applicable transparency rules under the Recovery and Resilience Facility and the Modernisation Fund.

2.12 Ex-post evaluation

- (64) The Slovak authorities notified, together with the two aid schemes, a draft evaluation plan covering the two schemes and taking into account the best practices recalled in the Commission Staff Working Document on a Common methodology for State aid evaluation²⁶. The main elements of the evaluation plan are described below.
- (65) The evaluation plan describes the objectives of the schemes subject to evaluation, as outlined in Section 2.1, and comprises evaluation questions that address the direct effects of the schemes, the proportionality and appropriateness of the aid, and a number of indirect effects.
- (66) As regards direct effects, the plan investigates the capability of the schemes to achieve their decarbonisation objectives, taking into account both direct and indirect greenhouse gas emissions. As regards indirect effects, the plan assesses the positive effects of the schemes, such as the creation of jobs, as well as the schemes' potential distortive effects on competition.
- (67) The proportionality and appropriateness of the aid are assessed by checking whether the respective bidding procedures were sufficiently competitive and whether overcompensation of certain categories of projects was effectively avoided.

²⁵ Communication from the Commission – Guidelines on State aid for climate, environmental protection and energy 2022 (OJ C 80, 18.2.2022, p. 1).

²⁶ Commission Staff Working Document on Common methodology for State aid evaluation, 28.5.2014, SWD(2014) 179 final.

- (68) The evaluation plan identifies and describes the result indicators that will be used to assess the degree of achievement of the schemes' objectives and which are matched with the evaluation questions.
- (69) The evaluation plan also describes the methodology that will be applied to evaluate the schemes. The Slovak authorities intend to primarily employ quantitative methods (i.e. counterfactual analysis) to assess the impact of the schemes. The direct effects of the schemes on the beneficiaries will be identified by employing econometric methods, in particular a regression analysis of the type 'Difference-in-Differences' (DID), as described in the abovementioned Commission Staff Working Document²⁷. The Slovak authorities indicated that the choice of methodology is based on the current forecast concerning the implementation of the schemes. In light of the initial data on the implementation of the schemes, the Slovak authorities will fine-tune the methodology for the evaluation in agreement with the Commission.
- (70) The Slovak authorities committed to submit an interim evaluation report to the Commission by 30 June 2023. This report will contain the available early data and statistics on the implementation of the schemes as well as the final evaluation methodology that will have been devised based on the initial data and agreed with the Commission.
- (71) The final evaluation report for the RRF scheme will be submitted to the Commission by 30 September 2025, i.e. 9 months before the expiry of the RRF scheme. This report will also serve as a second interim report for the MF scheme.
- (72) The final evaluation report for the MF scheme will be submitted to the Commission by 31 March 2030, i.e. 9 months before the expiry of the MF scheme. This report will also serve as an additional report for the RRF scheme.
- (73) The Slovak authorities confirmed that the evaluation plan and the final evaluation reports will be published on the websites of the Slovak Recovery and Resilience Plan and of the Ministry of Environment.
- (74) The Slovak authorities confirmed that the evaluation will be conducted by an independent evaluation body in accordance with the criteria laid down in the evaluation plan and further developed in the interim evaluation report.
- (75) The Slovak authorities committed to inform the Commission of any difficulty identified during the evaluation process that could significantly affect the implementation of the agreed evaluation plan, in order to identify and agree on possible solutions.

3 ASSESSMENT

3.1 Existence of state aid

- (76) Article 107(1) TFEU states that *'any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort*

²⁷ See pages 22 to 25.

competition by favouring certain undertakings or the production of certain goods, shall, in so far as it affects trade between Member States, be incompatible with the common market’.

- (77) Slovakia declared that the support under the schemes will be financed with the resources allocated to Slovakia from the Recovery and Resilience Facility and the Modernisation Fund (Section 2.8), which are also considered as State resources since Member States have wide discretion to decide on the use of those resources. The schemes would therefore be financed from State resources.
- (78) The schemes are established in national law (Section 2.2) and the Slovak authorities determine all elements of the schemes, including the beneficiaries, the conditions of eligibility in the scheme, and the schemes’ budgets. The measures are therefore imputable to the State.
- (79) The aid beneficiaries will receive an advantage in the form of a direct grant that covers relevant investment costs (or a part thereof, depending on the bid), which they would otherwise have to face under normal market conditions.
- (80) In addition, the measures favour undertakings carrying out certain types of investments, namely those described under Section 2.9.1.1, which can be carried out with funding not exceeding investment costs (Section 2.9.2), and will therefore not be available to all undertakings active in the relevant sectors. The measures are therefore selective.
- (81) The schemes target industrial undertakings which are involved in the production of products that are widely traded within the European Economic Area (EEA). The schemes are therefore liable to distort competition on the related markets and affect trade across the EEA.
- (82) Therefore, the measures constitute State aid in the meaning of Article 107(1) TFEU.

