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NOTE

From: General Secretariat of the Council
To: Permanent Representatives Committee

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Subject: Preparation of the Council (Competitiveness (Internal Market, Industry, Research and Space)) on 7-8 December 2023
Regulation on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act)
- General approach

I. INTRODUCTION

1. On 16 March 2023, the Commission submitted to the European Parliament and the Council a proposal for a Regulation establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act)¹.

¹ 7613/23.

2. On 19 June 2023, the Commission issued a Staff Working Document underpinning the proposal and providing explanatory information to substantiate the regulatory elements put forward in the proposed Act².
3. As proposed by the Commission, the Net Zero Industry Act pursued the general objective of setting up a legal framework which supports the development of the manufacturing of net-zero energy technologies in the Union, in order to support the Union's 2030 decarbonisation targets and 2050 climate neutrality target and to ensure the security of supply for net-zero technologies needed to safeguard the resilience of the Union's energy system.
4. This general objective translates into specific objectives of facilitating investments for net-zero technologies (pillar 1), reducing CO₂ emissions (pillar 2), facilitating access to markets (pillar 3), enhancing skills for quality job creation in net-zero technologies (pillar 4), supporting innovation (pillar 5) and creating a specific structure for implementing these objectives both in terms of governance and monitoring (pillars 6 and 7).
5. The Commission proposed to base the Regulation on Article 114 of the Treaty on the Functioning of the European Union which allows the Union to take measures that increase harmonisation to create a level playing field within the Union in which net-zero technology manufacturing can flourish. This is conducive to innovation and facilitates the green transition.
6. The European Parliament's Committee on Industry, Research and Energy (ITRE) appointed Mr Christian EHLER (EPP, DE) as rapporteur on the Net Zero Industry Act proposal. The ITRE Committee voted on its amendments to the Commission's proposal on 25 October 2023. The European Parliament's negotiating mandate is expected to be voted at the Plenary session on 20-23 November 2023.

² 10870/23.

7. The opinion of the European Economic and Social Committee on the proposal for the Net Zero Industry Act was adopted on 13 July 2023³, while the requested opinion of the Committee of the Regions was adopted on 5 July 2023⁴.

II. WORK WITHIN THE COUNCIL

8. The Permanent Representatives Committee heard a presentation from the Commission on the Net Zero Industry Act proposal on 17 March 2023.
9. The Council (Competitiveness), at its meeting on 22 May 2023, heard a presentation from the Commission on the content, aim and scope of the proposal.
10. The Working Party on Competitiveness and Growth (Industry) started examining the proposal under the Swedish Presidency on 20 March 2023, and held seven more meetings until the end of the Swedish Presidency term. A first compromise text prepared by the Swedish Presidency⁵ was issued in June 2023.
11. The technical work continued during the Spanish Presidency with meetings of the Working Party held on 5, 7 and 10 July that were the basis for the Spanish Presidency to elaborate a revised compromise text⁶. The Presidency endeavoured to improve the proposal's clarity and feasibility and to provide legal certainty, notably by reinforcing the consistency of provisions with the internal market objectives. The revised compromise text was examined at Working Party meetings on 11, 14 and 18 September 2023.

³ 12012/23.

⁴ 12167/23.

⁵ 10895/23.

⁶ 12590/23 + ADD 1.

12. The Permanent Representatives Committee, at its meeting on 13 October 2023, discussed the scope of the Net Zero Industry Act, the content of the list of strategic net-zero technologies, as well as the approach on the use of criteria for auctions, public procurement and other support schemes, and provided guidance on the way forward regarding these issues. While a large number of delegations supported expanding the scope of the Net Zero Industry Act to also cover transformative industrial technologies for decarbonisation, their opinions were more divided with regard to the list of strategic net-zero technologies where, nevertheless, a clear majority of delegations was in favour of including nuclear technologies and sustainable alternative fuels. As far as access to markets is concerned, many delegations requested flexibility for Member States to apply non-price criteria to achieve policy objectives such as environmental sustainability, innovation, energy integration or supply chain resilience through award procedures.
13. In parallel, the Presidency prepared a third compromise text⁷, which was the basis for discussions by the Working Party on Competitiveness and Growth (Industry) at meetings on 16, 19 and 31 October and on 6 November 2023. A fourth compromise text⁸ of the Presidency was examined by the Working Party at a meeting on 13 November 2023. At this stage, all delegations still have a general scrutiny reservation on the text.
14. The Presidency now presents a further new compromise text, set out in the ANNEX to this note. Changes compared to the previous Presidency text (document 14983/23) are indicated in **bold underlined** for additions and in ~~strikethrough~~ for deletions. The new compromise text reflects the continuous efforts of the Presidency and the Member States, with the support of the Commission, to find the right balance between the different interests and objectives and to take up the delegations' requests. To the extent possible, the proposed provisions are aligned to those of the recently agreed text on the Critical Raw Materials Act.

14a. Further to the discussion held by the Permanent Representatives Committee on 22 November 2023, the Presidency now proposes additional changes which are highlighted in yellow in the ANNEX.

⁷ 14082/23.

⁸ 14983/23.

Scope and lists of net-zero technologies and strategic net-zero technologies

15. In particular, in its new compromise text, the Presidency proposes to expand the list of (non-strategic) net-zero technologies by including biotech climate and energy solutions, nuclear technologies and transformative industrial technologies for decarbonisation not covered in other categories. Moreover, the proposal includes an Annex X with a non-exhaustive list of final products and specific components considered as primarily used for the production of net-zero technologies.
16. Furthermore, the Presidency proposes to include nuclear fission energy technologies and sustainable alternative fuels technologies in the list of strategic net-zero technologies. At the same time, the proposal underlines that this shall not affect a Member State's right to determine its choice between different energy sources and the general structure of its energy supply, and that it does not change or have any predetermining effects on the allocation of EU funds and Union budget programmes.

Permit-granting processes

17. The Presidency proposes to exclude **partially** environmental impact assessments from the total duration of permit-granting processes in order to ensure that the deadlines for the essential steps that continue to be taken in the administrative procedures remain realistic and feasible, while recognising that speeding up permitting procedures is a common goal of all national and regional administrations.
18. In addition, the proposal includes the concept of Net Zero Acceleration Areas to provide Member States with a planning instrument to take advantage of potential synergies during the permit-granting processes of the manufacturing projects.

CO₂ injection capacity

19. In its proposal, the Presidency has included CO₂ transport and infrastructure in the scope of the provisions on CO₂ injection capacity, thus enlarging the value chain. On the other hand, it proposes exceptions for small oil and gas producers as well as the possibility for Member States to ask for a derogation for companies operating in their respective territories, provided that the total CO₂ injection capacities that result from production in their territories are already fulfilled by at least one operator.
20. Article 192(1) of the Treaty on the Functioning of the European Union has also been included as a legal basis for this chapter.

Access to markets and public procurement

21. The provisions on a sustainability and resilience contribution in public procurement procedures have been redrafted by the Presidency in its proposal to better ensure secure, transparent, implementable and harmonised requirements in the public procurement of net-zero technologies as well as a diversification in the supply of those technologies to the EU, while safeguarding sufficient flexibility for contracting authorities.
22. The Presidency proposal foresees more flexibility for Member States in using resilience and sustainability criteria for awarding contracts in public procurement procedures, taking into account the concerns of several delegations about difficulties for public authorities to implement the new rules and about a potential dissuasive effect on European companies which, at worst, would even prevent them from applying for public contracts.
23. As regards auctions, the Presidency proposal adds the possibility for Member States to apply both pre-qualification and award criteria. The Commission is empowered to define these criteria in an implementing act, and to revise the volume auctioned based on an assessment on the functioning of the system.

Enhancing skills

24. The Presidency proposal supports the broad objectives for European Net Zero Industry Academies and suggests for promising net-zero technologies to replicate the model of the “European batteries academy” in the development and provision of training content adapted to the net zero industry’s skills needs.
25. At the same time, the proposal takes into account the requests by a number of delegations to respect the subsidiarity principle in the field of education.

Regulatory sandboxes

26. The Presidency compromise text has kept the possibility for Member States to establish, at their own initiative, regulatory sandboxes allowing for the development, testing and validation of innovative net-zero technologies, while giving the possibility to use other innovative technologies with proven potential to contribute to decarbonisation of industrial or energy systems and reduce strategic dependencies. It has furthermore included start-ups in the especial measures that will be undertaking for the participation of small and medium-sized enterprises in this respect.

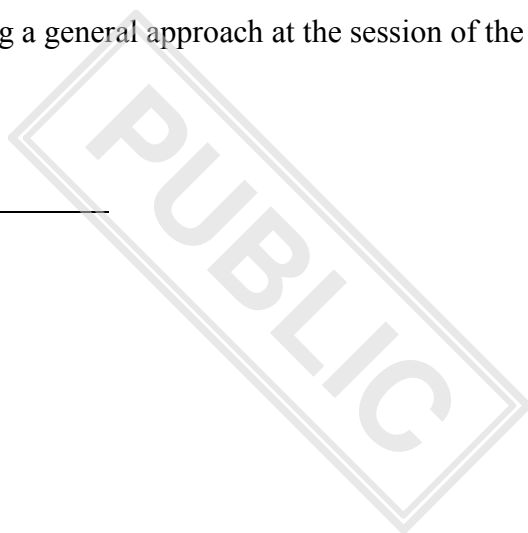
Monitoring

27. In its proposal, the Presidency aims to clarify and limit the monitoring, data collection and reporting to the elements that are strictly necessary and to delete the obligation for Member States to transmit the collected data to national statistical offices.

III. CONCLUSION

28. The Presidency considers that the compromise proposal annexed to this note is a solid basis for reaching a general approach at the forthcoming meeting of the Council (Competitiveness).

29. The Permanent Representatives Committee is invited to examine the compromise proposal presented by the Presidency with a view to reaching a general approach at the session of the Council (Competitiveness) on 7 December 2023.
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Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Articles 114 thereof, and Article 192(1) thereof in relation to Articles 16 to 18 of this Regulation,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee⁹,

Having regard to the opinion of the Committee of the Regions¹⁰,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) The net-zero transformation is already causing huge industrial, economic, and geopolitical shifts across the globe, which will become ever more pronounced as the world advances in its decarbonisation efforts.
- (1a) Given the complexity and the transnational character of net-zero technologies, uncoordinated national measures to ensure access to those technologies would have a high potential of distorting competition and fragmenting the Single market. Uncoordinated actions of Member States may result in imposing diverging regulation for market

⁹ OJ C 349, 29.09.2023, p. 179.

¹⁰ OJ C 2023/254, 26.10.2023.

operators, providing different levels of access to supply of net-zero technologies across Member States, including by providing different levels of support to net-zero technology manufacturing projects, providing diverging rules and uncoordinated forms of procurement, diverging processes and durations in relation to permit-granting procedures, that would lead to obstacles to cross-border trade between Member States thus hindering the proper functioning of the internal market. Therefore, to safeguard the functioning of the Single Market it is necessary to create a common Union legal framework to collectively address this central challenge by increasing the Union's resilience, and security of supply in the field of net-zero technologies.

- (1b) At the same time, the Union has committed to the accelerated decarbonisation of its economy and ambitious deployment of renewable energy sources to achieve climate neutrality or net zero emissions (emissions after deduction of removals) by 2050. That objective is at the heart of the European Green Deal, the updated EU Industrial Strategy, and in line with the Union’s commitment to global climate action under the Paris Agreement¹¹. To reach the climate neutrality goal, Regulation (EU) 2021/1119 of the European Parliament and of the Council¹² sets a binding Union climate target to reduce net greenhouse gas emissions by at least 55% by 2030 compared to 1990. The proposed “Fit for 55”¹³ package aims to deliver on the Union’s 2030 climate target and revises and updates Union legislation in this respect.

¹¹ Council Decision (EU) 2016/1841 of 5 October 2016 on the conclusion, on behalf of the European Union, of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change OJ L 282, 19.10.2016, p. 4.

¹² Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (‘European Climate Law’) (OJ L 243, 9.7.2021, p. 1).

¹³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality. COM(2021) 550, 14.7.2021.

- (1c) In addition, the Communication on the Green Deal Industrial Plan for the Net-Zero Age¹⁴ sets out a comprehensive approach to support a clean energy technology scale up based on four pillars. The first pillar aims at creating a regulatory environment that simplifies and streamlines permitting for new net-zero technology manufacturing and assembly sites as well as facilitating the scaling up of the net-zero industry of the Union. The second pillar of the plan is to boost investment in and financing of net-zero technology production. The third pillar relates to developing the skills needed to make the transition happen and increase the number of skilled workers in the clean energy technology sector. The fourth pillar focuses on trade and the diversification of the supply chain of critical raw materials. That includes creating a critical raw materials club, working with like-minded partners to collectively strengthen supply chains and diversifying away from single suppliers for critical input.
- (2) The Single Market provides the appropriate environment for enabling cross-border access at the necessary scale and pace to the technologies required to achieve the Union's climate and energy ambition. The road to net-zero translates into strong opportunities for the expansion of the Union's net-zero industry, making use of the strength of the Single Market, by promoting investment in technologies, allowing for the decarbonisation of our economic sectors, from energy supply to transport, buildings, and industry. A strong net-zero industry within the European Union can help significantly in reaching the Union's climate and energy targets effectively, as well as in supporting other Green Deal objectives, while safeguarding and creating quality jobs and growth.

¹⁴ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: A Green Deal Industrial Plan for the Net-Zero Age, COM/2023/62 final, 01.02.2023.

- (7) To meet the 2030 climate and energy targets, energy efficiency needs to be prioritised. Saving energy is the cheapest, safest and cleanest way to meet those targets. ‘Energy efficiency first’ is an overall principle of EU energy policy and is important in both its practical applications in policy and investment decisions. Therefore, it is essential to expand the Union’s manufacturing capacity for energy efficient technologies, such as heat pumps, district heating and cooling, and smart grid technologies that help the EU reduce and control its energy consumption.
- (8) The Union’s decarbonisation objectives, security of energy supply, digitalisation of the energy system and electrification of demand, for example in mobility and the need for additional and faster recharging points, require an enormous expansion of electricity grids in the European Union, both at transmission level and at distribution level. At transmission level, high-voltage direct current (HVDC) systems are needed, among other things, to connect offshore renewable energies; while at distribution level, connecting electricity providers and managing demand-side flexibility builds on investments in innovative grid technologies, such as electric vehicles smart charging (EVSC), energy efficiency building and industry automation and smart controls, advanced meter infrastructure (AMI) and home energy management systems (HEMS). The electricity grid needs to interact with many actors or devices based on a detailed level of observability, and hence availability of data, to enable flexibility, smart charging and smart buildings with smart electricity grids enabling demand side response from consumers and the uptake of renewables. Connecting the net-zero technologies to the network of the European Union requires the substantial expansion of manufacturing capabilities for electricity grids in areas such as offshore and onshore cables, substations and transformers.
- (9) Additional policy effort is therefore necessary to improve market conditions for those technologies that are commercially available as well as the security of supply for net-zero technologies and their supply chains, reduce market fragmentation, and safeguard or strengthen the overall resilience and competitiveness of the Union’s energy system, while having a good potential for rapid scale up to support the Union’s 2030 climate target it includes access to a safe and sustainable source of best in class fuels, as described in recital 8 of Commission Delegated Regulation (EU) 2022/1214.

- (10) To achieve the 2030 objectives a particular focus is needed on some of the net-zero technologies, that are considered strategic, also in view of their significant contribution towards the path to net zero by 2050. These strategic net-zero technologies play a key role in the Union's open strategic autonomy, ensuring that citizens have access to clean, affordable, secure energy. Given their role, these technologies should benefit from streamlined and efficient permitting procedures, obtain the status of the highest national significance possible under national law and benefit from additional support to crowd-in investments while still meeting EU and international obligations under nature Directives and the Aarhus convention. The strategic net-zero technologies should be commercially available net-zero technologies, have a good potential for rapid scale up and have reached technology readiness level of at least 8. Such technologies should strengthen the security of supply chains within the Union while contributing to decarbonisation objectives of the Union and improving the functioning of the Single Market.
- (10a) The list of strategic net-zero technologies also includes technologies that not all Member States accept as a source of clean and secure energy. This is in line with their right to determine their choice between different energy sources and the general structure of their energy supply as well as their industrial policy. To safeguard these rights, the list of strategic technologies **is without prejudice to the funding allocation under the current** ~~shall not change the~~ Multiannual Financial Framework 2021-27 agreement **in particular** in terms of **allocation** eligibility **and award criteria related to** ~~of energy technologies nor have any predetermining effects on the allocation, eligibility and award criteria of~~ **in** Union funds, including those financed through ETS allowances, ~~Union Budget Programmes or financing, including~~ **support** by the EIB. A Member State should also not be obliged to recognise as strategic such projects supporting a value chain for a technology the relevant Member State does not accept as part of their energy mix.
- (11) In order to ensure that the Union's future energy system is resilient this scaling-up should be carried out across the whole supply chain of the technologies in question, in full coherence and complementarity with the [Critical Raw Materials Act] and the Chips Act.

- (11-b) This Regulation should complement the [Critical Raw Materials Act] by focusing on the manufacturing of net-zero technologies in terms of final products, key components, and specific machinery used to produce these. The [Critical Raw Materials Act] focuses instead on the upstream part of the supply chain, particularly critical raw materials, and their extraction, processing and recycling. These are indispensable for a wide set of strategic sectors including the net zero industry, the digital industry, aerospace, and defence sectors. By following the same logic of nurturing a business case, upgrading, and providing adequate skills, and supporting investments, this Regulation and the [Critical Raw Materials Act] work together to create regulatory support synergies across the entire supply chain of net-zero technology manufacturing in the Union. This Regulation clarifies that it also covers processed materials that are an essential component of net-zero technologies, excluding critical raw materials falling under the [Critical Raw Materials Act].
- (11-a) Final products and specific components which are essential for the production of net-zero technologies are listed in Annex X in a non-exhaustive manner, these include final products and their components that are manufactured and traded by a company, including processed materials, but excluding raw materials covered under the [Critical Raw Materials Act]. In cases of integrated production facilities that cover production of materials falling both under the scope of the [Critical Raw Materials Act] and this Regulation, it should be the facilities' final product that determines the scope under which that facility is regulated. Specific components and specific machinery not covered in Annex X may still fall under the scope of this Regulation in cases where based on evidence provided to a national competent authority, the project promoter can prove, for example via market studies or off-take agreements, that the specific components or specific machinery are primarily used for the production of net-zero technologies, excluding critical raw materials falling under the scope of the CRMA.

