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COMMUNICATION FROM THE COMMISSION

Framework for State Aid measures to support the Clean Industrial Deal (Clean Industrial Deal State Aid Framework)

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1. INTRODUCTION

(1) On 26 February 2025, the Commission adopted the Communication on The Clean Industrial Deal: A joint roadmap for competitiveness and decarbonisation ('Clean Industrial Deal')[1]. This Communication accompanies the Clean Industrial Deal by setting out how Member States can design State aid measures to support their objectives related to the Clean Industrial Deal.

(2) The Clean Industrial Deal sets out actions to improve access to affordable energy, to boost demand and supply of clean tech products, to unlock public and private investments, to power the circular economy, to develop international partnerships and to secure skills and quality jobs for social fairness. It provides a comprehensive growth strategy for a competitive, resilient, decarbonised industry in the Union, offering opportunities for investors and contributing to social cohesion and equity across all regions. The Clean Industrial Deal represents a commitment to accelerate decarbonisation, reindustrialisation and innovation, all at the same time and across the entire continent, also reinforcing Europe's resilience. It presents European industry with a stronger business case for large climate neutral investments in energy intensive industries and clean tech. It underlines the need for unlocking investment to allow for sufficient manufacturing capacity in the Union, creating lead markets for clean tech, abating high energy prices, providing the right conditions for companies to grow, compete and lead world-wide as well as to address distortions caused by foreign subsidies.

1.1. NEED TO INCENTIVISE INVESTMENTS IN EUROPE

(3) To achieve the ambitions of the Clean Industrial Deal, considerable investment will be needed. Funds will therefore need to be mobilised, mainly from private sources, but, where necessary, incentivised or complemented by public funds.

(4) As outlined by the Clean Industrial Deal Communication, investments are needed to further accelerate the roll-out of renewable energy, to deploy industrial decarbonisation, and to ensure sufficient manufacturing capacity of clean tech. This Communication specifies the criteria the Commission will apply when assessing State aid measures that Member States intend to take to contribute to these goals. It enables a longer planning horizon for Member States and investment predictability and security for businesses, without unduly distorting competition and trade and while preserving cohesion objectives.

(5) The need to enhance European manufacturing capacity for net-zero technologies and their key components is also recognised by the Net Zero Industry Act

[1] COM(2025) 85 final.

(NZIA)[2], addressing already certain barriers to scaling up production in Europe. Member States are encouraged to accelerate eligible clean tech manufacturing investments by recognising them as net-zero strategic projects in line with the conditions provided in the NZIA. While the NZIA will increase the competitiveness of the net-zero technology sector, attract investments, and improve market access for clean tech in the EU, certain clean tech investments may require additional support to make sure that capacity is increased in the Union, thereby allowing the acceleration of the net-zero transition and increasing European resilience in this area. Against this background, this Communication sets out the conditions under which additional public support may be granted to projects that enhance resilience while minimising competition distortions.

(6) In addition, to provide demand-side support and incentivise the deployment of clean technology products, Member States may introduce tax incentives in the form of accelerated depreciation, including immediate expensing, for the acquisition of clean technology assets required for the transition to a net-zero economy. Measures which are not designed to selectively favour a specific undertaking or sector and are de jure and de facto open to all actual and potential operators are regarded as general in nature and thus do not constitute State aid[3]. This applies also to products not covered by this Communication. However, where incentives for the acquisition of clean technology products are selective and therefore involve State aid, the Commission will consider such aid compatible with the internal market based on the conditions set out in this Communication.

(7) Crowding-in private investments by way of financial instruments is of vital importance. For example, Member States can co-invest with private investors on market terms.[4] At the same time, certain groups of private investors, such as pension funds and insurance undertakings, remain risk-averse despite their general capacity to invest. Therefore, this Communication also sets out the conditions based on which Member States can further incentivise such private investors through schemes to reduce risks of investments in certain portfolios of projects. Such schemes must ensure additionality, meaning that through reducing the risks associated with the investment they crowd in private investors that otherwise would not have invested in the same type of projects. To ensure that the aid is passed on to the relevant projects to the largest extent possible, such schemes should limit by their design the aid to the investors to the minimum necessary. Member States can consider implementing such schemes also via setting up a Member State compartment under the InvestEU programme. InvestEU implementing partners and their private investors can co-invest in such

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[2] Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem, OJ L, 2024/1735, 28.6.2024.

[3] See Commission Notice on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union, OJ C 262, 19.7.2016, p. 1 ('Notice on the notion of aid'), section 5.

[4] If a public authority invests on market terms (for example based on *pari passu* terms alongside private investors or where market conformity is established based on other instruments such as benchmarking), the instruments do not contain State aid within the meaning of Article 107(1) of the Treaty. See Notice on the notion of aid, section 4.2.3.

schemes, as long as no implementing partner or private investor benefits from a double guarantee from the Member State and other public sources (including EU funds) for the same investment.

1.2. SIMPLIFICATION REQUIRED FOR SPECIFIC MEASURES ENSURING ACCELERATION AND SUFFICIENT INVESTMENT

(8) The Union's rules on State aid contribute to the internal market not being fragmented and the level playing field being preserved. The integrity of the internal market is important to withstand external pressure and to avoid subsidy races between Member States to the detriment of cohesion within the Union.

(9) By setting out compatibility conditions for measures aimed at developing economic activities via investments, this Communication complements the existing State aid guidelines, which already contain possibilities for Member States to support many actions proposed in the Clean Industrial Deal.

(10) Other measures supporting the Clean Industrial Deal, such as aid to promote the circular economy and bioeconomy, may be granted without prior notification under the General Block Exemption Regulation[5] or notified under Section 4.4 of the Guidelines on State aid for Climate, Environmental protection and Energy ('CEEAG')[6] even though they are not covered by the scope of this Communication. The Commission encourages Member States to make full use of the existing possibilities to reach the common goals of the Clean Industrial Deal and will treat such cases as a priority.

(11) The simplified compatibility conditions of this Communication compared to other existing State aid guidelines are justified by the need to enable and accelerate specific investments and activities. The tools provided by this Communication are complementary and additional to the existing State aid rules, which remain in force, most notably the CEEAG, the Regional Aid Guidelines ('RAG')[7] or the General Block Exemption Regulation. Measures that do not meet the simplified criteria set out in this Communication, will be assessed pursuant to other State aid rules. Aid to new entrants investing into certain state of the art decarbonised technologies is possible under sections 4 and 6 of this Communication. Other support for new entry is also possible under a number of other existing State aid rules that continue to apply (such as CEEAG, RAG, as start-up and risk finance aid, and under the General Block Exemption Regulation). The Commission encourages Member States to make full use of all available State aid rules and to select the appropriate State aid rules fitting the nature and design of their measures. This applies in particular to decarbonisation and energy efficiency measures that involve greenfield investments of new entrants, which will be assessed based on the available provisions of CEEAG to ensure that specific risks related in particular to overcapacity and other market distortions will be

[5] Commission Regulation (EU) 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187 26.6.2014, p. 1) ('General Block Exemption Regulation').

[6] Guidelines on State aid for climate, environmental protection and energy 2022, OJ C 80, 18.2.2022, p. 1.

[7] Guidelines on regional State aid, OJ C 153, 29.4.2021, p. 1.

prevented. In view of the strategic importance of supporting competitive manufacturers, including new entrants, who drive decarbonisation through innovation, the Commission will treat such cases as a priority and aim to take a decision within 6 weeks after complete notification.

(12) The compatibility conditions outlined in this Communication are based on the case practice and relevant experience gathered by the Commission, including from the application of the Temporary Crisis and Transition Framework ('TCTF'), which is a temporary framework that will be replaced by this Communication.[8]

(13) Fully recognising Member States' rights to determine their energy mix, the Commission will conduct a timely assessment of State aid cases for nuclear energy generation, including for small and advanced modular reactors, with a view to ensuring legal certainty for such aid, in line with the Treaty[9] or with any applicable guidelines, fully respecting technological neutrality.

(14) Further, in line with the Clean Industrial Deal and as announced in the Automotive Action Plan[10]: "*the Commission will propose, in cooperation with Member States and the industry, conditions for inbound foreign investments the automotive sector to further increase their added value for the EU. […] One of the priority areas for this will be the battery supply chain. While work on foreign investments is ongoing, the Commission and Member States will ensure that foreign direct investments are used to create added value in Europe, especially when public financing is involved, and require clear conditions that help close the gap in production know-how and expertise, including via effective mechanisms for IP and skills transfer as well as EU-based staff recruitment and local supply chains*."

2. DEFINITIONS

(15) The following definitions apply across all the sections of this Communication:

(a) 'assisted area' means an area designated in a regional aid map approved by the Commission in application of Article 107(3), point (a) or (c), of the Treaty, in force at the time of the award of the aid;

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[8] Communication from the Commission on the Temporary Crisis and Transition Framework for State Aid measures to support the economy following the aggression against Ukraine by Russia (OJ C 101, 17.3.2023, p. 3), as amended by Commission Communications C(2023)8045 (OJ C1188, 21.11.2023, ELI: http://data.europa.eu/eli/C/2023/1188/oj) and C(2024)3123 (OJ C3113, 2.5.2024, ELI: http://data.europa.eu/eli/C/2024/3113/oj). This Temporary Crisis and Transition Framework replaced the Temporary Crisis Framework adopted on 28 October 2022 (OJ C 426, 9.11.2022, p. 1), ('Temporary Crisis Framework'), which had already replaced the previous Temporary Crisis Framework adopted on 23 March 2022 (OJ C 131I, 24.3.2022, p. 1), as amended on 20 July 2022 (OJ C 280, 21.7.2022, p. 1). The Temporary Crisis Framework was withdrawn with effect from 9 March 2023.

[9] See for example the decisions adopted by the Commission in cases SA.58207 – Czechia, Support for Dukovany II (OJ L 2025/429, 12.3.2025); and SA.106107 – Belgium, Lifetime extension of two nuclear reactors (not yet published).

[10] Communication from the Commission on an Industrial Action Plan for the European automotive sector (COM(2025) 95 final), 5.3.2025.

(b) ‘capacity mechanism’ means capacity mechanism as defined in Article 2, point 22 of Regulation (EU) 2019/943 of the European Parliament and of the Council[11];

(c) ‘claw-back mechanism’ means a mechanism that addresses the occurrence of additional gains that were not forecasted when the aid amount was established and by which the Member State receives an appropriate share of any additional surpluses generated by an aided project;

(d) ‘competitive bidding process’ means a bidding process that complies with all of the following conditions: (i) 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; (ii) with at least 70 % in the total selection criteria used for ranking bids defined in terms of aid per unit of environmental protection (such as aid per unit of reference energy output or capacity installed or flexibility service provided under section 4, or EUR per tonne of CO_2 reduced or unit of energy saved under section 5); (iii) the criteria are published sufficiently[12] in advance of the deadline for submitting applications to enable effective competition; (iv) 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[13]; (v) the aid amount is determined on the basis of the initial bid or a clearing price; in order to determine the costs of the project, any State aid or funding from centrally managed EU funds granted for the same project must be added to the bid for the purpose of the ranking the bids; and (vi) *ex post* adjustments to the bidding process outcome (such as subsequent negotiations on bid results or rationing) are precluded as they can undermine the efficiency of the process’s outcome;

(e) ‘entrusted entity’ means the European Investment Bank and the European Investment Fund, an international financial institution in which a Member State is a shareholder, or a legal entity that carries out financial activities on a professional basis which has been given mandate by a Member State or a Member State’s entity at central, regional or local level to carry out development or promotional activities (a promotional bank or another promotional institution). The entrusted entity can be selected or directly appointed in accordance with the provisions of Directive 2014/24/EU of

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11 Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity (OJ L 158 14.6.2019, p. 54) (‘Electricity Regulation’).

12 The Commission considers that this normally means at least 6 weeks in advance unless a shorter timeframe can be justified based on the specific circumstances of a measure.

13 The budget or volume tendered must be set to ensure that the bidding process is competitive. The Member State must prove the plausibility that the budget or volume tendered will be lower than the potential offer of projects. This can be done with reference to past comparable competitive bidding processes, to technology targets in the National Energy and Climate Plan, or by introducing a safeguard mechanism in case of risk of undersubscribed tenders where several competitive bidding processes are envisaged under the measure. In case of repeated undersubscription of competitive bidding processes, the Member State must introduce remedies for the same or any future schemes that it notifies to the Commission for the same technology or projects.

the European Parliament and of the Council[14] or in accordance with Article 38(4), point (b)(iii), of Regulation (EU) No 1303/2013 of the European Parliament and of the Council[15] or Article 59(3) of Regulation (EU) 2021/1060 of the European Parliament and of the Council[16], whichever is applicable;

(f) 'fully renewable electricity' means fully renewable electricity within the meaning of the rules set out in Commission Delegated Regulation (EU) 2023/1184 of 10 February 2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a Union methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin[17];

(g) 'funding gap' means the difference between the net present value ('NPV') of the project (the factual scenario) taking into account all expected future positive and negative cash-flows including taxes[18] generated by the investment over its lifetime and a terminal value, discounted using the beneficiary's weighted average cost of capital, and the NPV of all expected cash-flows related to the counterfactual investment (the counterfactual scenario);

(h) 'gross grant equivalent' means the discounted amount of aid equivalent to what it would amount to if provided in the form of a grant to the aid beneficiary, before taxes or other charges, as calculated at the date of award of the aid on the basis of the reference rate applicable at that date[19].

(i) 'National Regulatory Authority' or 'NRA' means the regulatory authority designated by each Member State pursuant to Article 57(1) of Directive (EU) 2019/944 of the European Parliament and of the Council[20];

(j) 'relocation' means a transfer of the same or a similar activity or part thereof from an establishment in one contracting party to the EEA Agreement ('initial establishment') to the establishment in which the aided investment takes place in another contracting party to the EEA Agreement ('aided establishment'). There is a transfer if the product or service in the initial and in the aided establishments serves at least partly the same

14 OJ L 94, 28.3.2014, p. 65.

15 OJ L 347, 20.12.2013, p. 320.

16 OJ L 231, 30.6.2021, p. 159.

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).

18 All relevant costs and benefits must be taken into account, including for example administrative costs, transport costs, training costs not covered by training aid and wage differences. However, if the alternative location is in the EEA, subsidies in that location cannot be taken into account.

19 The reference rate used as a discount rate is equal to the base rate increased by a fixed margin of 100 basis points. See Communication from the Commission on the revision of the method for setting the reference and discount rates, OJ C 14, 19.1.2008, p. 6.

20 Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast) (OJ L 158, 14.6.2019, p. 125).

purposes and meets the demands or needs of the same type of customers and jobs are lost in the same or similar activity in one of the initial establishments of the aid beneficiary in the EEA;

(k) 'small and medium-sized enterprise' or 'SME' means an undertaking that fulfils the conditions laid down in the Commission Recommendation concerning the definition of micro, small and medium-sized enterprises[21];

(l) 'start of works' means the earlier of either the start of construction works relating to the investment, or the first legally binding commitment to order equipment or any other commitment that makes the investment irreversible. Buying land and preparatory works such as obtaining permits and conducting feasibility studies are not considered start of works;

(m) 'strategic reserve' means a capacity mechanism in which electricity capacity, such as generation, storage or demand response, is held outside the electricity market and only dispatched in specific circumstances;

(n) 'private investors' mean investors who, irrespective of their ownership structure, pursue a purely commercial interest, use their own resources and bear the full risk in respect of their investment, and include, in particular: credit institutions investing at own risk and from own resources, private endowments and foundations, family offices and business angels, corporate investors, venture capital funds, insurance undertakings, pension funds, academic institutions, as well as natural persons who either conduct an economic activity or not. A legal entity that carries out financial activities on a professional basis which has been given a mandate by a Member State or a Member State's entity at central, regional or local level to carry out development or promotional activities (national promotional bank or another promotional institution), will not be considered private investors for the purposes of this definition;

(o) 'quasi-equity (investment)' means a type of financing that ranks between equity and debt, having a higher risk than senior debt and a lower risk than common equity and whose return for the holder is predominantly based on the profits or losses of the underlying target undertaking, and which is unsecured in the event of default; quasi-equity investments may be structured as debt, unsecured and subordinated, including mezzanine debt, and in some cases convertible into equity, or as preferred equity;

3. COMPATIBILITY ASSESSMENT UNDER ARTICLE 107(3), POINT (C), OF THE TREATY ON THE FUNCTIONING OF THE EUROPEAN UNION: GENERAL PRINCIPLES

(16) On the basis of Article 107(3), point (c), of the Treaty on the Functioning of the European Union (the 'Treaty'), the Commission may consider compatible with the internal market State aid to facilitate the development of certain economic activities or of certain economic areas (positive condition), where such aid does not adversely affect trading conditions to an extent contrary to the common interest (negative condition).

[21] OJ L 124, 20.5.2003, p. 36.

3.1. POSITIVE CONDITION: THE AID FACILITATES THE DEVELOPMENT OF AN ECONOMIC ACTIVITY

(17) As regards the positive condition that the aid facilitates the development of certain economic activities or areas, the Commission considers that aid under this Communication aims at incentivising investments and activities in certain sectors that contribute to the objectives defined in the Clean Industrial Deal Communication, thereby facilitating the development of specific economic activities, namely those falling within the scope of the relevant sections of this Communication.

