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ANNEX 1

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supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives

ANNEX I

Technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives

1. AGRICULTURE AND FORESTRY

1.1. Growing of non-perennial crops

Description of the activity

Growing of plants that do not last for more than two growing seasons, including for the purpose of seed production.

The activity is classified under NACE code A1.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
1. Protection of non-agricultural land with high carbon stock from land use change (a) Non-perennial crops are not grown on land with high carbon stock, namely on land that had one of the following statuses on the reference date referred to in Articles 29 (3), (4) and (5) of Directive (EU) 2018/2001 of the European Parliament and of the Council[1] and no longer has that status: (i) wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year; (ii) continuously forested areas, namely land spanning more than one hectare with trees higher than five metres and a canopy cover of more than 30 %, or trees able to reach those thresholds *in situ*; (iii) land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10 % and 30 %, or trees able to reach those thresholds *in situ*; (iv) peatland, unless evidence is provided that the cultivation and harvesting of the crop does not involve drainage of previously undrained soil. (b) Where growing of non-perennial crops includes the management of permanent grassland, the permanent grassland is maintained.

[1] 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 (recast) (OJ L 328/82, 21.12.2018, p. 1).

2. Establishment of a Farm Sustainability Plan

A Farm Sustainability Plan sets out the agricultural holding's strategy to contribute significantly to climate change mitigation by both reducing greenhouse gases (GHG) emissions[2] and strengthening land carbon sinks (or, in case of saturation, maintaining land carbon stocks)[3].

The Farm Sustainability Plan:

(a) describes the holding's biophysical environment and cropping system including information on land use change referred to in point 1;

(b) measures the holding's climate baseline, i.e. its average performance in terms of GHG emissions and carbon sequestration in the five years prior to the start of the project;

(c) identifies the management practices with the highest potential to substantially contribute to climate change mitigation, and quantifies this potential contribution;

(d) identifies the management practices that ensure the compliance with the 'Do No Significant Harm' ('DNSH') criteria set out in (Section 1.1 of) this Annex, where applicable.

3. Compliance with essential management practices

To demonstrate that its activities contribute substantially to climate change mitigation and based on the information presented in the Farm Sustainability Plan, the agricultural holding consistently deploys all of the essential management practices listed in Appendix A to this Annex, except those that are clearly not applicable to that holding.

4. Farm records

The agricultural holding keeps a yearly record of its climate performance, including:

(a) information on the deployment of management practices;

(b) information on GHG emissions and removals that:

(i) is based on best available data;

[2] The scope of emissions considered includes: methane emissions, including from enteric fermentation and manure management (produced during the storage and treatment of manure, and from manure deposited on agricultural land) and rice cultivation (in accordance with Intergovernmental Panel on Climate Change ('IPCC') reporting framework); nitrous oxide (N2O) emissions, including from manure management (including storage and treatment of manure) as well as direct N2O emissions from managed soils (in accordance with IPCC reporting framework) or other agricultural sources; carbon dioxide (CO2) emissions from on-farm fuel and electricity use; GHG emissions from Nitrogen (N) fertiliser production, including those from fuel and electricity use in such processes.

[3] The scope of land carbon stocks and sinks includes the following carbon pools in the land use, land use change and forestry ('LULUCF') sector: above-ground biomass, below-ground biomass, soil organic carbon.

(ii) is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, including the good practices regarding the consistency between Agriculture, Forestry and Other Land Uses ('AFOLU') projects or activities and IPCC inventory guidelines[4].

5. Verification of the yearly records and the Farm Sustainability Plan

The information in the yearly records and the Farm Sustainability Plan is verified to be complete, correct and of high quality.

That verification is carried out by an independent third-party body at the request of the agricultural holding at the beginning of the investment period and every three years thereafter.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[5]. Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant authority for the activity, specifying conditions to avoid significant impact on water bodies.
(4) Transition to a circular economy	Non-natural waste materials generated in the course of growing of non-perennial crops, including used protected cultivation films, unused agrochemicals or fertilisers, packaging or net wraps are collected by certified waste management operator and recycled or disposed, if hazardous or otherwise not recyclable. Natural (organic) materials and

[4] See Box 2.0 A in Chapter 2 of Volume 4 of the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf

[5] As required by 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) for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with 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) and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	other suitable wastes (which may include pesticide washings) are used for agricultural benefit.
(5) Pollution prevention and control	The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients[6]. Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular: (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. Nitrogen applications are to be based on a balance between: (a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure; (iv) additions of nitrogen compounds from chemical and other fertilisers. Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha-1 per hectare or

[6] See Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71) and Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1) and Statutory Management Requirement 10 of Regulation (EU) No 1306/2013 of the European Parliament and of the Council of 17 December 2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/2008 (OJ L 347, 20.12.2013, p. 549).

	different amounts in accordance with the conditions set out in Annex II to Council Directive 91/676/EEC[7]. Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used[8].
(6) Protection and restoration of biodiversity and ecosystems	Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter[9]. Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats. Activities do not lead to the conversion, fragmentation or unsustainable intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value[10], including highly biodiverse grassland spanning more than one hectare that is one of the following: (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas): (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for which the protected area have been designated. (b) activities are carried out in accordance with the conclusions of an appropriate assessment[11], where applicable, and

7 Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

8 In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007 (OJ L 150, 14.6.2018, p. 1) except those plant protection products that are earmarked for substitution.