3.2 Lawfulness of the aid

- (83) The respective legal bases for the schemes contain a suspensive clause, which makes the entry into force of the schemes and therefore the granting of the aid subject to the prior notification of the Commission’s decision approving the measures (recitals (10) and (11)). Thus, Slovakia has complied with the stand-still obligation set out in Article 108(3) TFEU.

3.3 Compatibility of the aid

- (84) The Commission has assessed the compatibility of the schemes on the basis of Article 107(3)(c) TFEU. The schemes aim at promoting economic activities in a manner that reduces greenhouse gas emissions and increases the level of environmental protection, as described in Section 2.1. The supported activities fall within the scope of the CEEAG. More specifically, they fall under the

category of aid for the reduction and removal of greenhouse gas emissions, including through support for renewable energy and energy efficiency²⁸.

- (85) The Commission has therefore assessed the measures under the general compatibility provisions in Section 3 CEEAG, as well as the specific compatibility criteria for aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy and energy efficiency in Section 4.1 CEEAG.

3.3.1 *Positive condition: the aid must facilitate the development of an economic activity*

3.3.1.1 Contribution to the development of an economic activity

- (86) Article 107(3)(c) TFEU provides that the Commission may declare compatible ‘*aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest*’. Therefore, compatible aid under that provision of the Treaty must contribute to the development of a certain economic activity (or of a certain economic area)²⁹. In accordance with this, point 23 CEEAG states that, when notifying aid, Member States must identify the economic activities that will be facilitated as a result of the aid and how the development of those activities is supported.
- (87) Slovakia has explained that the schemes support investments leading to a reduction of greenhouse gases emissions and to energy efficiency improvements in ETS sectors, beyond the applicable Union environmental standards (recital (8)). In particular, aid can be granted under the schemes for the installation and modernisation of technologies reducing greenhouse gas emissions in production processes, measures relating to changes in technological processes in order to reduce greenhouse gas emissions, and energy efficiency measures in industrial installations (recital (26)). The aid will therefore contribute to the development of economic activities in the ETS and related sectors.
- (88) The Commission therefore considers that the measures facilitate the development of certain economic activities as required by Article 107(3)(c) TFEU and point 23 CEEAG.

3.3.1.2 Incentive effect

- (89) State aid can only be considered to facilitate an economic activity if it has an incentive effect. An incentive effect occurs when the aid induces the beneficiary to change its behaviour towards the development of an economic activity pursued by the aid, and if this change in behaviour would otherwise not occur without the aid³⁰.

²⁸ See points 16(a) and (82) CEEAG.

²⁹ Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraphs 20 and 24.

³⁰ See in that sense Section 3.1.2 CEEAG, as well as judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraphs 20 and 24.

- (90) In order to demonstrate the presence of an incentive effect, point 28 CEEAG requires Member States to identify the factual scenario and the likely counterfactual scenario in the absence of aid. Furthermore, points 28, 38 and 90 CEEAG require the incentive effect and necessity of aid to be demonstrated through a quantification for the reference projects supported under the scheme following the description in point 51 CEEAG. Point 52 CEEAG explains that a counterfactual scenario may consist in the beneficiary not carrying out an activity or investment. Where evidence supports that this is the most likely counterfactual, the net extra cost may be approximated by the negative NPV of the project in the factual scenario without the aid over the lifetime of the project (hence, implicitly assuming that the NPV of the counterfactual is zero).
- (91) Slovakia has provided six distinct reference projects, representative of the different typologies of technologies with a high potential to reduce greenhouse gas emissions in industrial production (recital (38)), and considers that the most likely counterfactual scenario for all identified reference projects is that the beneficiary will not carry out the investment without the aid (recital (42)) but would continue producing based on the existing conventional equipment in use. As explained in the following, this is corroborated by the funding gaps identified for reference projects and by the Low Carbon Study (recital (7)) concluding that price signals of the EU ETS will not be significant enough to trigger the investments.
- (92) Since the measures are schemes, Slovakia provided a quantification of relevant costs and revenues for the six factual reference projects identified in recital (38), all of which have a negative NPV, meaning that the projects would not be profitable and thus not be carried out by a rational investor without additional support.
- (93) The calculations of the NPV for each of the projects and the main assumptions underlying those calculations were made available and explained to the Commission (recitals (40) and (41)). The Commission notes that most estimates are based on publicly available data from independent market research and considers that the respective parameters, including the investment costs, the fixed and variable operating costs including energy prices and the discount rate (WACC) are plausible. The calculations and cost estimates for the six reference projects were carried out at the same and sufficient level of accuracy.
- (94) The Commission considers that without support under the measures, and in the absence of further regulatory measures to incentivise the implementation of decarbonisation measures in industry, the beneficiaries lack the incentives to make the investments and operating decisions necessary to decarbonise their production processes. Therefore, the requirements in point 28 CEEAG are fulfilled.
- (95) Point 29 CEEAG stipulates that aid does not normally present an incentive effect in cases where works on the projects started prior to the aid application. Point 30 CEEAG further explains that the aid application may take various forms, including for example a bid in a competitive bidding process.
- (96) The Slovak authorities confirmed that aid will not be granted for projects started prior to the submission of the aid application, in line with point 30 CEEAG, with