(18) State aid needs to have an incentive effect, meaning that it induces the beneficiary to undertake an investment or activity that it would not undertake, or would carry out in a restricted or different manner, absent the aid. Unless specified otherwise in this Communication, an incentive effect is presumed where the start of works on the project or activity only takes place after a written aid application by the beneficiary to the competent authorities[22]. Aid can however also be considered to have an incentive effect although the start of works took place before the submission of the aid application, where two cumulative criteria are met: (i) the aid is granted automatically in accordance with objective and non-discriminatory criteria and without further exercise of discretion by the Member State, and (ii) the measure has been adopted and is in force before work on the aided project or activity has started, except in the case of fiscal successor schemes, where the activity was already covered by the previous schemes in the form of tax advantages. Aid to private investors under section 8 can be considered to have an incentive effect where it incentivises private investors to provide funding to a portfolio of potentially viable eligible projects above the levels of funding that would have been provided in the absence of such aid or to assume additional risk, or both. For non-fossil flexibility support schemes and capacity mechanisms, there is an incentive effect provided that the conditions detailed in, respectively, sub-sections 4.3 and 4.4 are met, irrespective of any start of works[23].

(19) For the investments and measures specified in this Communication, the Commission presumes that in the absence of the aid, beneficiaries would continue their activities without changes, provided that doing so would not entail a breach of Union law. This presumption does not apply for situations where a specific counterfactual scenario needs to be provided based on the conditions in the applicable sections of this Communication. Aid granted for investments that merely ensure compliance with Union standards[24] that are in force at the moment of granting the aid does not have an incentive effect.

(20) If the supported project or activity, or the aid measure or the conditions attached to it, including its financing method when it forms an integral part of the measure,

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22 The aid application can take various forms, including for example a bid in a competitive bidding process. Any application must at least include the applicant's name, a description of the project or activity, including its location where relevant, and the amount of aid needed to carry it out. For the avoidance of doubt, such an aid application can pre-date this Communication.

23 To preserve an efficient functioning of the electricity markets, such aid measures must be granted through a competitive bidding process, which ensures that the aid has an incentive effect.

24 'Union standard' means Union standard within the meaning of point 19(89) CEEAG.

entail a violation of relevant Union law, the aid cannot be declared compatible with the internal market.

(21) When designing State aid measures, Member States have to comply with the relevant provisions of EU law, in particular those aimed at strengthening resilience of the EU economy. With the NZIA, the Union defines and puts forward measures to address a market failure regarding the intertwined issues of resilience and decarbonisation. The material scope of this Communication for investments in clean tech manufacturing capacity is therefore defined to be fully consistent with the NZIA and allows for State aid measures and schemes respecting NZIA conditionality, including for manufacturing support. Furthermore, Member States are strongly encouraged to include additional conditions to address resilience objectives in particular with a view to strengthen the European value chain in clean technology contributing to the 40 % benchmark set by NZIA as long as such conditions do not breach Union law including the Union's international obligations or contradict more specific conditions in this Communication. Member States could in particular have regard to resilience requirements in EU funding instruments, such as the Innovation Fund. Within these limits, Member States are strongly encouraged to include European preference criteria when using competitive bidding processes or other forms of aid allocation where suitable. These criteria should remain transparent, published prior to the launch of calls for proposals, and proportionate, in order to ensure effective competition while supporting the development and resilience of European value chains.

(22) On similar lines, Member States are also strongly encouraged to add conditions to address wider social and environmental policy objectives. The Commission stands ready to assist Member States on how to design conditions related to social objectives. Member States are encouraged to develop such conditionalities together with social partners. With supporting the development of economic activities and contributing to the goals of the clean transition, this Communication provides tools for Member State that will contribute to the creation of quality jobs and their durability as well as to the net zero-objectives.

(23) Where Member States attach conditions to the granting of aid, and whether they result or not from EU law, the non-respect of such conditions could lead the granting authority to recover the aid. Member States are encouraged to anticipate the changes resulting from the transition to a net-zero economy and promote equitable labour market outcomes such as fair wages, decent working conditions, training and fair job transitions. Member States are also encouraged to take tax solidarity considerations into account and can exclude from State aid measures entities that use tax havens to avoid contributing their fair share of tax to society.[25]

(24) The Commission further notes the importance of circularity and bioeconomy for achieving decarbonisation, reducing dependencies and enhancing economic competitiveness. Member States are encouraged to ensure that projects and

[25] See Commission Recommendation (EU) of 14 July 2020 on making State financial support to undertakings in the Union conditional on the absence of links to non-cooperative jurisdictions (OJ L 227, 16.7.2020, p. 76).

activities supported by State aid under this Communication contribute to the circular economy to the largest extent possible.

3.2. NEGATIVE CONDITION: THE AID DOES NOT UNDULY AFFECT TRADING CONDITIONS TO AN EXTENT CONTRARY TO THE COMMON INTEREST

(25) As regards the second (negative) condition under Article 107(3), point (c), of the Treaty, to ensure that the aid does not unduly affect trading conditions to an extent contrary to the common interest, the Commission assesses the necessity, appropriateness and proportionality of the aid, verifies that undue negative effects on competition and trade are avoided and that the conditions on monitoring and reporting in section 9 are complied with.

(26) Any aid must be necessary, meaning that it must be targeted towards a situation where it can bring about a material development that the market alone cannot deliver, for example by remedying market failures in relation to the projects for which the aid is awarded. In view of the need to accelerate the eligible investments and activities under this Communication, the Commission considers that the market alone would not be able to sufficiently deliver the necessary level of investments or activities within the timeline necessary to achieve a clean, just and competitive transition. The Commission therefore presumes that measures falling within the scope of this Communication and complying with all conditions in the applicable sections are necessary.

(27) The Commission acknowledges in the Clean Industrial Deal Communication that public financial support may be required to incentivise necessary additional investments and that other policy instruments alone are not sufficient to achieve its goals. The Commission therefore presumes that State aid within the scope of this Communication is, in principle, an appropriate measure to incentivise the investments and activities eligible for aid provided all applicable conditions in the relevant sections are complied with. In addition, the choice of the aid instrument should be appropriate to the objective that the aid measure aims to achieve and likely to generate the least distortion of trade and competition. Provided that Member States comply with the conditions under this Communication, the Commission presumes that the aid instrument is also appropriate.

(28) Aid under this Communication will in principle not be granted to undertakings in difficulty to ensure that only viable undertakings receive aid[26]. However, the Commission considers that the specific safeguards inherent in the investment fund structure under section 8, which notably include an alignment of financial incentives for the fund manager and significant private co-investment, pursue the same objective and constitute an adequate alternative mechanism to the formal exclusion of undertakings in difficulty from projects eligible for investments under that section.

(29) 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. Proportionality is generally ensured if the aid amounts are determined through a

[26] Within the meaning of the Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty, OJ C 249, 31.7.2014, p. 1.

competitive bidding process, because it provides a reliable estimate of the minimum aid required by potential beneficiaries. The Commission considers that the use of competitive bidding processes is particularly appropriate for measures aimed at a large number of sufficiently comparable projects, e.g. in the field of renewable energy production for larger projects applying mature technologies. Given that competitive bidding processes are not always suitable, including in light of the need to accelerate specific investments referred to in point (4), the relevant sections of this Communication allow Member States to determine aid amounts administratively based on maximum aid intensities or by reference to the funding gap in line with the specific conditions provided in the applicable section. Whenever the aid amount is calculated based on a funding gap, the scenarios used in that calculation must be based on realistic assumptions as part of a credible business plan. Where the counterfactual scenario corresponds to the beneficiary not carrying out any activity or carrying on its activity without changes, the NPV of the counterfactual scenario corresponds to zero and the funding gap can be approximated to the negative NPV of the investment in the factual scenario. This Communication provides in each section the specific applicable aid limits that the Commission will consider proportionate.

(30) In addition, risks of market distortions increase with the total amount of State aid granted. This is particularly the case where aid is granted in absence of a competitive bidding process. For this reason, aid amounts for setting up new manufacturing capacity are limited per project, while, for decarbonisation projects, aid above certain thresholds requires an individual funding gap assessment by the Commission.

(31) Unless otherwise provided in the specific sections, aid under this Communication can be granted in any form, including direct grants, tax advantages[27] including tax credits and accelerated depreciation, subsidised interest rates on new loans or guarantees on new loans. Where the aid is provided in a form other than grants, the amount of aid is expressed in gross grant equivalent, and the nominal amount of the tax advantage or the nominal amount of the underlying financial instrument such as a new loan or guarantee cannot exceed the eligible costs (where applicable).

(32) Member States can, for the calculation of the gross grant equivalent in public guarantees, use safe-harbour premiums laid down in the Commission notice on State aid in the form of guarantees[28] ("Guarantee notice") or use a methodology that has, before implementation, been accepted by the Commission on the basis of the Guarantee Notice and provided that methodology explicitly addresses the type of guarantee and the type of underlying transaction at stake in the context of the application of this Communication. To facilitate the granting of aid exclusively in the form of either loans or guarantees to SMEs, or to large undertakings with at least a B (or equivalent) rating, instead of calculating the gross grant equivalent, Member States can choose to apply the following simplified approach for aid

[27] The aid cannot concern the reduction of taxes or levies which reflect the essential costs of providing energy or related services (for example, network charges or charges financing capacity mechanisms).

[28] Commission Notice on the application of Articles 87 and 88 of the EC Treaty to State aid in the form of guarantees, OJ C 155, 20.06.2008, p.10.

granted based on aid intensities, and for aid granted based on both aid intensities and maximum aid amounts:

(a) for loans: the nominal loan amount does not exceed two times the amount that results from the applicable maximum aid intensity and, if applicable, from the maximum aid amount;

(b) for guarantees: the nominal amount of the guarantee does not exceed three times the amount that results from the applicable maximum aid intensity and, if applicable, from the maximum aid amount and, except for guarantees provided under section 6.1, the guarantee does not exceed 80 % of the underlying loan;

In either case, the nominal amount of the (underlying) loan cannot exceed 100 % of the eligible costs and remains subject to any further conditions under the respective section.

(33) Under this Communication, when assessing aid in favour of a beneficiary that is subject to an outstanding recovery order following a previous Commission decision declaring an aid illegal and incompatible with the internal market, the Commission will take account of the amount of aid still to be recovered[29].

(34) Where Member States decide to provide aid in the form of guarantees or loans that are channelled through credit institutions and other financial institutions as financial intermediaries, and in order to ensure that the aid granted is passed on directly, to the largest extent possible[30], to the final beneficiaries, the following conditions will be respected[31]:

(a) if guarantees are provided to credit institutions and other financial institutions as financial intermediaries, those financial intermediaries should, to the largest extent possible, pass on the advantages of the public guarantees to the final beneficiaries. The financial intermediary must be able to demonstrate that it operates a mechanism that ensures that the advantages are passed on to the largest extent possible to the final beneficiaries in the form of higher volumes of financing, riskier portfolios, lower collateral requirements, lower guarantee premiums or lower interest rates than without such public guarantees;

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29 See judgment of the Court of First Instance of 13 September 1995, TWD Textilwerke Deggendorf GmbH v Commission, Joined Cases T-244/93 and T-486/93, ECLI:EU:T:1995:160.

30 Aid granted by Member States under this Communication to undertakings that is channeled through credit institutions as financial intermediaries must benefit those undertakings directly. However, it may confer an indirect advantage on the financial intermediaries. Nevertheless, under the safeguards provided under point (34) (a) and (b), such indirect advantages do not have the objective to preserve or restore the viability, liquidity or solvency of the credit institutions. As a result, such aid would not be qualified as extraordinary public financial support under Directive 2014/59/EU of the European Parliament and of the Council (the Bank Recovery and Resolution Directive - BRRD) or under Regulation (EU) 806/2014 of the European Parliament and of the Council (the Single Resolution Mechanism - SRM Regulation), and would not be assessed under the State aid rules applicable to the banking sector.

31 For aid granted under section 8, this condition is subject to the specific conditions in that section.

(b) if loans are provided to credit institutions and other financial institutions as financial intermediaries, those financial intermediaries should, to the largest extent possible, pass on the advantages of the subsidised interest rates on loans to the final beneficiaries. The financial intermediary must be able to demonstrate that it operates a mechanism that ensures that the advantages are passed on to the largest extent possible to the final beneficiaries without conditioning the granting of subsidised loans under this Communication to refinancing existing loans.

(35) Based on the relevant experience and in view of the objectives pursued by the measures falling within scope of this Communication, the Commission presumes that such measures will not result in any manifestly negative effects on competition and trade in as far as they comply with all conditions in the applicable sections.

(36) Aid granted under this Communication cannot be conditioned on the relocation of an activity as such conditions would be harmful to the internal market.

(37) As a final step under Article 107(3), point (c), of the Treaty, the Commission has to balance the negative effects on competition and trading conditions of the aid measure with the positive effects of the planned aid on the supported economic activities, including its contribution to the clean, just and competitive transition and the Clean Industrial Deal objectives. Provided that the measures within the scope of this Communication comply with all conditions in the applicable sections, the Commission will find that the positive effects of the planned aid outweigh the negative effects on competition and trading conditions.

3.3. CUMULATION WITH OTHER STATE AID AND COMBINATION WITH CENTRALLY MANAGED EU FUNDS

(38) Save as specified otherwise in this Communication:

(a) aid under this Communication can be cumulated with any other State aid or *de minimis* aid, or combined with centrally managed EU funds, as long as those measures concern different identifiable eligible costs;

(b) aid under this Communication can be cumulated with any other State aid or *de minimis* aid, or combined with centrally managed EU funds, in relation to the same eligible costs, partly or fully overlapping, provided such cumulation does not lead the aid to exceed the highest support intensity or amount applicable under any of the relevant conditions;

(c) aid under this Communication can be cumulated with any other State aid without identifiable eligible costs[32].

[32] State aid without identifiable eligible costs includes State aid exempted under Articles 19b, 20a, 21, 21a, 22 or 23, Article 56e(5), point (a)(ii), (iii) or (iv), Article 56e(10) and Article 56f of the General Block Exemption Regulation.

4. AID TO ACCELERATE THE ROLLOUT OF CLEAN ENERGY AND SUPPORT ELECTRICITY COSTS IN LINE WITH THE CLEAN INDUSTRIAL DEAL OBJECTIVES

(39) Beyond the existing possibilities available in accordance with Article 107(3), point (c), of the Treaty, including under the CEEAG, the Clean Industrial Deal recognises the need to fast-track the rollout of renewable and low-carbon energy sources in a cost-effective way, thereby contributing to the overall global competitiveness, reducing dependency on fossil fuels imports, accelerating the energy transition and achieving lower and less volatile energy prices.

(40) The Clean Industrial Deal recognises the central role that renewable fuels of non-biological origin (RFNBOs)[33], such as renewable hydrogen, play in the decarbonisation of the EU energy system. In line with the EU Hydrogen Strategy, the priority for the Union is to develop renewable hydrogen produced using mainly wind and solar energy. To support the creation of a hydrogen market, Directive (EU) 2018/2001 includes binding targets for the uptake of renewable hydrogen in industry and transport by 2030.

(41) Renewable hydrogen production will play an important role in grid balancing and sector coupling. During periods of excess renewable generation, hydrogen production can ensure flexible demand stabilising the grid. However, the production and uptake of renewable hydrogen has been slower than expected.

(42) Therefore, the Clean Industrial Deal recognises that low-carbon fuels such as low-carbon hydrogen will be required to contribute to rapidly reduce emissions and to support the transition of the Union's customers in hard-to-decarbonise sectors in which more energy or cost-efficient options are not readily available. These include the transport sector where dedicated targets for sustainable aviation and marine fuels, namely biofuels, RFNBOs and low-carbon fuels that can contribute to lowering transport emissions via these carriers, are introduced by the ReFuelEU Aviation[34] and FuelEU Maritime Regulation[35].

(43) As of 2030, RFNBOs are produced when contracted renewable electricity installations are running or when renewable electricity production exceeds the demand in the system. Therefore, they ensure a more efficient use of existing renewable generation capacities by providing a storage solution and by preventing curtailment. This additional service to the electricity system could be supported by Member States resulting in higher aid intensities for RFNBOs, while fully acknowledging that both RFNBOs and low-carbon (for which a methodology will be set out in the upcoming delegated act on low-carbon hydrogen) hydrogen will play a role to achieve the overarching decarbonisation targets.

(44) The flexible production of low-carbon fuels can lower the cost of operating the power system and facilitate the integration of cheaper and cleaner energy sources.

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33 As defined in Article 2, point (36), of Directive (EU) 2018/2001.

34 Regulation (EU) 2023/2405 of the European Parliament and of the Council of 18 October 2023 on ensuring a level playing field for sustainable air transport (ReFuelEU Aviation) (OJ L, 2023/2405, 31.10.2023).

35 Regulation (EU) 2023/1805 of the European Parliament and of the Council of 13 September 2023 on the use of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC (OJ L 234, 22.9.2023, p. 48).

In line with the Action Plan for Affordable Energy[36], it is necessary to maintain incentives for flexibility throughout the system, to reduce volatility and contribute to lower and more stable electricity prices.