9 Consistent with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

10 Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

11 In accordance with 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) and Council Directive

	necessary mitigation measures[12] have been implemented accordingly[13]. The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014 of the European Parliament and of the Council[14]. Species on the list of invasive alien species of Union concern and alien species on Member States national lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.

APPENDIX A : GROWING OF NON-PERENNIAL CROPS: ESSENTIAL MANAGEMENT PRACTICES

Management category	**Growing of non-perennial crops: essential management practice**
Crop management	The holding puts in place on arable land an appropriate crop rotation system for up to five crops including at least one legume or a green manure , taking into account the agronomic crop succession requirements specific to each crops grown and climatic conditions, in order to break weed and disease cycles, build up soil fertility and soil organic matter, reduce external input uses (including pesticides, chemical fertilisers) and associated N2O emissions and to increase soil carbon sequestration. Cover and catch crops are sown using a locally appropriate species mixture. The living plant coverage of the agricultural holding is at least 75 % and bare soil is avoided. When rice is cultivated on the agricultural holding, measures are in place to minimise emissions of methane from rice cultivation, which may include shallow flooding, mid-season drying events, off-season straw.
Soil management	The Farm Sustainability Plan describes soil management and cropping practices deployed in non-perennial crop production in order to protect and improve soil health and organic matter content. Practices are chosen and applied with

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), or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

12 Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

13 Consistent with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

14 Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species (OJ L 317, 4.11.2014, p. 35). Concerning risks assessments see Article 5.

	appropriate care given to key, site-specific soil threats, including soil erosion from wind and water, loss of organic matter, salinisation, compaction, soil acidification, with the objective to prevent, minimise or mitigate the effect of the relevant soil degradation. The following practices are not used: (a) practices that disturb histosols and organic soils; (b) artificially lowering water tables on histosols and organic soils; (c) mechanical weeding with inversion tillage between rows; (d) burning of crop residues (except where an exemption has been granted for plant health reasons).[15] Good soil management practices are in place, including: (a) practices avoiding or minimizing compaction from the use of heavy machinery; (b) practices aimed at minimizing soil erosion, which may include selection of appropriate crop and crop rotation, increased surface coverage (cover crops, catch crops, mulching), strip cropping, contour planting, intercropping, riparian buffers, tillage (reduced tillage, no-tillage), terraces, grassed waterways, vegetated buffer strips, windbreaks; (c) practices aiming to increase soil organic matter, which may include managing crop residues, increase organic inputs (applying animal manure, using composts, mulches, cover crops, green manure, digestate from anaerobic digestion plants); (d) management practices protecting histosols or peatlands from nutrient leaching and decline in organic matter, which may include decreasing water losses, increasing water supply, enlarging water storage with hollows, active water management, paludiculture on wet/rewetted peatlands; (e) limiting tillage operations with preference to minimum or non-inversion tillage.
Nutrient management	The Farm Sustainability Plan describes practices performed in non-perennial crop production aiming at minimizing emissions and leaching of excess nutrients to surface and groundwater bodies and nutrient losses to air. Good nutrient management practices are in place to significantly reduce nutrient losses and the use of fertilisers, going beyond the requirements laid down in Directive 91/676/EEC (and the applicable Nitrate Action Plan) and Directive (EU) 2016/2284 of the European Parliament and of the Council[16] (and the applicable Programme of Action). Relevant practices in this category include:

[15] In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013.

[16] Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1).

	(a) implementing a crop nutrient management and fertilisation plan, established with the help of guidelines and software, aiming to improve nutrient use efficiency and minimise nutrient surpluses at holding/field level. That plan is based on: (i) systematic and periodic soil testing to determine, maintain and restore optimum pH range and appropriate nutrient levels in soil; (ii) budgeting on nutrients inputs/outputs at holding/field level by establishing the ratio of nutrients (N, P and K) contained in crop and livestock products exported from the farm/field to nutrient inputs to the farm/field, including as fertiliser and feed, taking into account field cropping and yield history, crop residues, soil nutrient level and nutrient providing capacity and planned yields; relevant farm records can be used to calculate all nutrient inputs and outputs. (b) application techniques reducing ammonia emissions when slurry, solid manure and chemical fertilisers are applied to agricultural soils, which may include injection of slurry below the soil surface; appropriate timing, spreading rate and care for buffer zones in case of land application; nitrification inhibitors; use of variable rate technology and precision farming techniques and technology combining application of chemical fertiliser with seeding; incorporating solid manure into arable soils as soon as possible after spreading; banded spreading of slurry on grasslands reducing overall surface spreading; store manure heap temporarily on field prior to spreading and away from watercourses, change the storage site from year to year; (c) in medium- and high-input farms[17], low-emission nutrient storage and application technologies, which may include cooling of liquid manure, covering manure stores, or slurry acidification, slurry injection, band spreading, incorporating manure in the soil as soon as possible on the day of application to field, fertiliser spreaders with low coefficient of variation, injection.
High-diversity landscape features	A minimum share of 10 % of the agricultural area is covered with high-diversity landscape features, including hedges, tree groups or single trees, or with non-productive landscape features, including flower strips, buffer strips, terrace walls, ponds, to protect against soil erosion and contribute to carbon sequestration.
Energy efficiency	The Farm Sustainability Plan describes how the holding has optimised its energy mix by applying the 'energy efficiency first' principle and how energy savings