the exception of the flexibility granted by point 31 CEEAG (recitals (17) and (18)).

- (97) The Commission therefore considers that the measures have an incentive effect.

3.3.1.3 Compliance with EU law

- (98) State aid cannot be declared compatible with the internal market if the supported activity, the aid measure, or the conditions attached to it entail a violation of relevant Union law³¹.
- (99) Based on the information submitted by the Slovak authorities, the Commission has no reason to consider that the measures would involve any breach of relevant Union law.
- (100) Therefore, the Commission considers that the measures do not infringe relevant Union law, and that the requirements of point 33 CEEAG are fulfilled.

3.3.1.4 Conclusion

- (101) The Commission therefore concludes that the measures fulfil the first (positive) condition of the compatibility assessment, i.e. that the aid facilitates the development of an economic activity pursuant to the requirements set out in Section 3.1 CEEAG.

3.3.2 *Negative condition: the aid cannot unduly affect trading conditions to an extent contrary to the common interest*

3.3.2.1 Necessity of the aid

- (102) Point 89 CEEAG states that the Member State must identify the policy measures already in place to reduce greenhouse gas emissions and that the full costs of greenhouse gas emissions may not yet fully be internalised despite the implementation of measures to that effect, such as the EU ETS and other related measures or policies. In order to demonstrate the necessity of aid, points 38 and 90 CEEAG explain that, in the case of schemes, the Member State must show that the reference project(s) would not be carried out without the aid, taking into account the counterfactual situation, as well as relevant costs and revenues including those linked to measures identified in point 89 CEEAG. Point 91 CEEAG explains that where the Member State demonstrated that there is a need for aid, the Commission presumes that a residual market failure remains, which can be addressed through aid for decarbonisation, unless it has evidence to the contrary.
- (103) To ensure that aid remains necessary for each eligible category of beneficiary, Member States must update their analysis of relevant costs and revenues at least every three years for schemes that run longer than that, as set out in point 92 CEEAG. The Slovak authorities confirmed that they will update the analysis of costs and revenues of the reference projects before each call for tenders, and analyse the relevant costs and revenues of new categories of projects that may

³¹ See point 33 CEEAG, and Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 44.

emerge as a result of the competitive bidding processes (recital (43)). The Commission notes that by doing so, the Slovak authorities will ensure that aid remains necessary for each eligible category of project under the measures.

- (104) The Commission recalls its analysis in recitals (91) to (93) and its conclusion in recital (94) that the reference projects would not be carried out without the aid given the significant gap between their costs and the projected revenues. Therefore, the requirements in point 90 CEEAG are fulfilled. Moreover, while the existing negative externalities are partially mitigated by the EU ETS, the current carbon price is not sufficiently high to trigger the necessary investments in technologies that bring emissions substantially below current benchmarks (recital (7)). On this basis, the Commission considers that without further measures incentivising undertakings to reduce the greenhouse gas emissions associated with their economic activities, the market will not deliver the necessary investments. As the Slovak authorities demonstrated that aid under the measures is necessary, in line with point 91 CEEAG, the Commission considers that a residual market failure remains and that it can be adequately addressed by the measures.
- (105) The Commission therefore considers that the measures are necessary to support the targeted economic activities in a manner that increases environmental protection.

3.3.2.2 The appropriateness of the aid

- (106) Point 93 CEEAG states that the Commission presumes the appropriateness of State aid for achieving decarbonisation goals provided all other compatibility conditions are met. It further sets out that, given the scale and urgency of the decarbonisation challenge, a variety of instruments, including direct grants, may be used.
- (107) The Commission therefore considers that, in light of the overall assessment of the compatibility of the measures, the aid in the form of direct grants is an appropriate instrument to support the targeted economic activity in a manner that increases environmental protection.