(11a) To address security of supply issues while contributing to supporting the resilience of the Union's energy system and decarbonisation and modernisation efforts, the net-zero technology manufacturing capacity in the Union needs to expand. The Union needs to ensure that the regulatory environment for manufacturers of solar photovoltaic (PV) technologies enables them to increase their competitive edge and improve security of supply perspectives, by aiming to reach at least 30 gigawatt of operational solar PV manufacturing capacity by 2030 across the full PV value chain, in line with the goals set out in the European Solar Photovoltaic Industry Alliance, which is supported under the Union's Solar Energy Strategy¹⁵. The Union needs to ensure that the regulatory environment for manufacturers of wind and heat pump technologies enables them to consolidate their competitive edge and maintain or expand their current market shares throughout this decade, in line with the Union's technology deployment projections that meet its 2030 energy and climate targets¹⁶. This translates into a Union manufacturing capacity for wind of at least 36 GW and, respectively, for heat pumps of at least 31 GW in 2030. Union manufacturers of batteries and electrolysers need to find a regulatory environment that enables them to consolidate their technology leadership and actively contribute to shaping these markets. For battery technologies this would mean contributing to the objectives of the European Battery Alliance and aim at almost 90% of the Union's battery annual demand being met by the Union's battery manufacturers, translating into a Union manufacturing capacity of at least 550 GWh in 2030. For EU electrolyser manufacturers, the REPowerEU plan projects 10 million tonnes of domestic renewable hydrogen production and a further up to 10 million tonnes of renewable hydrogen imports by 2030.

¹⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: EU Solar Energy Strategy, SWD(2022) 148 final, 18.05.2022.

¹⁶ As per REPowerEU objectives set out in the REPowerEU Plan, COM/2022/230 final, and accompanying Commission Staff Working Document Implementing the Repower EU Action Plan: Investment Needs, Hydrogen Accelerator and achieving the Bio-Methane Targets Accompanying the Document : Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions REPowerEU Plan, SWD/2022/230 final, 18.05.2022.

To ensure EU's technological leadership translates into commercial leadership, as supported under the Electrolyser Joint Declaration of the Commission and the European Clean Hydrogen Alliance, EU electrolyser manufacturers should be enabled to further boost their capacity, such that the overall installed electrolyser capacity being deployed reaches at least 100 GW hydrogen by 2030.

Union manufacturers of aviation and maritime fuels need to further develop, produce and scale up sustainable alternative fuels in order to significantly contribute to the reduction of the transport sector's greenhouse gas (GHG) emissions by 90% in 2050, as well as meeting the obligations set in [ReFuel EU aviation / Fuel EU maritime]. This is also strongly supported by the Renewable and Low-Carbon Fuels Value Chain Industrial Alliance. The Union needs to ensure that the regulatory environment and support framework for producers of sustainable aviation and maritime alternative fuels technologies enables them to increase their production capacities across the full fuels value chain, from the collection and supply of feedstock to blending, including conversion and refining capacities.

- (11b) Considering these objectives together, while also taking into account that for certain elements of the supply chain (such as inverters, as well as solar cells, wafers, and ingots for solar PV or cathodes and anodes for batteries), the Union manufacturing capacity is low. In order to help tackle import dependency and vulnerability concerns and ensure that the Union's climate and energy targets are met, an overall benchmark for the manufacturing of strategic net-zero technology products in the European Union is put forward, while striving towards a similar benchmark for net-zero technologies. The Union net-zero technologies annual capacity should aim at approaching or reaching an overall annual manufacturing benchmark of at least 40% of annual deployment needs by 2030 for the strategic net-zero technologies considered as a whole.
- (11d) At the same time, net-zero technology products will contribute to the Union's resilience and security of supply of clean energy. A secure supply of clean energy is a prerequisite for economic development, as well as for public order and security. Net-zero technology products will also yield benefits to other strategically important economic sectors, such as farming and food production by securing access to clean energy and machinery at competitive prices, thus contributing sustainably to EU food security and to providing an increasing outlet for bio-based alternatives through circular economy. In the same way, the

fulfilment of the Union's climate ambitions will translate both into economic growth and social well-being.



- (11e) In order to maintain competitiveness and reduce current strategic import dependencies in key net-zero technology products and their supply chains, while avoiding the formation of new ones, the Union needs to continue strengthening its net-zero industrial base and become more competitive and innovation friendly. The Union needs to enable the development of manufacturing capacity faster, simpler and in a more predictable way, while reducing the administrative burden and eliminating cross-border obstacles.
- (11f) In order for net-zero technology manufacturing projects to be deployed or expanded as quickly as possible to ensure the Union's security of supply for net-zero technologies, it is important to create efficiency in planning and investment certainty by keeping the administrative burden on project promoters to a minimum. For that reason, permit-granting processes of the Member States for net-zero technology manufacturing projects should be streamlined, whilst at the same time ensuring that such projects are safe, secure, environmentally sustainable, and comply with environmental, social and safety requirements. Union environmental legislation sets common conditions for the process and content of national permit-granting processes, thereby ensuring a high level of environmental protection.

Being granted the status of net-zero strategic project should be without prejudice to any applicable permitting conditions for the relevant projects, including those set out in Directive 2011/92/EU of the European Parliament and of the Council¹⁷, Council Directive 92/43/EEC¹⁸, Directive 2000/60/EC of the European Parliament and of the Council¹⁹, Directive 2012/18/EU of the European Parliament and of the Council²⁰, Directive 2004/35/EC of the European Parliament and of the Council²¹, and Directive (EU) 2010/75 of the European Parliament and of the Council²².

- (11g) At the same time, the unpredictability, complexity and at times, excessive length of national permit-granting processes undermines the investment security needed for the effective development of net-zero technologies manufacturing projects. Therefore, in order to ensure and speed up their effective implementation, Member States should apply streamlined and efficient permitting procedures. In addition, net-zero strategic projects should be regarded as urgent at national level and should therefore be given a priority status insofar and to the extent to which national law provides for such urgency procedures in all judicial and dispute resolution procedures relating to them, without preventing competent authorities to streamline permitting for other net-zero technologies manufacturing projects that are not net-zero strategic projects or more generally.

¹⁷ Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (OJ L 26, 28.1.2012, p. 1).

¹⁸ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

¹⁹ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1).

²⁰ Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC.

²¹ Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (OJ L 143, 30.4.2004, p. 56).

²² Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (recast) (OJ L 334, 17.12.2010, p. 17).

- (11h) Given their role in ensuring the Union’s security of supply for net-zero technologies, and their contribution to the Union’s open strategic autonomy and the green and digital transition, responsible permitting authorities should consider net-zero strategic projects to be in the public interest. Based on its case-by-case assessment, a responsible permitting authority may conclude that the public interest served by the project overrides the public interests related to nature and environmental protection and that consequently the project may be authorised, provided that all relevant conditions set out in Directive 2000/60/EC, Directive 92/43/EEC and Directive 2009/147/EC²³ or in the [Nature Restoration Regulation] are met.
- (11i) In order to reduce complexity and increase efficiency and transparency, project promoters of net-zero technologies manufacturing projects should be able to interact with a designated contact point responsible for facilitating and coordinating the entire permit granting process and facilitate the issuance of a comprehensive decision within the applicable time limit. To that end, Member States should designate one or more single points of contact. If a Member State decides to designate more than one contact point it should provide clear information to the project promoters on which contact point is responsible for their project. It should be for the Member State to decide whether the designated contact point should also be an authority taking permitting decisions or not. The designated contact point should at least notify project promoters of the comprehensive decision. Depending on a Member State’s internal organisation, it may be possible for the tasks of the designated contact point to be delegated to a different authority, either at local, regional, or national level, subject to the same conditions.

²³ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7–25).

- (11j) In order to ensure clarity about the permitting status of net-zero strategic projects, Member States should ensure that any dispute concerning permit granting process is resolved in a timely manner. To that end, Member States should ensure that applicants and project promoters have access to a simple dispute settlement procedure and that net-zero strategic projects are granted urgent treatment in all judicial and dispute resolution procedures relating to them while ensuring respect for the rights of defence, if and to the extent, national law provides for such urgency procedures.
- (11k) In order to allow businesses and project promoters, including for cross-border projects, to directly enjoy the benefits of the internal market without incurring an unnecessary additional administrative burden, Regulation (EU) 2018/1724 of the European Parliament and the Council²⁴, which established the Single Digital Gateway, provides for general rules for the online provision of information, procedures and assistance services relevant for the functioning of the internal market. The information that needs to be submitted to national competent authorities through the designated contact point, as part of the permit-granting processes covered by this Regulation are to be covered in Annex I of Regulation (EU) 2018/1724 following its amendment by this Regulation, and the related procedures are included in its Annex II to ensure that project promoters can benefit from fully online procedures and the Once-Only Technical System Services. Designated contact points acting as points of single contact pursuant to this Regulation are included in the list of assistance and problem-solving services in Annex III of Regulation (EU) 2018/1724.

²⁴ Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018 establishing a single digital gateway to provide access to information, to procedures and to assistance and problem-solving services and amending Regulation (EU) No 1024/2012 (OJ L 295, 21.11.2018, p. 1).

(111) Net-zero technology manufacturing projects undergo lengthy and complex permitting procedures of 2-7 years, depending on the Member State, technology and value chain segment. Considering the size of required investments – in particular for gigafactory-size projects which are needed to reach the expected economies of scale – inadequate permitting creates an additional and often detrimental barrier to increase net-zero technology manufacturing capacity in the Union. In order to provide project promoters and other investors with the security and clarity needed to increase development of net-zero technologies manufacturing projects, Member States should ensure that the permit-granting process related to such projects does not exceed pre-set time limits. For net-zero strategic projects the length of the permit-granting process should not exceed twelve months for facilities with a yearly production output of 1 GW or more, and nine months for those with a yearly production output of less than 1 GW. For all other net-zero technology manufacturing projects, the length of the permit-granting process should not exceed eighteen months for facilities with a yearly production output of more than 1 GW, and twelve months for those with a yearly production output of less than 1 GW. For net-zero technologies for which the GW metric is not relevant, such as grids and carbon capture and storage (CCS) or carbon capture and usage (CCU) technologies, the upper limits of the aforementioned deadlines should apply. However, the first step of the environmental impact assessment within the Environmental Impact assessment Directive (2011/92/EU), which consist of the preparation of an environmental impact assessment report, is often predominantly performed by the project promoter. ~~As this step also includes consultation with the public, it is important that sufficient time is given.~~ This step should therefore not be integrated in the timelines which the Member States are bound upon as referred to in the permit granting process. In addition, in exceptional cases related to the nature, complexity, location or size of the proposed project, Member States should be able to extend the timelines. Such exceptional cases could include unforeseen circumstances triggering the need to add to or complete environmental assessments related to the project, **or delays due to expropriation processes when required.**

- (11m) In addition, given the importance of net-zero strategic projects for the Union's energy supply certain administrative restrictions should be partly lifted or simplified to speed up their implementation.
- (11n) The environmental assessments and authorisations required under Union law, including in relation to water, soil, air, ecosystems, habitats, biodiversity and birds, are an integral part of the permit granting procedure for a net zero technologies manufacturing project and an essential safeguard to ensure negative environmental impacts are prevented or minimised. However, to ensure that permit granting procedures for net zero technologies manufacturing projects are predictable and timely, any potential to streamline the required assessments and authorisations while not lowering the level of environmental protection should be realised. In that regard, it should be ensured that the necessary assessments are bundled to prevent unnecessary overlap and it should be ensured that project promoters and responsible authorities explicitly agree on the scope of the bundled assessment before the assessment is carried out to prevent unnecessary follow-up.
- (11o) Land use conflicts can create barriers to the deployment of net-zero technologies manufacturing projects. Well-designed plans, including spatial plans and zoning, that take into account the potential for implementing net-zero technologies manufacturing projects are prepared through public participation for which potential environmental impacts are assessed, have the potential to help balance the public interest and common good, decreasing the potential for conflict and accelerating the sustainable deployment of net-zero technologies manufacturing projects in the Union. Responsible national, regional and local authorities should therefore be encouraged to include, where appropriate, provisions for net-zero technologies manufacturing projects, including net-zero strategic projects, when developing plans.

- (11oa) Member States could also use other policy instruments to support the manufacturing of net-zero technologies and strategic net-zero technologies in specific geographical areas. These policy instruments may include but are not limited to the clustering of net-zero technology manufacturers, speeding up permit granting process, creating test facilities for net-zero technologies, allowing for regulatory sandboxes, assisting cross-border cooperation, facilitate electricity grid connection, physical and digital infrastructure and clean energy. These instruments should be designated by national or local authorities and could either be appointed to new areas or to existing industrial sites.
- (11p) It is also necessary to provide for measures to reach the Union's target of 50 million tonnes of annual operational CO₂ injection capacity by 2030, thereby supporting the decarbonisation of European industries and combating climate change.
- (13) The development of carbon capture and storage solutions for industry is confronted with a coordination failure. On the one hand, despite the growing CO₂ price incentive provided by the EU Emissions Trading System, for industry to invest into capturing CO₂ emissions making such investments economically viable, they face a significant risk of not being able to access a permitted geological storage site. On the other hand, investors into first CO₂ storage sites face upfront costs to identify, develop and appraise them even before they can apply for a regulatory storage permit. Transparency about potential CO₂ storage capacity in terms of the geological suitability of relevant areas and all existing geological data, including raw and model data, in particular from the exploration of hydrocarbon production sites, can support market operators to plan their investments. Member States should, while taking into account confidentiality, national security and commercial sensitivities as well as adequate compensation for privately generated and owned data, make such existing data publicly available and report regularly in a forward-looking perspective about any progress in developing CO₂ storage sites and the corresponding needs for injection and storage capacities, in order to collectively reach the Union-wide target for CO₂ injection capacity. These transparency obligations are without prejudice to the right of Member States not to authorise or to limit the deployment of CO₂ storage capacity on their territory.

- (13a) To avoid stranded assets and ensure that the projected injection capacity will lead to CO₂ reductions it is recognized that full and individual CCS value chains including capture, transport and storage need to be established by 2030 with appropriate regulations guaranteeing competition and open access.
- (14) A key bottleneck for carbon capture investments that are today increasingly economically viable is the availability of operating CO₂ storage sites in Europe, which underpin the incentives from Directive 2003/87/EC. To scale up the technology and expand its leading manufacturing capacities, the EU needs to develop a forward-looking supply of permanent geological CO₂ storage sites permitted in accordance with Directive 2009/31/EU²⁵ as well as CO₂ transport infrastructure. By defining a Union target of 50 million tonnes of annual operational CO₂ injection capacity by 2030, in line with the expected capacities needed in 2030 and taking into account the companies operating primarily in Member States with very limited storage capacity due to legal, geological, geographical, technical or market constraints, the relevant sectors can coordinate their investments towards a European Net-Zero CO₂ transport and storage value chain that industries can use to decarbonise their operations. This initial deployment will also support further CO₂ storage in a 2050 perspective. According to the Commission's estimates, the Union could need to capture up to 550 million tonnes of CO₂ annually by 2050 to meet the net zero objective²⁶, including for carbon removals. Such a first industrial-scale storage capacity objective will de-risk investments into the capturing of CO₂ emissions as important tool to reach climate neutrality. When this regulation is incorporated into the EEA Agreement, the Union target of 50 million tonnes of annual operational CO₂ injection capacity by 2030 will be adjusted accordingly.

²⁵ 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 (Text with EEA relevance), (OJ L 140, 5.6.2009, p. 114).

²⁶ In depth analysis in support of the Commission Communication (2018/773) A Clean Planet for all. A European long-term strategic vision for a prosperous, modern, competitive and climate neutral economy.

- (15) By defining CO₂ storage sites and their transport infrastructure that contribute to the Union's 2030 target as net-zero strategic projects, the development of CO₂ storage sites can be accelerated and facilitated, and the increasing industrial demand for storage sites can be channelled towards the most-cost-effective storage sites. An increasing volume of depleting gas and oil fields that could be converted into safe CO₂ storage sites are at the end of their useful production lifetime. In addition, the oil and gas industry has affirmed its determination to embark on an energy transition and possesses the assets, skills and knowledge needed to explore and develop additional storage sites. To reach the Union's target of 50 million tonnes of annual operational CO₂ injection capacity by 2030, a value-chain approach should be fostered by actions taken both at EU and national level to facilitate licensees of oil and gas production in the EU to undertake the necessary investments in and in order to develop viable business models for the entire carbon dioxide value chain. In order to ensure a timely, Union-wide and cost-effective development of CO₂ storage sites in line with the EU objective for injection capacity, licensees of oil and gas production in the EU should contribute to this target pro rata of their oil and gas manufacturing capacity, while providing flexibilities to cooperate and take into account other contributions of third parties.
- (21a) Considering that in some Member States storage capacities covering the obligations of regulated entities are already being developed, those Member States may request the Commission to exempt entities obligated to contribute to the Union target of 50 million tonnes of annual operational CO₂ injection capacity by 2030. The exemption would release entities from their individual contribution to the target in case the annual operational CO₂ injection capacity on the territory of that Member State exceeds the sum of the individual contributions that result from the relevant production activities. Additional capacities can be made available to other obligated entities in the form of agreements to the extent that they have not been accounted for to justify the exemption.

- (22) Member States should submit updated drafts of their 2021-2030 National Energy and Climate Plans (NECPs) in June 2023²⁷. As emphasised in the Commission's Guidance to Member States for the update of the 2021-2030 national energy and climate plans²⁸, the updated plans should describe Member States' objectives and policies to facilitate the scale-up of manufacturing projects of commercially available energy efficient and low-carbon technologies, equipment and key components within their territory. Those plans should also describe Member States' objectives and policies to achieve such scale-up through diversification efforts in third countries, and to enable their industries to capture, transport and store CO₂ emissions permanently in geological storage sites.
- (24) Under the first pillar of the Green Deal Industrial Plan for the Net-Zero Age, the Union should develop and maintain an industrial basis for the provision of net-zero technology solutions to secure its energy supply, while also living up to its ambitions on climate neutrality. To support that goal and to avoid dependencies for the supply of net-zero technologies that would delay the Union's greenhouse gas emission reductions efforts or put the security of supply of energy at risk, this Regulation should set out provisions to encourage demand for sustainable and resilient net-zero technologies.
- (25) Directives 2014/23/EU, 2014/24/EU and 2014/25/EU ~~already~~ allow contracting authorities and entities awarding contracts through public procurement procedures to rely, in addition to price or cost, on additional criteria for identifying the most economically advantageous tender. Such criteria concern ~~for instance~~ the quality of the tender including social, environmental and innovative characteristics. When awarding contracts for net-zero technology through public procurement, **tendering conditions** ~~contracting authorities and contracting entities should duly assess~~ **take into account** the tenders' contribution to sustainability and resilience in relation to a series of criteria relating to the tender's environmental sustainability, innovation, resilience and, where applicable, system integration. Criteria need to be balanced and SME participation ensured.

²⁷ Member States shall update their national plans for 2021-2030 by June 2023 (draft plans) and June 2024 (final plans). See Article 14 and requirements of Chapter 2 and Annex I of the Regulation (EU) 2018/1999.