[17] The definition of medium- and high-input farms is based on the classification applied by Eurostat (see https://ec.europa.eu/eurostat/cache/metadata/en/aei_ps_inp_esms.htm).

	strategies are implemented.

1.2. Growing of perennial crops

Description of the activity

Growing of plants that lasts for more than two growing seasons, either dying back after each season or growing continuously, including for the purpose of seed production.

The activity is classified under NACE code A1.2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Protection of non-agricultural land with high carbon stock from land use change

(a) Perennial crops are not grown on land with high carbon stock, namely on land that had one of the following statuses on the reference date referred to in Articles 29 (3), (4) and (5) of Directive (EU) 2018/2001 and no longer has that status:

(i) wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year;

(ii) continuously forested areas, namely land spanning more than one hectare with trees higher than five metres and a canopy cover of more than 30 %, or trees able to reach those thresholds *in situ*;

(iii) land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10 % and 30 %, or trees able to reach those thresholds *in situ*;

(iv) peatland, unless evidence is provided that the cultivation and harvesting of the crop does not involve drainage of previously undrained soil.

(b) Where growing of perennial crops includes the management of permanent grassland, the permanent grassland is maintained.

2. Establishment of a Farm Sustainability Plan

A Farm Sustainability Plan sets out the agricultural holding's strategy to contribute substantially to climate change mitigation by both reducing GHG emissions[18] and strengthening land carbon sinks (or, in case of saturation, maintaining land carbon stocks)[19].

[18] The scope of emissions considered includes: methane emissions, including from enteric fermentation and manure management (produced during the storage and treatment of manure, and from manure

The Farm Sustainability Plan:

(a) describes the holding's biophysical environment and cropping system including information on land use change referred to under point 1;

(b) measures the holding's climate baseline, i.e. its average performance in terms of GHG emissions and carbon sequestration in the five years prior to the start of the project;

(c) identifies the management practices with the highest potential to substantially contribute to climate change mitigation, and quantify this potential contribution;

(d) identifies the management practices that ensure the compliance with the relevant Do No Significant Harm ('DNSH') criteria set out in Section 1.2 of this Annex, where applicable.

3. Compliance with essential management practices

To demonstrate that its activities contribute substantially to climate change mitigation and based on the information presented in the Farm Sustainability Plan, the agricultural holding consistently deploys all of the essential management practices listed in Appendix A to this Annex, except those that are clearly not applicable to that holding.

4. Farm records

The agricultural holding keeps a yearly record of its climate performance, including:

(a) information on the deployment of management practices;

(b) information on GHG emissions and removals, that:

(i) is based on best available data;

(ii) is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, including the good practices regarding the consistency between AFOLU projects or activities and IPCC inventory guidelines[20].

5. *Verification of compliance with technical screening criteria*

The information in the yearly records and the Farm Sustainability Plan and is verified to be

deposited on agricultural land) and rice cultivation (in accordance with IPCC reporting framework); N2O emissions, including from manure management (including storage and treatment of manure) as well as direct N2O emissions from managed soils (in accordance with IPCC reporting framework) or other agricultural sources; CO2 emissions from on-farm fuel and electricity use; GHG emissions from N fertiliser production, including those from fuel and electricity use in such processes.

19 The scope of land carbon stocks and sinks includes the following carbon pools in the LULUCF sector: above-ground biomass, below-ground biomass, soil organic carbon.

20 See Box 2.0 A in Chapter 2 of Volume 4 of the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf

complete, correct and of high quality.

That verification is carried out by an independent third-party body at the request of the agricultural holding at the beginning of the investment period and every three years thereafter.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[21]. Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant authority for the activity, specifying conditions to avoid significant impact on water bodies.
(4) Transition to a circular economy	Non-natural waste materials generated in the course of growing of non-perennial crops, including used protected cultivation films, unused agrochemicals or fertilisers, packaging, net wraps, are collected by certified waste management operator and recycled or disposed, if hazardous or otherwise not recyclable. Natural (organic) materials and other suitable wastes, including pesticide washings are used for agricultural benefit.
(5) Pollution prevention and control	The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients[22].

[21] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[22] See Directive 2009/128/EC and Directive 91/676/EEC and Statutory Management Requirement 10 of Regulation (EU) No 1306/2013.

	Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular: (a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. Nitrogen applications are to be based on a balance between: (a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure; (iv) additions of nitrogen compounds from chemical and other fertilisers. Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha-1 per hectare or different amounts in accordance with the conditions set out in Annex II to Council Directive 91/676/EEC[23]. Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used[24].
(6) Protection and restoration of biodiversity and ecosystems	Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter[25]. Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats. Activities do not lead to the conversion, fragmentation or unsustainable

[23] Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

[24] In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

[25] Consistent with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

	intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value[26], including highly biodiverse grassland spanning more than one hectare that is one of the following: (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas): (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for which the protected area have been designated. (b) activities are carried out in accordance with the conclusions of an appropriate assessment[27], where applicable, and necessary mitigation measures[28] have been implemented accordingly[29]. The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014[30]. Species on the list of invasive alien species of Union concern and alien species on Member States national lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.

[26] Lands of high-biodiversity-value are specified in Article 29(3) of Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

[27] In accordance with Directive 2009/147/EC and Directive 92/43/EEC; or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[28] Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

[29] Consistent with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC..

[30] Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

APPENDIX B: GROWING OF PERENNIAL CROPS: ESSENTIAL MANAGEMENT PRACTICES

Management category	Growing of perennial crops: essential management practice
Soil management	The Farm Sustainability plan describes practices deployed in perennial crop production aiming to avoid soil compaction, water logging, soil erosion and loss of soil organic matter. The following practices are not used: (a) practices that disturb histosols and organic soils; (b) artificially lowering water tables on histosols and organic soils; (c) mechanical weeding with inversion tillage between rows; (d) burning of crop residues, except where an exemption has been granted for plant health reasons[31]. Good soil management practices are in place, including: (a) practices avoiding or minimizing compaction from the use of heavy machinery (b) weeding techniques to conserve moisture and reduce soil disturbance to minimum, which may include mowing of plant cover between the rows (c) establishing inter-row or between row soil coverage, which may include mulching, grass cover, growing of green manure crops, taking into account local climatic conditions, in order to improve soil moisture and fertility.
Nutrient management	The Farm Sustainability plan describes practices performed in perennial crop production aiming at minimizing emissions and leaching of excess nutrients to surface and groundwater bodies and nutrient losses to air. Good nutrient management practices are in place to significantly reduce nutrient losses and the use of fertilisers, going beyond the requirements laid down in Directive 91/676/EEC (and the applicable Nitrate Action Plan) and Directive (EU) 2016/2284 (and the applicable Programme of Action). Relevant practices in this category include: (a) implementing a crop fertilisation management plan, established with the help of guidelines and software, aiming to improve nutrient use efficiency and minimise nutrient surpluses at plantation/orchards level. The crop

[31] In accordance with GAEC 6 of Annex II to Regulation (EU) No 1306/2013.

	fertilisation management plan is based on: (i) systematic and periodic soil testing to determine, maintain and restore optimum pH range and appropriate nutrient levels in soil, in particular at times prior to establishing new plantation/orchards; (ii) regular assessment of the balance of nutrient supply through plant parts and leaves diagnostics; (b) fertilisation management aims at providing the necessary macro-nutrient and essential micronutrients efficiently throughout the growing seasons in accordance with the crop consumption, taking into consideration the species and varieties, expected yield and performed soil/leaf analysis as appropriate; (c) application of appropriate fertilisation techniques, which avoids leaching of nutrients, which may include irrigation by drip, micro sprinklers, or micro-jets, enabling fertilisation that delivers the nutrient directly to the rooting system; (d) maintaining grass cover or green cover/manure in row spacing in order to improve soil organic matter; (e) in medium- and high-input farms[32], low-emission nutrient storage and application technologies, which may include cooling of liquid manure, covering manure stores, or slurry acidification, slurry injection, band spreading, incorporating manure in the soil as soon as possible on the day of application to field , fertiliser spreaders with low coefficient of variation, injection.
High-diversity landscape features	A minimum share of 10 % of the agricultural area is covered with high-diversity landscape features, including hedges, tree groups or single trees, or with non-productive landscape features, including flower strips, buffer strips, terrace walls, ponds, to protect against soil erosion and contribute to carbon sequestration.
Energy efficiency	The Farm Sustainability Plan describes how the holding has optimised its energy mix by applying the 'energy efficiency first' principle and energy savings strategies implemented.

[32] The definition of medium- and high-input farms is based on the classification applied by Eurostat (see https://ec.europa.eu/eurostat/cache/metadata/en/aei_ps_inp_esms.htm).

1.3. Livestock production

Description of the activity

Raising (farming) and breeding of all animals, except aquatic animals. Livestock production excludes farm animal boarding and care and production of hides and skins from slaughterhouses.