3.3.2.3 Eligibility

- (108) Point 95 CEEAG explains that decarbonisation measures targeting specific activities which compete with other unsubsidised activities can be expected to lead to greater distortions of competition, compared to measures open to all competing activities. As such, Member State should give reasons for measures that do not include all technologies and projects that are in competition. Furthermore, Member States must regularly review eligibility rules and any rules related thereto to ensure that reasons provided to justify a more limited eligibility continue to apply for the lifetime of each scheme, as set out in point 97 CEEAG.
- (109) As explained by the Slovak authorities, aid can be granted under the schemes for projects aimed at reducing greenhouse gas emissions related to the beneficiaries' industrial activities, or improving the energy efficiency of their installations, irrespective of the technology used (recitals (25) and (26)). The Slovak authorities also indicated that the schemes would be applicable to all undertakings, which are active in the industrial sectors listed in Annex 1 to the Slovak Trading Act, which

correspond to the sectors subject to the EU ETS (recital (13)) and that those companies would not be in competition with undertakings in sectors not subject to the ETS. In any event, the Slovak authorities provided reasons to limit the scheme to sectors subject to the ETS (recital (25)). First, this makes it possible to target companies with highest emissions and therefore highest emission reduction potential. Second, as they are all subject to the ETS, the emissions of the different potential applicants are known and monitored based on an established methodology facilitating the comparison of bids and monitoring of emission reductions. Finally, the Slovak authorities indicated that sectors not subject to the ETS also benefit from other support schemes to reduce emissions and improve energy efficiency (recital (13)). The Commission therefore considers that the schemes appear to cover all technologies and projects that are in competition and that are technically capable of contributing efficiently to greenhouse gas emissions reductions, as required under point 95 CEEAG. In any event, the Commission notes that Slovakia provided objective reasons justifying that the schemes be limited to sectors subject to the ETS only, and having assessed those reasons, the Commission concludes that limiting eligibility under the schemes to undertakings active in certain industrial sectors does not unduly distort competition.

3.3.2.4 Public consultation

- (110) Point 99 CEEAG requires Member States to consult publicly on the competition impacts and proportionality of proposed measures, prior to the notification of aid. The respective requirements apply only to measures approved from 1 July 2023. Therefore, point 99 CEEAG is not applicable to the measures under assessment.

3.3.2.5 The proportionality of the aid, including cumulation

- (111) Point 47 CEEAG explains that State aid is considered to be proportionate if the aid amount per beneficiary is limited to the minimum needed for carrying out the aided project or activity. Point 103 CEEAG specifies that aid for reducing greenhouse gas emissions should in general be granted through a competitive bidding process to ensure that the objectives of the measure can be attained in a proportionate manner which minimises distortions of competition and trade.
- (112) Point 49 CEEAG states that when the aid amounts are determined through a competitive bidding process, the result of that process will provide a reliable estimate of the minimum aid required so that detailed assessments of the net extra costs necessary for carrying out the investment will not be required. It further provides the criteria that must be fulfilled so that the aid is deemed proportionate:
- (a) The bidding process is open, clear, transparent and non-discriminatory, based on objective criteria, defined *ex ante* in accordance with the objective of the measure and minimising the risk of strategic bidding;
 - (b) The criteria are published sufficiently far in advance of the deadline for submitting applications to enable effective competition;
 - (c) The budget or volume related to the bidding process is a binding constraint in that it can be expected that not all bidders will receive aid, the expected number of bidders is sufficient to ensure effective competition, and the design of undersubscribed bidding processes during the implementation of

a scheme is corrected to restore effective competition in the subsequent bidding processes or, failing that, as soon as appropriate; and