²⁸ Commission Notice on the Guidance to Member States for the update of the 2021-2030 national energy and climate plans (OJ C 495, 29.12.2022, p. 24).

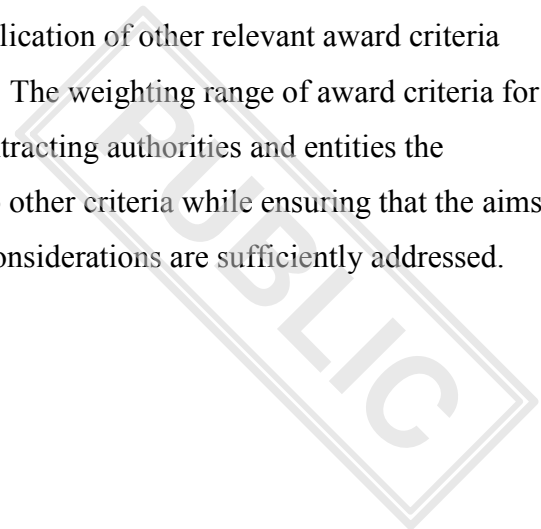
- (26) Social sustainability criteria can already be applied under existing legislation and can include working conditions and collective bargaining in line with the European Pillar of Social Rights in line with Articles, 30 (3) of Directive 2014/23/EU, 18 (2) of Directive 2014/24/EU and 36 (2) of Directive 2014/25/EU. Member States should contribute to social sustainability by taking the appropriate measures to ensure that in the performance of public contracts economic operators comply with applicable obligations in the fields of social and labour law established by Union law, national law, collective agreements or by the international environmental, social and labour law provisions listed in Annex X of Directive 2014/23/EU, Annex X of Directive 2014/24/EU and Annex XIV of Directive 2014/25/EU²⁹.
- (27) In compliance with Directives 2014/23/EU, 2014/24/EU, 2014/25/EU and applicable sectoral legislations, and with the Proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements for sustainable products³⁰ and the Regulation of the European Parliament and of the Council concerning batteries and waste batteries³¹, and unless otherwise indicated therein, when evaluating the environmental sustainability of the net-zero solutions procured on the basis of this Regulation, contracting authorities and contracting entities may take into account various elements with an impact on the climate and the environment. These may include, for instance, the durability and reliability of the solution; the ease of repair and maintenance and access to such services; the ease of upgrading and refurbishment; the ease and quality of recycling; the use of substances; the consumption of energy, water and other resources in one or more life cycle stages of the product; the weight and volume of the product and its packaging; the incorporation of renewable materials or used components; the quantity, characteristics and availability of consumables needed for proper use and maintenance; the environmental footprint of the product and its life cycle environmental impacts; the carbon footprint of the product; the microplastic release; emissions to air, water or soil released in one or more life cycle stages of the product; the amounts of waste

²⁹ Commission Notice "Buying Social - a guide to taking account of social considerations in public procurement (2nd edition)", C(2021) 3573 final.

³⁰ Proposal for a Regulation of the European Parliament and of the Council establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC, COM/2022/142 final, 30.03.2022.

³¹ Regulation of the European Parliament and of the Council concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC.

generated; the conditions for use. The mandatory application of criteria for procurement of net zero technologies does not preclude the application of other relevant award criteria provided for in applicable sectorial legislations. The weighting range of award criteria for procurement of net-zero technologies gives contracting authorities and entities the possibility to attribute significant importance to other criteria while ensuring that the aims pursued with the sustainability and resilience considerations are sufficiently addressed.



- (28) For the purposes of taking into account within a public procurement procedure or an auction to support the production or consumption of energy from renewable sources the need to diversify sources of supply of net-zero technologies away from single sources of supply and without prejudice to the Union's international commitments, the supply should at least be deemed insufficiently diversified where a single source supplies for more than **50** ~~65~~% of the demand for a specific net-zero technology **and the specific components primarily used for the production of those products** within the Union.
- (28a) When procuring net-zero technologies, contracting authorities and contracting entities might include these technologies as part of a larger procurement procedure. In this case, they ~~may~~ **should** consider splitting the procurement procedure into separate lots, setting out the minimum requirements and the implementing acts thereof as requirements concerning this specific lot.
- (28b) To promote the responsible business conduct of bidders, the cybersecurity and data security of the technologies used, the projects and the related infrastructures and to promote the delivery projects fully and on time, public authorities designing auctions for the deployment of energy from renewable energy sources should include pre-qualification criteria related to responsible business conduct, cybersecurity and data security and ability to deliver the project fully and on time.**
- (28c) To support the aim to develop and maintain an industrial basis for the provision of strategic net-zero renewable energy technologies to secure the Union energy supply and to avoid dependencies for the supply of these technologies that would delay the Union's greenhouse gas emission reductions efforts or put the security of energy supply at risk, public authorities designing auctions for the deployment of energy from renewable energy sources should increase the sustainability and resilience of the supply of those technologies within the Union.**

Member States should assess the auctions' contribution to sustainability by examining the environmental sustainability of bids, their contribution to innovation and their contribution to energy system integration. In order to do so, Member States should have the choice to introduce pre-qualification or award criteria in the auction design. While pre-qualification criteria must be fulfilled by all the bidders' projects in order to be able to participate in the auction, award criteria aim at evaluating and ranking the different projects participating in an auction.

(28d) When evaluating the environmental sustainability of bids, either in the form of pre-qualification criteria or award criteria, public authorities designing auctions for the deployment of energy from renewable energy sources may take into account various elements with an impact on the climate and the environment. These may include, for instance, the durability and reliability of the solution; the ease of repair and maintenance and access to such services; the ease of upgrading and refurbishment; the ease and quality of recycling; the use of substances; the consumption of energy, water and other resources in one or more life cycle stages of the product; the weight and volume of the product and its packaging; the incorporation of renewable materials or used components; the quantity, characteristics and availability of consumables needed for proper use and maintenance; the environmental footprint of the product and its life cycle environmental impacts; the carbon footprint of the product; the microplastic release; emissions to air, water or soil released in one or more life cycle stages of the product; the amounts of waste generated; the conditions for use.

(28e) To support the design and production of more innovative and advanced renewable energy technologies, the sustainability contribution of bids may take into account, either in the form of pre-qualification criteria or award criteria, the contribution to innovation by providing for pre-qualification or award criteria that promote the use of entirely new solutions or the improvement of comparable state-of-the-art solutions.

(28f) To support the integration of energy from renewable sources into the Union's energy system and its benefits to cost-effective decarbonisation, the sustainability contribution of bids may take into account the contribution to energy system integration through, for instance, flexibility solutions including demand response and energy storage, and the production of renewable hydrogen.

- (28g) To increase the resilience of supply of strategic net-zero renewable energy technologies and avoid excessive dependencies from countries with high concentration of supply within the Union, public authorities should evaluate by means of award criteria the resilience contribution of the different projects participating in auctions for the deployment of energy from renewable energy sources taking into account the need to diversify the supply of strategic net-zero renewable energy technologies, without prejudice to the Union's international commitments. When ranking bids, public authorities should take into account that the supply should at least be deemed insufficiently diversified where a single source supplies more than 50% of the demand for a specific net-zero technology and the specific components primarily used for the production of those products within the Union.**
- (28h) The weighting of criteria on the sustainability and resilience contribution of the tender in relation to auctions for the deployment of energy from renewable sources is without prejudice to the possibility for the authorities designing those auctions to set a higher threshold for the criteria relating to environmental sustainability, innovation and energy system integration if this is compatible with any limit for non-price criteria set under State aid rules.**

- (29) For the purposes of setting up schemes benefitting households or consumers which incentivise the purchase of net-zero technology final products and of diversifying sources of supply of net-zero technologies, and without prejudice to the Union's international commitments, the supply should be deemed insufficiently diversified where a single source supplies more than 65% of the total demand for a specific net-zero technology within the Union. To ensure a consistent application, the Commission should publish a yearly list starting on the date of application of this Regulation, of the distribution of the origin of net zero technology final products which fall under this category, broken down by the share of Union supply originating in different sources in the last year for which data is available.
- (30) Council Decision 2014/115/EU approved in particular the amendment to the World Trade Organisation Agreement on Government Procurement (the 'GPA')³². The aim of the GPA is to establish a multilateral framework of balanced rights and obligations relating to public contracts with a view to achieving the liberalisation and expansion of world trade. For contracts covered by the European Union's Appendix I to the GPA, as well as by other relevant international agreements by which the Union is bound, including free trade agreements and the Article III:8(a) of the General Agreement on Tariffs and Trade of 1994 for procurement by governmental agencies of products purchased with a view to commercial resale or with a view to use in the production of goods for commercial sale, contracting authorities and contracting entities should not apply the requirements of Article 19 (2) point (d) to economic operators of sources of supply that are signatories to the agreements.

³² Council decision 2014/115/EU of 2 December 2013 on the conclusion of the Protocol Amending the Agreement on Government Procurement, (OJ L68, 7.3.2014, p. 1).

- (31) The application of the provisions on resilience in public procurement procedures should be without prejudice to the application of Article 25 of Directive 2014/24/EU of the European Parliament and of the Council³³, and Articles 43 and 85 of Directive 2014/25/EU of the European Parliament and of the Council³⁴, as according with the Commission's guidance of 2019³⁵. The same way, public procurement provisions should continue to apply to works, supplies and services subject to this Regulation, including article 67 (4) of Directive 2014/24/EU, Article 82 (4) of Directive 2014/25/EU and Article 41 (2) of Directive 2014/23/EU and any implementing measures resulting from the Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products.
- ~~(32) The weighting of criteria on the sustainability and resilience contribution of the tender in relation to public procurement procedures is without prejudice to the possibility for contracting authorities and contracting entities to set a higher threshold for the criteria relating to environmental sustainability and innovation, in line with Article 41 (3) and Recital 64 of Directive 2014/23/EU of the European Parliament and of the Council³⁶, Article 67 (5) of Directive 2014/24/EU and Article 82 (5) of Directive 2014/25/EU.~~
- (33) In order to limit administrative burden resulting from the need to take into account criteria relating to the sustainability and resilience contribution of the tender, in particular for smaller public buyers and for contracts of lower value which do not have an important impact on the market, the application of the relevant provisions of this Regulation should be deferred for two years for public buyers which are not central purchasing bodies and for contracts of a value below EUR 25 million.

³³ Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

³⁴ Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC (OJ L 94, 28.3.2014, p. 243).

³⁵ Communication from the Commission: Guidance on the participation of third country bidders and goods in the EU procurement market, Brussels, 24.7.2019, C(2019) 5494 final.

³⁶ ~~Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts (OJ L 94, 28.3.2014, p. 1).~~

- (34) For the purposes of the application of the provisions on public procurement, where a product is covered by a delegated act adopted under Regulation (EU) 2017/1369 of the European Parliament and of the Council³⁷, contracting authorities or contracting entities should purchase only the products that comply with the obligation laid down in Article 7 (2) of that Regulation.
- (35) Households and final consumers are an essential part of the Union's demand for net-zero technologies final products and public support schemes to incentivize the purchase of such product by households, in particular for vulnerable low- and lower middle-class income households and consumers, are important tools to accelerate the green transition. Under the solar rooftop initiative announced in the EU solar strategy³⁸, Member States should for instance set-up national programmes to support the massive deployment of rooftop solar energy. In the REPowerEU plan, the Commission called Member States to make full use of supporting measures which encourage switching to heat pumps. Such support schemes set up nationally by Member States or locally by local or regional authorities should also contribute to improving the sustainability and resilience of the EU net-zero technologies. Public authorities should for instance provide higher financial compensation to beneficiaries for the purchase of net-zero technology final products that will make a higher contribution to resilience in the Union. Public authorities should ensure that their schemes are open, transparent and non-discriminatory, so that they contribute to increase demand for net-zero technology products in the Union. Public authorities should also limit the additional financial compensation for such products so as not to slow down the deployment of the net-zero technologies in the Union. To increase the efficiency of such schemes Member States should ensure that information is easily accessible both for consumers and for net-zero technology manufacturers on a free website. The use by public authorities of the sustainability and resilience contribution in schemes targeted at consumers or households should be without prejudice to State aid rules and to WTO rules on Subsidies.

³⁷ Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

³⁸ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions : EU Solar Energy Strategy, COM(2022) 221 final, 18.05.2022.

- (36) When designing schemes benefitting households or consumers which incentivise the purchase of net-zero technology final products as defined in this Regulation, Member States, regional or local authorities, bodies governed by public law or associations formed by one or more such authorities or one or more such bodies governed by public law, should ensure the respect of the Union's international commitments, including by ensuring that schemes do not reach a magnitude that causes serious prejudice to the interest of WTO members.
- (37) The Commission may also assist Member States in the design of schemes targeted at households and consumers to build synergies and exchange best practices. The Net-Zero Europe Platform should also play an important role in accelerating the implementation of the sustainability and resilience contribution by Member States and public authorities in their public procurement and auctioning practices. It should issue guidance and identify best practices on how to define the contribution and use it, providing concrete and specific examples.
- (38) To enable the industry to adjust its production on time, contracting authorities and contracting entities should inform the market in advance of their estimated procurement needs for net-zero technology products.
- (38a) In addition to measures oriented towards public and household demand, the Union could consider action to ease the deployment of net zero technologies in the EU industrial value chains with particular attention to SMEs, notably through facilitating the connection between supply and demand from industry.
- (39) As indicated in the Communication on the Green Deal Industrial Plan for the Net-Zero Age, published on 1 February 2023, the Union's industry's market shares are under strong pressure, due to subsidies in third countries which undermine a level playing field. This translates in a need for a rapid and ambitious reaction from the Union in modernising its legal framework.

(40) Access to finance is key for ensuring the Union's open strategic autonomy and for establishing a solid manufacturing base for net-zero technologies and their supply chains across the Union. The majority of investments necessary to reach the Green Deal objectives will come from private capital³⁹ attracted by both the growth potential of the net-zero ecosystem and a stable and ambitious policy framework. Well-functioning, deep and integrated capital markets will therefore be essential to raise and channel the funds needed for the green transition and net-zero manufacturing projects. Swift progress towards the Capital Markets Union is thus necessary for the EU to deliver on its net-zero objectives. The sustainable finance agenda (and blended finance) also plays a crucial role in scaling up investments into the net-zero technologies along the value chains, while guaranteeing the competitiveness of the sector.

³⁹ Commission Staff Working Document Identifying Europe's recovery needs Accompanying the document Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions - Europe's moment: Repair and Prepare for the Next Generation, SWD(2020) 98 final, Identifying Europe's recovery needs, 27.05.2020.

(41) Private investment by companies and financial investors is essential. Where private investment alone is not sufficient, the effective roll-out of net-zero manufacturing projects may require public support, for example in the form of guarantees, loans or equity and quasi-equity investments, while avoiding distortion within the internal market. When this public support comes in the form of State aid, such aid must have an incentive effect and be necessary, targeted, temporary, appropriate and proportionate, while preserving competition and cohesion in the internal market. The existing State aid guidelines that have recently undergone an in-depth revision in line with the twin transition objectives provide ample possibilities to support investments for projects in the scope of this Regulation subject to certain conditions. Member States can have an important role in easing access to finance for net-zero technologies manufacturing projects by addressing market failures through targeted and temporary State aid support. The Temporary Crisis and Transition Framework (TCTF) adopted on 9 March 2023 aims at ensuring a level playing field within the internal market, targeted to those sectors where a third-country delocalisation risk has been identified, and proportionate in terms of aid amounts. It would enable Member States to put in place measures to support new investments in production facilities in defined, strategic net-zero sectors, including via tax benefits.

The permitted aid amount can be modulated with higher aid intensities and aid amount ceilings if the investment is located in assisted areas, in order to contribute to the goal of convergence between Member States and regions. Appropriate conditions are required to verify the concrete risks of diversion of the investment outside the European Economic Area (EEA) and that there is no risk of relocation within the EEA. To mobilise national resources for that purpose, Member States may use a share of the ETS revenues that Member States have to allocate for climate-related purposes.

- (41a) Public support should be used to address specific identified market failures or sub-optimal investment situations in a proportionate manner, and actions should not duplicate or crowd out private financing or distort competition in the internal market. Actions should have a clear added value for the Union. Public investment can in particular focus on the necessary infrastructure investments, on fostering innovation and the upscaling of breakthrough technologies.
- (42) Several Union funding programmes, such as the Recovery and Resilience Facility, InvestEU, cohesion policy programmes or the Innovation Fund are also available to fund investments in net-zero technology manufacturing projects.
- (43) The amended Recovery and Resilience Facility Regulation⁴⁰ made available an additional EUR 20 billion of non-repayable support to Member States in order to promote energy efficiency and replace fossil fuels, amongst others through EU net-zero industry projects. As pointed out in the Commission Guidance on the REPowerEU chapters⁴¹, Member States are encouraged to include in the REPowerEU chapter of their recovery and resilience plans, measures supporting investments in net-zero technologies manufacturing and industrial innovation, in accordance with Regulation (EU) 2021/241 of the European Parliament and of the Council⁴².
- (44) InvestEU is the EU flagship programme to boost investment, especially the green and digital transition, by providing financing and technical assistance, for instance through blending mechanisms. Such an approach contributes to crowd in additional public and private capital. In addition, Member States are encouraged to contribute to the InvestEU Member State compartment to support financial products available to net-zero technology manufacturing, without prejudice to applicable State aid rules.

⁴⁰ Regulation (EU) 2023/435 of the European Parliament and of the Council of 27 February 2023 amending Regulation (EU) 2021/241 as regards REPowerEU chapters in recovery and resilience plans and amending Regulations (EU) No 1303/2013, (EU) 2021/1060 and (EU) 2021/1755, and Directive 2003/87/EC, (OJ L 63, 28.2.2023, p. 1).

⁴¹ Commission Notice Guidance on Recovery and Resilience Plans in the context of REPowerEU 2023/C 80/01, (OJ C 80, 3.3.2023, p. 1).

⁴² Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, (OJ L 57, 18.2.2021, p. 17).

- (45) Member States can provide support from cohesion policy programmes in line with applicable rules under Regulation (EU) 2021/1060 of the European Parliament and of the Council⁴³ to encourage the take up of net-zero strategic projects in less developed and transition regions through investment packages of infrastructure, productive investment in innovation, manufacturing capacity in SMEs, services, training and upskilling measures, including support to capacity building of the public authorities and promoters. The applicable co-financing rates set in programmes may be up to 85% for less developed regions and up to 60% or 70% for transition regions depending on the fund concerned and the status of the region but Member States may exceed these ceilings at the level of the project concerned, where feasible under State aid rules. The Technical Support Instrument can help Member States and regions in preparing net-zero growth strategies, improve the business environment, reducing red tape and accelerating permitting. Member States should be encouraged to promote the sustainability of net-zero strategic projects by embedding these investments in European value chains, building notably on interregional and cross border cooperation networks.
- (46) The Innovation Fund also provides a very promising and cost-efficient avenue to support the scaling up of manufacturing and deployment of renewable hydrogen and other strategic net zero technologies in Europe, including, innovative projects with a positive climate impact in the maritime and aviation sector, thus reinforcing Europe's sovereignty in key technologies for climate action and energy security.