The activity is classified under NACE code A1.4 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Protection of non-agricultural land with high carbon stock from land use change

(a) The livestock production is not undertaken on land with high carbon stock, namely on land that had one of the following statuses on the reference date referred to in Articles 29 (3), (4) and (5) of Directive (EU) 2018/2001 and no longer has that status:

(i) wetlands, namely land that is covered with or saturated by water permanently or for a significant part of the year;

(ii) continuously forested areas, namely land spanning more than one hectare with trees higher than five metres and a canopy cover of more than 30 %, or trees able to reach those thresholds *in situ*;

(iii) land spanning more than one hectare with trees higher than five metres and a canopy cover of between 10 % and 30 %, or trees able to reach those thresholds *in situ*;

(iv) peatland, unless evidence is provided that the cultivation and harvesting of the crop does not involve drainage of previously undrained soil.

(b) Where livestock production includes the management of permanent grassland, the permanent grassland is maintained.

2. Establishment of a Farm Sustainability Plan

A Farm Sustainability Plan sets out the agricultural holding's strategy to contribute substantially to climate change mitigation by both reducing GHG emissions[33] and strengthening land carbon sinks (or, in case of saturation, maintaining land carbon stocks)[34].

[33] The scope of emissions considered includes: methane emissions, including from enteric fermentation and manure management (produced during the storage and treatment of manure, and from manure deposited on agricultural land) and rice cultivation (in accordance with IPCC reporting framework);

The Farm Sustainability Plan:

(a) describes the holding's biophysical environment and growing system including information on land use change referred to under point 1;

(b) measures the holding's climate baseline, i.e. its average performance in terms of GHG emissions and carbon sequestration in the five years prior to the start of the project;

(c) identifies the management practices with the highest potential to contribute substantially to climate change mitigation and quantifies this potential contribution;

(d) identifies the management practices that ensure the compliance with the relevant Do No Significant Harm ('DNSH') criteria set out in Section 1.3 of this Annex, where applicable.

3. Compliance with essential management practices

To demonstrate that its activities contribute substantially to climate change mitigation and based on the information presented in the Farm Sustainability Plan, the agricultural holding consistently deploys all of the essential management practices listed in Appendix A to this Annex, except those that are clearly not applicable to that holding.

4. Farm records

The agricultural holding keeps a yearly record of its climate performance, including:

(a) information on the deployment of management practices;

(b) information on GHG emissions and removals, that:

(i) is based on best available data;

(ii) is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, including the good practices regarding the consistency between AFOLU projects or activities and IPCC inventory guidelines[35].

5. Verification of compliance with technical screening criteria

The information in the yearly records and the Farm Sustainability Plan is verified to be

N2O emissions, including from manure management (including storage and treatment of manure) as well as direct N2O emissions from managed soils (in accordance with IPCC reporting framework) or other agricultural sources; CO2 emissions from on-farm fuel and electricity use; GHG emissions from N fertiliser production, including those from fuel and electricity use in such processes.

34 The scope of land carbon stocks and sinks includes the following carbon pools in the LULUCF sector: above-ground biomass, below-ground biomass, soil organic carbon.

35 See Box 2.0 A in Chapter 2 of Volume 4 of the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf

complete, correct and of high quality. That verification is carried out by an independent third-party body at the request of the agricultural holding at the beginning of the investment period and every three years thereafter

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E of this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[36]. Where the activity involves water abstraction, a permit for water abstraction has been granted by the relevant competent authority for the activity, specifying conditions to avoid significant impact on water bodies.
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The application of nutrients (fertilisers) and plant protection products, including pesticides and herbicides, is targeted regarding time and area treated, is delivered at appropriate levels and with appropriate equipment and techniques to reduce risk and impacts of pesticide use on human health and the environment and of the loss of excess nutrients[37]. Particularly in zones affected by nitrogen pollution and waters which could be affected by pollution, nitrogen applications are consistent with good agricultural practice and take into account the characteristics of the vulnerable zone concerned, in particular:

[36] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[37] See Directive 2009/128/EC and Directive 91/676/EEC and Statutory Management Requirement 10 of Regulation (EU) No 1306/2013.

	(a) soil conditions, soil type and slope; (b) climatic conditions, rainfall and irrigation; (c) land use and agricultural practices, including crop rotation systems. Nitrogen applications are to be based on a balance between: (a) the expected nitrogen requirements of the crops; (b) the nitrogen supply to the crops from the soil and from fertilisation corresponding to: (i) the amount of nitrogen present in the soil at the moment the crop starts to use it to a significant degree (outstanding amounts at the end of winter); (ii) the supply of nitrogen through the net mineralisation of the reserves of organic nitrogen in the soil; (iii) additions of nitrogen compounds from livestock manure; (iv) additions of nitrogen compounds from chemical and other fertilisers. Measures are taken to ensure that, for each agricultural holding, the amount of livestock manure applied to the land each year, including by the animals themselves, does not exceed 170 kg N ha-1 per hectare or different amounts in accordance with the conditions set out in Annex II to Council Directive 91/676/EEC[38]. Only plant protection products with active substances that ensure high protection of human and animal health and the environment are used[39].
(6) Protection and restoration of biodiversity and ecosystems	Activities ensure the protection of soil, particularly over winter, to prevent erosion and run-off into water courses/bodies and to maintain soil organic matter[40]. Activities do not lead to the disturbance, capture or killing of legally protected species or the deterioration of legally protected habitats. Activities do not lead to the conversion, fragmentation or unsustainable

[38] Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

[39] In the Union, this means the use of plant protection products that are authorised under Article 24 of Regulation (EU) 2018/848 except those plant protection products that are earmarked for substitution.