(45) Unlike RFNBOs, low-carbon fuels can be produced from fossil fuels or using electricity which does not qualify as renewable. It is therefore appropriate that public support does not put RFNBOs and low-carbon fuels on the same footing, and that it recognises the greater contribution that RFNBOs will make to decarbonisation and the management of system costs.

(46) In this context, it is essential to facilitate investments to accelerate and expand the availability of clean energy in a cost-effective way, while recognising that the priority for the Union is to develop renewable hydrogen produced using mainly wind and solar energy, and putting in place safeguards to ensure that low-carbon fuels do not lead to increased system costs.

(47) The increase in the share of variable renewable sources in the energy system might result in a higher variability of energy generation patterns. Therefore, the accompanying rollout of flexibility sources and capacity mechanisms may be necessary to ensure that increasingly decarbonised electricity systems remain secure and deliver affordable energy.

4.1. AID SCHEMES TO ACCELERATE THE ROLLOUT OF RENEWABLE ENERGY

(48) The Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty, provided they comply with this section, together with section 3, aid measures to support:

(a) investments for the production of renewable energy as defined in Article 2 point (1) of Directive (EU) 2018/2001, including the production of RFNBOs but excluding the production of electricity from RFNBOs;

(b) investments in storage for RFNBOs, biofuels, bioliquids, biogas (including biomethane) and biomass fuels that stores exclusively energy that falls within the scope of this section;

(c) investments in electricity storage[37] and thermal storage[38].

[36] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Action Plan for Affordable Energy – Unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans, COM/2025/79 final.

[37] Electricity storage means deferring the final use of electricity to a moment later than when it was generated, or the conversion of electrical energy into a form of energy which can be stored, the storing of such energy, and the subsequent reconversion of such energy into electrical energy.

[38] Thermal storage means deferring the final use of thermal energy to a moment later than when it was generated, or the conversion of electrical or thermal energy into a form of energy which can be stored, the storing of such energy, and, where appropriate, the subsequent conversion or reconversion of such energy into thermal energy for final use (i.e., heating or cooling).

(49) Where aid is granted to support electricity storage, Member States must either demonstrate that they have derogations from the relevant Union law or confirm that:

(a) demand response and storage, independently of the voltage level to which the assets are connected, have the possibility to:

(i) sell and buy electricity in the day-ahead and intra-day markets;

(ii) participate in any frequency and non-frequency ancillary service where demand response and/or storage could provide the required service;

(iii) participate in market-based redispatching and/or be eligible to provide congestion management services for Transmission System Operators (TSOs) and/or Distribution System Operators (DSOs);

(b) aggregators, including independent aggregators, can participate in the markets and services listed in point (a).

(50) In the absence of the confirmation required in point (49), measures to support electricity storage under this section may only be approved for a maximum period of 2 years. Member State may only seek a new approval once these market improvements have all been implemented. Moreover, Member States are invited to take into account the findings regarding market failures in their flexibility needs assessment within the meaning of Article 19*e* of the Electricity Regulation, once available, in any subsequent decision on the establishment of a scheme of investment aid for electricity storage. In any case, measures to support electricity storage under this section may not be approved for a period longer than 5 years.

(51) Where the aid is granted for the production of RFNBOs, Member States must ensure that the aided fuels are produced from renewable energy sources in accordance with the methodologies set out in Directive (EU) 2018/2001 and its implementing or delegated acts[39].

(52) Where the aid is granted for the production of biofuels, bioliquids, biogas (including biomethane) and biomass fuels, Member States must ensure that the aided fuels are compliant with the sustainability and greenhouse gases emissions saving criteria set out in Directive (EU) 2018/2001 and its implementing or delegated acts.

(53) Aid may be granted with respect to newly installed or repowered capacities[40]. In case of repowered capacities, only the additional costs in relation to the repowered capacity is eligible for aid.

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[39] Investments that produce low-carbon fuels along with RFNBOs may be covered under this section if the share of low-carbon fuels produced does not exceed 20 % of the total output.

[40] 'Repowering' means renewing power plants that produce and installations that store renewable energy, including the full or partial replacement of installations or operation systems and equipment for the purposes of replacing capacity or increasing the efficiency or capacity of the installation.

(54) With the exception of offshore wind, hydropower, including pumped-hydro storage, and RFNBOs production installations, supported projects must be completed and operational within 48 months after the date of granting. The scheme should include an effective system of penalties in case this deadline is not met[41].

(55) Aid must be granted on the basis of a scheme with an estimated capacity volume and budget. Schemes can be limited to one or several technologies covered in point (48), but must not include limitations to eligibility that would lead to disproportionate competition distortions. Schemes must not result in discrimination, including in the award of licences, permits or concessions when they are required. In case Member States introduce a minimum size required for participation in schemes under this section, this cannot exceed 1 MW of de-rated capacity and aggregation must be allowed.

(56) The Member State must ensure compliance with the 'do no significant harm' principle.

4.1.1. INVESTMENT AID SCHEMES

(57) Investment aid to accelerate the rollout of renewable energy may be granted to investments described in point (48)(a) through (c) .

(58) Aid may be granted through a competitive bidding process[42] or administratively.

(59) A competitive bidding process is required where aid is granted to investments for the production of electricity from renewable sources with the exception of aid to demonstration projects[43] and to small projects defined as follows:

(a) projects with installed capacity equal or below 1 MW; or

(b) projects with an installed capacity equal or below 6 MW, if they are 100 % owned by SMEs and/or renewable energy communities[44] and/or by citizen energy communities[45]; or

(c) for wind generation only, projects with an installed capacity equal or below 18 MW, if they are 100 % owned by small and microenterprises and/or by renewable energy communities and/or by citizen energy communities.

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41 Penalties may be waived in cases where the delay is due to factors outside the control of the aid beneficiary and could not reasonably have been foreseen at the moment of the aid application.

42 A competitive bidding process should, in principle, be open to all eligible beneficiaries. However, the bidding process can be limited to one or more specific categories of beneficiary where evidence is provided, showing that the bid levels that different categories of beneficiaries are expected to offer differ by more than 10 %; in that case, separate competitive bidding processes may be used so that categories of beneficiary with similar costs compete against each other.

43 As defined in Article 2, point (24), of the Electricity Regulation.

44 As defined in Article 2, point (16), of Directive (EU) 2018/2001.

45 As defined in Article 2, point (11), of Directive (EU) 2019/944.

(60) The eligible costs are the total investment costs.

(61) Where a competitive bidding process is used to grant aid, the level of aid must correspond to the result of the competitive bidding procedure and must not exceed 100 % of the total eligible costs of supported projects.

(62) Where aid is granted administratively, the level of aid must be determined on the basis of data on the eligible costs of each supported project and must not exceed 45 % of said costs. The aid intensity can be increased by 20 percentage points for aid granted to small undertakings and by 10 percentage points for aid granted to medium-sized undertakings.

(63) Aid under this section can only be cumulated with aid under section 4.1.2 of this Communication if the notified aid scheme foresees that possibility at the time of its initial notification.

4.1.2. DIRECT PRICE SUPPORT SCHEMES

(64) Direct price support schemes[46] may cover investments described in points (48)(a) and (b).

(65) Member States may provide direct price support using different instruments, including contracts for difference and feed-in premiums.

(66) By way of derogation from point (65), aid for electricity generation from renewable sources must take the form of two-way contracts for difference[47] designed in line with the principles of Article 19*d*(2) of the Electricity Regulation. The contract duration must not exceed 25 years after the aided installation starts operations[48].

(67) Aid may be granted through a competitive bidding process[49] or administratively.

(68) A competitive bidding process is required where aid is granted for the production of electricity from renewable sources with the exception of aid to demonstration projects and to small projects as defined in point (59).

(69) The eligible cost is the expected net cost estimated taking into account all main costs and revenues incurred over the lifetime of the project and any aid already received, discounted by the weighted average cost of capital (WACC).

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[46] Direct price support schemes promote the rollout of investments in energy generation and storage by providing aid beneficiaries with a fixed or variable monetary payment that depends directly on the quantity of energy produced and/or stored, which can be set based on the actual or a reference output.

[47] A two-way contract for difference means a contract between a power-generating facility operator and a counterpart, usually a public entity, that provides both minimum remuneration protection and a limit to excess remuneration. The contract must be designed to preserve incentives for the generating facility to operate and participate efficiently in the energy markets.

[48] The support payments under the contract must be limited to 25 years but Member States are free to require installations to continue making paybacks under the contracts for as long as the supported facility continues operating.

[49] See footnote 42.

(70) Where a competitive bidding process is used to grant aid, the level of aid must correspond to the result of the competitive bidding procedure and must not exceed 100 % of the total eligible costs of supported projects.

(71) Where aid is granted administratively, the level of aid must be set by the competent regulatory authority to cover the eligible cost[50]. Where aid is granted administratively for the production of electricity from renewable sources, the NRA must set the level of aid.

(72) Aid must be designed to prevent any undue distortion to the efficient functioning of markets and, in particular, preserve efficient operating incentives and price signals. In particular, beneficiaries should not be incentivised to offer their output below their marginal costs and must not receive aid for production in any periods in which the market value of that production is negative[51].

4.2. AID SCHEMES TO ACCELERATE THE ROLLOUT OF LOW-CARBON FUELS

(73) Beyond the existing possibilities available in accordance with Article 107(3), point (c), of the Treaty, including under the CEEAG, the Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty, provided they comply with this section, together with section 3, aid measures to support:

(a) investments for the production of low-carbon fuels as defined in Article 2 point (13) of Directive (EU) 2024/1788[52], including recycled carbon fuels as defined in Article 2 point (35), of Directive (EU) 2018/2001, low-carbon hydrogen and synthetic gaseous and liquid fuels the energy content of which is derived from low-carbon hydrogen;

(b) investments for the production of both RFNBOs and low-carbon fuels, falling outside the scope of Section 4.1;

(c) investments in storage for low-carbon fuels that store exclusively low-carbon fuels, or a mix of low-carbon fuels and RFNBOs.

(74) To be eligible under this section, aid measures must also be open to RFNBOs. To ensure that RFNBOs receive support, a minimum share of 30 % of the budget of these measures must be reserved for investments in RFNBOs covered in Section 4.1[53].

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50 For example, where aid is granted in the form of two-way contracts for difference, the competent independent regulatory authority must set the strike price to cover the eligible costs.

51 Small-scale renewable electricity installations and demonstration projects can benefit from direct price support that covers the full costs of operation and does not require them to sell their electricity on the market, in line with the exemption in Article 4(3) of Directive (EU) 2018/2001. Installations will be considered as small-scale if their capacity is below the applicable threshold in Article 5 of the Electricity Regulation. Demonstration projects are defined in Article 2, point (24), of the Electricity Regulation.

52 Directive (EU) 2024/1788 of the European Parliament and of the Council of 13 June 2024 on common rules for the internal markets for renewable gas, natural gas and hydrogen, amending Directive (EU) 2023/1791 and repealing Directive 2009/73/EC (recast) (OJ L, 2024/1788, 15.7.2024).

53 See also footnote 39.

(75) Where the aid is granted for the production of RFNBOs, Member States must ensure that the aided fuels are produced from renewable energy sources in accordance with the methodologies set out in Directive (EU) 2018/2001 and its implementing or delegated acts.

(76) Where the aid is granted for the production of low-carbon fuels, Member States must ensure that the aided fuels meet the greenhouse gas emission reduction threshold of 70 % compared to the fossil fuel comparator in accordance with the methodologies set out in Directive (EU) 2024/1788 and its implementing or delegated acts.

(77) Aid may only be granted with respect to newly installed capacities.

(78) Storage projects supported pursuant to point (73)(c) must be completed and operational within 48 months after the date of granting. The scheme should include an effective system of penalties in case this deadline is not met[54].

(79) Aid must be granted on the basis of a scheme with an estimated capacity volume and budget. Schemes can be limited to one or several technologies covered in point (73), but must not include limitations to eligibility that would lead to disproportionate competition distortions. Schemes must not result in discrimination, including in the award of licences, permits or concessions when they are required. In case Member States introduce a minimum size required for participation in schemes under this section, this cannot exceed 1 MW of de-rated capacity and aggregation must be allowed.

(80) Member States may exclude from the scope of a scheme investments in the production of low-carbon fuels from fossil fuels without this being considered an artificial limitation in the scope of the scheme. In case of schemes including investments in the production of low-carbon fuels from fossil fuels, Member States may reserve a minimum share of the budget of the scheme to low-carbon fuels that reduce the risk of fossil fuel lock-in.

(81) The Member State must ensure compliance with the 'do no significant harm' principle.

4.2.1. INVESTMENT AID SCHEMES

(82) Aid may be granted through a competitive bidding process[55] or administratively.

(83) The eligible costs are the total investment costs.

(84) Where a competitive bidding process is used to grant aid, the level of aid must correspond to the result of the competitive bidding procedure and must not exceed 100 % of the total eligible costs of supported projects.

(85) Where aid is granted administratively, the level of aid must be determined on the basis of data on the eligible costs of each supported project and must not exceed

[54] Penalties may be waived in cases where the delay is due to factors outside the control of the aid beneficiary, and could not reasonably have been foreseen at the moment of the aid application.

[55] See footnote 42.

20 % of said costs. The aid intensity can be increased by 20 percentage points for aid granted to small undertakings and by 10 percentage points for aid granted to medium-sized undertakings.

(86) Aid under this section can only be cumulated with aid under section 4.1.2 of this Communication if the notified aid scheme foresees that possibility at the time of its initial notification.

4.2.2. DIRECT PRICE SUPPORT SCHEMES

(87) Member States may grant aid using different instruments, including contracts for difference and feed-in premiums.

(88) Aid must be granted through a competitive bidding process[56].

(89) The eligible cost is the expected net cost estimated taking into account all main costs and revenues incurred over the lifetime of the project and any aid already received, discounted by the WACC.

(90) The level of aid must correspond to the result of the competitive bidding procedure and must not exceed 100 % of the total eligible costs of supported projects.

(91) Aid must be designed to prevent any undue distortion to the efficient functioning of markets and, in particular, preserve efficient operating incentives and price signals. Beneficiaries must not be incentivised to offer their output below their marginal costs and must not receive aid for production in any periods in which the market value of that production is negative.

(92) Aid must not be paid for the production of low-carbon fuels (or RFNBOs, where applicable) from electricity taken from the grid in more than 80 % of the hours (or market units) each year[57].

4.3. AID FOR NON-FOSSIL FLEXIBILITY SUPPORT SCHEMES

(93) The Commission will consider aid for the promotion of non-fossil electricity flexibility[58], as indicated in Article 19*g* and 19*h* of the Electricity Regulation, as compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty under this Communication[59] provided the conditions described in section 3 and in this sub-section are met.

(94) The measure should be designed to support new investment in non-fossil flexibilities. New investment includes, for example:

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56 See footnote 42.

57 Where this threshold is exceeded, aid must not be paid for a percentage of the volume of the low-carbon fuels produced that is equal to the percentage of hours exceeding this threshold.

58 Non-fossil flexibilities such as demand-response and storage, that do not rely on the use of fossil fuel as a primary energy source of energy and contribute to address electricity flexibility needs.

59 This is without prejudice of the assessment of other flexibility measures under CEEAG.

(a) investment for the construction of a new flexible capacity. Moving a second-hand flexible capacity from one location to another cannot be considered as a new investment; or

(b) investment to increase the flexibility or the installed power of an existing capacity. Only the increased level of flexibility, as compared to the level of flexibility before the investment, may be considered as an additional flexibility enabled by the new investment; or

(c) investment to extend the lifetime of an existing capacity. Only the period over which the lifetime has been extended, as compared to the lifetime before the investment, may be considered as an additional flexibility enabled by the new investment; or

(d) investment to change the primary energy source of a flexible generation asset from fossil to non-fossil inputs. Only the amount of capacity for which the primary source of energy was turned non-fossil, as compared to the primary sources before the investment, may be considered as an additional flexibility enabled by the new investment. In such cases, the NRA should check that any remaining fossil capacity is profitable without aid, and that there is no cross-subsidisation of fossil-based generation.

(95) Additionally, where considered necessary not to undermine the economic viability of existing capacities, Member States may extend eligibility rules to a wider range of non-fossil flexibilities contributing to address the flexibility need that have undergone investments recently.

(96) The measure will be open to non-fossil technologies capable of providing the flexibility services, and at least to storage of electricity and demand response. The scheme must not include any artificial limitation or discrimination (including in the award of licences, permits or concessions when they are required). The measure can only include additional technical requirements on the basis of identified system needs in line with point (103). Minimum size required for participation must not be above 1 MW de-rated or above 1 hour of minimum delivery duration and must allow aggregation.

(97) Aid under this section must be granted on the basis of a scheme with an estimated capacity volume and budget.

(98) Member States must either demonstrate that they have derogations from the relevant Union law or confirm that:

(a) all non-fossil flexibility technologies, including demand response and storage, independently of the voltage level to which the assets are connected, have the possibility to:

(i) sell and buy electricity in the day-ahead and intra-day markets;

(ii) participate in any frequency and non-frequency ancillary service where demand response and/or storage could provide the required service;

(iii) participate in market-based redispatching and/or be eligible to provide congestion management services for Transmission System Operators (TSOs) and/or Distribution System Operators (DSOs);

(b) aggregators, including independent aggregators, can participate in the markets and services listed in point (a).