⁴³ Regulation (EU) 2021/1060 of the European Parliament and of the Council of 24 June 2021 laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, the Just Transition Fund and the European Maritime, Fisheries and Aquaculture Fund and financial rules for those and for the Asylum, Migration and Integration Fund, the Internal Security Fund and the Instrument for Financial Support for Border Management and Visa Policy (OJ L 231, 30.6.2021, p. 159).

- (48) To overcome the limitations of the current fragmented public and private investments efforts, facilitate integration and return on investment, the Commission, and Member States should better coordinate and create synergies between the existing funding programmes at Union and national level as well as ensure better coordination and collaboration with industry and key private sector stakeholders. The Net-Zero Europe Platform has a key role to play to build a comprehensive view of available and relevant funding opportunities and to discuss the individual financing needs of net-zero strategic projects.
- (59) Space data and services derived from EU Space Programme, and in particular Copernicus, shall be used to the extent possible to provide information on the geology, biology, ecology, socio-economic development, and resource availability for the environmental assessments and authorisations; such data and services and in particular the Copernicus anthropogenic CO₂ emission monitoring and verification capacity are most relevant to assess the impact of industry projects and the impact of anthropogenic CO₂ sinks on the global greenhouse gas concentrations and fluxes.
- (61) Hydrogen Valleys with industrial end-use applications play an important role in decarbonising the energy-intensive industries. REPowerEU set the objective of doubling the number of Hydrogen Valleys in the Union. In order to achieve this objective, Member States should accelerate permitting and consider regulatory sandboxes and prioritise access to funding. To strengthen the net-zero resilience, Member States should ensure the interconnection of Hydrogen Valleys across the Union's borders. Industrial installations which produce their own energy, and which can provide a positive contribution to the production of electricity, should be encouraged to contribute to the smart electricity grid as energy producers by simplifying regulatory requirements.

(62) Net-zero regulatory sandboxes can be an important tool to promote innovation in the field of net-zero technologies and regulatory learning. Innovation needs to be enabled through experimentation spaces as scientific outcomes need to be tested in a controlled real-world environment. Regulatory sandboxes should be introduced to test innovative net-zero technologies or other innovative technologies with potential to enable the transition to a climate neutral, clean economy and reduce strategic dependencies, in a controlled environment for a limited amount of time, thus enhancing regulatory learning and potential scaling up and wider deployment. It is appropriate to strike a balance between legal certainty for participants in the Net-Zero regulatory sandboxes and the achievement of the objectives of Union law. Member States should be able to allow for derogations of net zero regulatory sandboxes in national legislation while in any case ensuring compliance with Union law and with the essential requirements on Net-Zero technology laid in national law. The Commission will publish a Guidance for Sandboxes document in 2023 as announced in the New European Innovation Agenda to support Member States in preparing the net zero technology sandboxes. Those innovative technologies could eventually be essential to achieve the Union's climate neutrality objective, ensure the security of supply and resilience of the Union's energy system.

(64) The scaling up of European net-zero technology industries' value and supply chains requires significant additional skilled workers which implies important investment needs in re-skilling and upskilling, including in the field of vocational education and training. This should contribute to the creation of quality jobs in line with the targets for employment and training of the European Pillar of Social Rights. The energy transition will require a significant increase in the number of skilled workers in a range of sectors, including renewable energy and energy storage and raw materials, and has a great potential for quality job creation. The skill needs for the fuel cell hydrogen sub-sector in manufacturing alone are estimated at 180.000 trained workers, technicians and engineers by the year 2030, according to the Commission's European Strategic Energy Technology Plan⁴⁴. In the photo-voltaic solar energy sector, up to 66.000 jobs would be needed in manufacturing alone. The European network of employment services (EURES) is providing information, advice and recruitment or placement for the benefit of workers and employers, including across internal market borders.

⁴⁴ European Commission, Directorate-General for Research and Innovation, Joint Research Centre, The strategic energy technology (SET) plan, Publications Office, 2019, <https://data.europa.eu/doi/10.2777/04888>.

(65) Since strengthening the manufacturing capacity of key net-zero technologies in the Union will not be possible without a sizeable skilled workforce, it is necessary to introduce measures to boost the activation of more people to the labour market, notably women, young people not in employment, education or training (NEETs), older persons and persons with disabilities. In addition, in line with the objectives of the Council Recommendation on ensuring a fair transition towards climate-neutrality, specific support for job-to-job transition for workers in redundant and declining sectors are important. This means investing in skills and in quality job creation required for net-zero technologies in the Union. Building on and fully taking into account existing initiatives such as the EU Pact for Skills, EU level activities on skills intelligence and forecasting, such as by the European Centre for the Development of Vocational Training (Cedefop) and the European Labour Authority, and the Blueprints for sectoral cooperation on skills, the objective is to mobilise all actors and to train on all skill levels to the extent needed: Member States authorities, including at regional and local levels, education and training providers, social and economic partners and industry, in particular SMEs, to identify skills needs, develop education and training programmes and deploy these at large scale in a fast and operational manner. Net-zero strategic projects have a key role to play in this regard. Member States and the Commission may ensure financial support including by leveraging the possibilities of the Union budget through instruments such as the European Social Fund Plus, Just Transition Fund, European Regional Development Funds, the Recovery and Resilience Facility, the Modernisation Fund, REPowerEU and the Single Market Programme.

(66) European Net-Zero Industry Academies should be launched to develop education and training programmes, content and materials, as well as the credentials showing that these have been used, to upskill and reskill people of all working ages required for key net-zero technology value chains and offer these programmes, content and materials to appropriate education and training providers in the Member States for their voluntary use. Net-Zero Academies are organisations or consortia or projects of relevant stakeholders being awarded seed-funding by the European Commission. The Academies should play a facilitating role, fully respecting the responsibility of the Member States for the content of teaching and the organisation of education systems and for the content and organisation of vocational training. The Academies should offer education and training programmes, content and materials, which education and training providers, economic and social partners and other actors involved in up- and reskilling in the Member States, such as Public Employment Services may choose to use, where they consider it useful. Economic and social partners should be involved in the development of training programmes to ensure relevance and increase the uptake. The Academies should encourage that, next to other required skills, transversal skills facilitating occupational mobility are taught. The Academies will aim to support the quality of the education and training offered by education and training providers in the Member States using learning programmes, content and materials developed by the Academies, including by training their trainers.

- (66a) In order to support skills transparency and portability and the mobility of workers, the European Net-Zero Industry Academies will develop and promote the deployment by education and training providers of credentials, including micro-credentials, covering learning achievements. The credentials developed by the European Net-Zero Industry Academies may be issued by the education and training providers in the Member States, or awarding bodies in the Member States, where an education and training programme developed by the Academies has been completed successfully. The credentials may be issued in the format of European credentials for learning and could be integrated in EUROPASS and, where relevant and feasible, included in National Qualifications Frameworks. Continuous reskilling and upskilling offered via the academies and the relevant education and training providers in their territories may be encouraged by Member States, for example, through national programmes and Union funding.
- (67) While in the absence of specific provisions introducing minimum training requirements for the access to a regulated profession or the pursuit thereof laid down in the Union law, it is a Member State's competence to decide whether and how to regulate a profession, national rules organizing access to regulated professions must not constitute an unjustified or disproportionate obstacle to the exercise of those fundamental rights. The competence to regulate access to a profession must be exercised within the limits of the principles of non-discrimination and proportionality, in accordance with Directive (EU) 2018/958 of the European Parliament and of the Council of 28 June 2018 on a proportionality test before adoption of new regulation of professions.
- (68) Where Member States determine that the learning programmes developed by the European net-zero industry academies lead to credentials that correspond to the knowledge, skills and competences required for access to a regulated profession or to activities that are part of a regulated profession, Member States should, in order to facilitate the mobility in strategic net-zero industry professions, treat these credentials as evidence of formal qualifications to which they attest, in line with Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications.

- (69) At Union level, a Net-Zero Europe Platform, should be established, composed of the Member States and chaired by the Commission. The Net-Zero Europe Platform may advise and assist the Commission and Member States on specific questions and provide a reference body, in which the Commission and Member States coordinate their action and facilitate the exchange of information on issues relating to this Regulation. The Net-Zero Europe Platform should further perform the tasks outlined in this Regulation, notably in relation to permitting, including points of single contact, net-zero strategic projects, coordination of financing, access to markets, skills, net-zero regulatory sandboxes as well as consulting the Commission in assessing the feasibility and proportionality of proposing measures if the Commission concludes that the general objectives of the Regulation are not likely to be achieved. Where necessary, the Platform may establish standing or temporary subgroups and invite third parties, such as experts or representatives from net-zero industries and social and economic partners.
- (69a) Where appropriate and useful, the Net-Zero Europe Platform should seek close collaboration with other relevant Commission initiatives, platforms and groups, in order to seek synergies, share expertise, exchange information and foster stakeholder involvement, whilst avoiding duplication and overlaps. The Platform will engage with the existing EU industrial alliances, and thereby contribute to the work of the alliances by involving Member States. Key alliances for collaboration with the Platform are the European Battery Alliance, the European Solar Photovoltaic Industry Alliance, the European Clean Hydrogen Alliance, the Alliance for Zero-Emission Aviation, the Industrial Alliance on Processors and Semiconductor Technologies and the Renewable and Low-Carbon Fuels Value Chain Industrial Alliance. Sectors not currently represented in industrial alliances equally benefit from the structured framework that the Net-Zero Europe Platform provides. As regards net-zero strategic partnerships, close collaboration with the Critical Raw Materials Board is foreseen where relevant.

- (70) As part of the Green Deal Industrial Plan the Commission announced its intention to conclude Net-Zero Industrial Partnerships covering net-zero technologies, to adopt net-zero technologies globally and to support the role of EU industrial capabilities in paving the way for the global clean energy transition. The Commission and Member States may coordinate within the Platform the Partnerships, discussing existing relevant partnerships and processes, such as green partnerships, energy dialogues and other forms of existing bilateral contractual arrangements, as well as potential synergies with relevant Member States' bilateral agreements with third countries.
- (71) The Union should aim to diversify and stimulate international trade and investments in net-zero technologies and to promote globally high social and environmental standards. This should be done in close cooperation and partnership with like-minded countries. Similarly, stronger research and innovation efforts to develop and deploy net-zero technologies should be pursued in close cooperation with partner countries in an open but assertive approach and based on reciprocity and mutual interests.
- (72) Where the power to adopt acts in accordance with Article 290 of the Treaty is delegated to the Commission under this Regulation, it is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Inter-institutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.
- (73) To the extent that any of the measures envisaged by the present Regulation constitute State aid, the provisions concerning such measures are without prejudice to the application of Articles 107 and 108 of the Treaty.

- (74) Since the objective of this Regulation cannot be sufficiently achieved by the Member States and can rather, by reason of the scale or effects of the action, be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective.

HAVE ADOPTED THIS REGULATION:

Chapter I

Subject matter, scope and definitions

Article 1

Subject matter

1. The general objective of this Regulation is to improve the functioning of the internal market by establishing a framework to ensure the Union's access to a secure and sustainable supply of net-zero technologies, while contributing to achieving the Union's 2030 target of reducing net greenhouse gas emissions by at least 55% relative to 1990 levels and the Union's 2050 climate neutrality target.
2. To contribute to achieving the general objective referred to in paragraph 1, this Regulation contains measures aimed at
 - a) lowering the risk of supply disruptions related to net-zero technologies likely to distort competition and fragment the internal market, in particular by identifying and supporting the scale-up of the manufacturing capacity of net-zero technologies and their value chains;
 - b) encouraging demand for sustainable and resilient net-zero technologies through public procurement, auctioning and other forms of public interventions;
 - c) enhancing skills through the support of net-zero academies, thereby safeguarding and creating quality jobs;
 - d) supporting innovation through the creation of net-zero regulatory sandboxes;
 - e) improving the Union's ability to monitor and mitigate the supply risk related to net-zero technologies.

2a. This Regulation also aims at establishing a Union market for CO2 storage services.

Article 2

Scope

This Regulation applies to net-zero technologies, except for Articles 26 and 27 of this Regulation, which apply only to innovative net-zero technologies and other innovative technologies with potential to enable the transition to a climate neutral, clean economy and reduce strategic dependencies. Critical raw materials falling under the scope of Regulation (EU) .../... [add footnote with publication references of the Critical Raw Materials Regulation] shall be excluded from the scope of this Regulation.

In cases of integrated production facilities that cover production of materials falling both under the scope of the [Critical Raw Materials Act] and this Regulation, it shall be the facilities' final product that determines which Regulation applies.

Article 3

Definitions

1. For the purpose of this Regulation, the following definitions shall apply:
 - (a) 'net-zero technologies' means all technologies identified under Article 3a, which are final products, specific components or specific machinery primarily used for the production of those products, and which have reached a technology readiness level of at least 8;
 - (aa) 'strategic net-zero technology' means all technologies identified under paragraph 1 of Article 3b, which are final products, specific components or specific machinery primarily used for the production of those products, and which have reached a technology readiness level of at least 8.

- (ab) ‘primarily used’ means **final products and** specific components ~~and specific machinery, as set out in the Annex, which are essential for the production of net-zero technologies, or the specific components and specific machinery which are essential for the production of net-zero technologies,~~ **as set out in Annex X or final products, specific components and specific machinery which are essential for the production of net-zero technologies** based on evidence provided to a national competent authority by the project promoter, such as market studies or off-take agreements;
- (ac) ‘renewable energy’ means ‘renewable energy’ as defined in 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;
- (aca) ‘renewable fuels of non-biological origin’ means renewable fuels of non-biological origin as defined by [Art. XX RED II Revision];
- (ad) ‘sustainable alternative fuels’ means fuels destined for the aviation sector referred to in Article 3(7), 3(13) and 3(17) of the [Refuel Aviation Regulation] or fuels destined for the maritime sector as identified in applying the criteria defined in Articles 10(1) and 10(2) of the [FuelEU Maritime Regulation];
- (ae) ‘transformative industrial technologies for decarbonisation’ means the scaling up of manufacturing capacity for transformative industrial technologies that are used to significantly and permanently reduce emission rates of CO₂-eq of energy intensive activities in the steel, aluminium, non-ferrous metals, basic chemicals, cement, lime, glass, ceramics, fertilisers and paper sectors to the extent which is technically feasible;
- (af) ‘biotech climate and energy solutions’ means technologies anchored in the use of living organism such as enzymes, microorganisms and bacterial culture able to reduce CO₂ emissions by replacing energy-intensive fossil or chemical-based inputs in industrial manufacturing processes relevant for inter alia carbon capture and production of biofuels;

- (b) ‘component’ means a part of a net-zero technology that is manufactured and traded by a company, including processed materials;
- (ba) ‘processed material’ means a material that is at an advanced stage of processing, excluding critical raw materials falling under CRMA, and designed to fulfil a specific function in a net-zero technology;
- (c) ‘innovative net-zero technologies’ means technologies which satisfy the definition of ‘net-zero technologies’, except that they have not reached a technology readiness level of at least 8, and that comprise genuine innovation which are not currently available on the market and are advanced enough to be tested in a controlled environment;
- (ca) ‘other innovative technologies’ means energy or climate related technologies with proven potential to contribute to decarbonisation of industrial or energy systems and reduce strategic dependencies, which comprise genuine innovation not currently available on the European market and which are advanced enough to be tested in a controlled environment, but have not reached a technology level of at least 8;
- (d) ‘net-zero technology manufacturing project’ means a planned commercial facility or an extension or repurposing of an existing facility to manufacture net-zero technologies;
- (e) ‘net-zero strategic project’ means a net-zero technology manufacturing project, CO₂ storage project or CO₂ transport infrastructure project located in the Union that a Member State has recognised as a net-zero strategic project in accordance with Articles 10 and 11;

- (f) ‘permit granting process’ means a process covering all relevant permits to construct, extend, change and operate net-zero technology manufacturing projects and strategic projects encompassing all applications and procedures from the acknowledgement that the application is complete to the notification of the comprehensive decision. For CO₂ geological storage, the permit granting process refers to the storage permit granting process, which concerns processing of all necessary permits for surface installations requested to operate a storage site (building permit, pipes authorisation...) and the environmental authorisation for the injection and storage of CO₂ completed in accordance with 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;
- (g) ‘comprehensive decision’ means the decision or set of decisions taken by Member State authorities that determines whether or not a project promoter is authorised to implement a net-zero technology manufacturing project, without prejudice to any decision taken in the context of an appeal procedure;
- (h) ‘project promoter’ means any undertaking or consortium of undertakings developing a net-zero technology manufacturing project or a net-zero strategic project;
- (i) ‘net-zero regulatory sandbox’ means a scheme that enables undertakings to test innovative net-zero technologies and other innovative technologies in a controlled real-world environment, under a specific plan, developed and monitored by a competent authority;
- (j) ‘technology readiness level’ means a method of estimating the maturity of technologies, according to the classification used by the International Energy Agency;
- (k) ‘authorities concerned’ means authorities that, under national law, are involved in the issuing of permits as part of the permit-granting process as described in letter (f);

- (l) ‘public procurement procedure’ means any of the following:
- (i) any type of award procedure covered by Directive 2014/24/EU for the conclusion of a public contract or Directive 2014/25/EU for the conclusion of a supply, works and service contract;
 - (ii) a procedure for the award of works or a service concession covered by Directive 2014/23/EU;
- (m) ‘contracting authority’ in the context of public procurement procedures, means contracting authority as defined in Article 6 of Directive 2014/23/EU, Article 2(1), point (1) of Directive 2014/24/EU and Article 3 of Directive 2014/25/EU;
- (n) ‘contracting entity’ in the context of public procurement procedures, means contracting entity as defined in, Article 7 of Directive 2014/23/EU and Article 4 of Directive 2014/25/EU;
- (o) ‘contract’, in the context of public procurement procedures, means a public contract as defined in Article 2(1), point (5) of Directive 2014/24/EU, ‘contracts’ as defined in ‘supply, works and service contracts’ as defined in Article 2, point (1), of Directive 2014/25/EU, and ‘concessions’ as defined in Article 5, point (1), of Directive 2014/23/EU;
- (p) ‘auction’ means a mechanism for competitive tendering procedures to support the production or consumption of energy from renewable sources, not falling under Directives 2014/23/EU, 2014/24/EU, 2014/25/EU and 2009/81/EC;
- (q) ‘CO₂ injection capacity’ means the annual amount of CO₂ that can be injected in an operational geological storage site, permitted under Directive 2009/31/EC, with the purpose to reduce emissions or increase carbon removals, in particular from large scale industrial installations and which is measured in tonnes per annum;

- (r) ‘energy system integration’ means solutions for the planning and operating of the energy system as a whole, across multiple energy carriers, infrastructures, and consumption sectors, by creating stronger links between them with the objective of delivering renewable-based, flexible, reliable and resource-efficient energy services, at the least possible cost for society and the environment;
- (s) ‘manufacturing capacity’ means the total amount of output capacity of the net-zero technologies produced in a manufacturing project. If the manufacturing project does not produce final products but specific components or specific machinery primarily used for the production of such products, then manufacturing capacity refers to output capacity of the final product that would use such components or specific machinery to be produced.