- (d) *Ex post* adjustments to the bidding process outcome are avoided as they may undermine the efficiency of the process's outcome.
- (113) Point 104 CEEAG further sets out that the bidding process should, in principle, be open to all eligible beneficiaries to enable a cost effective allocation of aid and reduce competition distortions.
- (114) Slovakia explained that the measures will be schemes in which aid is allocated through a competitive bidding process that is open to all parties with eligible projects (Section 2.9.3). There are no proposed exceptions to competitive bidding. The criteria for the participation in the bidding process are defined ex-ante, in a transparent and non-discriminatory way, and appear justified and proportional in light of the objective of the measures. In particular, the Commission notes that any undertakings may submit bids under the measures as long as they fulfil certain minimum criteria referring to their eligibility (recital (13) and Section 2.9.1.1) and their financial capacity to implement the proposed projects (recital (14)). As the maximum aid amount is limited to the investment costs, the competitive bidding process might not attract projects with operating costs exceeding operating revenues. However, the quantifications of cost and revenues of reference projects provided by Slovakia show that funding gaps are smaller than investment costs for all reference projects (recital (40)), so that it is not established that the maximum aid amount would discourage participation of certain types of projects. In addition, the maximum aid amount is justified by Slovakia's objective to only support projects that can financially be sustained with an investment grant without requiring continuous support during operation. Each call for tender under the measures will be open for a period of two to three months, and the granting authority will make public the content of the tenders in advance to allow potential aid applicants sufficient time to prepare and submit their applications (recital (51)). The budget has been set at a level that is lower than the expected demand for aid, as shown by the results of a preliminary call for the expression of interest referred (recital (58)). Ex-post adjustments to the outcome of the tendering process will not be possible under the schemes (recital (57)).
- (115) Therefore, points 103 and 49 CEEAG are complied with.
- (116) Point 50 CEEAG explains that the selection criteria used for ranking bids should put the contribution to the main objectives of the measure in relation with the aid amount requested by the applicant.
- (117) The Commission notes that the Slovak authorities will use two selection criteria under the schemes (recitals (52) and (53)):
- (a) the level of aid requested per tonne of CO₂e emissions avoided, which will be assigned a weight of 70% in the schemes' scoring system; and
 - (b) the contribution to the achievement of the greenhouse gas emission reduction objective of the schemes, which will be assigned a weight of 30% in the schemes' scoring system.

- (118) Only in case these selection criteria would result in several applications being ranked equally, differentiating criteria will be applied. These are the projects' completion date and their contribution to the reduction of particulate matter emissions (recital (54)).
- (119) In this respect, the Commission notes that criterion (a) is appropriate to select projects that make a cost-effective contribution to the main objectives of the schemes as requested by point 50 CEEAG. Criterion (b) aims at increasing the guarantee that greenhouse gas emissions will decrease in significant volumes and gives more weight to projects delivering large volumes of greenhouse gas emission reductions at the same time. While this criterion does not put the contribution to the main objectives of the measure in relation with the aid amount requested by the applicant, this criterion is justified by the commitment undertaken by Slovakia in its RRP and the objective to make significant progress in industrial decarbonisation. The criterion does not account for more than 30 % of the weighting of all the selection criteria. With regard to the differentiating criteria, the Commission notes that first, the criterion related to the projects' completion date is in line with the measures' objective to reduce greenhouse gas emissions and improve energy efficiency in a timely manner, and the criterion related to the project's potential to reduce particulate matter emissions ensure that the selected projects also have a positive effect on air quality; second, both differentiating criteria give priority, among projects showing the same level of cost-effectiveness, to projects displaying a higher environmental ambition.
- (120) Therefore, the requirements in point 50 CEEAG are fulfilled.
- (121) Finally, point 56 CEEAG explains that when aid under one measure is cumulated with aid under other measures, Member States must specify the method used to ensure that the total amount of aid for a project or an activity does not lead to overcompensation or exceed the maximum aid amount allowed under the CEEAG.
- (122) Slovakia confirmed that cumulation of aid with aid granted under other measures for the same project is only possible up to the amount that the beneficiary has bid for in the competitive bidding process (recital (61)). Therefore, the requirements in point 56 CEEAG are fulfilled.
- (123) Therefore, the Commission considers that the aid granted under the measures is proportionate.

3.3.2.6 The transparency of the aid

- (124) Slovakia will ensure compliance with the transparency requirements laid down in points 58 to 61 CEEAG. The relevant data of the measures will be published on a national website³² and on the Commission's transparency register³³ (recital (62)).

³² www.minzp.sk

³³ <https://webgate.ec.europa.eu/competition/transparency/public>

- (125) In addition, the Ministry of Environment will be required to comply with the applicable transparency rules under the Recovery and Resilience Facility and the Modernisation Fund (recital (63)).