[40] Consistent with Consistent with GAECs 4, 5 and 6 of Annex II to Regulation (EU) No 1306/2013.

	intensification of high-nature-value land, wetlands, forests, or other lands of high-biodiversity value[41], including highly biodiverse grassland spanning more than one hectare that is one of the following: (a) natural, namely grassland that would remain grassland in the absence of human intervention and that maintains the natural species composition and ecological characteristics and processes of that grassland; (b) non-natural, namely grassland that would cease to be grassland in the absence of human intervention and that is species-rich and not degraded and has been identified as being highly biodiverse by the relevant competent authority. For sites/operations located in or near to biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas ('KBAs'), as well as other protected areas): (a) activities do not lead to the deterioration of natural habitats and the habitats of species and to disturbance of the species for which the protected area have been designated; (b) activities are carried out in accordance with the conclusions of an appropriate assessment[42], where applicable, and necessary mitigation measures[43] have been implemented accordingly[44]. The cultivation of alien species complies with the applicable rules regarding the risk, monitoring and safeguards in accordance with Regulation (EU) No 1143/2014[45]. Species on the list of invasive alien species of Union concern and alien species on Member States national lists of species that are considered invasive or high risk are not cultivated. Alien species not included in the above-mentioned lists are cultivated only where there is negligible risk of invasion, following the relevant assessment process.

41 Lands of high-biodiversity-value are specified in Article 29(3) Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

42 In accordance with Directive 2009/147/EC and Directive 92/43/EEC; or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example International Finance Corporation (IFC) Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

43 Those measures have been identified to ensure that the project/plan/activity will not have any significant effects on the conservation objectives of the protected area.

44 Consistent with Statutory Management Requirements 2 and 3 of Regulation (EU) No 1306/2013 and in particular Article 6, paragraphs 1 and 2, of Directive 92/43/EEC and Article 3(1), Article 3(2), point (b), and Article 4, paragraphs 1, 2 and 4 of Directive 2009/147/EC.

45 Concerning risks assessments see, for instance, Article 5 of Regulation (EU) No 1143/2014.

APPENDIX C: LIVESTOCK PRODUCTION: ESSENTIAL MANAGEMENT PRACTICES

Management category	Livestock production: essential management practice
Animal Husbandry: **Herd management**	The Farm Sustainability Plans describes practices that can reduce the GHG emission footprint of the holding via more efficient herd management. Good herd management practices are used, including: (a) breed selection adapted to the local conditions and according to the farm type, which may include selection of locally adapted and traditional breeds and strains, more resource-efficient breeds with higher yields with lower GHG intensities; (b) animal health management practices in order to maintain animal health, reduce the need for veterinary treatments and minimise stock morbidity and mortality; (c) practices optimizing herd/flock profile management in order to mitigate methane emissions from enteric fermentation and optimise resource efficiency by increasing productivity, including optimizing culling age, increasing longevity of animals by improving animal health, optimizing fertility rate where high fertility rates contribute to lower GHG emissions.
Animal Husbandry: **Feeding**	The Farm Sustainability plan describes the practices that can reduce the nitrogen load and associated GHG emissions to the environment through feeding regimes and techniques. Good feeding practices are used, including: (a) practices that reduce GHG emission through dietary reduction of nitrogen excretion, which may include using high-sugar grasses or maize silage for ruminants, applying phase feeding, using low-protein feeds, such as low-dry-matter alfalfa silage, multiphase feeding with a diet formulation adapted to the specific requirements of the production period, reducing the crude protein content by using a N-balanced diet based on the energy needs and digestible amino acids; (b) dietary practices that reduce methane emissions from enteric fermentation of ruminants, which may include increasing forage digestibility and digestible forage intake; use of authorised feed additives, which reduces methane emissions from enteric fermentation; (c) sustainable procurement of feed - when purchasing feeds with large potential upstream impacts, including indirect land use change, for instance, soya and palm oil based feeds, selecting feeds that are sustainably sourced and certified by a recognised body as being from areas not recently converted from natural habitats.