Chapter Ia

Net-zero technologies and strategic net-zero technologies

Article 3a

List of net-zero technologies

1. The net-zero technologies within the scope of this Regulation are:
 - a) renewable energy technologies;
 - b) electricity and heat storage;
 - c) heat pumps;
 - d) electricity grid technologies
 - e) renewable fuels of non-biological origin technologies;
 - f) sustainable alternative fuels technologies;
 - g) hydrogen technologies, including electrolyzers and fuel cells;
 - i) nuclear technologies;

- j) CO2 transport and carbon capture, utilisation, and storage technologies;
- k) energy-system related energy efficiency technologies;
- l) biotech climate and energy solutions, including biobased feedstock solutions;
- p) transformative industrial technologies for decarbonisation not covered under the previous categories.

Article 3b

List of strategic net-zero technologies

1. The list of strategic net-zero technologies within the scope of this Act are:
 - a) solar photovoltaic, solar thermal electric and solar thermal technologies;
 - b) onshore wind and offshore renewable technologies;
 - c) battery and storage technologies;
 - d) heat pumps and geothermal energy technologies;
 - e) **hydrogen technologies including**, electrolyzers and fuel cells;
 - f) sustainable biogas and biomethane technologies;
 - g) carbon capture and storage (CCS) technologies;
 - h) electricity grid technologies;
 - i) nuclear fission energy technologies, including nuclear fuel cycle technologies;
 - j) sustainable alternative fuels technologies.
2. The list in paragraph 1 ~~shall not affect~~ **is without prejudice to** a Member State's right to determine its choice between different energy sources and the general structure of its energy supply.

3. The list in paragraph 1 ~~does not change or have any predetermining effects on the~~ **is without prejudice to the** allocation of **Union** EU fundings and Union Budget Programmes, in particular on eligibility or award criteria, **as adopted in accordance with the appropriate procedures**, or on Union financing **support through**, including by the European Investment Bank.

Chapter II

Enabling conditions for net-zero technology manufacturing

SECTION I

STREAMLINING ADMINISTRATIVE AND PERMIT-GRANTING PROCESSES

Article 4

Point of single contact

1. By ...[9 months after the date of entry into force of this Regulation], Member States shall designate one or more contact points at relevant levels of Member State administration. The designated contact point shall be responsible for facilitating and coordinating the permit-granting process for net-zero technology manufacturing projects, including for net-zero strategic projects, and providing information on streamlining the administrative process in line with Article 5, including information on when an application is considered to be complete according to Article 6(2a) and 6(6).
 - 1a. In case of multiple designated contact points, Member States shall provide tools to help project promoters identify the appropriate designated contact point on the online web page set up in accordance with Article 5.
2. The designated contact point shall be the sole point of contact for the project promoter in the permit-granting process for a net-zero technology manufacturing project, including a net-zero strategic project. The designated contact point shall notify the project promoter on the outcome of the comprehensive decision.

3. The responsibilities of the designated contact point or the tasks related to it may be delegated to another authority, for a net-zero technology manufacturing project, including a net-zero strategic project, provided that:
 - (a) the designated contact point notifies the project promoter of that delegation;
 - (b) a single contact point is responsible for each of the projects;
 - (c) a single contact point coordinates the submission of all relevant documents and information;
 - (d) a single contact point provides information on relevant documentation needed for the application required in the permit-granting process.
4. Project promoters shall be allowed to submit any documents relevant to the permit-granting process in electronic form.
5. The competent authorities shall ensure that any relevant studies, permits or authorisations issued or conducted for a given project are taken into account and that not duplicate studies, permits or authorisations are required, unless otherwise required under national or Union law.
6. Member States shall ensure that applicants have easy access to information on procedures for the settlement of disputes concerning the permit-granting process including, where applicable, alternative dispute resolution mechanisms, if such procedures are provided by national law.
7. Member States shall ensure that the designated contact point has a sufficient number of qualified staff and sufficient financial, technical and technological resources necessary, for the effective performance of its tasks under this Regulation.
8. The Platform referred to in Article 28 and 29 shall periodically discuss the implementation of this Section and Articles 12 and 13 and share best-practices for organising designated contact points.

9. The national competent authorities shall specify and make available to the designated contact point the requirements and extent of information requested of a project promoter before the permit-granting process commences.

Article 5

Online accessibility of information

Member States shall provide access to the following information on processes relevant to net-zero technology manufacturing projects, including net zero strategic projects, online and in a centralised and easily accessible manner:

- (-a) the designated contact points referred to in Article 4 paragraph 1;
- (a) the permit-granting process, including information on dispute settlement;
- (b) financing and investment services;
- (c) funding possibilities at Union or Member State level;
- (d) business support services, including but not limited to corporate tax declaration, local tax laws, labour law.

Article 6

Duration of the permit-granting process

1. The permit-granting process for net-zero technology manufacturing projects shall not exceed any of the following time limits:
- (a) 12 months for the construction or expansion of net-zero technology manufacturing projects with a yearly manufacturing capacity of less than 1 GW;
 - (b) 18 months for the construction or expansion of net-zero technology manufacturing projects, with a yearly manufacturing capacity of 1 GW or more.

2. For net-zero technology manufacturing projects for which a yearly manufacturing capacity is not measured in GW, the permit-granting process shall not exceed a time limit of 18 months.
- 2a. Where an environmental impact assessment is required pursuant to Directive 2011/92/EU, the steps of the assessment referred to in Article 1 (2)(g) (i) of that Directive shall not be included in the duration for permit granting process referred to in paragraphs 1 and 2.
4. In exceptional cases, where the nature, complexity, location or size of the proposed net-zero technology manufacturing project or net-zero strategic project so requires, a Member State may once extend the time limits referred to in Articles 6(1), 6(2), 13(1) and 13(2) by a maximum of 3 months before their expiry and on a case-by-case basis.

Where a Member State considers that the proposed net-zero technology manufacturing project or net-zero strategic project raises exceptional risks for the health and safety of workers or of the general population, and where additional time is necessary to establish that measures to address identifiable risks are put in place, it may extend those time limits by a further 6 months, before their expiry and on a case-by-case basis.

5. In either such event, the designated contact point shall inform the project promoter of the reasons for the extension and of the date when the comprehensive decision is expected in writing.

5a The designated contact point referred to in Article 4(1) shall notify the project promoter when the environmental impact assessment report referred in Article 5(1) of Directive 2011/92/EU is due, taking into account the organisation of the permit granting process in the relevant Member State and the need to allow sufficient time to assess the report. The period as from the date the environmental impact report is due until the submission of that report shall not be counted towards the duration of the permit granting process referred to in paragraphs 1 and 2.

Where the consultation according to article 1(2)(g)(ii) of Directive 2011/92/EU results in the need to supplement the environmental impact assessment report with additional information, the designated contact point referred to in Article 4(1) may give the project promoter the opportunity to submit additional information. In such case, the designated contact point shall notify the project promoter when the

additional information is due, which shall be in no less than 30 days after the notification. The period as from the date the additional information is due until the submission of that information shall not be counted towards the duration of the permit granting process referred to in paragraphs 1 and 2.

6. No later than 45 days following the receipt of a permit granting application, the designated contact point referred to in Article 4(1) shall acknowledge that the application is complete or, if the project promoter has not sent all the information required to process the application, request the project promoter to submit a complete application without undue delay. The date of the acknowledgement of the completeness of the application from the designated contact point referred to in Article 4(1) shall serve as the start of the permit granting process for that particular application.

7. No later than two months following the date of the acknowledgement, the designated contact point shall draw up, in close cooperation with other authorities concerned, a detailed schedule for the permit granting process.
8. The time limits set in Articles 6 and 13 shall be without prejudice to obligations arising from Union and international law, and without prejudice to administrative appeal procedures and judicial remedies before a court or tribunal.
9. The time limits set in Articles 6 and 13 for any of the permit granting procedures shall be without prejudice to any shorter time limits set by Member States.

Article 7

Environmental assessments and authorisations

1. Where an environmental impact assessment is required pursuant to Directive 2011/92/EU, the project promoter concerned may request, before submitting the application, an opinion to the designated contact point on the scope and level of detail of the information to be included in the environmental impact assessment report pursuant to Article 5(1) of that Directive. The designated contact point shall ensure that the opinion referred to in the first subparagraph is issued as soon as possible and within a period of time not exceeding 45 days from the date on which the project promoter submitted its request.
2. Where the obligation to assess the effects on the environment arises simultaneously from Directive 2011/92/EU, Directive 92/43/EEC, Directive 2009/147/EC of the European Parliament and the Council, Directive 2000/60/EC, Directive 2001/42/EC of the European Parliament and the Council, Directive 2008/98/EC of the European Parliament and of the Council, Directive 2010/75/EU, Directive 2012/18/EU of the European Parliament and the Council [or Nature Restoration Regulation COM (2022) 304 final], the Member State shall ensure that a coordinated or a joint procedure fulfilling the requirements of that Union legislation is applied.

Under the coordinated procedure referred to in the first subparagraph, a competent authority shall coordinate the various individual assessments of the environmental impact of a particular project required by the applicable Union legislation.

Under the joint procedure referred to in the first subparagraph, a competent authority shall provide for a single assessment of the environmental impact of a particular project required by the applicable Union legislation.

3. The Member State shall ensure that a reasoned conclusion as referred to in Article 1(2), point (g)(iv) of Directive 2011/92/EU on the environmental impact assessment is issued within three months of receiving all necessary information gathered pursuant to Articles 5, 6 and 7 of that Directive and completing the consultations referred to in Articles 6 and 7 of that Directive.
4. The timeframes for consulting the public concerned as referred to in Article 1(2)(e) of Directive 2011/92/EU and authorities referred to in Article 6(1) of that Directive on the environmental report referred to in Article 5(1) of that Directive shall not be longer than **60** **90** days. ~~In cases falling under the second sub-paragraph of Article 6(4) of this Regulation, this period shall not be longer than 90 days.~~

Article 8

Planning

1. Member States shall encourage that national, regional and local authorities responsible for preparing plans, including zoning, spatial plans and land use plans, include in such plans, where appropriate, provisions for the development of net-zero technology manufacturing projects, including net-zero strategic projects and all the necessary infrastructure.

2. Where plans include provisions for the development of net-zero technology manufacturing projects, including net-zero strategic projects, and are subject to an assessment pursuant to Directive 2001/42/EC and pursuant to Article 6 of Directive 92/43/EEC, those assessments shall be streamlined. Where relevant, that streamlined assessment shall also address the impact on all potentially affected water bodies and verify whether the plan may prevent a water body from complying with the obligations set out in Article 4 of Directive 2000/60/EC, to achieve good status or good potential and not to deteriorate status or potential. Where relevant Member States are required to assess the impacts of existing and future activities on the marine environment, including land-sea interactions, as referred to in Article 4 of Directive 2014/89/EU, these impacts shall also be covered by the streamlined assessment.

Article 8a

Establishment of Net Zero Acceleration Areas

1. Member States may adopt plans designating specific areas to accelerate net-zero technology manufacturing projects, including net-zero strategic projects or clusters thereof, to test innovative net-zero technologies, facilitate permit granting processes and, where relevant, develop economic opportunities and share responsibilities.
2. Those plans shall:
 - (a) define a clear geographical scope for the Net Zero Acceleration Areas;
 - (b) exclude Natura 2000 sites and areas designated under national protection schemes for nature and biodiversity conservation and identified bird and marine mammal migratory routes;
 - (c) be subject to an environmental assessment pursuant to Directive 2001/42/EC of the European Parliament and of the Council, and, where applicable, to an assessment pursuant to Article 6(3) of Directive 92/43/EEC. This provision is without prejudice to compliance of individual projects with applicable Union environmental legislation;

- (d) ensure synergies with the designation of renewables acceleration areas of RED3.
3. Member States may ~~provide~~ **facilitate** for the necessary infrastructure in the Net Zero Acceleration Areas to develop net-zero projects. This can be, but is not limited to, physical, digital or electricity infrastructure.

Article 8b

Permitting under Net Zero Acceleration Areas

1. The provisions provided in sections 1 and 2 shall ~~continue to~~ apply to individual projects in Net Zero Acceleration Areas.
2. In view of avoiding duplication of assessments, the designated contact point shall take into account the results of the assessments undertaken under Article 8a point 2(c) ~~and, where available, of other relevant assessments under Union or national legislation~~, when issuing of the opinion under Article 7(1).
3. The point of single contact may create templates indicating the specific permits needed for the projects in the Net Zero Acceleration Areas and its submission to the competent authorities. Templates may be shared in the Net-Zero Europe Platform.

Article 9

Applicability of UNECE Conventions

1. The provisions set out in this Regulation are without prejudice to the obligations under Articles 6 and 7 of the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, signed at Aarhus on 25 June 1998, and under the UNECE Convention on environmental impact assessment in a transboundary context, signed at Espoo on 25 February 1991, and its Protocol on Strategic Environmental Assessment, signed in Kyiv on 21 May 2003.

2. All decisions adopted pursuant to this Section and Articles 12 and 13 shall be made publicly available.

SECTION II
NET-ZERO STRATEGIC PROJECTS

Article 9a

Benchmark

The Commission and Member States shall support Strategic Projects in accordance with this Section in order to ensure that by 2030, manufacturing capacity in the Union of the strategic net-zero technologies listed in Article 3b, approaches or reaches a benchmark of at least 40% of the Union's annual deployment needs for the corresponding technologies necessary to achieve the Union's 2030 climate and energy targets.

Article 10

Selection criteria

1. Member States shall recognise as net-zero strategic projects those net-zero technology manufacturing projects corresponding to a technology listed in Article 3b, and located in the Union that contributes to the realisation of the objectives and meet at least one of the following criteria.
 - (a) the net-zero technology manufacturing project contributes to the technological and industrial resilience of the Union's net-zero technologies by increasing the manufacturing capacity of a component or a segment of the net-zero technology value chain for which the Union heavily depends on imports coming from a single third country;

(b) the net-zero technology manufacturing project has a clear positive impact on the Union's net-zero industry supply chain or downstream sectors, with spill over effects in other Member States beyond the project promoter and the Member States concerned, while contributing to the competitiveness, Union's climate and energy targets and quality job creation of the Union's net-zero industry supply chain, according to at least one of the following criteria:

(i) it adds significant manufacturing capacity in the Union for the net-zero technology concerned that contributes to the realisation of the objective set out in Article 9a;

(ii) it manufactures technologies with improved environmental sustainability and performance;

and according to at least one of the following criteria:

(iii) it puts into place measures to attract, upskill or reskill a workforce required for net-zero technologies, including through apprenticeships, in close cooperation with social partners;

(iv) it adopts comprehensive low-carbon and circular manufacturing practices, including, for example, waste heat recovery, side stream valorisation and water efficiency;

2. Member States shall recognise as net-zero strategic projects CO₂ storage projects that meet the following cumulative criteria:

(a) the CO₂ storage site is located in the territory of the Union, its exclusive economic zones or on its continental shelf within the meaning of the United Nations Convention on the Law of the Sea (UNCLOS);

(b) the CO₂ storage project contributes to reaching the objective set out in Article 16;

- (c) the CO₂ storage project has applied for a permit for the safe and permanent geological storage of CO₂ in accordance with Directive 2009/31/EC.
- 2a. CO₂ capture projects and CO₂ transport infrastructure projects that facilitate connections of installations capturing CO₂ with CO₂ storage sites recognised as net-zero strategic projects according to paragraph 2, shall also be considered as net-zero strategic projects.
- 2b. The Commission shall provide general information, data and guidance for the assessment of the criteria in paragraphs 1 and 2.
3. Net-zero technology manufacturing projects corresponding to a technology as defined in Article 3(1), point (aa), located in ‘less developed and transition regions’ and Just Transition Fund Territories and eligible for funding under cohesion policy rules, shall be, **after the award procedure has been completed**, recognised by Member States as net-zero strategic projects under Article 11(3) upon written request of the project promoter without the project promoter having to submit a formal application under Article 11(2).
4. A net-zero technology manufacturing project located in the Union that contributes to the realisation of the general objective set out in Article 1(1) and that either benefits from the ETS Innovation Fund, or is part of Important Projects of Common European Interest, European Hydrogen Valleys, or of the Hydrogen Bank, when the funds support investment in manufacturing capacities corresponding to a technology as defined in Article 3(1), point (aa), shall be recognised by Member States as net-zero strategic project under Article 11(3) upon request of the project promoter without the project promoter having to submit a formal application under Article 11(2).
5. Where a net-zero strategic project contributes to a value chain for a technology that a Member State does not accept as part of the general structure of its energy supply, the Member State may refuse to grant the project status.

Article 11

Application and recognition

1. Applications for recognition as net-zero strategic projects shall be submitted by the project promoter to the relevant Member State.

2. The application referred to in paragraph 1 shall contain all of the following:
 - (a) relevant evidence related to the fulfilment of the criteria laid down in Article 10(1) or (2);
 - (b) a business plan evaluating the financial viability of the project consistent with the objective of creating quality jobs;
 - (c) a first estimation of a timetable for the project, in order to estimate when the project would be able to contribute to the Unions manufacturing capacity benchmark in Article 9a or Union level objective of CO₂ injection capacity in article 16.
- 2a. The Commission shall provide a pre-set form to submit the applications referred to in paragraph 1.
3. Member States shall assess the application referred to in paragraph 1 through a fair and transparent process within a month of the receipt of the complete application. If the project promoter has not sent all the relevant and complete information required to process an application, the Member State shall request, once only, that the project promoter submit complementary information without undue delay, in order to reach a complete application. The date of the acknowledgement of the completeness of the submission shall serve as the start of the assessment process.
- 3a. If there is no decision within the timeframe in paragraph 3, the project promoter may notify the Net-Zero Europe Platform and the Commission shall request without undue delay the Member State to provide the project promoter with an updated deadline. The Member State shall then specify the timeframe of when the decision on the recognition of the project as strategic will be taken.
4. The Commission may provide its opinion on the approved net-zero strategic projects. In the case of a rejection of the application by a Member State, the applicant shall have the right to submit the application to the Commission, which shall assess the application within 20 working days. The Commission's assessment is without prejudice to the Member State's decision.