3.3.2.7 Avoidance of undue negative effects of the aid on competition and trade

- (126) Point 70 CEEAG explains that the Commission will approve measures under the CEEAG for a maximum period of 10 years. As stated in recitals (20) and (21), the RRF scheme will run until 30 June 2026, while the MF scheme will apply until 31 December 2030. For both schemes, the requirement in point 70 CEEAG is respected.
- (127) According to point 117 CEEAG, aid for the decarbonisation of industrial activities must reduce the emissions directly resulting from that industrial activity. As explained by the Slovak authorities, aid can only be granted under the schemes for projects that result in a reduction of greenhouse gas emissions directly stemming from the beneficiaries' industrial activities, compared to a reference period. In particular, in order to ensure that the schemes provide material contributions to the decarbonisation objective, the schemes require that supported projects lead to a reduction in emissions of at least 30% compared to the reference period (under the RRF scheme), or by at least 10 000 tonnes of CO₂e (under the MF scheme) (recital (29)). Therefore, the Commission considers that the schemes comply with point 117 CEEAG.
- (128) Point 116 CEEAG explains that the aid must not merely displace the emissions from one sector to another and must deliver overall greenhouse gas emissions reductions. Points 127 to 129 CEEAG require Member States to explain how they intend to avoid the risk of aid eventually stimulating or prolonging the consumption of fossil-based fuels and energy. In that regard, the Slovak authorities explained that they do not expect possible increases in indirect greenhouse gas emissions to offset greenhouse gas emission reductions obtained via the supported projects given the evolution of their electricity mix and, in particular, the increase in production of decarbonised electricity. Slovakia also committed to evaluate this aspect of the schemes and take actions in case the schemes would lead to excessive indirect emissions (recital (37)).
- (129) As regards projects involving the production or use of hydrogen, the Commission notes that the schemes will require that the hydrogen at minimum has life cycle greenhouse gas emissions savings of at least 70% relative to a fossil fuel comparator of 94 g CO₂e/MJ and if possible qualifies as renewable hydrogen and meet the requirements described in recital (35). Therefore, considering that indirect CO₂ emissions linked to the production or use of hydrogen that has life cycle greenhouse gas emissions savings of at least 70% relative to a fossil fuel comparator of 94 g CO₂e/MJ are expected to be low compared to the significant greenhouse gas emission savings that the projects will enable, the Commission considers that for those types of projects, the risk of displacement of emissions from one sector to another is low. In any event, as regards indirect emissions related to electrification projects, the Commission notes that according to the Slovak authorities, electrification projects that may be supported under the schemes are not expected to lead to a displacement of greenhouse gas emissions to the electricity generation sector. First, it is expected that in the short

term, Slovakia will increase significantly its nuclear electricity generation capacity via the expansion of nuclear power plants, which – once operational – will provide ample supply of nuclear electricity. Second, the Slovak authorities expect the Slovak electricity mix to decarbonise even further in the future, as a result of current energy crisis and the consequent abandonment of fossil-based power generation projects. The Commission also notes that the Slovak authorities committed to assess, as part of the evaluation plan, whether a displacement of emissions took place, and, should this lead to excessive greenhouse gas emissions compared to the direct greenhouse gas emission savings, to act accordingly (recital (37)). Therefore, the Commission considers that the measures comply with point 116 CEEAG.

- (130) Point 120 CEEAG explains that Member States must demonstrate that reasonable measures will be taken to ensure that projects granted aid will actually be developed. The Commission notes that the Slovak authorities will monitor the implementation of supported projects and verify whether they reach their decarbonisation objectives. First, the Slovak authorities will disburse the aid on the basis of actual investment costs incurred by beneficiaries as part of the selected projects (recital (17)). Second, the Slovak authorities will also monitor the actual greenhouse gas emissions resulting from the supported projects, and reduce the payments by applying a penalty clause should the greenhouse gas emission savings achieved by the project be below the level declared in the aid application (recital (56)). Third, the Slovak authorities will impose certain minimum eligibility criteria as regards the financial capacity of the applicants (recital (14)), which will address the risk that beneficiaries are unable to realise their project even after receiving the aid.
- (131) Point 122 CEEAG states that where aid is primarily required to cover short-term costs that may be variable, Member States should confirm that the production costs on which the aid amount is based will be monitored and the aid amount updated at least once per year. The aid must be designed to prevent any undue distortion to the efficient functioning of markets, and preserve efficient operating incentives and price signals, as set out in point 123 CEEAG. The Commission notes that this requirement is not relevant for the measures as the aid is capped at the investment costs of a given project (recital (17)).
- (132) Points 124 and 125 CEEAG state that the Commission will carry out a case-by-case assessment for measures that include dedicated infrastructure projects, taking into account steps to mitigate the distortive effect of aid to such infrastructure. The Commission notes that this requirement is not relevant for the measures as no aid under these schemes covers dedicated infrastructure.
- (133) Point 132 CEEAG states that Member States should demonstrate how the proposed measure will not lead to distortions of competition, for example, through increased market power, should the measure be expected to benefit a particularly limited number of beneficiaries. The Commission notes in this respect that the Slovak authorities have designed the schemes as open measures, applicable to all players operating in the eligible industrial sectors and to any decarbonisation technology (recitals (13), (25) and (26)) and that the preliminary call for expression of interest conducted by Slovakia showed the interest of at least 30 project developers (recital (58)). The Commission also notes that aid under both schemes is granted on the basis of competitive bidding processes

allowing sufficient time for applicants to submit their bids (recital (51)), based on transparent criteria and on selection criteria yielding highest cost-effectiveness (recital (51) to (55)). Also Slovakia will verify ex post the reality of the investment and the CO₂ emissions (recital (56)). The Commission therefore notes that the measures' design provides sufficient safeguards against the risk of undue distortions of competition, including in the form of increased market power.