In the absence of such confirmation, measures under this section may only be approved for a maximum period of 2 years. Member State may seek a new approval once these market improvements have all been implemented.

(99) Member States must confirm that any mitigation measures identified in the flexibility needs assessment, following Article 19*e*(2)c of the Electricity Regulation, will be implemented within 2 years after the publication of the report referred to in Article 19*e*(1) of the Electricity Regulation.

(100) If a capacity mechanism is implemented in the Member State concerned, the design of this capacity mechanism should be open to the participation of non-fossil flexibility such as demand response and storage to this capacity mechanism. In addition, the capacity mechanism and non-fossil flexibility measures should be coordinated in one of the following ways to avoid creating market barriers and overcompensation:

(a) capacity should be jointly procured[60]; or

(b) Member States may include non-fossil flexibility requirements identified in the flexibility needs assessment in their capacity mechanisms, for example requiring a minimum volume of non-fossil flexible capacity providing short term ramping services; or

(c) resources must choose between participating in only one measure, either the non-fossil flexibility support scheme or the capacity mechanism. The target demand in each measure should be adjusted to take account of participation in the other measure.

(101) The target demand to be tendered should be set according to the report adopted following the European methodology and guiding criteria introduced in Article 19*e* of the Electricity Regulation in view of the need to cost-efficiently achieve security and reliability of supply and decarbonise the electricity system.

(102) Pending the development of such methodology and guidance, the target demand should not exceed the provisional indicative national flexibility objective described in Article 19*f* of the Electricity Regulation. In case the target demand does not rely on the European methodology and guiding criteria introduced in

[60] This means that national authorities should set an objective for both flexibility needs and capacity mechanism needs to be procured during the same co-optimised auction. Participants provide their contribution to both the flexibility needs and to the capacity mechanism and offer a total price for the provision of the two services, or a menu of offers. The selection methodology should be such that it minimises the total cost of fulfilling both the flexibility needs and capacity mechanism needs, i.e. no alternative selections of beneficiaries can reach both flexibility needs and capacity mechanism needs at a lower cost.

Article 19*e* of the Electricity Regulation, the NRA must confirm that the target demand to procure[61] reflects:

(a) the flexibility needs assessed under the assumption that the market improvements detailed in points (98) and (99) have been implemented; and

(b) the market-based investment expected to take place, taking into account the market improvement mentioned in paragraph (a).

(103) The technical conditions (such as pre-qualification requirements[62], availability or delivery obligations on participants) as well as the unit of flexibility service used to rank offers, must be clearly justified based on specific needs identified in the need assessment described in point (101).

(104) The aid is granted in the form of contracts providing a direct grant in exchange of available flexible capacity enabled by investments referred to in points (94) and (95). For multi-annual contracts, the length of a contract must be proportionate to the level of investment required to fulfil the contract's obligations and cannot, in any case, exceed the amortisation period of the investment.

(105) The aid amount is determined through a competitive bidding process with bids ranked according only to their bid price per unit of available flexible capacity per year and support awarded according to the clearing price per unit of available flexible capacity per year.

(106) The contract should describe the methodologies followed to check the availability of the supported flexibility and to calculate the appropriate dissuasive penalties in case of non-availability or early termination of the contract. All beneficiaries must be activated (delivery or test) at least once per year with <=24hrs notice. The non-availability penalty must be the same for all technologies and each beneficiary less than 50 % available over a yearly period must be exposed to a penalty payment of at least its corresponding flexibility revenues over this yearly period.

(107) The NRA must confirm that the availability requirements and penalties in the availability contract will not create undue distortions in the functioning of the electricity markets[63]. In particular, beneficiaries will be incentivised to efficiently

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61 This volume of flexibility can be based either on indicative national objective for non-fossil flexibility as defined in Article 19*f* of the Electricity Regulation or on provisional indicative national objectives until Article 19*f* of the Electricity Regulation allows it.

62 Locational preference, minimum speed to ramp-up and/or ramp-down and minimum activation duration should be addressed through derating factors. De-rating is an adjustment to the installed capacity of a capacity resource to identify its contribution to the flexibility need (reflecting the different contribution of different technologies to the identified need). This calculation will be based on the data used to establish the flexibility need and will be updated at least every 2years and be approved by the NRA. De-rating factors must be calculated for every resource able to deliver its output continuously for at least 1 hour.

63 How the measure may affect market price formation (compared to a counter-factual situation without the aid measure) and any impact on existing resources where the measure is limited only to new investments, as well as on foreign resources where the measure is limited only to national resources, would not fall in the scope of 'undue distortion'.

participate in electricity markets and be exposed to price variation and market risks over the lifetime of the asset.

(108) The Member State concerned must confirm that the measure promotes the opening of the measure to cross-border participation of those resources that can provide the required technical performance, where a cost-benefit analysis is positive.

(109) In order to provide efficient incentives to adjust consumption to price signals, consumers that contribute to creating the flexibility need should participate to the costs of the measure, on the basis of their consumption during at least 1 % and at most 5 % of the highest price[64] hours (or market time units) each year or, as an alternative, during at least 1 % and at most 20 % of the hours (or market time units) each year when the need for flexibility is more likely (for example, based on expected ramping patterns)[65]. If locational technical criteria are applied, the additional costs of applying those criteria should be allocated to electricity consumers in the relevant locations. The Commission considers that such contribution can be considered proportionate when it is at least equal to 90 % of the costs of the measure. Charges may be levied on balance responsible parties (such as suppliers).

(110) The measure is approved for a period of no longer than 5 years.

4.4. AID FOR CAPACITY MECHANISMS FOLLOWING A TARGET MODEL

(111) The Commission will consider aid for capacity mechanisms, as indicated in Articles 21 and 22 of the Electricity Regulation, as compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty provided the following conditions as well as the conditions in section 3 are met:

(a) The measure complies with all criteria for either a strategic reserve or market wide target model capacity mechanism provided in Annex I;

(b) The measure is approved for a period of no longer than 10 years.

4.5. TEMPORARY ELECTRICITY PRICE RELIEF FOR ENERGY-INTENSIVE USERS

4.5.1. TRANSITION TO LOW ELECTRICITY COST

(112) The measures outlined in the Clean Industrial Deal will transform the Union's economy in line with the EU's ambitious climate goals. Until the decarbonisation of the Union's electricity system fully translates into lower electricity prices, industries within the Union will continue to face higher costs compared to competitors in jurisdictions with less ambitious climate policies.

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64 Price refers to either the day ahead price or a closer to realtime wholesale market or imbalance settlement price. To avoid double-counting, where demand response and behind-the-meter resources participate directly in the non-fossil flexibility scheme, they must also be subject to such charges for any electricity not consumed under delivery obligations in the flexibility scheme.

65 To avoid double-counting, where demand response and behind-the-meter resources participate directly in the non-fossil flexibility scheme, they must also be subject to such charges for any electricity not consumed under delivery obligations in the flexibility scheme.

(113) This situation poses particular challenges for sectors that are particularly exposed to international trade and heavily dependent on electricity for value creation. High electricity prices increase the risk of these industries relocating outside the Union to locations where environmental regulations are absent or less ambitious. In addition, high electricity costs risk discouraging the electrification of production processes, which is central to the successful decarbonisation of the Union's economy. To mitigate those risks and adverse impacts on the environment, Member States can grant temporary relief on the electricity price for companies active in the economic sectors concerned.

4.5.2. SCOPE AND ELIGIBILITY

(114) The Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty, aid in the form of temporary electricity price relief for activities that operate in sectors for which these risks are particularly elevated. For a lasting impact, beneficiaries are required to make investments that contribute to the green transition and help energy system costs over the medium to long term (for example, by replacing fossil fuels with renewable energy).

(115) Member States may grant reductions from the wholesale electricity price for a certain share of electricity consumption, irrespective of the source of electricity supply (auto generation, electricity supply contracts or grid supply). This section does not address reductions from levies financing support to renewable sources or to combined heat and power, which remain addressed by Section 4.11 CEEAG.

(116) The risk at sectoral level of activities moving outside the Union to locations where environmental disciplines are absent or less ambitious largely depends on the electro-intensity of the sector in question and its openness to international trade. Accordingly, aid can only be granted to undertakings from sectors where such risks are significant. This applies to those sectors listed in Annex 1 CEEAG[66], for which the multiplication of their trade intensity and electro-intensity at Union level reaches at least 2 % and whose trade intensity and electro-intensity at Union level is at least 5 % for each indicator.

(117) A sector or subsector that meets the eligibility criteria of point (116) but is not included in the list referred to in that point, will also be considered eligible provided that Member States demonstrate this with data that is representative of the sector or subsector at Union level, verified by an independent expert and based on a time period of at least the three most recent years for which data are available.

(118) Aid will be granted on the basis of a scheme with an estimated budget. Member States may limit the aid scheme to specific economic sectors according to their exposure to electricity costs or to sectors of particular importance to the economy or to the security and resilience of the internal market. Any such limits need to be designed broadly and not lead to an artificial limitation of potential beneficiaries.

[66] In as far as the statistical classification of a specific economic activity into a NACE code has been affected by the most recent NACE amendment (Commission Delegated Regulation (EU) 2023/137, OJ L 19, 20.1.2023, p. 5), Member States may choose to either use the amended classification or rely on the classification in force at the time of adoption of CEEAG.

Within the eligible sector, Member States need to ensure that the choice of beneficiaries is made on the basis of objective, non-discriminatory and transparent criteria and that the aid is granted in principle in the same way for all competitors in the same sector if they are in a similar factual situation.

4.5.3. INCENTIVE EFFECT AND PROPORTIONALITY

(119) The aid is compatible with the internal market only if it has an incentive effect. For the aid to have an incentive effect and actually prevent the risks described in section 4.5.1, it must be applied for and paid to the beneficiary in the year in which the costs are incurred or in the following year.

(120) The Commission will consider the aid to be proportionate for beneficiaries from the sectors in points (116) and (117) if it covers at most a reduction by 50 % of the yearly average wholesale market price in the bidding zone in which the beneficiary is connected, for not more than 50 % of their annual electricity consumption. The total annual electricity consumption can be measured either in the year in which the eligible cost arises or in the previous year. The Commission also considers that, in order for the aid to be proportionate, such reductions must not result in a reduced price below 50 EUR/MWh for the eligible consumption.

4.5.4. CONTRIBUTION TO DECARBONISATION

(121) When establishing schemes, Member States must set out types of investments that can be measurably shown to make an additional contribution to reducing the costs of the electricity system, reflecting market and system needs in that Member State, without resulting in an increase of fossil fuel consumption. Beneficiaries of aid must be required to allocate at least 50 % of the aid amount under this measure to such investments in new or modernised assets. Eligible investment activities can include, for example, the development of renewable energy generation capacities, energy storage solutions, measures to increase demand-side flexibility, energy efficiency improvements that impact electricity demand, and the development of electrolysers for the production of renewable or low-carbon hydrogen. Investments aimed at electrification are also eligible. Member States may establish a more limited list of eligible investments, but investments to increase demand-side flexibility must be eligible.

(122) These investments must not benefit from any other aid measure. The eligible investment activity must start operation within 48 months from the granting of the aid under this section unless the beneficiary can demonstrate to the Member State that a longer timeline is appropriate for technical reasons. Single investments may cover aid received over several years. The investments may be made on the site of the beneficiary or delegated to third parties. In the latter case, the beneficiary remains responsible for the effective implementation of the investments.

(123) The Member State may grant additional support of up to 10 % of the amount granted under point (120). The beneficiaries must allocate at least 75 % of this additional support to investments specified under point (121). Member States may grant this additional support only where the beneficiary can demonstrate that at least 80 % of the total investment amount is spent on investments to increase flexibility of demand, including non-fossil back-up supply.

(124) The Member State is required to verify these requirements for each beneficiary and to publish annual reports on the investment measures implemented under this section.

4.5.5. CUMULATION

(125) In addition to the general cumulation rules under section 3.3, aid under this section can be cumulated with any other State aid or *de minimis* aid, or combined with centrally managed EU funds, in relation to the same eligible costs (that is the wholesale electricity price including indirect costs that are incurred from greenhouse gas emission costs passed on in electricity prices), partly or fully overlapping, provided such cumulation does not lead the aid to exceed the highest support intensity or amount applicable under any of the relevant conditions. When cumulated with aid compensating for indirect emission costs pursuant to the Commission Guidelines on certain State aid measures in the context of the system for greenhouse gas emission allowance trading post-2021[67], the combined aid amount may not exceed the highest amount applicable under any of the two guidelines.

4.5.6. DURATION

(126) Aid under this section can be provided to beneficiaries for a maximum duration of three years. Payments must not occur after 31 December 2030.

5. AID FOR DECARBONISATION OF INDUSTRY

(127) Beyond the existing possibilities available in accordance with Article 107(3), point (c), of the Treaty, including under the CEEAG, the Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty, aid for investments contributing significantly to reductions of greenhouse gas emissions from industrial activities to achieve the climate ambitions of the Union or leading to a substantial reduction of energy consumption in industrial activities through the improvement of energy efficiency, provided that the conditions in section 3 and this section are met.

(128) Improvement in material efficiency can also reduce greenhouse gas emissions generated by industrial activities. The environmental benefits of material efficiency are exceeding the mere reduction of greenhouse gas emissions. Therefore, support for material efficiency, circular economy and bioeconomy are covered by a dedicated section in the CEEAG (section 4.4 of the CEEAG). Biogas and biomethane projects that are designed to co-produce digestate, which is subsequently processed into bio-based nutrients or fertilising products (such as bio-fertilisers), may also already be supported under existing State aid rules. In particular, section 4.4 of the CEEAG provides a legal basis, including the valorisation of bio-residues, and the substitution of primary with secondary raw materials. The Commission will treat such cases as a priority. Investments supporting the circular economy can also be supported without prior notification under the General Block Exemption Regulation.

[67] OJ C 317, 25.9.2020, p.5

5.1. SCOPE AND GENERAL CONDITIONS

(129) This section generally applies to investments reducing greenhouse gas emissions or improving the energy efficiency of industrial activities. For the purpose of this section, industrial activities are defined as activities taking place in industrial installations[68] that involve the production of tangible final or intermediate goods at scale.

(130) This section does not apply to:

(a) State aid for the primary production of agricultural products and the primary production of fishery and aquaculture products[69];

(b) State aid for the production, transport and storage of energy without prejudice to points (131) and (132)[70];

(c) State aid for new investments in industrial production, including investments referred to in point (131), structurally based on fossil fuels. Exceptionally, investments based on natural gas can be covered under this section provided they comply with the additional conditions in sub-section 5.2.4.

(131) While support for energy generation as such is covered by section 4 of this Communication, such activities may exceptionally also be covered by this section 5, provided that:

(a) it is part of an investment reducing greenhouse gas emissions or improving the energy efficiency of industrial activities as provided for under point (139);

(b) the energy is produced from renewable sources[71]. For the generation of heat or combined heat and power, also natural gas can be used under the additional conditions set out in sub-section 5.2.4. The production of low-carbon fuels as referred to in point (73)(a) can also be covered;

(c) the energy is produced either at the site where the industrial activity is taking place, or in the industrial park[72] where the industrial activity is

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68 This can also include mining installations, with the exception of installations used for the extraction of energy products.

69 'Primary production of agricultural products' means the production of products of the soil and of stock farming that are listed in Annex I to the Treaty, and that do not require performing any further operation changing the nature of such products. 'Primary production of fishery and aquaculture products' means all operations relating to the fishing, rearing or cultivation of aquatic organisms, as well as on-farm or on-board activities necessary for preparing an animal or plant for the first sale, including cutting, filleting or freezing, and the first sale to resellers or processors.

70 This section includes investments in industrial activities of refineries that are dedicated to producing petrochemical products that do not serve as heating or motor transport fuels.

71 As referred to in point (48)(a), which includes the production of RFNBOs.

72 An industrial park corresponds to a geographically confined industrial site where certain utility services are provided to a group of undertakings.

carried out, provided the energy is supplied to the industrial user through a confined network, without transiting through the public network; and

(d) either (i) the energy produced is used for at least 80 % in the industrial activities at the project's site[73], or (ii) in case of investments in high efficiency cogeneration, the heat produced is fully used by the beneficiary[74].

(132) This section applies to aid for investments in ancillary energy storage or transport infrastructure provided that the investment forms an integral part of an investment under point (139) or point (131) and:

(a) In case of storage, the infrastructure is located on the project's site and dimensioned to the needs of that investment;

(b) In case of transport, the infrastructure is either located on the project's site or solely connects that site to an open infrastructure that is subject to third-party access in line with the legal framework applicable to the internal energy market.

(133) Aid under this section will be granted on the basis of a scheme with an estimated budget. Member States must provide an estimate of the total direct greenhouse gas emissions to be saved, or of the total energy savings to be achieved through the scheme. Aid under this section can only be granted in the form of direct grants, repayable advances, loans, guarantees or tax advantages[75].

(134) Schemes assessed under this section should in principle cover all sectors that can contribute to the objective set out in point (127). Member States that seek to limit the scheme's eligibility to certain sectors must (i) justify such limited eligibility based on objective considerations; and (ii) demonstrate that the limited eligibility of the scheme still contributes to meeting EU and national climate targets and does not unduly exclude more climate and environmentally-friendly solutions.