5. Where the Commission, following its assessment in accordance with paragraph 4, confirms the rejection of the application by the Member State, it shall notify the applicant of its conclusion in the form of a letter. Where the Commission differs in its assessment from the Member State, the Net-Zero Europe Platform as established in Article 28 shall discuss the project in question.
6. Where the Commission or a Member State finds that a net-zero strategic project has undergone substantial changes or that it no longer fulfils the criteria set out in Article 10(1) or 10(3), or where its recognition was based on an application containing incorrect information, it shall inform the project promoter concerned. After hearing the project promoter, the Member State may repeal the decision granting a project the status of net-zero strategic project.
7. Projects which are no longer recognised as net-zero strategic project shall lose all rights connected to that status under this Regulation.
8. The Commission shall set up and maintain an openly available registry of net-zero strategic projects.

Article 12

Priority status of net-zero strategic projects

1. Project promoters and all authorities concerned shall ensure that for net-zero strategic projects those processes are treated in the most rapid way possible in accordance with Union and national law.
2. Without prejudice to obligations provided for in Union law, when a project is granted the status of net-zero strategic project, Member States shall grant net-zero strategic projects the status of the highest national significance possible, where such a status exists in national law, and be treated accordingly in the permit-granting processes including those relating to environmental assessments and if national law so provides, to spatial planning.

3. Net-zero strategic projects shall be considered to contribute to the security of supply of strategic net-zero technologies in the Union and therefore to be in the public interest. With regard to the environmental impacts addressed in Articles 6(4) and 16(1)I of Directive 92/43/EEC, Article 4(7) of Directive 2000/60/EC and Article 9(1)(a) of Directive 2009/147/EC [or in Articles 4(8) and 4(8a) of the Nature Restoration Regulation,] net-zero strategic projects in the Union shall be considered as being of public interest and may be considered as having an overriding public interest provided that all the conditions set out in those acts are fulfilled.
4. All dispute resolution procedures, litigation, appeals and judicial remedies related to net-zero strategic projects in front of any national courts, tribunals, panels, including mediation or arbitration, where they exist in national law, shall be treated as urgent, if and to the extent to which national law concerning permit granting processes provides for such urgency procedures and provided that the normally applicable rights of defence of individuals or of local communities would be respected Project promoters of net-zero strategic projects shall participate in such urgency procedure, where applicable.

Article 13

Duration of the permit-granting process for net-zero strategic projects

1. The permit-granting process for net-zero strategic projects shall not exceed any of the following time limits:
 - (a) 9 months for the construction or expansion of net-zero strategic projects with a yearly manufacturing capacity of less than 1 GW;
 - (b) 12 months for the construction or expansion of net-zero strategic projects, with a yearly manufacturing capacity of 1 GW or more;
 - (c) 18 months for all necessary permits to operate a storage site in accordance with Directive 2009/31/EC.

2. For net-zero strategic technologies for which a yearly manufacturing capacity is not measured in GW, the permit-granting process shall not exceed a time limit of 12 months.
- 2a. Where an environmental impact assessment is required pursuant to Directive 2011/92/EU, the steps of the assessment referred to in Article 1 (2)(g) (i) of that Directive shall not be included in the duration for permit granting process referred to in paragraphs 1 and 2.

Article 14

Accelerating implementation of net-zero strategic projects

1. The Commission and the Member States shall, where relevant, undertake activities to accelerate and crowd-in private investments in net-zero strategic projects. Such activities may, without prejudice to Article 107 and Article 108 of the TFEU, include providing and coordinating support to net-zero strategic projects facing difficulties in accessing finance.
2. Member States may provide administrative support to net-zero strategic projects to facilitate their timely and effective implementation, including by providing:
 - (a) assistance to ensure compliance with applicable administrative and reporting obligations;
 - (b) assistance to project promoters to inform the public, to increase the public acceptance of the project.

Article 15

Coordination of financing

1. The Net-Zero Europe Platform as established in Article 28 shall discuss financial needs and bottlenecks of net-zero strategic projects, potential best practices, in particular to develop EU cross-border supply chains, notably based on regular exchanges with the relevant industrial alliances.
2. The Net-Zero Europe Platform shall, at the request of the net-zero strategic project promoter, discuss and advise on how the financing of its project can be completed, taking into account the funding already secured and considering at least the following elements:

- (a) additional private sources of financing;
- (b) support through resources from the European Investment Bank Group or other international financial institutions including the European Bank for Reconstruction and Development;
- (c) existing Member State instruments and programmes, including from national promotional banks, institutions and Export Credit Agencies;
- (d) relevant Union funding and financing programmes.

Chapter III

CO₂ injection capacity

Article 16

Union level objective of CO₂ injection capacity

1. An annual injection capacity of at least 50 million tonnes of CO₂ shall be achieved by 2030, in storage sites located in the territory of the European Union, its exclusive economic zones or on its continental shelf within the meaning of the United Nations Convention on the Law of the Sea (UNCLOS) and which are not combined with Enhanced Hydrocarbon Recovery (EHR).
2. All storage sites shall be designed to operate for a minimum of five years and shall respect the principles **of fair and open access provided in a transparent and non-discriminatory manner** of third-party access, non-discriminatory tariffs and transparency, as defined in Directive 2009/ 31/EC.

Article 17

Transparency of CO₂ storage capacity data

1. By 6 months from the entry into force of this Regulation, Member States shall:
 - (a) make data on all areas where CO₂ storage sites could be permitted on their territory, including saline aquifers, publicly available, without prejudice to requirements regarding the protection of confidential information;

- (b) oblige entities which are or have been holders of an authorisation as defined in Article 1, point 3, of Directive 94/22/EC of the European Parliament and of the Council⁴⁵ on their territory to make publicly available all geological data relating to production sites that have been decommissioned or whose decommissioning has been notified to the competent authority, unless the entity has applied for an exploration permit in accordance with Directive 2009/31/EC;
- (c) for the purposes of point (a), the data shall include at least the information requested in the Commission Notice on the Guidance to Member States for the update of the 2021-2030 National Energy and Climate Plans.
2. By six months from the entry into force of this Regulation and each year thereafter, each Member State shall submit to the Commission a report describing:
- (a) CO₂ capture projects in progress and an estimation of the corresponding needs and plans for transport, injection and storage capacities;
- (b) CO₂ transport and storage projects in progress on its territory, including the status of permitting under Directive 2009/31/EC, expected dates for Final Investment Decision (FID) and entry into operation;
- (c) the national support measures that have or will be adopted to prompt projects referred to in points (a) and (b), as well as measures relating to cross-border transportation of CO₂.
3. Where no CO₂ storage projects are implemented in a Member State, it shall report on its plans to facilitate the decarbonisation of industrial sectors or to develop cross-border transport of CO₂.

⁴⁵ Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons (OJ L 164, 30.6.1994, p. 3).

Article 18

Contribution of authorised oil and gas producers

1. Each entity holding an authorisation as defined in Article 1, point 3, of Directive 94/22/EC shall be subject to an individual contribution to the Union-wide target for available CO₂ injection capacity set in Article 16. Those individual contributions shall be calculated pro-rata on the basis of each entity's share in the Union's crude oil and natural gas production from 1 January 2020 to 31 December 2023 and shall consist of CO₂ injection capacity in a storage site permitted in accordance with Directive 2009/31/EC on the geological storage of carbon dioxide and available to the market by 2030. Entities with crude oil and natural gas production below a certain threshold as defined in accordance with a delegated act pursuant to paragraph 7 shall be excluded from this calculation and shall not be subject to a contribution.
2. Within three months of the entry into force of this Regulation, Member States shall, identify and report to the European Commission the entities referred to in paragraph 1 and their volumes in crude oil and natural gas production from 1 January 2020 to 31 December 2023.
3. Following the receipt of the reports submitted pursuant to Article 17 (2), the Commission after having consulted Member States and interested parties, shall specify the contributions to the Union CO₂ injection capacity objective by 2030 from entities referred to in paragraph 1.
4. Within twelve months of the entry into force of the Regulation, the entities referred to in paragraph 1 shall submit to the Commission a plan detailing how they intend to meet their contribution to Union CO₂ injection capacity objective by 2030. Those plans shall:
 - (a) confirm the entity's contribution, expressed in terms of targeted volume of new CO₂ storage and injection capacity commissioned by 2030;
 - (b) specify the means and the milestones for reaching the targeted volume.

5. To meet their targeted volumes of available injection capacity, entities referred to in paragraph 1 can do any of the following:
- (a) develop CO₂ storage projects alone or in co-operation;
 - (b) enter into agreements with other entities referred to in paragraph 1;
 - (c) enter into agreements with third party storage project developers or investors to fulfil their contribution.
6. Two years after the entry into force of the Regulation and every year thereafter, the entities referred to in paragraph 1 shall submit a report to the Commission detailing their progress towards meeting their contribution. The Commission shall make these reports public.
- 6a. By derogation, a Member State may request the Commission to exempt the entities referred to in paragraph 1 from individual contribution in relation to the production activities they have carried out on the territory of that Member State from 1 January 2020 to 31 December 2023, provided that:
- (a) the overall annual injection capacity of all storage sites operated by any ~~industry~~ **entity** having received a storage permit within the meaning of Directive 2009/31/EC and having reached a final investment decision located on the territory of the Member State exceeds the sum of the individual contributions of the entities referred to in paragraph 1 in relation to the relevant production activities. The annual injection capacities associated with these storage sites shall correspond to those mentioned in the storage permits and in the final investment decisions and contribute to the Union-wide target for available CO₂ injection capacity set in Article 16.
 - (b) the application is submitted before the end of {2027}.

Provided that the two above conditions are met, the Commission shall adopt a decision exempting the entities concerned, referred to in paragraph 1, from their individual contribution in relation to the production activities they have carried out on the territory of the Member State submitting the request.

Exempted entities may enter into agreements in accordance with paragraph 5, points (b) and (c) only in respect of any injection capacity exceeding the individual contribution from which they are exempted and the sum of the individual contributions that has been exempted.

One year after the exempting decision and every year thereafter, the Member State shall submit a report to the Commission detailing the progress of the exempted entities towards meeting their contribution to the Union-wide target for available CO₂ injection capacity set in Article 16. The Commission shall make these reports public.

6b. By 31 December 2028, the Commission shall assess on the basis of the reports under Article 31(1)(b) and 31(7) the relationship between the demand for injection capacity from CO₂ capture projects in progress or planned to be operational by 2030 and the sum of the individual contributions of the entities referred to in paragraph 1 in relation to the production activities on the territory of a given Member State. In case of a substantial imbalance, the Member State concerned may exceptionally ask the Commission for a derogation regarding the date by which the individual contributions are fulfilled.

7. The Commission is empowered to adopt delegated acts in accordance with Article 32 to supplement this Regulation concerning:
- (-a) The rules concerning the identification of entities subject to contribution in accordance with paragraph 1, including the threshold below which entities are exempt from contribution;
 - (a) The modalities in which agreements between entities referred to in paragraph 1 and investments in storage capacity held by third parties are taken into account to meet their individual contribution under paragraph 5, points b and c;
 - (b) The content of the reports referred to in paragraph 6.(c) The conditions under which the Commission may exempt entities from part of their individual contribution in accordance with paragraph 6a.

Chapter IV

Access to markets

Article 19

Sustainability and resilience contribution in public procurement procedures

1. For procurement procedures falling within the scope of Directives 2014/23/EU, 2014/24/EU or 2014/25/EU **where contracts have strategic net-zero technology listed in Article 3b of this Regulation as part of their subject matter, or in the case of work contracts including said technology,** contracting authorities and contracting entities shall apply the minimum mandatory requirements regarding environmental sustainability **as defined in implementing acts referred to in paragraph 4.** defined in accordance with implementing acts referred to in paragraph 4 where such contracts have strategic net-zero technology listed in Article 3b of this Regulation as part of their subject matter, or in the case of work contracts including said technology. Those implementing acts, shall be adopted, without undue delay, in accordance with the examination procedure referred to in Article 34(3) subject to approval by the Advisory Committee on Public Contracts.

This shall not preclude contracting authorities and contracting entities from using **other minimum requirements or** award criteria ~~or other minimum requirements~~ **in relation to environmental sustainability** in addition to the minimum mandatory requirements.

- ~~2. Contracting authorities and contracting entities may choose to apply minimum requirements regarding environmental sustainability, that objectively exceed the minimum mandatory requirements in the implementing acts referred to in paragraph 1.~~
3. The minimum mandatory requirements referred to in paragraph 1 ~~and 2~~, where applicable shall take the form of:
 - (a) technical specifications or requirements within the meaning of Article 36 of Directive 2014/23/EU, of paragraph 1 of Annex VII of Directive 2014/24/EU and of Article 60 of Directive 2014/25/EU or

(b) contract performance clauses within the meaning of Article 70 of Directive 2014/24/EU and of Article 87 of Directive 2014/25/EU and of the general principles of Directive 2014/23/EU.

4. The Commission shall adopt an implementing act **specifying** ~~setting the~~ minimum requirements on environmental sustainability. When adopting **this** implementing acts ~~referred to in paragraph 1~~ the following elements shall at least be considered:

- (a) the market situation at Union level of the relevant technologies,
- (b) provisions regarding environmental sustainability set out in other Union legislative and non-legislative acts applicable to procurements covered by the obligation set out in paragraph 1,
- (c) the Union's international commitments, including the GPA and other international agreements of which the Union is bound.

This implementing act shall be adopted within 9 months after the entry into force of this Regulation, in accordance with the examination procedure referred to in Article 34(3).

5. The tender's resilience contribution, ~~based on the need to strengthen the supply chain of renewable energy technologies and to ensure their security of supply, including through the diversification of supply from single sources with high concentration of supply to the EU,~~ shall be taken into account in the case of public procurement procedures **where contracts have strategic net-zero technology listed in Article 3b of this Regulation as part of their subject matter, or in the case of work contracts including said technology,** as well as **and** in the case of contracts awarded on the basis of a framework agreement where the estimated value of those agreements is equal to or above the values set out in Article 8 of Directive 2014/23/EU, Article 4 of Directive 2014/24/EU and Article 15 of Directive 2014/25/EU.

At the time of the call for competition or commencement of such a procedure, where the Commission has determined in accordance with Article 22 paragraph 2 that the proportion of a specific strategic net-zero technology or the specific components primarily used for the production of those products originating from a single source of supply in a third country accounting for more than 50% of the supply of that specific strategic net-zero technology or of those specific components primarily used for the production of those products within the Union, Without prejudice to the international agreements by which the European Union is bound, contracting authorities and contracting entities shall be obliged to include the following conditions for the public procurement procedures where the provisions of Article 19 as referred to in paragraph 1 apply:

- (a) an obligation not to supply more than 50 % of the value of the specific strategic net zero technology referred to in this paragraph 5 from a single source of supply the third country as determined by the Commission;
- (b) an obligation for the duration of the contract that critical main components of the strategic net-zero technology referred to in this paragraph 5 supplied or provided in the execution of the contract represent no more than 50 % of the value of the critical main components of the specific strategic net-zero technology referred to in this paragraph 5, irrespective of whether such components are supplied or provided directly by the successful tenderer or by a subcontractor from the third country as determined by the Commission;
- (c) to provide to the contracting authority or to the contracting entity upon their request adequate evidence corresponding to point (a) or (b), at the latest upon completion of the execution of the contract;
- (d) to pay a proportionate charge, in the event of non-observance of the conditions referred in point (a) or (b), of at least {5}% of the value of the specific strategic net-zero technologies of the contract referred to in this paragraph 5. ~~The maximum accumulated charges from this paragraph cannot surpass [xx] % of the value of the specific strategic net-zero technologies of the contract referred to in paragraph 5.~~

For contracts covered by the European Union's Annex I to the GPA as well as by other relevant international agreements by which the Union is bound, contracting authorities and contracting entities shall not apply the requirements of point (a) to (d) to economic operators of sources of supply that are signatories to these agreements.

This shall not preclude contracting authorities and contracting entities from using additional non price criteria.

6. Contracting authorities and contracting entities may on an exceptional basis decide not to apply paragraphs 1, 2, 3 and 5 where:
- (a) the required net zero technology can only be supplied by a specific economic operator and no reasonable alternative or substitute exists and the absence of competition is not the result of an artificial narrowing down of the parameters of the procurement;
 - (b) no suitable tenders or no suitable requests to participate have been submitted in response to a previous public procurement procedure;
 - (c) their application would oblige that contracting authority or contracting entity to acquire equipment having disproportionate costs, or technical characteristics different from those of existing equipment, or would result in incompatibility or technical difficulties in operation and maintenance.

Estimated cost differences above 20%, based on objective and ~~verifiable~~ **transparent** data, may be presumed by contracting authorities and contracting entities to be disproportionate.

This provision shall be without prejudice to the possibility of excluding abnormally low tenders under Article 69 of Directive 2014/24/EU and Article 84 of Directive 2014/25/EU.

Article 20

Auctions to deploy renewable energy sources

1. When designing auctions ~~the aim of which is to support the production or consumption~~ **for the deployment** of energy from renewable sources, **and where technologies listed as a strategic net-zero technologies under this Regulation are allowed to participate**, Member States shall **include**:

- (a) ~~include~~ pre-qualification criteria related to responsible business conduct, cybersecurity and data security and ability to deliver the project fully and on time;
- (b) **pre-qualification criteria different than those referred to in point (a) or award criteria to assess the auction's sustainability and resilience contribution** ~~assess the sustainability and resilience contribution as referred to in paragraph 1a of this Article when designing the criteria used for ranking bids or pre-qualification criteria.~~

This is without prejudice to Article 4 of Directive (EU) 2018/2001 and Articles 107 and 108 the Treaty, and to the Union's international **obligations**.

1a. The auctions' sustainability and resilience contribution shall be based on the criterion set in point (a) and on at least one of the criteria laid down in points (b) to (d) which shall be objective, transparent and non-discriminatory:

- (a) contribution to resilience, ~~based on the need to strengthen the supply chain of renewable energy technologies and to ensure their security of supply, including through the diversification of supply from single sources with high concentration of supply to the EU~~ **taking into account the proportion of the strategic net-zero technologies or the specific components primarily used for the production of those products that originate from a source of supply third country accounting for more than 50% of the supply of that specific strategic net-zero technology within the Union;**

For the purpose of point (a), the source of supply country of origin shall be determined in accordance with Regulation (EU) No 952/2013 of the European Parliament and of the Council;

- (b) environmental sustainability going beyond the minimum requirements in applicable legislation;
- (c) contribution to innovation by providing entirely new solutions or improving comparable state-of-the-art solutions;
- (d) contribution to the energy system integration.

This shall not preclude Member States from using additional non-price criteria beyond those listed in this paragraph 1a.

The Commission will adopt an implementing act further specifying the pre-qualification and award criteria.