- (134) Moreover, the Commission assessed the measures' potential negative effects on trade, notably in the form of a subsidy race between Member States that may arise in particular with respect to the choice of a location. The Commission notes that the schemes apply to existing industrial production facilities, as they aim at reducing greenhouse gas emissions compared to the level associated with the technologies or production processes that aid beneficiaries currently use (recital (26)). Therefore, the Commission considers that the existing industrial production sites, rather than the availability of aid, will drive the beneficiaries' choice of the location.
- (135) The Commission therefore considers that aid granted under the measures avoids undue negative effects on competition and trade.
- (136) Points 127 to 129 CEEAG explain that the aid measure may not stimulate or prolong the consumption of fossil-based fuels and energy, thereby hampering the development of cleaner alternatives and significantly reducing the overall environmental benefit of the investment. Whereas measures that incentivise new investments in energy based on the most polluting fossil fuels will not be considered to have any positive environmental effects, Member States must explain how a lock-in of industrial production technologies using natural gas will be avoided. The Commission notes that under both schemes, the Slovak authorities require that projects are compliant with the DNSH principle and fossil fuels may only be supported to the extent that the DNSH principle allows so (recital (32)). Under both schemes, Slovakia excludes projects involving the use of solid fossil fuels (recital (32)) and will require that projects achieve a level of greenhouse gas emissions below ETS benchmarks for free allocation of allowances (recital (29)). Under the MF scheme, other types of fossil fuels may be used to start-up or shut-down the installation or ensuring the functioning requirements of the unit during its operation or maintenance (recital (32)). Moreover, for projects involving investments into equipment, machinery or energy generation facilities that use natural gas as energy or feedstock for more than 20% of their final energy consumption, the beneficiary is required to commit to implementing decarbonisation technologies such as carbon capture and storage or carbon capture and use, or to replacing natural gas with renewable or low-carbon gas by 2045. Applicants will therefore be required to submit as part of their bids a plan for the phasing out of natural gas. The Slovak authorities committed to regularly monitor the implementation of such plan for the phasing out of natural gas and to apply a penalty to beneficiaries not having complied with it (recital (33)). By doing so, the Slovak authorities will ensure that investments in equipment and machinery using natural gas will trigger the transition towards the use of renewable or low-carbon feedstock or energy in industrial processes. As concerns the RRF scheme, the Slovak authorities will only consider eligible projects using natural gas, provided that the use of natural gas is limited and does not account for more than 20% of the final energy consumption of the equipment, machinery, energy generation facilities (recital (34)). This will ensure that natural

gas remains an ancillary energy source or feedstock. Therefore, the Commission considers that aid under the schemes is not expected to lock-in industrial production technologies based on natural gas.

3.3.3 *The ex-post evaluation plan as part of the compatibility assessment*

- (137) The CEEAG enable the Commission to require that notifiable aid schemes be subject to ex-post evaluation, and they stipulate that ex-post evaluation should be required where the potential distortions of competition and trade stemming from the scheme at hand are particularly high. In particular, ex-post evaluation is required for (1) schemes with State aid budgets or accounted expenditures exceeding EUR 150 million in any given year or EUR 750 million over the total duration of the scheme, (2) schemes with novel characteristics, and (3) schemes in areas where significant market, technology or regulatory changes are foreseen. The ex-post evaluation requirement only applies for aid schemes with a total duration exceeding three years, starting from 1 January 2022.
- (138) The Commission considers that the schemes qualify for ex-post evaluation, as they each fulfil the CEEAG criteria of (i) a duration exceeding three years, (ii) novel characteristics, being among the first schemes for investment support for industrial decarbonisation based on a competitive bidding process, and (iii) a State aid budget exceeding EUR 150 million in any given year. The Commission considered that the EUR 150 million threshold will likely be exceeded by each scheme separately, given their respective budgets and duration and the number of calls foreseen for each scheme.
- (139) The Commission further considers that given their similarities in terms of objectives, scope and design and the significant overall budget, the effect of the two schemes needs to be assessed cumulatively. Therefore, and in particular given the shared objectives and common features of the two schemes, the Commission considers that a single ex-post evaluation plan covering both schemes is appropriate.
- (140) As indicated in recital (64), the Slovak authorities submitted an evaluation plan for the measures as an integral part of the notification.
- (141) The objective of the evaluation plan is to demonstrate, by means of both quantitative and qualitative analyses, the direct effects of the schemes, the proportionality and appropriateness of the aid, as well as a number of indirect effects including potential distortive effects on competition.
- (142) The Commission considers that the notified evaluation plan contains all the necessary elements: the objectives of the schemes to be evaluated, the evaluation questions, the result indicators, the envisaged methodology to conduct the evaluation, the proposed timing of the evaluation including the date of submission of the evaluation reports and the modalities for ensuring the publicity of the evaluation (Section 2.12). The Commission notes that:
- (a) The scope of the evaluation is defined in an appropriate way. It comprises a list of relevant evaluation questions with matched result indicators (recitals (65) to (68)). Moreover, the evaluation plan identifies and explains the main methods that will be used in order to identify the effects of the schemes (recital (69));