Manure management	The Farm Sustainability plan describes the installations and practices performed in livestock production aiming at minimizing ammonia and methane emissions and leaching of nitrates from livestock manure handling, storage and spreading. Good manure management practices are used, including: (a) anaerobic digestion - treat slurries and manures in an on-farm anaerobic digestion system or at an adjacent anaerobic digestion plant to produce biogas that can be captured and used to generate heat and electricity or upgraded to biomethane, displacing fossil fuels; treatment of farm manure off-site in industrial installations; (b) treatment of slurries and manures in an on-farm facility, which may include separation of the on-farm generated slurries or the digestate from on-farm anaerobic digestion into solid and liquid fractions prior to storage and application to agricultural land and use of manure additives reducing the gaseous emissions; (c) appropriate slurry processing and storage systems for slurry or digestate, which may include appropriate slurry storage systems reducing emissions from surface by reducing the surface area/volume ratio, cooling of slurry, minimizing stirring of slurry, applying slurry acidification, adequate slurry storage capacity; (d) appropriate solid manure handling and storage to reduce emissions and run-offs, which may include minimizing the emitting surface area of manure heap, coverage of manure heap or manure store located away from watercourses, manure heap temporarily stored on field prior to spreading are located away from watercourses and the storage site varies from year to year, collection of any potential run-off and diverting into either an on-site liquid slurry system or back into the manure heap; (e) application techniques to reduce ammonia emissions when slurry and solid manure are applied to agricultural soils, which may include injection of slurry below the soil surface, incorporating solid manure into arable soils as soon as possible on the same day of application to field, banded spreading on grasslands reducing overall surface spreading; (f) nutrient management practices to reduce significantly nutrient losses and the use of fertilisers, going beyond the requirements laid down in Directive 91/676/EEC (and the applicable Nitrate Action Plan) and in Directive (EU) 2016/2284 (and the applicable Programme of Action). Relevant practices in this category are those that improve nutrient use efficiency and ensure balanced nitrogen fertilisation, such as by using fertilisation plans for the growing season (backed up with software

	support of publications for computing support), nitrification inhibitors, enhancing nutrient retention in soils, appropriate timing, spreading rate and care for buffer zones in case of land application and by using variable rate technology and precision farming.
Soil management	The Farm Sustainability plan describes practices that preserve grasslands and meadows (either grazed or mowed for hay/silage) jointly managed with livestock production, and avoid soil compaction, water logging, soil erosion and loss of soil organic matter. The following practices are not used: (a) practices that disturb histosols and organic soils; (b) artificially lowering water tables on histosols and organic soils. Good soil management practices are used, including: (a) practices that avoid or minimise compaction from the use of heavy machinery; (b) limiting tillage operations with preference to minimum or non-inversion tillage; (c) adjusting stocking density to soil conditions to avoid compaction on wet soils; (d) grassland management practices that make the best possible use of grass areas used for grazing by livestock farms by optimizing pasture growth rate and pasture quality as well as its utilisation by livestock, except in extensive grazing systems, while ensuring that average grass cover rates are achieved at critical times of the year, which may include optimum grazing times based on local circumstances and grass height monitoring, implementing rotational and strip grazing, pasture renovation to improve quality.
Energy use	The Farm Sustainability Plan describes how the holding has optimised its energy mix by applying the energy efficiency first principle and energy savings strategies,

1.4. Afforestation

Description of the activity

Establishment of forest through planting or deliberate seeding on land that, until then, was under a different land use or not used. Afforestation implies a transformation of land use from non-forest to forest, in accordance with the Food and Agriculture Organisation of the United Nations ('FAO') definition of afforestation[46], where forest means a land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[47].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Afforestation plan

1.1. The area on which the activity takes place is covered by a long-term (10 years or more) afforestation plan developed prior to the start of the activity, until this area matches the definition of forest used in the national greenhouse gas inventory or where not available, is in line with the FAO definition of forest.

The afforestation plan contains all elements required by the national law relating to environmental impact assessment of afforestation or, where such a national law does not exists, the plan includes detailed information on the following:

(a) description of the area according to its gazetting in the land registry;

(b) site preparation and its impacts on pre-existing carbon stocks, including soils and above-ground biomass, in order to protect land with high carbon stock;

(c) management goals, including major constraints;

(d) general strategies and activities planned to reach the management goals, including

[46] Establishment of forest through planting or deliberate seeding on land that, until then, was under a different land use, implies a transformation of land use form non-forest to forest *(FAO Global Resources Assessment 2020. Terms and definitions*. http://www.fao.org/3/I8661EN/i8661en.pdf).

[47] Land spanning more than 0,5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use, *FAO Global Resources Assessment 2020. Terms and definitions*. http://www.fao.org/3/I8661EN/i8661en.pdf

expected operations over the whole forest cycle;

(e) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;

(f) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;

(g) measures deployed to maintain the good condition of forest ecosystems;

(h) consideration of social issues (preservation of landscape, consultation of concerned stakeholders);

(i) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2. The activity follows the best afforestation practices laid down in national law, or, where no such best afforestation practices have been laid down in national law, the activity complies with one of the following criteria:

(a) the activity complies with Commission Delegated Regulation (EU) No 807/2014[48];

(b) the activity follows the "Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC"[49];

(c) the management systems associated with the activity in place complies with the forest sustainability criteria laid down in Article 29(6) of Directive (EU) 2018/2001 of the European Parliament and of the Council[50], and as of the date of its application with the implementing act establishing the operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive.

1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010 of the European Parliament and of the Council[51].

[48] Commission Delegated Regulation (EU) No 807/2014 of 11 March 2014 supplementing Regulation (EU) No 1305/2013 of the European Parliament and of the Council on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and introducing transitional provisions (OJ L 227, 31.7.2014, p. 1).