This implementing act shall be adopted within 9 months after the entry into force of this Regulation in accordance with the examination procedure referred to in Article 34(3).

2. When applied as award criteria, Member States shall give to each of the criteria to assess the auction's sustainability and resilience contribution a minimum weight of 5% and a combined weight between 15% and 30% of the award criteria. This is without prejudice of the possibility to give a higher weighting to the criteria referred to in (paragraph 1a), points (b), (c) and (d), ~~applicable under Union legislation,~~ **in accordance with** and of any limit for non-price criteria set under State aid rules.
3. Member States shall not be obliged to apply the considerations relating to **the pre-qualification and award criteria defined in paragraph 1** ~~the sustainability and resilience contribution of net-zero technologies~~ where their application would result in disproportionate costs. Estimated cost differences above 40% ~~in 2026 and 2027, above 20% in 2028 and 2029 and above 10~~ **20 15%** ~~in 2030,~~ based on objective and verifiable data, may be presumed by Member States to be disproportionate.

4. ~~Until 31 December 2025, Article 20 Paragraphs 1 to 3 shall apply to at least [25] 20% of the volume auctioned per year per Member State. Upon entry into force of the implementing act as referred to in paragraph 5, paragraphs 1 to 3 shall apply to the volume auctioned per year per Member State as defined in the implementing act referred to in paragraph 5.~~ Estimated cost differences above.

~~This share shall increase up to [50]% in 2026 and 2027, up to [75%] in 2028 and 2029 and up to [100]% in 2030.~~

5. ~~By 31 December 2027⁷⁵ and every two years thereafter, the Commission shall present a comprehensive assessment on the application of resilience and sustainability criteria for renewable energy auctions.~~

~~Taking into account the assessment, the Commission may shall propose a revision of this Article and an implementing delegated adopt an implementing act in order to amend paragraph 4 to review to determine the shares of the volume auctioned per year per Member State of annually auctioned products to which Article 20 paragraphs 1 to 3 shall apply, and to reduce the threshold of the estimated cost differences referred to in paragraph 3. The decision to adopt a delegated act determination of the share of the volume auctioned shall be based on a comprehensive assessment on the application of resilience and sustainability criteria for renewable energy auctions and their effect on the accelerated deployment of renewable energy technologies.~~

~~The delegated implementing act referred to in subparagraph 1 shall ensure adequate appropriate time for implementation, ensuring at least 12 months after the entry into force of the delegated implementing act, in order to adjust national law and auctions design.~~

6. For calculating the volumes auctioned per year per Member State the following auctions may be excluded:

- (a) auctions for a specific technology where all auctions have been undersubscribed in the previous 2 years;
- (b) auctions for technologies installations with a maximum project size of 5-10 MW.

7. To facilitate implementation for all Member States, in particular for those with low volume of auctions, Member States that have not launched more than 2 auctions per year during the last 2 years, may compute the share of auctions to which the non price criteria apply over the period of 2 years.

Article 21

Other forms of public intervention

1. Without prejudice to Articles 107 and 108 of the Treaty and Article 4 of Directive 2018/2001⁴⁶ and in line with the Union's international commitments, when deciding to set up new schemes or to update existing schemes benefitting households, companies or consumers which incentivise the purchase of strategic net-zero technology final products, Member States, regional or local authorities, bodies governed by public law or associations formed by one or more such authorities or one or more such bodies governed by public law, shall design them in such a way as to promote the purchase by beneficiaries of strategic net-zero technology final products with a high sustainability and resilience contribution as referred in Article 21(3a), by providing additional proportionate financial compensation.
2. The additional financial compensation granted by authorities in accordance with paragraph 1, due to the application of the criteria referred to in Article 21(3a) (a), (c) and (d) shall not exceed 5% of the cost of the net-zero technology final product for the consumer.
3. When designing and implementing a scheme falling under paragraph 1, the authority shall base itself on an open, non-discriminatory and transparent process to assess the resilience and sustainability contribution of available strategic net-zero technology final products on the market. Any strategic net-zero technology final product shall be entitled to apply to join the scheme at any time. The authority shall specify a pass mark for strategic net-zero technology final products to be eligible to the additional financial compensation under the support scheme.

⁴⁶ Directive 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

3a. The sustainability and resilience contribution of other forms of public intervention shall be based on the following criteria which shall be objective, transparent and non-discriminatory:

- (a) contribution to resilience, taking into account the proportion of the strategic net-zero technologies **or the specific components primarily used for the production of those products** that originates **from a source of supply accounting third country that accounts for more than 65 50% of the supply of that specific strategic net-zero technology within the Union**;

For the purpose of point (a), the source of supply shall be determined in accordance with Regulation (EU) No 952/2013 of the European Parliament and of the Council;

and at least one of the following:

- (b) environmental sustainability going beyond the minimum requirements in applicable legislation;
- (c) contribution to innovation by providing entirely new solutions or improving comparable state-of-the-art solutions;
- (d) contribution to the energy system integration.

This shall not preclude Member States from using additional non-price criteria beyond those listed in this paragraph 3a.

For the purpose of point (a), the country of origin shall be determined in accordance with Regulation (EU) No 952/2013 of the European Parliament and of the Council.

4. Member States shall publish on a single free access website all information relating to schemes pursuant to Article 21(1) for each relevant strategic net-zero technology final product.

Article 22

Coordination of access to markets initiatives

1. The Commission shall provide guidance on the application of the criteria to assess the resilience and sustainability contribution of available products covered by the forms of public intervention covered under articles 19, 20 and 21.
2. For the assessment of the contribution to resilience, the Commission **shall adopt an implementing act providing for** ~~shall make available and regularly update~~ a list of each of the **strategic** net-zero technology final products **and their main components**, ~~broken down by the share of Union supply originating in different third countries in the last year for which data is available.~~ **The implementing act shall be adopted in accordance with the examination procedure as referred to Article 34(3).**

Based on the implementing act referred to in subparagraph 1, the Commission shall provide updated information on the shares of the Union supply originating in different third countries in the last year for which data is available for each of the strategic net-zero technologies and their main components. The source of supply shall be determined in accordance with Regulation (EU) 952/2013 of the European Parliament and of the Council.

3. The Net-Zero Europe Platform shall discuss measures carried out by Member States to implement Articles 19 to 21 and exchange best practices, inter alia, as concerns the practical use of criteria defining the sustainability and resilience contribution in public procurement, or schemes incentivising the purchase of net-zero technology final products.

Chapter V

Enhancing skills for quality job creation

Article 23

European Net Zero Industry Academies

1. Fully respecting the competence of Member States in the field of education and training, the Commission may support, including through the provision of seed-funding, the launch of European Net Zero Industry Academies, which have as their objectives to:

- (a) develop, for voluntary use by Member States and education and training providers on their territories, learning programmes, content and learning and training materials for training and education, such as on developing, producing, installing, commissioning, operating, maintaining, repairing, ecodesigning, re-using and recycling net-zero technologies, including also on raw materials, as well as to support the capacities of public authorities, in particular, those competent to issue permits and authorisations referred to in Chapter II and contracting authorities referred to in Chapter IV of this Regulation;
- (b) promote the voluntary use of the learning programmes, content and materials by education and training providers in the Member States;
- (b1) offer support to the education and training providers that use the learning programmes, content and materials produced by the academies to strengthen the quality of the training offered;
- (c) develop credentials, including, if appropriate, micro-credentials, for voluntary use by Member States and education and training providers on their territories, in order to facilitate the transparency of skills acquired and enhance the transferability between jobs and the cross-border mobility of the workforce, and to promote matching with relevant jobs through tools such as the European Employment Services (EURES) network and EURAXESS as well as to identify that a learning programme or learning content was developed by a European Net Zero Industry Academy.

2. European Net Zero Industry Academies shall produce gender-balanced content, contribute to counter gender stereotypes and pay particular attention to the need to activate more women and young people, who are not in education, employment or training older persons and persons with disabilities for the labour market.

Article 24

Regulated professions in Net Zero Industries and recognition of professional qualifications

1. By 31 December 2025 and every two years thereafter, Member States shall strive to identify whether the learning programmes developed by the European net-zero industry academies are equivalent to the specific qualifications required by the host Member State to access regulated activities within the scope of a profession with particular interest for the net-zero industry in that Member State.
2. If a Member State concludes that the learning programmes developed by the European Net-Zero industry Academies are equivalent to the specific qualifications required by the host Member State to access regulated activities within the scope of a profession with particular interest for the net-zero industry, it shall make this public and easily accessible online. In addition, it shall facilitate the recognition of credentials issued by education and training providers on the basis of the learning programmes developed by the academies, under Directive 2005/36/EC of the European Parliament and of the Council⁴⁷, whenever a holder of such a credential requests access to a regulated profession within the meaning of Article 3(1)(a) of Directive 2005/36/EC, and of particular importance for the net-zero industry, by treating the credential as evidence of formal qualifications, according to the Article 11 of the Directive 2005/36/EC.

⁴⁷ Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (OJ L 255, 30.9.2005, p. 22).

3. Where access to a profession of particular importance for the net-zero industry is regulated within the meaning of Article 3(1)(a) of Directive 2005/36/EC, Member States are recommended to work towards developing a common set of minimum knowledge, skills and competences necessary for the pursuit of this specific profession with the purpose of establishing a Common Training Framework as referred to in Article 49a (1) of Directive 2005/36/EC of the European Parliament and of the Council to enable automatic recognition of qualifications. The Net Zero Industry Platform may also submit suggestions as referred to in Article 49a (3) of Directive 2005/36/EC.

Article 25

Net-Zero Europe Platform and skills

The Net-Zero Europe Platform referred to in Article 28 shall support and supplement the action of the Member States, where feasible and avoiding disproportionate administrative burden for Member States as well as respecting their competence, by advising and assisting the Commission and Member States, including competent authorities and contracting authorities referred to in Chapter II and Chapter IV, through the following tasks:

- (1) assist the Commission in assessing, continuously monitoring and forecasting the demand and supply of a workforce with the skill sets needed in net-zero technologies, informing as appropriate the activities of the European Net-Zero Industry Academies;
- (2) monitor the activity of the European Net-Zero Industry Academies and foster synergies with other national and Union skills initiatives and projects, strengthen and scale-up good practices and provide general oversight;
- (3) assist the mobilisation of stakeholders including industry, social partners and education and training providers for the promotion of learning programs developed by the European Net-Zero Industry Academies;

- (4) assist the uptake of learning credentials developed by the European Net-Zero Industry Academies in the Member States to promote the identification of skills and the matching of skills and jobs, inter alia by promoting the validity and acceptance of the credentials throughout the labour market of the European Union;
- (5) facilitate, where appropriate, the development of occupation profiles, for the voluntary use by Member States, consisting of a common set of knowledge, skills and competences for key professions in the net-zero technologies, drawing inter alia upon the learning programmes developed by the European Net-Zero Industry Academies, and, where appropriate, using the terminology provided by the European Skills, Competences, Qualifications and Occupations (ESCO) classification to facilitate transparency and mobility between jobs and across internal market borders;
- (6) promote adequate working conditions in jobs in net-zero technology industries, the activation of youth, women and seniors to the labour market for net-zero technology industries, and the attraction of skilled workers from third countries, in accordance with national competences, law and practice, and thereby achieve a more diverse workforce;
- (7) facilitate closer coordination and the exchange of best practices between Member States to enhance the availability of skills in the net-zero technologies, including by contributing to Union and Member States policies to attract new talents from third countries, in accordance with national competences, law and practice. This shall be done in coordination with the already existing structures of European cooperation in education and training;
- (8) look for synergies with existing training or education programs, ~~in particular~~ **among others** aiming at matching programs with the needs of the European industry.

Chapter VI

Innovation

Article 26

Net-Zero regulatory sandboxes

1. Member States may at their own initiative establish net-zero regulatory sandboxes, allowing for the development, testing and validation of innovative net-zero technologies or other innovative technologies, in a controlled real-world environment for a limited time before their placement on the market or putting into service.

Member States shall establish net-zero regulatory sandboxes in accordance with paragraph 1 at the request of any company, organisation or consortium developing innovative net-zero technologies which fulfils the eligibility and selection criteria referred to in paragraph 2(a) and which has been selected by the competent authorities following the selection procedure referred to in paragraph 2(b).

2. The modalities and the conditions for the establishment and operation of the net-zero regulatory sandboxes under this Regulation shall be adopted through implementing acts in accordance with the examination procedure referred to in Article 34. The modalities and conditions shall support flexibility for national competent authorities to prioritise between and deciding on approval of applications for Net-zero regulatory sandboxes. The modalities and conditions shall foster innovation and regulatory learning and shall particularly take into account the special circumstances and capacities of participating SMEs, including start-ups. The implementing acts shall include common main principles on the following issues:
 - (a) eligibility and selection for participation in the net-zero regulatory sandboxes;
 - (b) procedure for the application, participation, monitoring, exiting from and termination of the net-zero regulatory sandboxes;
 - (c) the terms and conditions applicable to the participants.

3. The participation in the net-zero regulatory sandboxes shall not affect the supervisory and corrective powers of the authorities supervising the sandbox. The testing, development and validation of innovative net-zero technologies or other innovative technologies shall take place under the supervision and support of the competent authorities. The competent authorities shall exercise their supervisory powers in a flexible manner within the limits of the relevant legislation, adapting existing regulatory practices and using their discretionary powers when implementing and enforcing legal provisions to a specific net-zero regulatory sandbox project, with the objective of removing barriers, alleviating regulatory burden, reducing regulatory uncertainty, and supporting innovation in net-zero technologies or other innovative technologies.
4. Where relevant to achieve the objective of this article, the competent authorities shall consider granting derogations or exemptions in national law to the extent allowed by the relevant Union law. The competent authorities shall ensure that the sandbox plan ensures respect for requirements of the Union law and key objectives and essential requirements of national legislation. Competent authorities shall make sure that any significant risks to health, safety or the environment identified during the development and testing of innovative net-zero technologies or other innovative technologies is publicly communicated and results in immediate suspension of the development and testing process until such risk is mitigated. Where competent authorities consider that the proposed project raises exceptional risks for the health and safety of workers, of the general population, or of the environment, in particular because it relates to testing, development or validation involving particularly toxic substances, they shall only approve the sandbox plan once they are satisfied that adequate safeguards have been put in place commensurate with the exceptional risk identified.
6. Participants in the net-zero regulatory sandbox shall remain liable under applicable Union and Member States' liability legislation for any material harm inflicted on third parties as a result of the testing taking place in the regulatory sandbox.
7. The duration of the net-zero regulatory sandbox may be extended through the same procedure upon agreement of the national competent authority.

8. The net-zero regulatory sandboxes shall be designed and implemented in such a way that, where relevant, they facilitate cross-border cooperation between the national competent authorities. Member States that have established net-zero regulatory sandboxes shall coordinate their activities and cooperate within the framework of the Net-Zero Europe Platform with the objectives of sharing relevant information with other Member States within the Platform. The Platform may invite companies who have participated in a net-zero regulatory sandbox to share their experience of the process. The Commission shall, on the basis of information provided by the Platform, report annually on the results of the implementation of regulatory sandboxes, including good practices, lessons learnt and recommendations on their setup and, where relevant, on the application within the regulatory sandbox of this Regulation and other Union legislation in a manner adapted for the purposes of the sandbox.

Article 27

Measures for small and medium-sized enterprises, including start-ups

1. Member States shall undertake the following actions:
- (a) provide small and medium-sized enterprises, including start-ups, with priority access to the Net-zero regulatory sandboxes to the extent that they fulfil the eligibility conditions set in Article 26;
 - (b) organise awareness raising activities about participation to the regulatory sandboxes by small and medium-sized enterprises, including start-ups;
 - (c) where appropriate, establish a dedicated channel for communication with small and medium-sized enterprises, including start-ups, to provide guidance and respond to queries about the implementation of Article 26.

2. Member States shall take into account the specific interests and needs of small and medium-sized enterprises, including start-ups, and provide adequate administrative support to take part in the regulatory sandboxes. Without prejudice to the application of Articles 107 and 108 of the Treaty, Member States should inform small and medium-sized enterprises, including start-ups, of available financial support to their activities in the regulatory sandboxes.

Chapter VII

Governance

Article 28

Establishment and tasks of the Net-Zero Europe Platform

1. The Net-Zero Europe Platform ('the Platform') is established.
2. The Platform shall perform the tasks set out in this Regulation.
3. The Platform may advise and assist the Commission and Member States in relation to their actions to reach the objectives outlined in Chapter I of this Regulation, taking into account Member States' national energy and climate plans submitted under Regulation (EU) 2018/1999⁴⁸.
4. Members of the Net-Zero Platform may coordinate within the Platform on the Net-Zero Industrial Partnerships to help promote the adoption of net-zero technologies globally and to support the role of Union industrial capabilities in paving the way for the global clean energy transition, in line with the overall objectives of this Regulation stemming from Article 1 of this Regulation. The Platform may periodically discuss, among other topics:

⁴⁸ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (Text with EEA relevance.), (OJ L 328, 21.12.2018, p. 1).

- (a) how to improve cooperation along the net-zero value chain between the Union and third countries;
- (b) how to address non-tariff barriers to trade, such as through mutual recognition of conformity assessment or commitments to avoid export restrictions;
- (c) which third countries could be prioritised for the conclusion of Net-Zero Industrial Partnerships, taking into account the following:
 - i) the potential contribution to security of supply, taking into account their manufacturing capacity of net-zero technologies;
 - ii) whether there are existing cooperation agreements between a third country and the Union;
 - iii) whether a third country's regulatory framework and its implementation ensures the monitoring, prevention and minimisation of environmental impacts, the use of socially responsible practices including respect of human and labour rights and meaningful and equitable engagement with local communities, the use of transparent business practices and the prevention of adverse impacts on the proper functioning of public administration and the rule of law;
- (d) how to incentivise production in Europe, by addressing funding, regulatory framework and investment and location guarantees.

This paragraph shall be without prejudice to the prerogatives of the Council in accordance with the Treaties.

5. Member States shall support the Commission in the implementation of the cooperation measures set out in the Net-Zero Industrial Partnership.

Article 29

Structure and functioning of the Net-Zero Europe Platform

1. The Platform shall be composed of representatives of Member States and of the Commission. It shall be chaired by a representative of the Commission.
2. Each Member State shall appoint a high-level representative to the Platform. Where relevant as regards the function and expertise, a Member State may have more than one representative in relation to different tasks related to the work of the Platform. Each member of the Platform shall have an alternate. Only Member States shall have voting rights. Each Member State shall have only one vote regardless the number of representatives.
3. On a proposal by the Commission, the Platform shall adopt its rules of procedure by a simple majority of its members.
4. The Platform shall meet at regular intervals to ensure the effective performance of its tasks specified in this Regulation. Where necessary, the Platform shall hold extraordinary meetings at the reasoned request of the Commission or a Member State.
5. The Commission shall assist the Platform by means of an executive secretariat that provides technical and logistic support.
6. The Platform may establish standing or temporary sub-groups dealing with specific questions and tasks related to this Regulation.
 - 6a. The Platform shall meet at least once a year in order to discuss the monitoring foreseen in Article 31.
7. The Platform shall invite representatives of the European Parliament to attend, as observers, its meetings, including of the standing or temporary sub-groups referred to in paragraph 6.