(135) As a safe harbour provision, and without prejudice to Member States providing alternative justifications, the Commission will presume that limiting the eligibility of a scheme is justified for the purposes of point (134) if the scheme covers all stationary installations referred to in chapter III of the ETS Directive[76].

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[73] This assessment must be based on credible *ex ante* simulations as regards the expected energy production and demand.

[74] In the situation referred to in point (c), the energy must be used for at least 80 % in the industrial activities within the industrial park, or the heat must be fully used within the industrial park in case of investments in heat production through high efficiency cogeneration.

[75] Other forms of aid, namely direct carbon abatement support such as aid in the form of (Carbon) Contracts for Difference and feed-in premia, as well as tradable certificates are excluded under this section. Aid in those forms or other forms of direct carbon abatement support will be assessed under the CEEAG.

[76] Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC.

(136) To ensure that projects are implemented in a timely fashion and deliver the expected greenhouse gas emission or energy savings, Member States must ensure that:

(a) the installation or equipment to be financed by the aid is in operation within 60 months after the date of granting; and

(b) the project, once the new installation or equipment financed by the aid is in full operation[77], delivers direct greenhouse gas emission reductions or energy savings corresponding to at least 80 % of the projected reductions or savings.

(137) Schemes must include an effective system of penalties in case any of the conditions under point (136) is not met[78].

(138) The Member State must demonstrate that the aid does not finance an increase of the overall production capacity of the beneficiary. This is without prejudice to:

(a) temporary increases of the production capacity during the transitory period before the new installation or equipment financed by the aid is fully operational and the existing equipment is not yet entirely decommissioned; or

(b) limited capacity increases resulting from technical necessity not exceeding 15 % compared to the situation before the investment financed by the aid.

5.2. MINIMUM DECARBONISATION OR ENERGY EFFICIENCY EFFECTS

5.2.1. COMMON REQUIREMENTS

(139) Investments reducing greenhouse gas emissions of installations or improving the energy efficiency of industrial activities referred to in points (129) to (132) are eligible, irrespective of the technological solution used, provided they either:

(a) deliver a reduction in direct greenhouse gas emissions resulting from the activity concerned, (i) which would not take place without the aid, taking into account policy measures and mechanisms introduced to remedy the same market failure, including the Union's Emissions Trading System (ETS), and (ii) which is consistent with the EU Climate Law targets[79]; or

(b) deliver a reduction in the energy consumption of the activity concerned per unit of output compared to the situation without the aid[80] and have a

[77] This is generally the case within two years after entry into operation.

[78] Penalties may be waived in cases where not meeting the conditions is due to factors outside the control of the aid beneficiary and could not reasonably have been foreseen at the moment of the aid application.

[79] For investments done by companies disclosing corporate transition plans, this includes the requirement that the investment must be consistent with the corporate transition plan as set out in the Corporate Sustainability Reporting Directive (Directive (EU) 2022/2464 of 14 December 2022).

[80] The level of energy savings must be calculated on the basis of the final energy consumption of the equipment(s).

payback period of 5 years or more. The reduction in the energy consumption per unit of output must be equal to at least 10 % for already decarbonised processes and to at least 20 % in all other cases[81].

(140) As a safe harbour provision and without prejudice to Member States providing alternative justifications, the Commission will presume that aid granted for decarbonisation investments complies with point (139) (a), if the scheme contains the following requirements:

(a) In relation to investments reducing greenhouse gas emissions of existing installations:

i. the investment reduces the existing installation's greenhouse gas emissions by at least 40 % and, for installations referred to in chapter III of the ETS Directive[82], brings them below the average emissions of the 10 % most efficient installations, as determined by the implementing regulation in force at the time of the scheme's publication for establishment of benchmarks pursuant to Article 10a of Directive 2003/87/EC ('most efficient installations'); or

ii. the investment reduces greenhouse gas emissions of a technical unit[83] within the existing installation by at least 90 % and does not lock in fossil fuels;

(b) In relation to investments reducing greenhouse gas emissions of new installations replacing an existing installation, the investment ensures that the installation's greenhouse gas emissions are at least 10 % below most efficient installations or a comparable reference when for installations other than the ones referred to in chapter III of the ETS Directive.

(141) Projects must deliver overall greenhouse gas emissions reductions. They must not merely result in the displacement of greenhouse gas emissions from the industrial sector concerned to the energy sector or from one industrial site to another.

(142) To demonstrate that emissions are not merely being displaced, Member States must demonstrate that indirect greenhouse gas emissions linked to the eligible projects do not fully offset direct greenhouse gas emission reductions achieved through the investment, so that net emission savings remain material. Member

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81 Investments involving a change in the energy source or carrier, for example changing from coal to gas, are considered decarbonisation projects and are subject to the requirements for decarbonisation rather than energy efficiency.

82 For the purpose of this point, the installation's greenhouse gas emissions must be measured at the level of the ETS relevant industrial product benchmark sub-installation, as defined in Article 2(2) of Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 59, 27.2.2019, p. 8.). To ensure the comparability of projects, the Member State must develop a common methodology for calculating greenhouse gas emission savings for activities not covered by the ETS.

83 Within the meaning of Section 4.4 the Commission Guidance on the Interpretation of Annex I to ETS Directive, published on 18.03.2010, available at: https://climate.ec.europa.eu/system/files/2016-11/guidance_interpretation_en.pdf. For non ETS sectors, the concept can be applied by analogy.

States can demonstrate that it is the case by the scheme's design or on the basis of simulations of projected greenhouse gas emissions savings and projected indirect emissions per reference project, using established methodologies. For electricity, it can also be demonstrated by showing (i) that the expected increase in electricity demand stemming from the scheme can be entirely covered by an increase in supply of renewable or low-carbon electricity, as projected in the most recent National Energy and Climate Plan ('NECP') of the Member State concerned or by more updated plans to increase renewable or low-carbon power generation adopted after the latest update of the NECP, and (ii) that beneficiaries remain exposed to electricity price signals and the scheme contains sufficient incentives for flexibility solutions.

(143) As a safe harbour provision and without prejudice to Member States providing alternative justifications, the Commission will presume that the conditions under point (142) are met in the following scenarios:

(a) Indirect emissions linked to the use of hydrogen in compliance with the conditions set out in point (146);

(b) Indirect emissions linked to flexible electrification projects[84], including the use of heat pumps, the final energy output of which significantly exceeds the primary energy input required according to the methodology set out in Annex VII of Directive 2018/2001; or

(c) Indirect emissions linked to the use of biofuels, bioliquids, biogas (including biomethane) and biomass fuels in compliance with the conditions set out in point (145).

(144) Member States must ensure that aid for decarbonisation does not unduly displace investments into cleaner alternatives that are already available on the market, or lock in certain technologies, hampering the wider development of a market for and the use of cleaner solutions. Member States may therefore not unduly restrict the technological scope of schemes. In particular for the decarbonisation of industrial heat below 500°C, they may not exclude the most climate and environmentally-friendly technologies, i.e. non-biomass-based renewable heat, flexible electrification and the reuse of waste-heat.

5.2.2. ADDITIONAL REQUIREMENTS FOR SUPPORT FOR BIOFUELS, HYDROGEN OR HYDROGEN DERIVED FUELS

(145) For aid schemes covering investments relying wholly or partly on the use of biofuels, bioliquids, biogas (including biomethane) and biomass fuels, Member States must impose conditions requiring that those fuels are compliant with the sustainability and greenhouse gases emissions saving criteria set out in Directive (EU) 2018/2001 and its implementing or delegated acts.

(146) For aid schemes covering investments relying wholly or partly on the use of hydrogen or hydrogen-derived fuels, Member States must impose conditions ensuring that the hydrogen or hydrogen-derived fuels used in the projects are

[84] Investments in electrification can be considered flexible for example if electricity consumption can be adapted on the basis of price signals or when investments are combined with requirements for flexibility solutions to be installed such as energy storage.

either RFNBOs or low-carbon fuels[85]. These fuels may also be combined with hydrogen produced from biomass compliant with the sustainability and greenhouse gases emissions saving criteria in Directive (EU) 2018/2001 and its implementing or delegated acts.

5.2.3. ADDITIONAL REQUIREMENTS FOR SUPPORT FOR CARBON CAPTURE PROJECTS

(147) For aid schemes covering also investments to deploy carbon capturing equipment[86], Member States must ensure that projects covering investments in carbon capturing equipment will upon entry into operation result in the avoidance of direct greenhouse gas emissions taking into account the entire carbon capture and storage (CCS) or carbon capture and utilisation (CCU) chain.

(148) As a safe harbour provision, and without prejudice to Member States providing alternative justifications, the Commission will presume compliance with point (147) if the scheme provides that only projects are eligible that:

(a) concern the installation of carbon capturing equipment to the extent that the captured CO2 upon entry into operation is (i) utilised in such a way that it has become permanently chemically bound in a product so that it does not enter the atmosphere under normal use, including any normal activity taking place after the end of the life of the product, or (ii) used for the production of synthetic fuels in accordance with applicable EU law; and/or

(b) concern the installation of carbon capturing equipment with a view to its permanent geological storage through a carbon capture and storage chain in sites permitted in accordance with Directive 2009/31/EC[87], including in sites recognised as net-zero strategic CO2 storage projects in accordance with NZIA.

5.2.4. ADDITIONAL REQUIREMENTS FOR SUPPORT FOR PROJECTS RELYING ON NATURAL GAS

(149) In accordance with the principles in points (130) and (144), schemes can only exceptionally incentivise new investments based on natural gas as means to reduce emissions or increase energy efficiency. They are covered by this section only if the Member State demonstrates (i) that there is no technologically mature alternative for natural gas, (ii) that alternatives to natural gas are not yet feasible due to insufficient availability or infrastructure, or (iii) that the decarbonisation

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85 Low-carbon fuels as defined in Article 2(13) of Directive (EU) 2024/1788 of the European Parliament and of the Council of 13 June 2024 on common rules for the internal markets for renewable gas, natural gas and hydrogen and its implementing or delegated acts.

86 Investments in transport, storage and utilisation installations are not covered under this section. By way of exception, connecting infrastructure (to a network) can be covered under this section provided it complies with point (132).

87 Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.

will take place in stages. In all these situations, Member States must require that beneficiaries submit a credible and detailed plan showing how natural gas will be phased out by 2040; the Member State must ensure that this phase out is implemented.

(150) By way of derogation from points (139) (b) and (140) (a)(i) and (b), investments that are largely based on natural gas as a means to decarbonise industrial heat must, upon entry into operation, deliver a reduction in direct greenhouse gas emissions of at least 70 % or a reduction of energy consumption per unit of output of at least 40 %.[88]

(151) The exceptions allowing for limited capacity increases set out in letter (a) and (b) of point (138) do not apply to investments that are based on natural gas, unless the investment complies with best available techniques as defined in Directive 2010/75/EU[89].

5.3. APPLICABLE AID LIMITS

(152) When planning an aid scheme under this section, in order to ensure the proportionality of the aid the Member State must select one of the alternative methodologies described in sub-sections 5.3.1, 5.3.2 or 5.3.3.

(153) Where individual aid amounts under sub-section 5.3.1 exceed EUR 200 million, the aid amount has to be determined in compliance with sub-section 5.3.2.

5.3.1. AID INTENSITY

(154) For aid amounts[90] up to EUR 200 million, the maximum aid amount under an aid scheme can be determined on the basis of the eligible costs of an investment, i.e. the total investment costs directly related to the achievement of the greenhouse gas emission savings or energy efficiency, and a maximum aid intensity. The maximum aid intensity is an approximation of the extra environmental costs of using the respective technological decarbonisation solutions. The maximum aid intensity may not be higher than:

(a) 60 % for investments enabling the use of hydrogen or hydrogen-derived fuels, where the share of RFNBOs[91] referred to in point (146) is at least 40 %;

(b) 45 % for investments in the production of renewable energy[92], energy storage[93], investments in flexible electrification referred to in point

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88 These objectives may be attained by combining natural gas with other decarbonisation solutions. It is recalled that investments involving a change in the energy source or carrier are considered decarbonisation projects and are subject to the requirements for decarbonisation rather than energy efficiency (see footnote 81).

89 Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (OJ L 334 17.12.2010, p. 17).

90 Aid amounts under this point are calculated based on the gross grant equivalent.

91 When the conversion to hydrogen use entails the conversion of other production processes at the same location, the aid intensity of 60 % also applies to those additional investments.

92 As referred to in point (48)(a), which includes the production of RFNBOs.

(143)(b), investments in carbon capture equipment that comply with point (147);

(c) 35 % for investments enabling the use of low-carbon fuels referred to in point (146);

(d) 20 % for investments in the production of low-carbon fuels referred to in point (146);

(e) 30 % for all other technologies.

(155) For investments made by small enterprises, the aid intensities under point (154) can be increased by 10 percentage points and for investments made by medium-sized enterprises, the aid intensities can be increased by 5 percentage points.

5.3.2. FUNDING GAP

(156) Member States can choose to determine the maximum aid amount under an aid scheme as the funding gap of the eligible investment. Applicants under the scheme must be required to use a uniform template for calculating the funding gap. Member States need to set up the methodology they will follow to verify that cash flow projections underpinning NPV calculations are credible and coherent with the decarbonisation project. The uniform template needs to be in line with the principles and main features of the model that will be published by the Commission.

(157) When the aid calculated on the basis of the project's funding gap exceeds the highest of EUR 200 million or 10 % of the scheme's budget per undertaking per project, the funding gap must be assessed by the Commission following a separate notification.

(158) Where Member States determine the aid amount based on point (156) and this aid amount exceeds EUR 30 million per undertaking per project, a claw-back mechanism must be put in place that ensures that the Member State receives an appropriate share of any additional surpluses generated by an aided project, based on a comparison of the projected business plan with the actual cash-flows of the project. The claw-back mechanism must include all of the following features:

(a) The calculation carried out under the claw-back mechanism must be checked based on separate accounting for the aided project, verified by an independent auditor;

(b) The claw-back mechanism must apply for the duration of the financial projections underlying the funding gap assessment and must include a terminal value of the project at the end of the planning horizon based on standard economic methodologies[94]; and

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[93] To the extent that it complies with point (132).

[94] For the purpose of this point, the claw-back mechanism may be applied for the first time 5 years, and for the last time 10 years after a project's entry into operation provided that in the final application of the claw-back mechanism, the project's terminal value is taken into account.

(c) The claw-back mechanism must include incentives for the beneficiaries to minimise their costs and implement the project efficiently over time while the share of the surplus to be paid back to the State has to remain significant.

5.3.3. COMPETITIVE BIDDING

(159) As an alternative to points (154) and (156), Member States can also choose to determine the maximum aid amount under an aid scheme by a competitive bidding process that complies with the following additional conditions:

(a) The competitive bidding process must be open to all eligible projects under the scheme that are delivering the same type of contribution to the environmental objectives of the measure, i.e. its contribution to greenhouse gas emissions avoidance or its contribution to energy efficiency improvements;

(b) Technology-specific baskets may not be applied unless they are needed to avoid that technologies with higher abatement costs but also a high decarbonisation potential, are de-facto excluded;

(c) Potential bid caps to limit the maximum bid from individual bidders in particular categories and baskets must be justified with reference to funding gap calculations for reference projects[95].

6. AID TO ENSURE SUFFICIENT MANUFACTURING CAPACITY IN CLEAN TECHNOLOGIES

(160) Provided that the conditions in section 3 and in this section are met, the Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty, aid granted to incentivise investment projects that add manufacturing capacity for:

(a) the production, including with secondary raw materials, of the final products listed in Annex II; and/or

(b) the production, including with secondary raw materials, of the main specific components listed in Annex II; and/or

(c) the production of new or recovered related critical raw materials necessary for the production of the final products or main specific components defined under points (a) and (b).

Such aid can make a material contribution to achieving the 40 % resilience benchmark of NZIA, in conjunction with other policies to develop an accommodating business environment for such clean tech manufacturing investments.

(161) This is without prejudice to the possibility for Member States to set up aid schemes dedicated to the support of investments enhancing the circular economy

[95] 'Reference project' means an example project that is representative of the average project in a category of eligible beneficiaries for an aid scheme.

(e.g. preparing for re-use, recycling, etc.), under section 4.4 of the CEEAG, up to the maximum aid amount provided for in that section. The Commission will treat such cases as a priority. This includes support for investments enabling the substitution of primary with secondary raw materials. Investments supporting the circular economy can also be supported without prior notification under the General Block Exemption Regulation.

(162) Under normal market conditions, producers of clean technology should be able to cover their operating costs without any further public support, all the more so where their investment cost has already been subsidised. Operating aid has the potential to be particularly distortive as it can directly reduce the cost of goods or services provided on the market and maintain in the market operators that are loss-making on a long-term basis. However, clean technology manufacturers like battery producers might face unfair global competition, unexpected costs overruns, or uncertainties on future demand, for example but not only during the ramp up period, which are inherent in their operations. In such circumstances, Member States may provide funding, including in the form of equity and quasi-equity instruments, on market terms, alongside private operators (see point (7)), at the same conditions in terms of risks and rewards (*pari passu*). Such funding might cover investment needs but also operating costs.

6.1. INVESTMENT AID SCHEMES

(163) Member States may provide aid for investment projects falling within the scope of point (160).