- (b) The Slovak authorities committed, in accordance with the Commission's requirements, that the evaluation will be conducted by an independent evaluation body in accordance with the criteria laid down in the evaluation plan and further developed in the interim evaluation report (recital (74));
 - (c) The commitment made by Slovakia to submit to the Commission an interim evaluation report by 30 June 2023, a final evaluation report for the RRF scheme by 30 September 2025 and a final evaluation report for the MF scheme by 31 March 2030 is appropriate (recitals (70) to (72)). The Commission acknowledges that the evaluation methods will be further fine-tuned in common accord between the Slovak authorities and the Commission (recital (69)); and
 - (d) The proposed modalities for the publication of the evaluation results are adequate to ensure transparency (recital (73)).
- (143) Moreover, the Commission notes Slovakia's commitment to communicate to the Commission any difficulty that could significantly affect the agreed evaluation in order to work out possible solutions (recital (75)).
- (144) The Commission reminds the Slovak authorities that the application of the measures must be suspended with immediate effect if the final evaluation reports are not submitted in good time and sufficient quality or are otherwise not in compliance with the approved evaluation plan³⁴, and that any subsequent aid measure with a similar objective must take into account the results of the evaluation³⁵.

3.3.4 *Weighing up the positive and negative effects of the aid*

- (145) As indicated in recital (87), the measures contribute to the development of certain economic activities and will contribute to the decarbonisation of the ETS sectors.
- (146) Point 134 CEEAG explains that, as long as there are no obvious indications of non-compliance with the 'do no significant harm' principle and as long as all other compatibility conditions are met, the Commission will typically find the distortions to competition of decarbonisation measures to be offset by their positive effects. Footnote 73 CEEAG states that for measures which are identical to measures within Recovery and Resilience Plans as approved by the Council, their compliance with the 'do no significant harm' principle is considered fulfilled as this has already been verified.
- (147) Based on the information submitted by the Slovak authorities, the Commission has no reason to consider that the measures would not comply with the 'do no significant harm' principle³⁶.

³⁴ See point 457 CEEAG.

³⁵ See point 463 CEEAG.

³⁶ Insofar as a measure under this Decision falls under a measure of a national Recovery and Resilience Plan, this conclusion is without prejudice to the assessment of the Commission in the context of the RRF Regulation, of the satisfactory fulfilment of any related milestones and/or targets, as established

- (148) As described in Section 3.3.3, Slovakia submitted an adequate ex-post evaluation plan. The plan will allow the Commission to verify:
- (a) whether the assumptions and conditions underlying this decision have been realised;
 - (b) the necessity and effectiveness of the measures in light of its predefined objectives;
 - (c) the impact of the measures on competition and trade; and
 - (d) that no undue distortive effects arise throughout the duration of the measures that are contrary to the interests of the Union.
- (149) All other compatibility conditions are met for the measures. Therefore, the Commission considers the aid compatible with the internal market under Article 107(3)(c) TFEU.

4 AUTHENTIC LANGUAGE

- (150) As mentioned in recital (3), Slovakia has accepted to have the decision adopted and notified in English. The authentic language will therefore be English.

5 CONCLUSION

The Commission has accordingly decided not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site: <http://ec.europa.eu/competition/elojade/isef/index.cfm>.

in the respective Council Implementing Decisions approving the national Recovery and Resilience Plan.

Your request should be sent electronically to the following address:

European Commission,
Directorate-General Competition
State Aid Greffe
B-1049 Brussels
Stateaidgreffe@ec.europa.eu

Yours faithfully,

For the Commission

Margrethe VESTAGER
Executive Vice-President