8. Where appropriate, the Platform or the Commission may invite experts and other third parties with specific expertise on the subject matter, including from industry and stakeholder organisations, to the Platform and sub-group meetings or to provide written contributions, but without rights to participate in the decision making.
9. The Platform shall take the necessary measures to ensure the safe handling and processing of confidential and commercially sensitive information.
10. The Platform shall use its best endeavours to reach consensus.
11. The Platform shall coordinate and cooperate with existing and relevant industrial alliances.

Article 30

Articulation with National Energy and Climate Plans

Member States shall take into consideration this Regulation when preparing their national energy and climate plans and their updates, submitted pursuant to Articles 3, 9, and 14 of Regulation (EU) 2018/1999, in particular as regards the dimension “research, innovation and competitiveness” of the Energy Union, and in the submission of their biennial progress reports in accordance with Article 17 of that Regulation.

Chapter VIII

Monitoring

Article 31

Monitoring

1. The Commission shall monitor on an ongoing basis:
 - (a) the Union’s progress with respect to the Union’s objectives referred to in Article 1, in particular the supply risks of net zero technologies that would distort competition or fragment the internal market, and the related impact of this Regulation;

- (aa) the Union's progress with respect to the benchmark referred to in Article 9a;
 - (ab) the volume of imports into its territory and exports outside of the Union's territory of strategic net-zero technologies;
 - (b) the progress with respect to the Union level objective of CO₂ injection capacity referred to in Article 16 and to the related CO₂ transport infrastructure.
2. Member States and the national authorities they designate for this purpose shall collect and provide data and other evidence required pursuant to paragraph 1, points (a), (aa), (ab) and (b). In particular, they shall collect and report **each year every 4 years** to the Commission data on:
- (-a) identified obstacles to trade of net zero technologies or in goods that use net zero technologies within the internal market;
 - (a) developments in strategic net-zero technologies and market trends, as well as market prices for the respective net-zero technologies, including information on ~~public procurement and~~ auctions **about their frequency, awarding prices, and volume** as relevant for Chapter IV;
 - (b) net-zero technology manufacturing capacity per strategic technology and per key value chain component **if listed in Annex X**, as well as the manufacturing capacity of future strategic net-zero projects that have reached final investment decisions;
 - (ba) data on employment and skills **for manufacturing** in each strategic net-zero technology sector, including the number of employees, labour and skills shortages, where applicable, **and figures on labour and skills needs to fulfil the objectives of this Regulation** ~~and trends in skills needs and assessments for future readiness~~;
 - (d) ~~the~~ following information related to permit-granting processes per strategic net-zero technology:
 - i. the number of permit-granting processes initiated, the number of applications refused, and the number of comprehensive decisions taken and specifying whether they approved or refused the project;

- ii. the duration of the permit-granting processes where a comprehensive decision was taken, including duration of extensions of the time limits;
- iii. information on the resources allocated to the operation of the designated contact point(s);
- (g) the number and nature of the sandboxes set up within the past 12 months;
- (h) the amount of CO₂ stored permanently underground in accordance with Directive 2009/31/EC.

~~3. The data shall include at least the new information requested in the Commission Notice on the Guidance to Member States for the update of the 2021–2030 National Energy and Climate Plans.~~

3a. The data referred to in paragraphs 2 and 3 shall be reported where they are not already included in **or in accordance with** the elements of the reporting notified to the Commission pursuant to Articles 17 **and 25** of Regulation 2018/1999.

3b. The reporting obligations referred to in paragraph 2 shall not apply where Member States consider that it would be contrary to their essential security interests in accordance with Article 346 of the Treaty of the Functioning of the European Union.

4. The first report shall be sent to the Commission by each Member State at the end of May of the year following the date of entry into force of this Regulation. The following reports shall be sent by the end of May every year.

4a. The Commission is empowered to adopt implementing acts in accordance with Article 34(3) setting out a template for the reports referred to in paragraph 4.

6. On the basis of the reports submitted pursuant to paragraph 2 of this Article, the Commission shall monitor the Union's progress referred to paragraph 1, point (a) and publish related recommendations on an annual basis as part of the Annual Reports on Competitiveness of Clean Energy Technologies, pursuant to Article 35 (2), point (m) of Regulation (EU) 2018/1999. The recommendations shall also include considerations on whether all the net-zero technologies necessary to achieve the objectives in Article 1 are covered by the Regulation.
7. On the basis of the draft permit applications submitted pursuant to Article 10 of the Directive 2009/31/EC and on the reports submitted pursuant to Articles 17(2) and Article 18(4) and 18(6) of this Regulation, the Commission shall monitor the progress towards reaching the Union-wide target for CO₂ injection capacity referred to paragraph 1 point (b) of this Article and shall report annually to the European Parliament and the Council.
8. The Commission shall inform the Net-Zero Europe Platform on its findings.

Chapter IX

Final provisions

Article 32

Delegation of power

The Commission is empowered to adopt delegated acts in accordance with Article 33 to amend the modalities in which agreements between entities referred to in Article 18(1) and investments in storage capacity held by third parties are taken into account to meet their individual contribution set out in Article 18 (5), as well as the content of the reports referred to in Article 18 (6).

Article 33

Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 32 shall be conferred on the Commission for a period of five years from [date of application]. The Commission shall present a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
3. The delegation of power referred to in Article 32 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect on the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.
5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Article 32 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Article 34

Committee procedure

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

For matters related to Article 19 the Commission shall be assisted by the Advisory Committee on Public Procurement established by Council Decision 71/306/EEC.

For matters related to Article 20 the Commission shall be assisted by the Energy Union Committee established by Article 44 of Regulation (EU) 2018/1999.

2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.
3. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.
4. Where reference is made to this paragraph, Article 8 of Regulation (EU) No 182/2011, in conjunction with Article 4 thereof, shall apply.

Article 35

Evaluation

1. By...[5 years after the date of application of this Regulation], and every 5 years thereafter, the Commission shall evaluate this Regulation and present a report on the main findings to the European Parliament, the Council and the European Economic and Social Committee.
2. The evaluation shall assess:
 - (a) whether the objectives of this Regulation as established in Article 1, **in particular its contribution to the functioning of the Single Market,** have been achieved and its impact on business users, especially SMEs, and end users, and the European Green Deal objectives;

- (b) whether provisions in the Net Zero Industry Act are fit to deliver beyond 2030 and towards the longer term 2050 climate neutrality target referred to in Article 1, taking into account, among other aspects, the possibility to include in the Net Zero Industry Act other technologies that can play a significant role in achieving climate neutrality by 2050, as well as the possible enlargement of the scope of this Regulation to cover the construction or conversion of plants and facilities in hard-to-abate sectors to climate neutral processes where the construction or conversion of the respective plants and facilities reduce emission rates of CO₂-eq of industrial processes significantly and permanently to an extent which is technically feasible.
3. The evaluation shall take into account the result of the monitoring process as outlined in Article 31 as well as the technology needs stemming from the updates of the National Energy and Climate Plans notified by Member States in accordance with the [Energy Union Governance Regulation] and informed by the State of the Energy Union Report.
- 3a. Within the same period referred to in paragraph 1 at the latest and after consultation with the Net-Zero Europe Platform, the Commission shall assess and, if necessary, present a proposal to expand the list of net-zero technologies set in Article 3a and the list of strategic net-zero technologies set in Article 3b.
4. The competent authorities of the Member States shall provide to the Commission any relevant information they have and that the Commission may require to draw up the report referred to in paragraph 1.
5. Where, based on the report referred to in paragraph 1, the Commission concludes that the Union is likely not to achieve the objectives set out in Article 1(1), it shall, in consultation with the Net-Zero Europe Platform, assess the feasibility and proportionality of proposing measures in order to ensure the achievement of those objectives.

6. No later than 31 December 2026, the Commission may propose an amendment to this Regulation to introduce a new Union-level objective for CO₂ injection capacity by 2040. The Commission shall justify its choice to the European Parliament and the Council if it decides not to propose to introduce an objective for 2040.

Article 36

Treatment of confidential information

1. Information acquired in the course of implementing this Regulation shall be used only for the purposes of this Regulation and shall be protected by the relevant Union and national legislation.
2. Member States and the Commission shall ensure the protection of trade and business secrets and other sensitive, confidential and classified information acquired and generated in application of this Regulation, including recommendations and measures to be taken, in accordance with Union and the respective national law.
3. Member States and the Commission shall ensure that classified information provided or exchanged under this Regulation is not downgraded or declassified without the prior written consent of the originator.
- {4. If a Member State assesses that the presentation of aggregated information in the context of Article 18 may nonetheless compromise its national security interest, it may object to the Commission's presentation through a justified notice.}
5. The Commission and the national authorities, their officials, employees and other persons working under the supervision of these authorities shall ensure the confidentiality of information obtained in carrying out their tasks and activities. This obligation also applies to all representatives of Member States, observers, experts and other participants attending meetings of the Platform pursuant to Article 29.

Article 37

Amendment to Regulation (EU) 2018/1724

Regulation (EU) 2018/1724 is amended as follows:

- (1) in Annex I, in the first column, a new row ‘R. Net-zero technology manufacturing projects’ is added.
- (2) in Annex I, in the second column, in the row ‘R. Net-zero technology manufacturing projects’, the following point are added:
 - ‘1. information on the permit-granting process’
 - ‘2. financing and investment services’
 - ‘3. funding possibilities at Union or Member State level’
 - ‘4. business support services, including but not limited to corporate tax declaration, local tax laws, labour law’.
- (3) in Annex II, in the first column, a new row ‘Net-zero technology manufacturing projects’ is added.
- (4) in Annex II, in the second column, in the row ‘Net-Zero technology manufacturing projects’, the following points are added:
 - ‘Procedures for all relevant permits to, build, expand, repurpose and operate net-zero technology manufacturing projects, including for net-zero strategic projects encompassing all applications and procedures’.
- (5) in Annex II, in the third column, in the row ‘Net-Zero manufacturing projects’, the following point is added:
 - ‘All outputs pertaining to the procedures ranging from the acknowledgment of the validity of that the application is complete to the notification of the comprehensive decision on the outcome of the procedure by the designated contact point responsible national’.

(6) in Annex III, the following point is added:

‘(8) Designated contact point acting as single point of contact pursuant to Article 4 of [the NZIA] Regulation.’

Article 38

Entry into force and application

This Regulation shall enter into force on...[the day following that of its publication in the *Official Journal of the European Union*].

It shall apply from [date of entry into force].

Until [2 years following the date of application of this Regulation], Article 19 (2), point (a), (b) and (c) shall apply only to contracts concluded by central purchasing bodies as defined in Article 2 (1), point (16), of Directive 2014/24/EU and Article 2 (1), point (12), of Directive 2014/25/EU and for contracts of a value equal to or higher than EUR 25 million.

Articles 20 and 21 shall will not apply from until 12 24 months following after the date of application of this Regulation.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament

For the Council

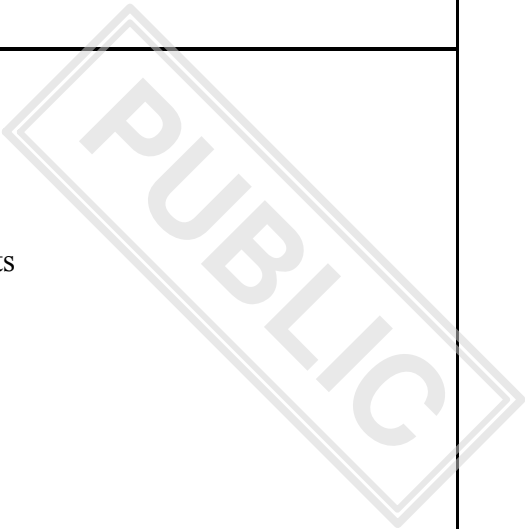
The President

The President

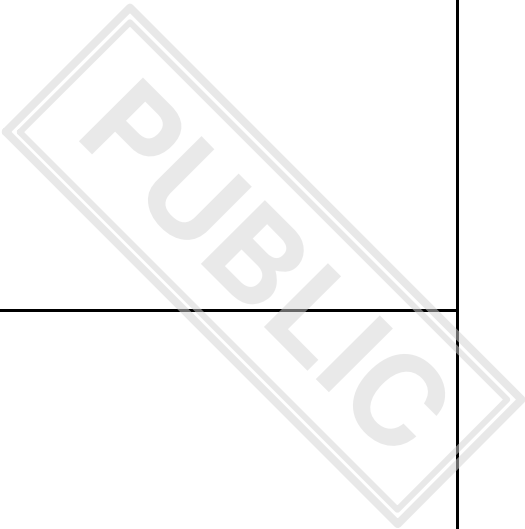
ANNEX X:

Non-exhaustive list of final products and specific components considered as primarily used for the production of Net-Zero technologies

	Strategic net-zero technologies	Components "primarily used" for these technologies
1. Solar photovoltaic and solar thermal technologies	Solar photovoltaics	Solar PV module Solar PV Cells Silicon Wafers Solar PV inverter Solar PV glass Components related to balance of plant
	Solar Thermal	Solar thermal panels Concentrated solar plant Solar thermal Mirrors Solar thermal Lenses Tower (for molten salt) Heat exchanger Heat transfer fluid Heat engine (steam turbine) Power generator



2. Onshore wind and offshore renewable technologies	Wind	Blades Nacelle structure Permanent magnets Gearbox Shafts Power generator Controller Bearings Tower Components related to balance of plant
	Wave energy	Surface floaters Vertical column Reaction plates Mounting for Power Take-Off systems Mooring/foundation system Generator Hydraulic system Frequency converter

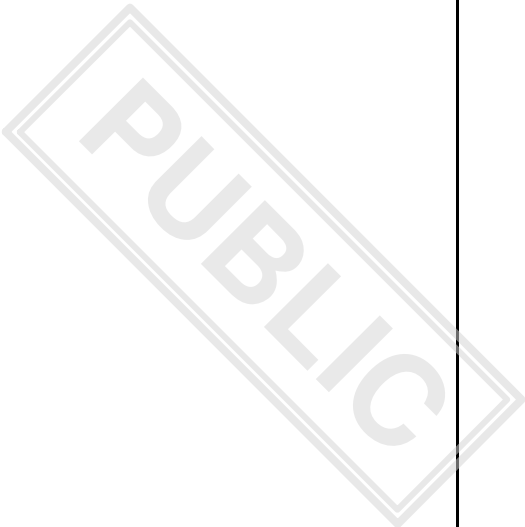


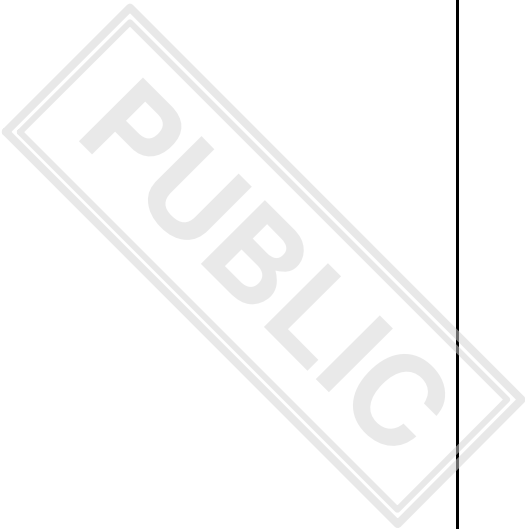
		Transformer Control system
	Tidal energy	Pile Cross-arm Nacelles Tidal kites PTO mounting Mooring/foundation system Generator Gearbox Driveshaft Hydraulic system Frequency converter Transformer Control system Rotors
3. Battery/Storage technologies	Battery	Anodes Cathodes Electrolytes Separators Cell Modules Packs

		Battery management systems
	Storage technologies	Heat storage Gravitational storage Pressure storage Kinetic storage Valves Electronic control equipment Pumps Heat exchangers Tanks Receiver tubes Molten salts

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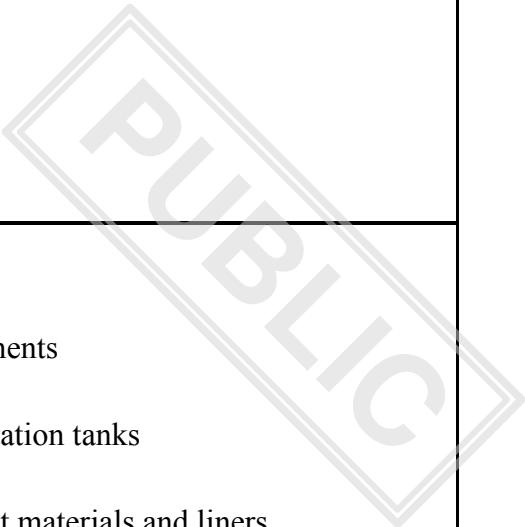
4. Heat pumps and geothermal energy technologies	Heat pumps	Heat pump Evaporator Condensor Compressor Powder coating Heat exchanger Valves Pumps Fans (Synthetic) Refrigerants
	Geothermal	Circulation pumps Heat extraction equipment Steam turbines Turbo expanders





5. Electrolysers and fuel cells	Electrolysers	Anodes Electrolysers Cathodes Catalysts Membranes Electrolytes Bipolar plates Compressors Water purification systems Dryers GDL (gas diffusion layers) MEA (membrane electrode assembly) Components related to balance of plant
	Fuel cells	Membrane Electrode Assembly Membrane Gas diffusion Anodes Cathodes Electrolytes Catalysts Bipolar plates

		Cell sealants
6. Sustainable biogas/biomethane technologies	Sustainable biogas/biomethane technologies	<p>Membranes</p> <p>Electronic components</p> <p>Digesters/Fermentation tanks</p> <p>Corrosion-resistant materials and liners</p>
7. CCS technologies	CCS technologies	<p>Point-source capture equipment</p> <p>Solid adsorbents</p> <p>Aqueous basic solutions</p> <p>Membranes</p> <p>Compression equipment</p> <p>Pipelines</p> <p>CO2 shipping equipment or vehicles</p> <p>Injection equipment</p>



8. (Electricity) grid technologies

(Electricity) Grid technologies

Conductors, cables, towers, poles, insulators
SCADA/Energy management systems
Transformers (power and measurement)
Automation equipment for substations
Switchgears
Capacity banks, bus bars
Battery management systems
Electronic boards
Power electronics components and equipment, including DC technology
Control and communications components (GPRS modules, programmable logic controllers (PLCs) and other specific control systems, sensors)