(164) Aid for investment projects referred to in point (163) can be granted on the basis of a scheme with an estimated budget provided that the conditions laid down in this sub-section and in section 3 are met.

(165) Beneficiaries must apply for aid before the start of works and must provide the required information indicated in Annex III to this Communication to the Member State.

(166) The eligible costs of the investment project supported by the aid are all investment costs in tangible (such as land, buildings, plant, equipment, machinery) and intangible assets (such as patent rights, licences, know-how or other intellectual property) required for the production or recovery of the goods listed in point (160). Intangible assets must: i) remain associated with the area concerned and must not be transferred to other areas; ii) be used primarily in the relevant production facility receiving the aid; iii) be amortisable; iv) be purchased under market conditions from third parties unrelated to the buyer; v) be included in the assets of the undertaking that receives the aid; and vi) remain associated with the project for which the aid is awarded for at least five years (or three years for SMEs).

(167) Where the investment project takes place outside assisted areas, the aid intensity cannot exceed 15 % of the eligible costs and the aid amount[96] cannot exceed EUR 150 million per project. Where the investment project takes place in an

[96] Aid amounts under this point are calculated based on the gross grant equivalent.

assisted area under Article 107(3), point (c), of the Treaty, the aid intensity cannot exceed 20 % of the eligible costs and the aid amount cannot exceed EUR 200 million per project. Where the investment project takes place in an assisted area under Article 107(3), point (a), of the Treaty, the aid intensity cannot exceed 35 % of the eligible costs and the aid amount cannot exceed EUR 350 million per project[97].

(168) For investments made by small enterprises, the aid intensities set out in point (167) can be further increased by 20 percentage points, and for investments made by medium-sized enterprises, the aid intensities can by increased by 10 percentage points.

(169) To ensure that the investment is viable, the Member State must ensure that the aid beneficiary provides a financial contribution of at least 25 % of the eligible costs, through its own resources or by external financing, in a form that is free of any public support[98].

(170) The beneficiary must commit to maintain the investment in the area concerned for a minimum period of five years, or three years for SMEs, after the completion of the project, with a view to create durable quality jobs in the European Union. Such a commitment should not prevent the replacement of plant or equipment that has become outdated or broken within this period, provided that the economic activity is retained in the area concerned for the minimum period. However, no further aid can be awarded under this Communication to replace that plant or equipment. The non-respect of this commitment could lead the granting authority to recover the aid.

(171) Before granting the aid and on the basis of the information provided by the beneficiary as indicated in Annex III to this Communication, the granting authority must verify the concrete risks of the investment not taking place within the EEA[99].

(172) The aid cannot be provided to facilitate relocation of production activities within the EEA, in particular to prevent the aid from causing job losses. For this purpose, the beneficiary has to:

(a) confirm that in the two years preceding the application for aid, it has not carried out a relocation to the establishment in which the aided investment is to take place; and

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97 Member States have to ensure that these maximum aid amounts are not circumvented by artificially splitting up the aided projects.

98 This is not the case for example for subsidised loans, public equity-capital loans or public participations which do not meet the market investor principle, State guarantees containing elements of aid, or public support granted within the scope of the *de minimis* rule. Funding by the EIB and/or the EIF (at own risk and from own resources) for the investment project, up to 12.5 % of the eligible costs, will be accepted as financial contribution for the purpose of point (169).

99 For projects that have been awarded a 'Sovereignty Seal' referred to in Article 4 of Regulation (EU) 2024/795 under the Innovation Fund (see footnote 106), such verification is not required.

(b) commit not to carry out such relocation up to a period of two years after completion of the investment. The non-respect of this commitment could lead the granting authority to recover the aid.

6.2. AD HOC AID

(173) The Commission can approve individually notified aid for investment projects that fall within the scope defined in point (160), provided the conditions laid down in this sub-section, in points (165) and (170), and in section 3 are met.

(174) The aid amount cannot exceed the lower of the following: (i) the amount of subsidy[100] that the beneficiary could demonstrably receive for an equivalent investment in a third country outside the EEA; and (ii) the minimum amount needed to incentivise the aid beneficiary to realise the investment in the area concerned in the EEA rather than in the alternative location outside the EEA (funding gap)[101]. The beneficiary must demonstrate that without the aid the planned investment would not take place in the EEA[102]. The Commission considers that an additional safeguard in form of a claw-back mechanism is required in markets with an increased risk of future market volatility to ensure a fair distribution of additional gains that were not forecasted in the notified funding gap analysis.

(175) Where the investment takes place outside assisted areas, the Member State must demonstrate that the investment could not be implemented as efficiently in an assisted area and that it is therefore reasonable for the aid beneficiary not to locate the investment in such assisted areas.

(176) Where several locations in the EEA are under consideration for the investment, and if State aid under this sub-section were to be granted to attract the investment to an area with a regional aid intensity as specified in the applicable regional aid map that is lower than in alternative EEA areas under consideration (or to a non-assisted area), this would constitute a negative effect on competition and trade that is unlikely to be compensated by any positive effect. In cases where in the EEA locations considered the same regional aid intensity applies, the beneficiary must demonstrate that the location was chosen based on objective criteria irrespective of State aid. There is, by contrast, no such manifest negative effect on

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100 The notified aid and the subsidy (in whatever form) which the beneficiary could demonstrably receive in a third-country jurisdiction outside the EEA will be compared in discounted terms.

101 In principle, it is unlikely that the Commission will consider compatible with Article 107(3), point (c), of the Treaty aid amounts exceeding the capital investment costs necessary to locate the project in the area concerned considering that such aid is unlikely to have an incentive effect.

102 Relevant documentary evidence to underpin the counterfactual scenario referred to in Annex III of this Communication needs to be credible, i.e. genuine and relevant to the decision-making factors prevalent at the time of the decision by the aid beneficiary regarding the investment. Member States are invited to draw on genuine and official board documents, risk assessments (including the assessment of location-specific risks), financial reports, internal business plans, expert opinions and other studies related to the investment project under assessment. Those documents need to be contemporary to the decision-making process concerning the investment or its location. Documents containing information on demand forecasts, cost forecasts, financial forecasts, documents submitted to an investment committee and that elaborate on investment scenarios, or documents provided to the financial institutions could also be helpful in this respect.

competition and trade where the beneficiary is able to demonstrate that the investment would not otherwise take place in such alternative EEA areas and would instead be diverted to a third country outside the EEA.

(177) The beneficiary must commit to use for the production of goods defined in point (160) the latest commercially available state-of-the-art production technology from an environmental emissions' perspective.

(178) The Member State should demonstrate that with the additional manufacturing capacity created by the aided investment, the aid beneficiary will contribute to strengthening European autonomy by addressing an existing gap between demand and supply within the Union and not crowd out production capacity that is either already existing or is committed to be built.

(179) When assessing State aid under this sub-section, the Commission will request all necessary information to consider whether the State aid is likely to result in a substantial loss of jobs in existing locations within the EEA. In that situation, and if the investment enables the aid beneficiary to relocate an activity to the target area, if there is a causal link between the aid and the relocation, this constitutes a negative effect on competition and trade that is unlikely to be compensated by any positive effects.

6.3. AID TO SUPPORT DEMAND FOR CLEAN TECHNOLOGY EQUIPMENT IN FORM OF ACCELERATED DEPRECIATION

(180) The Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty schemes providing for State aid in the form of accelerated depreciation granted to incentivise acquisition or lease of clean technology equipment, provided that the conditions under this sub-section and section 3 are met.

(181) The aid must be granted in the form of aid schemes that consist in accelerated depreciation, up to full and immediate expensing[103], of costs incurred for the acquisition or lease of eligible assets.

(182) Eligible assets are all final products as referred to in point (160)(a).

(183) The eligible assets must comply with all of the following conditions:

(a) be new;

(b) be used primarily for the activities of the beneficiary and remain associated with those activities for at least five years (or three years for SMEs)[104];

(c) be depreciable;

(d) be purchased or leased under market conditions;

[103] Immediate expensing is not allowed for assets depreciable over a period of more than 15 years.

[104] However, for assets with a normal depreciation period of less than five years, the minimum use period is reduced to three years.

(e) be included in the assets of the beneficiary.

(184) The acquisition or lease of the eligible assets must take place and the accelerated depreciation must start no later than the date of expiry of this Communication as defined in point (216).

(185) Points (38)(a) and (b) do not apply to aid under this sub-section. Aid in the form of accelerated depreciation can be provided in addition to any other State aid, or support from centrally managed EU funds, in relation to the same eligible costs without the need to calculate its gross grant equivalent.

7. SCHEMES TO SUPPORT SPECIFIC INNOVATION FUND PROJECTS

(186) In addition to section 4.1, section 4.2, section 5.1 to 5.3, and section 6.1, this section contains specific compatibility conditions for schemes supporting investments that have been positively assessed under the Innovation Fund[105]. Provided they comply with this section and section 3, the Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty, aid measures to support investments for the production and storage of clean energy set out in points (48) and (73), investments for the reduction of greenhouse gas emissions from industrial activities referred to in points (129) to (132) and investments that create additional manufacturing capacity falling within the scope of point (160) for projects that were successful in the Innovation Fund evaluation and have been awarded a 'Sovereignty Seal' referred to in Article 4 of Regulation (EU) 2024/795[106].

(187) In relation to investments in the production and storage of renewable energy referred to under point (48) and assessed under this section, points (49) to (52) apply.

(188) In relation to investments in the production and storage of low-carbon fuels referred under point (73) and assessed under this section, points (75) and (76) apply.

(189) In relation to investments reducing greenhouse gas emissions from industrial activities referred to in points (129) to (132) and assessed under this section, points (138), (141) to (143), and (145) to (151) apply.

(190) In relation to investments that create additional manufacturing capacity for products falling within the scope of point (160) and assessed under this section, points (165), (166), (169), (170) and (172) apply.

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[105] Innovation Fund established by Article 10a(8) of the Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32)

[106] Regulation (EU) 2024/795 of the European Parliament and of the Council of 29 February 2024 establishing the Strategic Technologies for Europe Platform (STEP). This Seal is awarded to all Innovation Fund projects that have been assessed under the Innovation Fund and that comply with the minimum quality requirements set out for in a relevant call for proposals under Commission Delegated Regulation (EU) 2019/856 of 26 February 2019 supplementing Directive 2003/87/EC of the European Parliament and of the Council with regard to the operation of the Innovation Fund (OJ L 140, 28.5.2019, p. 6).

(191) Aid must be granted on the basis of a scheme with an estimated budget.

(192) Member States may set up schemes covering either one or both of the following categories of projects:

(a) projects that were successful in the Innovation Fund evaluation and that have been awarded a Sovereignty Seal but that have not been selected for funding in line with Commission Delegated Regulation (EU) 2019/856;

(b) projects that were successful in the Innovation Fund evaluation and that have been awarded a Sovereignty Seal, and that have been selected for funding in line with Commission Delegated Regulation (EU) 2019/856.

(193) Schemes must be open to all projects complying with conditions set out in this section and which fall within one or both of the categories referred to in point (192) (a) and (b). Member States can limit the scope of such schemes to clean energy generation, industrial decarbonisation or clean technology manufacturing only. They can in principle not restrict the scheme further to a specific sector or a specific technology. Member States that seek to limit the scheme's eligibility to certain sectors or technologies must (i) justify such limited eligibility based on objective considerations, and (ii) demonstrate that the scheme does not unduly exclude more climate and environmentally friendly solutions.

(194) Schemes can cover the projects stemming from one or several upcoming calls. When the scheme covers the projects stemming from more than one upcoming call for proposal under Commission Delegated Regulation (EU) 2019/856, the Member State can either allocate an annual budget per Innovation Fund call or reserve support to a certain percentage of the projects that were successful in the Innovation Fund evaluation and have been awarded a Sovereignty Seal from each call. When allocating aid to projects eligible under the scheme, Member States must follow the ranking established for selecting projects following a call for proposal under Commission Delegated Regulation (EU) 2019/856.

(195) Aid can only be granted in the form of direct grants, repayable advances, loans, guarantees or tax advantages.

(196) When putting in place an aid scheme under this section, the Member State must (i) for investments in the production and storage of clean energy referred to in points (187) and (188) as well as for investments reducing greenhouse gas emissions from industrial activities referred to in point (189), select one of the alternative methodologies for establishing the aid amount described in points (154) to (158); (ii) for investments that create additional manufacturing capacity referred to in point (190), ensure that the maximum aid intensities and maximum aid amounts as laid down in points (167) and (168) are respected.

(197) For projects referred to under point (192)(a), as an alternative to point (196), Member States may also establish the aid amount for investments reducing greenhouse gas emissions from industrial activities and for investments in the production and storage of clean energy in line with the method of calculating the maximum funding as laid down in the Delegated Regulation (EU) 2019/856 complemented with an effective claw-back mechanism including the features as laid down in point (199).

(198) For investments that create additional manufacturing capacity for products falling within the scope of point (160), provided that the project's Degree of Innovation score under the Innovation Fund is evaluated as strong, and up to the maximum aid ceilings as laid down in point (200), as an alternative to point (196), Member States may also establish the aid in line with the method of calculating the maximum funding as laid down in the Delegated Regulation (EU) 2019/856 complemented with an effective claw-back mechanism including the features as laid down in point (199).

(199) The claw-back mechanism must include all of the following features:

(a) The claw-back mechanism must address the occurrence of additional gains by establishing and reclaiming a project's surplus to the extent that the Internal Rate of Return of supported projects exceeds the WACC accepted in line with the method as laid down in the Delegated Regulation (EU) 2019/856;

(b) The claw-back mechanism is applied for the first time at least 5 years, and for the last time at least 10 years after a project's entry into operation as defined under the applicable Innovation Fund call;

(c) The calculation carried out under the claw-back mechanism must be checked based on separate accounting for the aided project, verified by an independent auditor;

(d) In the final application of the claw-back mechanism, the project's terminal value must be taken into account;

(e) The claw-back mechanism must be designed in a way to keep incentives for the beneficiaries to minimise their costs and implement the project in the most efficient manner over time with a State share set at no less than 70 % of the surplus.

(200) For the application of point (198), where the investment project takes place outside assisted areas, the aid intensity cannot exceed 25 % of the eligible costs and the aid amount cannot exceed EUR 150 million per project. Where the investment project takes place in an assisted area under Article 107(3), point (c), of the Treaty, the aid intensity cannot exceed 40 % of the eligible costs and the aid amount cannot exceed EUR 200 million per project. Where the investment project takes place in an assisted area under Article 107(3), point (a), of the Treaty, the aid intensity cannot exceed 55 % of the eligible costs and the aid amount cannot exceed EUR 350 million per project[107]. For investments made by small enterprises, those aid intensities can be further increased by 20 percentage points and for investments made by medium-sized enterprises, those aid intensities can be further increased by 10 percentage points.

[107] Member States have to ensure that these maximum aid amounts are not circumvented by artificially splitting up the aided projects.

8. AID TO REDUCE RISKS OF PRIVATE INVESTMENTS RELATED TO CLEAN INDUSTRIAL DEAL OBJECTIVES

(201) In addition to the measures described in sections 4 to 7, Member States can choose to incentivise private investors to invest in projects[108] within the scope of sections 4.1, 4.2, 4.3, 5 and 6[109], in energy infrastructure within the framework of a legal monopoly or run under a natural monopoly[110], or in projects supporting the circular economy[111].

(202) The Commission will consider compatible with the internal market on the basis of Article 107(3), point (c), of the Treaty, aid schemes for reducing risks of private investments into portfolios of eligible projects, provided that the compatibility conditions in this section and in section 3 are met.

(203) Aid is granted on the basis of a scheme to incentivise private investors to invest in portfolios of eligible projects within the scope of this section as defined in point (201).

(204) The aid takes the form of equity, loans (including subordinated loans) and/or guarantees provided to a dedicated fund or special purpose vehicle (SPV) that will hold the portfolio of eligible projects. The aid aims to achieve risk and/or return incentives for private investors to invest in that fund or SPV, such as in the form of guarantees with a first-loss (counter) guarantee or equity investments with different share classes where investment returns are first allocated to private investors' share class and, above a defined return level, also to the Member State's share class. The duration of a loan or a guarantee on debt instruments must not exceed twenty years in total and in the case of guarantees must in any event not exceed the maturity of the underlying debt instrument. The mobilisation of the guarantee is contractually linked to specific conditions, which can go as far as the compulsory declaration of bankruptcy of the beneficiary undertaking, or any similar procedure. These conditions must be agreed between the parties when the guarantee is initially granted. In case of guarantees provided for a portfolio's equity and/or quasi-equity investments, eligible losses can only be covered by the guarantee at the moment when the fund or SPV is dissolved and all portfolio investments have been divested on market terms.

(205) The investments from the fund or SPV into eligible projects can take the form of newly-issued equity, quasi-equity, loans (including subordinated loans), other debt instruments and guarantees. The maximum nominal amount of an investment

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[108] Alternatively, the investment can be made into an undertaking, provided that the planned investment amount of the eligible project is higher than 80 % of the undertaking's average annual turnover in the preceding five years and the undertaking is an SME. When the undertaking is a newly established enterprise that does not hold five closed annual accounts, the average turnover will be calculated based on the undertaking's duration of existence at the moment of the aid application by the undertaking.

[109] The categories of projects that fall within the scope of this section are those identified: for section 4.1: in points (48) (a) to (c), (51) and (52); for section 4.2: in point (73) (a) and (b); for section 4.3: in point (94) (a) to (d); for section 5: in points (129) to (132) and points (138) to (140) (a) and (b); and for section 6: in point (160) (a) to (c).

[110] As set out in points 373 to 375 CEEAG.

[111] This refers to projects within the scope of point 220 CEEAG, excluding projects of the type referred to in points 222-224 CEEAG.

per individual project cannot exceed EUR 250 million. An investment in an individual project must not account for more than 25 % of the fund's or SPV's total financing volume at closing. Aid under this section can be cumulated with aid under the other sections of this Communication and any other State aid for the same project.

(206) Member States must implement aid schemes under this section via a financial intermediary or via an entrusted entity. The remuneration of the financial intermediary or entrusted entity must conform to market practices. This condition is presumed to be met for financial intermediaries selected through an open, transparent and non-discriminatory selection procedure. The financial intermediaries must share part of the investment risks by either sufficiently co-investing their own resources or receiving a significant remuneration linked to performance, so as to ensure that their interests are permanently aligned with the interests of the Member State.

(207) Member States, or their entrusted entity, must commit to undertake a due diligence process in order to ensure a sound investment strategy, to be defined by the financial intermediary within the limits of the Member State's mandate, for the investment portfolio referred to in point (204), with an appropriate risk diversification policy aimed at achieving economic viability and providing long term investment opportunities for the private investors. The financial intermediary or the entrusted entity will be responsible to implement this strategy and will select the eligible projects and the investors. For each equity and quasi-equity investment, the selection must, among other things, be based on a clear and realistic exit scenario. In case of equity investments, the target return on the portfolio investment that determines the allocation of return (as set out in point (209)(b)) will be fixed by the financial intermediary or by the entrusted entity. The financial intermediary or the entrusted entity must ensure that the financing provided to the investment projects does not exceed the investment projects' costs, taking into account other committed financing from any source.

(208) The Commission considers that aid to private investors is limited to the minimum necessary when the private investors are selected for investments in a portfolio through an open, transparent and non-discriminatory selection procedure which is organised in accordance with applicable Union and national laws, sets out clearly the policy objectives to be pursued by the investment and is aimed at establishing appropriate risk-reward sharing arrangements.

(209) If the private investors are not selected in an open, transparent and non-discriminatory selection procedure, the Commission considers that aid to private investors is limited to the minimum necessary in the following cases:

(a) As regards aid in the form of (subordinated) loans and guarantees to a portfolio of projects, when the aid to the investor is in the form of a first-loss protection of not more than 20 % of contractually defined losses and the risk taken by the State is reflected in a premium which is less than 25 % lower than the respective market-conform remuneration. The latter remuneration must be estimated considering the riskiness of the final beneficiaries, the types of instruments covered, and the duration of the protection granted;

(b) As regards aid in the form of equity investments into a portfolio of projects, when any preferred allocation of investment returns to the share classes held by private investors is capped at a fixed return rate not higher than the target return on the portfolio investment and the share classes held by those private investors account for more than 75 % of the portfolio volume. At least 75 % of the investment returns above the fixed return rate are channelled to the share class owned by the Member State, while the remaining investment returns above the fixed return rate of, at most, 25 % are channelled to the share classes held by private investors.

(210) When applying for aid under a scheme set up under this section, private investors will have to present their investment strategy to the entrusted entity or the financial intermediary, including (i) the risk/return profile they envisage for their investment, and (ii) which safeguards they have in place to avoid any potential conflicts of interests (in particular as regards investments into projects by companies in which the investor(s) already have a non-negligible stake or prior exposure). The private investors must not benefit from any other State aid for their investment in the fund or SPV.

(211) Given the functional safeguards contained in this section, and in particular in points (204), (206) and (207), to ensure that only viable projects will be supported, the formal exclusion of undertakings in difficulty in point (28) does not apply to aid under this section.

9. TRANSPARENCY, MONITORING AND REPORTING

(212) Member States must publish relevant information on each individual aid above EUR 100 000[112] granted under this Communication on the comprehensive State aid website or Commission's IT tool[113] within 6 months from the moment of granting or, for aid in the form of tax advantage, within 1 year from the date the tax declaration is due.

(213) Member States must submit annual reports to the Commission[114].

(214) Member States must ensure that detailed records regarding the granting of aid provided for by this Communication are maintained. Such records, which must contain all information necessary to establish that the necessary conditions have been observed, must be maintained for 10 years upon granting of the aid and be provided to the Commission upon request.

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[112] Referring to information required in Annex III to Commission Regulation (EU) No 651/2014 of 17 June 2014 and of Annex III to Commission Regulation (EU) No 702/2014. For repayable advances, guarantees, loans, subordinated loans and other forms the nominal value of the underlying instrument will be inserted per beneficiary. For tax and payment advantages, the aid amount of the individual aid can be indicated in ranges.

[113] The State aid transparency public search gives access to State aid individual award data provided by Member States in compliance with the European transparency requirements for State aid and can be found at https://webgate.ec.europa.eu/competition/transparency/public?lang=en.

[114] Commission Regulation (EC) No 794/2004 of 21 April 2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty, OJ L 140, 30.4.2004, p. 1.

(215) The Commission can request additional information regarding the aid granted, in particular to verify whether the conditions laid down in the Commission decision approving the aid measure have been met.

10. FINAL PROVISIONS

(216) The Commission applies this Communication from 25 June 2025. The Commission applies this Communication to all measures notified as of the date of adoption, as well as to measures notified prior to that date, including under the TCTF. The Commission will apply this Communication until 31 December 2030.

(217) In accordance with the Commission notice on the determination of the applicable rules for the assessment of unlawful State aid[115] the Commission will apply this Communication to non-notified aid if the aid was granted on or after 25 June 2025, and the rules in force at the time when the aid was granted in all other cases.

(218) This Communication replaces the TCTF, which is withdrawn with effect from the date of adoption of this Communication.

[115] OJ C 119, 22.5.2002, p. 22.

ANNEX I - TARGET MODELS FOR CAPACITY MECHANISMS

To allow for the Commission's swift assessment and approval of Member States' notifications of capacity mechanisms under Union law, this annex lists the relevant criteria for the compatibility assessment under this Communication of two specific target models of capacity mechanism: a strategic reserve and a market-wide central buyer mechanism. Criteria related to the market-wide capacity mechanism model are identified with "**MW"** while criteria related to the strategic reserve model are identified with "**SR"**. Where these criteria are met, capacity mechanisms can be considered compatible with both Article 107(3), point (c), of the Treaty and all relevant provisions laid down in Articles 20 to 27 of the Electricity Regulation.

In case some of these criteria are not met, for example where Member States wish to rely on National Resource Adequacy Assessments which may in some cases provide a more precise basis for assessing the need for and proportionate size of capacity mechanisms, the relevant measures might need to be assessed under section 4.8 of the CEEAG. The criteria in this annex will be considered to accelerate such an assessment: within any assessment of capacity mechanisms under the CEEAG, compatibility can be assumed for any specific aspects of a strategic reserve or central buyer market wide capacity mechanism that meet the criteria listed below.

Req.	**Scope**	**Description**		
Necessity of aid, incentive effect and compatibility with Electricity Regulation Articles 20(1), 21(1), 21(4), 22(1.c), and 23				
1	SR, MW	a) the latest available European Resource Adequacy Assessment (ERAA)[116] central reference scenarios approved by the European Union Agency for the Cooperation of Energy Regulators (ACER) must be the basis for identifying the need for a capacity mechanism. The reliability standard, calculated as the ratio of cost of new entry (CONE) / value of lost load (VOLL)[117], must not be met in the Member State concerned at least as of the first delivery window (see criterion 18 below) within the approval period; and b) all parameters calculated to assess availability, such as any de-rating factors, must be in line with the ERAA assumptions and results[118].		☐ ☐

[116] 'European resource adequacy assessment (ERAA)' refers to the European Resource Adequacy assessment described in Article 23 of Electricity Regulation and in ACER Methodology for the European resource adequacy assessment of 2 October 2020.

[117] 'Reliability standard' means reliability standard as defined in Article 2, point 2 of the Annex I of the ACER Decision of 2 October 2020 on the Methodology for calculating the value of lost load, the cost of new entry, and the reliability standard; 'Cost of new entry (CONE)' means cost of new entry as defined in Article 2, point 2 of the Annex I of the ACER Decision of 2 October 2020 on the Methodology for calculating the value of lost load, the cost of new entry, and the reliability standard. 'Value of lost load (VOLL)' means value of lost load as defined in Article 2, point 9 of the Electricity Regulation. VOLL and CONE should be the figures provided by ACER as envisaged in the Commission's 3 March 2025 Report on the assessment of possibilities of streamlining and simplifying the process of applying a capacity mechanism, once available. In the meantime, they should be calculated according to the ACER Decision of 2 October 2020 on the Methodology for calculating the value of lost load, the cost of new entry, and the reliability standard.

[118] De-rating is an adjustment to the installed capacity of a capacity resource to identify its contribution to the adequacy need (reflecting the different technical characteristics and different reliability of different

Market failure and appropriateness of aid and compatibility with Electricity Regulation Articles 20(3-8) and 21(3)				
2	SR, MW	Member State must have received an opinion from the European Commission after they submitted their market reform plan. If recommendations were made in the Commission opinion, the Member State must either have published an updated market reform plan for implementing all recommendations or commit to publishing such a plan within 3 months of the adoption of the State aid decision.		☐
3	MW	Member State must confirm it has assessed whether a strategic reserve is capable of addressing the resource adequacy concern.		☐
Eligibility and compatibility with Electricity Regulation Articles 22(1), 22(4) and 26				
4	SR, MW	In line with point (28), the capacity mechanism must not be open to undertakings in difficulty. In line with point (36), participation must not be conditional on relocation, and any outstanding recovery order will be taken into account in line with point (33).		☐
5	SR, MW	The capacity mechanism must be open to all technologies, beneficiaries and projects that meet transparent, objective and non-discriminatory technical and environmental requirements. No other criteria are included. Minimum size required for participation must not be above 1 MW de-rated or above 1 hour of minimum delivery duration and must allow aggregation.		☐
6	SR, MW	Beneficiaries must meet the Electricity Regulation CO_2 emission limits. The Member State can apply more stringent CO_2 limits, calculated in line with ACER methodology.		☐
7	SR, MW	The Member State confirms that de-rating factors have been set in accordance with criterion 1. The multiplication of the relevant de-rating factor by the installed capacity of one unit provides the default capacity value (in MW) which is eligible to participate in the capacity mechanism. Individual capacity providers are allowed to deviate from the default de-rating factor for the technology at issue (up to at least 15 % of the standard de-rating factor of that technology). In this case, capacity providers must face the risk of penalties related to their custom de-rating factor.		☐
8	MW	The capacity mechanism must be open to cross-border participation in line with ACER methodology[119]. Maximum entry capacity must be set based on the ACER rules.		☐

technologies in different bidding zones). The de-rating factors used should be those published by ACER/ENTSO-E as an output of the European Resource Adequacy Assessment for the relevant bidding zone, once available. In the meantime, they must correspond to the ratio between i) availability of the given technology in each bidding zone during scarcity situations and ii) the installed capacity of the given technology (this calculation will be based on the latest available ERAA and will be updated at least every 2 years). De-rating factors must be calculated for every resource able to deliver its output continuously for at least 1 hour.

[119] See ACER decision: *"Technical specifications for cross-border participation in capacity mechanisms"*.

Proportionality of aid and compatibility with Electricity Regulation Articles 22(1) and 22(3)				
9	SR, MW	The maximum[120] target demand to be auctioned should be calculated based on ERAA central reference scenario results so that the reliability standard, determined as described in criterion 1, is reached. A demand curve should be set so that demand is reduced proportionately if prices in the competitive bidding process exceed the CONE used to calculate the reliability standard. Bid caps can be introduced. If bid caps are used they must: (a) be set at a level that avoids inefficient early closure of existing assets based on a detailed estimate of costs and revenues per reference project; and (b) be accompanied by a process for individual resources to justify to the NRA an exception from the price cap based on their specific costs.		☐
10	MW	One main competitive bidding process for 75 %-90 %[121] of the estimated target demand for the delivery window should take place 4-6 years ahead of the delivery window. Adjustment competitive bidding processes can be organised closer to delivery, taking into account the lead time for developing demand response and storage.		☐
11	SR	Competitive bidding processes should take place no more than one year ahead of the delivery window.		☐
12	SR, MW	All participation rules and competitive bidding process requirements must be published at least 6 weeks before the deadline for submitting bids.		☐
13	SR	Beneficiaries must be identified through a competitive bidding process with bids ranked according only to their price per de-rated unit of available capacity per year, and support paid according to either the initial bid or the clearing price.		☐
14	MW	Beneficiaries must be identified through a competitive bidding process with bids ranked according only to their price per de-rated unit of available capacity per year, and support paid according to the clearing price.[122]		☐
15	MW	Beneficiaries must be allowed to sell their capacity agreement to another capacity provider, up to at least 2 months before the start of the delivery window.		☐
16	SR	Capacity agreements must have a duration of one year.		☐
17	MW	Capacity agreements must in general cover one delivery window. Where beneficiaries undertake capital investments, longer capacity agreements may be made available. For every 25 000 EUR / de-rated		☐

[120] Member States are free to procure a lesser volume.

[121] If cross border capacity is not eligible to participate in the main auctions, at least 10 % of the estimated volume required for the delivery window plus the maximum entry capacity must be demanded in the adjustment auctions.

[122] If flexibility requirements are included (see criterion 22), more expensive resources can be selected ahead of cheaper resource if necessary to fulfil the requirement, and a separate clearing price established for the resources fulfilling the flexibility requirement.

		MW, an additional year may be offered.[123] Fossil-fuelled generation assets may never be granted capacity agreements exceeding 15 years. In Member States where the three largest electricity generators in the territory covered by the capacity mechanism control (directly or indirectly, solely or jointly) at least 75 % of domestic installed de-rated capacity in the year in which the competitive bidding process takes place, capacity agreements of at least 10 years must be available for projects exceeding a CAPEX threshold of 375 000 EUR/de-rated MW.		
18	SR, MW	The delivery window must be a single fixed period of up to one year between 1 November of year Y until 31 October of year Y+1.		☐
19	SR, MW	All beneficiaries must be activated (delivery or test) at least once per delivery window with <=24 hrs notice.		☐
20	SR, MW	Beneficiaries must face non-availability penalties whenever unavailable in a delivery period[124] or test. The non-availability payment must be the same for all technologies. A beneficiary less than 50 % available in the delivery periods within a delivery window must be exposed to a penalty payment of at least its capacity revenues for the delivery window. Beneficiaries must not face penalties related to a lack of availability outside the delivery periods. Beneficiaries must pay unavailability penalties for the remaining life of a capacity agreement if they exit that capacity agreement early[125].		☐
21	MW	The approach regarding the participation of beneficiaries to ancillary services during the delivery period should be in line with the methodology of the adequacy assessment used to determine the need for and size of the measure. For ancillary services considered in the adequacy assessment as contributing to adequacy, beneficiaries must be allowed to offer these services in parallel to their capacity obligation and if available for the service would be simultaneously considered available for the capacity mechanism. For ancillary services not considered in the adequacy assessment as contributing to adequacy, Member States may choose either to exclude beneficiaries selling those services from participation in the capacity mechanism, or may allow voluntary participation in both the service and the capacity mechanism but with a risk of facing penalties under the capacity mechanism for resources unavailable in a delivery period due to the delivery of the service.		☐
22	MW	If Member State applies both a capacity mechanism and a flexibility measure, or already has a flexibility measure in place, to avoid market		☐

[123] For example, beneficiaries investing 50 000 EUR / de-rated MW may be offered contracts of up to 2 years; beneficiaries investing 150 000 EUR / de-rated MW may be offered contracts of up to 6 years, etc.

[124] Delivery period is a period within the delivery window where contracted resources are required to be available, or face penalties. For strategic reserves, see criterion 27 in this table. For a market wide capacity mechanism, it can comprise the entirety of a delivery window, or just a part of it.

[125] Unless they are able to transfer their capacity agreement to another capacity provider in the secondary market. For multi-annual capacity agreements, the unavailability penalties can be limited to 4 years. Collateral can be required from capacity providers.

		barriers and/or overcompensation risks: a) capacity should be jointly procured[126]; or b) MSs may include non-fossil flexibility requirements identified in the flexibility needs assessment (in line with Article 19e(2)c of the Electricity Regulation) in their capacity mechanisms, for example requiring a minimum volume of non-fossil flexible capacity providing short term ramping services; or c) resources must choose between participating in only one measure, either the non-fossil flexibility support scheme or the capacity mechanism. The target demand in each measure should be adjusted to take account of participation in the other measure.		
23	SR	The profit of units participating in a strategic reserve must be the same, whether or not they are activated/dispatched.		☐
24	SR, MW	Aid to the same capacity resource from more than one aid measure can be cumulated so long as overcompensation is avoided. If the Member State allows aid under the capacity mechanism to be cumulated with aid under other measures, the method used to comply with this requirement must be clearly set out in a public document, for example in the rules for the capacity mechanism and/or the rules for other schemes.		☐
25	SR	At least 90 % of any capacity mechanism costs not recovered through imbalance charges allocated in accordance with Article 22(2) of the Electricity Regulation must be allocated to consumers based on their consumption during at least 1 % and at most 5 % of the highest price hours (or market time units) each year (or each delivery window)[127]. Charges may be levied on balance responsible parties (such as suppliers).		☐
26	MW	At least 90 % of the capacity mechanism costs must be allocated to consumers based on their consumption during at least 1 % and at most 5 % of the highest price hours (or market time units) each year (or each delivery window)[128]. Charges may be levied on balance responsible parties (such as suppliers).		☐
Avoidance of undue distortions to competition and trade and compatibility with Electricity Regulation Article 22(1-2)				
27	SR	The Member State must confirm that the capacity mechanism meets the requirements in Electricity Regulation Article 22(2). This also defines the		☐

[126] This means that national authorities should set an objective for both flexibility needs and capacity mechanism needs to be procured during the same co-optimized auction. Participants provide their contribution to both the flexibility needs and to the capacity mechanism and offer a total price for the provision of the two services, or a menu of offers. The selection methodology should be such that it minimises the total cost of fulfilling both the flexibility needs and capacity mechanism needs, i.e. no alternative selections of beneficiaries can reach both flexibility needs and capacity mechanism needs at a lower cost.

[127] Price refers to either the day ahead price or a closer to realtime wholesale market or imbalance settlement price. To avoid double-counting, where demand response and behind-the-meter resources participate directly in the capacity mechanism, they must also be subject to such charges for any electricity not consumed under delivery obligations.

[128] Price refers to either the day ahead price or a closer to realtime wholesale market or imbalance settlement price. To avoid double-counting, where demand response and behind-the-meter resources participate directly in the capacity mechanism, they must also be subject to such charges for any electricity not consumed under delivery obligations.

		delivery period.		
28	SR	Availability is calculated as being equal to the power delivered[129].		☐
29	MW	Availability is calculated as the sum of i) the power delivered; and ii) the availability proposed on day ahead, intraday and/or balancing markets and which did not result in an activation[130] [131].		☐

[129] For demand response: power not consumed.

[130] When the availability is checked, the capacity is not necessarily activated, as capacity activation must be driven by energy market price signals. The only exception to that is testing requirements for capacity which the market never activates.

[131] Member States must avoid any double counting when the same capacity is available for several market timeframes (e.g. day-ahead, intraday and balancing).

ANNEX II

List of net-zero technology final products and their main specific components for the purpose of Section 6

	Sub-categories of net-zero technologies	Final products	Main specific components
Solar technologies	Photovoltaic (PV) technologies	− Solar PV systems	− PV grade polysilicon − PV grade silicon ingots or equivalent[17] − PV wafers or equivalent[17] − PV cells or equivalent[132] − Solar glass − PV modules − PV inverters − PV trackers and their specific mounting structures
	Solar thermal electric technologies	− Concentrated solar power (CSP) plants	− CSP reflectors − CSP trackers and their specific mounting structures − CSP receivers (point or line)
	Solar thermal technologies	− Solar thermal systems	− Solar thermal collectors (including flatplate, evacuated tube, concentrating systems and air collectors) − Solar thermal absorbers − Solar glass − Solar thermal trackers and their specific mounting structures

[132] The term 'equivalent' refers to similar steps or key enabling technologies needed for thin-film, organic, tandem or other PV technologies.

	Sub-categories of net-zero technologies	Final products	Main specific components
	Other solar technologies	− PV-thermal collectors (PVT)	
Onshore wind and offshore renewable technologies	Onshore wind technologies	− Onshore wind turbines	− Nacelles (assembly) − Rotor hubs − Main, yaw and pitch bearings − Direct drive drivetrains (including generator) and/or gearbox drivetrains (including generator) − Permanent magnets of wind turbines − Gearboxes of wind turbines − Blades − Towers
	Offshore wind technologies	− Offshore wind turbines	− Nacelles (assembly) − Rotor hubs − Main, yaw and pitch bearings − Direct drive drivetrains (including generator) and/or gearbox drivetrains (including generator) − Permanent magnets of wind turbines − Gearboxes of wind turbines − Blades − Towers − Foundations / floaters
	Other offshore renewable technologies	− Tidal stream energy technologies − Wave energy	

	Sub-categories of net-zero technologies	Final products	Main specific components
		technologies	
Battery and energy storage technologies	Battery technologies	− Batteries[133]	− Battery packs − Battery modules − Battery cells − Cathode active materials − Anode active materials − Electrolytes − Separators − Current collectors (including thin copper, aluminium, nickel and carbon foils) − Battery management systems (BMS) − Battery thermal management systems (BTMS)
	Electrochemical storage technologies	− Ultracapacitors / supercapacitors − Redox flow energy storage	− Electrolytes − Separators − Collectors − Electrode plates
	Gravitational storage technologies	− Pumped hydro storage	− Reversible hydro turbines and pump runners − Distributors with guide vanes
	Thermal energy storage technologies	− Thermal energy storage systems	− Sensible heat storage and latent heat storage mediums (including phase change materials and molten salts) − Thermochemical storage materials

[133] Batteries as defined in Article 3(13), (14) and (15) of Regulation (EU) 2023/1542 of the European Parliament and of the Council of 12 July 2023 concerning batteries and waste batteries.

	Sub-categories of net-zero technologies	Final products	Main specific components
	Compressed / liquefied gas energy storage technologies	− Compressed air energy storage − Liquid air energy storage	
	Other energy storage technologies	− Flywheel energy storage − Flywheel rotors	
Heat pumps and geothermal energy technologies	Heat pump technologies	− Heat pumps	− Heat pumps − Four-way valves − Scroll compressors / heat pump rotary compressors
	Geothermal energy technologies	− Geothermal power plants − Geothermal direct use systems	− Heat exchangers resistant to geothermal corrosive operating conditions − Submersible pumps resistant to geothermal corrosive operating conditions
Hydrogen technologies	Electrolysers	− Alkaline electrolysers (AEL)	− Stacks − Separators (diaphragm or membranes tailored for water electrolysis) − Bipolar plates and end plates − Electrodes
		− Proton exchange membrane electrolysers (PEMEL)	− Stacks − Membrane electrode assemblies (3-layer) / catalyst-coated membranes − Porous transport layers / gas diffusion layers − Bipolar plates and end plates

	Sub-categories of net-zero technologies	Final products	Main specific components
		− Anion exchange membrane electrolysers (AEMEL)	− Stacks − Membrane electrode assemblies (3-layer) / catalyst-coated membranes − Porous transport layers / gas diffusion layers − Bipolar plates and end plates
		− Solid-oxide electrolysers (SOEL)	− Stacks − Electrolyte and electrodes − High-temperature gaskets / sealings − Interconnectors / meshes and end plates
	Hydrogen fuel cells	− Proton exchange membrane fuel cells (PEMFC)	− Stacks − Membrane electrode assemblies (3-layer) / catalyst-coated membranes − Porous transport layers / gas diffusion layers − Bipolar plates and end plates
		− Solid-oxide fuel cells (SOFC)	− Stacks − Electrolytes and electrodes − High-temperature gaskets / sealants − Interconnectors / meshes and end plates
	Other hydrogen technologies	− Hydrogen transmission and distribution networks	− Hydrogen compressors − Hydrogen refuelling stations − Pipelines for hydrogen

	Sub-categories of net-zero technologies	Final products	Main specific components
			transmission and distribution
		− Hydrogen storage facilities	− Onboard hydrogen storage tanks − Hydrogen stationary storage tanks
		− Plants for the conversion and extraction of hydrogen into and from ammonia	− Ammonia crackers
Sustainable biogas and biomethane technologies	Sustainable biogas technologies	− Sustainable biogas plants	− Anaerobic digesters / fermentation tanks
	Sustainable biomethane technologies	− Sustainable biomethane plants	− Anaerobic digesters / fermentation tanks − Biomethane upgrading units
CCS technologies	Carbon capture technologies	− Absorption capture − Adsorption capture − Membranes capture − Solid cycles capture − Cryogenics capture − Direct air capture	− CO2 compressors
	Carbon storage technologies		
Electricity grid technologies	Electricity grid technologies	− Onshore substations − Offshore substations	− Cables and lines for electricity transmission and distribution, and cables connecting net-zero technologies to the

	Sub-categories of net-zero technologies	Final products	Main specific components
			electricity grid (overhead lines, underground and undersea cables, including HVDC and HVAC) − Switchgears − Circuit breakers − Protection relays − Power transformers − Disconnectors − Busbar systems − Electric cabinets − Offshore substations − Inverters − Converters
		− Electricity transmission and distribution towers	− Electricity transmission and distribution towers − Electrical conductors (including advanced conductors and high-temperature superconductors) − Insulators
		− Cables, lines and associated accessories for electricity transmission and distribution, and cables connecting net-zero technologies to the electricity grid (overhead lines, underground and undersea cables, including HVDC and HVAC)	− Cables and lines for electricity transmission and distribution, and cables connecting net-zero technologies to the electricity grid (overhead lines, underground and undersea cables, including HVDC and HVAC) − Electrical conductors (including advanced conductors and high-temperature

	Sub-categories of net-zero technologies	Final products	Main specific components
			superconductors) − Insulators
		− Power transformers	− Power transformers − Transformer cores − Transformer windings − Transformer tap changers
	Electric charging technologies for transport	− Electric vehicle supply equipment − Electric road systems[134] − Shore-side electricity supply equipment − Overhead contact lines − Electric air transport supply equipment	− Electric vehicle supply equipment − Shore-side electricity supply equipment − Electric air transport supply equipment
	Technologies to digitalise the grid and other electricity grid technologies	− High- and medium-voltage power electronics equipment and components (including DC technology) − Flexible alternating current transmission system (FACTS) technologies − Smart meters / advanced metering and control infrastructures	− High- and medium-voltage power electronics equipment and components (including DC technology) − Flexible alternating current transmission system (FACTS) technologies − Smart meters / advanced metering and control infrastructures
Nuclear fission energy	Nuclear fission energy technologies	− Nuclear fission power plants	− Fuel elements − Reactor vessels

[134] The term ‘electric road systems’ (also known as dynamic charging) refers to equipment along the road that supplies power to vehicles while they are in motion. This final product includes both conductive and inductive charging.

	Sub-categories of net-zero technologies	Final products	Main specific components
technologies			− Primary piping and valves − Steam turbines − Steam generators − Safety systems − Monitoring, instrumentation and control systems
	Nuclear fuel cycle technologies	− Nuclear fuel cycles	− Centrifuges − Gas handling and flow control systems − Chemical processing equipment − Waste vitrification equipment − Transportation, storage and disposal cylinders, containers and casks − Heavy water − Safety systems − Monitoring, instrumentation and control systems
Sustainable alternative fuels technologies	Sustainable alternative fuels technologies	− Sustainable alternative fuels plants	− Thermochemical, electrochemical, chemical and biochemical / biological reactors to convert biomass, recycled carbon fuels into bio-intermediates and/or syngas − Reactors and post-treatment units to convert bio-intermediates and/or syngas and recycled carbon fuels into sustainable alternative fuels

	Sub-categories of net-zero technologies	Final products	Main specific components
Hydropower technologies	Hydropower technologies	− Hydro turbine systems	− Hydro turbine runners − Distributors with guide vanes
Other renewable energy technologies	Osmotic energy technologies		
	Ambient energy technologies, other than heat pumps		
	Biomass technologies	− Pellet mills − Briquetting presses	− Pellet dies − Briquetting compaction chambers
	Landfill gas technologies		
	Sewage treatment plant gas technologies		
	Other renewable energy technologies		
Energy system-related energy efficiency technologies	Energy system-related energy efficiency technologies	− Energy management systems (EMS) − Building automation systems (BAS) − Automated demand response (ADR) − Variable speed drives − Organic Rankine cycle (ORC) power systems	− EMS − BAS − ADR − Variable speed drives − ORC turbines
	Heat and cold grid technologies	− Heating and cooling distribution system pipework	
	Other energy system-related energy efficiency		

	Sub-categories of net-zero technologies	Final products	Main specific components
	technologies		
Renewable fuels of non-biological origin	Renewable fuels of non-biological origin (RFNBO) technologies	− RFNBO plants	− Reactors to convert H2 and CO2 or N2into syngas or alcohols − Reactors to convert syngas or alcohols into RFNBOs
Biotech climate and energy solutions	Biotech climate and energy solutions	− Microorganisms and microbial strains (including but not limited to bacteria, yeasts, microalgae, fungi and archaea) that are used to pretreat and convert feedstock into biofuels, recycled carbon fuels and renewable fuels, bio-based and recycled carbon chemicals, biopolymers, biobased materials and bio-based products − Enzymes (including but not limited to amylase and cellulase) that are used to pretreat and convert feedstock into biofuels, bio-based chemicals, bio-based materials and bio-based products, or that are used to catalyse reactions in chemical processes − Biopolymers	− Microorganisms and microbial strains (including but not limited to bacteria, yeasts, microalgae, fungi and archaea) that are used to pretreat and convert feedstock into biofuels, recycled carbon fuels and renewable fuels, bio-based and recycled carbon chemicals, biopolymers, bio-based materials and bio-based products − Enzymes (including but not limited to amylase and cellulase) that are used to pretreat and convert feedstock into biofuels, bio-based chemicals, bio-based materials and bio-based products, or that are used to catalyse reactions in chemical processes − Biopolymers
Transformative industrial	Transformative industrial	− Electric arc furnaces	− Graphite or carbon electrodes

	Sub-categories of net-zero technologies	Final products	Main specific components
technologies for decarbonisation	technologies for decarbonisation	− Hydrogen-ready direct-reduced iron reactors − Submerged arc furnaces − Open slag bath furnaces − Flash calciners − Industrial electric boilers − Industrial induction heaters / furnaces[135] − Industrial infrared heaters / furnaces − Industrial microwave heaters / furnaces − Industrial radio wave heaters / furnaces − Industrial resistive heaters / furnaces	for electric furnaces − Flash calciners − Industrial electric boilers − Industrial induction heaters / furnaces − Industrial induction coils − Industrial infrared heaters / furnaces − Industrial infrared emitters − Industrial microwave heaters / furnaces − Industrial magnetrons − Industrial radio-wave heaters / furnaces − Radio frequency generators − Industrial resistive heaters / furnaces − Molybdenum electrodes for electric furnaces
CO2 transport and utilisation technologies	CO2 transport technologies	− CO2 transport infrastructure	− CO2 compressors
	CO2 utilisation technologies	− Thermochemical utilisation − Electrochemical utilisation	− CO2 electrolysers
Wind and electric propulsion technologies for transport	Wind propulsion technologies	− Flettner rotors − Suction wing sails − Towing kites − Rigid and semi-rigid wing sails	

[135] The term ‘heater’ refers to low (up to 200°C) and medium (200 to 500°C) temperature applications. The term ‘furnace’ refers to high (500 to 1 000°C) and very high (above 1 000°C) temperature applications.

	Sub-categories of net-zero technologies	Final products	Main specific components
	Electric propulsion technologies	− Electric propulsion systems for road and off-road transport − Electric propulsion systems for rail transport − Electric propulsion systems for waterborne transport − Electric propulsion systems for air transport	− Transport propulsion electric motors − Permanent magnets of transport electric motors − Transport battery packs − Transport fuel cells − Transport inverters − Electric propulsion high voltage power distribution units − Onboard chargers − Onboard hydrogen storage tanks
Other nuclear technologies	Other nuclear technologies (such as nuclear fusion technologies		

ANNEX III

Information to be included in the application form for aid under sections 6.1 and 6.2 as well as investment projects that create additional manufacturing capacity under section 7

i. Information about the aid beneficiary:

- Name, registered address of main seat, main sector of activity (NACE code).
- Declaration that the undertaking is not in difficulty, as defined under the rescue and restructuring guidelines.
- For aid granted under a scheme under sections 6.1 and 7: non-relocation declaration and commitments listed in point (172).

ii. Information about the investment to be supported:

- Short description of the investment.
- Short description of expected positive effects for the area concerned (for example, number of jobs created or safeguarded, R&D&I activities, training, creation of a cluster and project's possible contribution to the green and digital transition of the regional economy).
- Applicable legal basis (national, EU or both).
- Planned start of works and completion of the investment.
- Location(s) of the investment.

iii. Information about the financing of the investment:

- Investment costs and other associated costs.
- Total eligible costs.
- Aid amount needed to carry out the investment in the area concerned.
- Aid intensity.
- For measures under section 6.2: A funding gap analysis, including the business plan and Net Present Value calculations for the factual and counterfactual scenarios, with estimated investment costs, operating costs, revenues and terminal value in both scenarios (in excel format), with supporting evidence.

iv. Information on the need for aid and its expected impact:

- Short explanation of the need for aid and its impact on the investment decision or location decision. This must include an explanation of the alternative investment or location decision if aid is not granted;
- For measures under section 6.2, the beneficiary must provide: (i) evidence of subsidies it would credibly receive in a non-EEA jurisdiction for a similar project included in the counterfactual scenario; (ii) evidence that without the aid the planned investment would not take place in the EEA; and (iii) evidence that the

aid does not create counter-cohesion effects within the meaning of points (175) and (176).