[49] Forest Europe Pan-European Guidelines for Afforestation and Reforestation with a special focus on the provisions of the UNFCCC adopted by the MCPFE Expert Level Meeting on 12-13 November, 2008 and by the PEBLDS Bureau on behalf of the PEBLDS Council on 4 November, 2008, https://www.foresteurope.org/docs/other_meetings/2008/Geneva/Guidelines_Aff_Ref_ADOPTED.pdf.

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

[51] Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market Text with EEA relevance (OJ L 295, 12.11.2010, p. 23).

1.4. All DNSH criteria relevant to afforestation are addressed in the afforestation plan.

1.5. The afforestation plan provides for monitoring that ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

1.6. At the beginning of the activity and every five years thereafter, the compliance of the activity with the afforestation plan is verified by the relevant national competent authorities, or by an independent third-party certifier, such as forest certification scheme, at the request of national authorities or of the operator of the activity.

The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

2. Climate benefit analysis

2.1. The climate benefits analysis establishes a baseline, corresponding to the balance of GHG emissions and removals over a period of 20 years starting at the beginning of the activity, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the afforestation activity, and provides an estimate of the long-term average GHG balance of those business-as-usual practices.

The business as-usual practices can be one of the following:

(a) the management practices as documented in the latest version of the forest management plan or equivalent instrument before the start of the activity, if any;

(b) the most recent business-as-usual practices prior to the start of the activity;

(c) the practices corresponding to a management system ensuring that carbon stocks and sinks levels in the forest area are maintained or strengthened over the long term as set out in Article 29(7), point (b), of Directive (EU) 2018/2001.

Information on the emissions and removals used for the baseline is transparent, accurate, consistent, complete and comparable.

2.2. The climate benefit analysis demonstrate both of the following:

(a) the net balance of GHG emissions and removals generated by the activity over a period of 20 years after the beginning of the activity is higher that the baseline referred to in point 2.1;

(b) the projected long-term average GHG balance of the activity is higher than the long-term average GHG balance projected for the baseline, referred to in point 2.1.

The climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories regarding the consistency between

AFOLU projects and activities and IPCC inventory guidelines[52].

The climate benefit analysis is based on the most conservative assumptions for calculations and includes appropriate considerations about the risks of non-permanence and reversals of carbon sequestration, the risk of saturation and the risk of leakage.

Where the plan referred to in point 1 includes wood harvesting and removal for wood-based products, the scope of the analysis includes a consideration of the GHG emissions and removals induced by the production resulting from the planned wood harvesting and removal for wood-based products, unless it is *de minimis* for the calculation of the climate benefit to exclude this consideration.

2.3. Emissions and removals that occur due to natural disturbances, such as pests and diseases infestations, forest fires, wind, storm damages, that impacts the area and cause underperformance do not result in non-compliance with the criteria of Regulation (EU) 2020/852, provided that the climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas on emissions and removals due to natural disturbances.

2.4. At the beginning of the period and every five years thereafter, the correctness of the climate benefits analysis, including with regard to the emissions and removals monitored on the area, is controlled by either of the following:

(a) the relevant national competent authorities;

(b) an independent third-party certifier, at the request of national authorities or the operator of the activity.

3. Additionality

3.1. The additionality of activity is demonstrated. The demonstration provides evidence ensuring that the activity is not compulsory or customary and that, without the activity being activity being accepted for financing as a sustainable investment, based on the recognition that activity complies with Regulation 2020/853, one of the following conditions would have been met:

(a) the activity would not have been implemented or its economic, environmental or social aspects would have been significantly altered;

(b) the activity would have not been possible due to knowledge or behavioural barriers;

[52] Box 2.0a "Consistency Between AFOLU Projects or Activities and IPCC Inventory Guidelines". In Chapter 2: Generic Methodologies Applicable to Multiple Land-Use Categories. In Volume 4: Agriculture, Forestry and Other Land Use. In 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf.

(c) the area would be converted and used for other activities, having negative impacts on climate mitigation.

3.2. The additionality of the activity is demonstrated by either of the following:

(a) a relevant national competent authority if any,

(b) an independent third-party certifier, at the request of national authorities, or the operator of the activity.

4. Guarantee of permanence

The area on which the activity takes place is covered by a legal protection as defined by the national law, ensuring its non-conversion to other land uses. The operator of the activity commits that future updates to the afforestation plan and the subsequent forest management plan or equivalent instrument will continue to deliver climate benefits, as determined in point 2.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to inpoint 1 of this Section and controlled by the relevant independent third party certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[53].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides,

[53] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	are favoured, in accordance with Directive 2009/128/EC of the European Parliament and of the Council[54], with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants[55], the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade[56], the Minamata Convention on Mercury[57], the Montreal Protocol on Substances that Deplete the Ozone Layer[58], and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard[59]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species;

54 Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71).

55 Stockholm Convention on persistent organic pollutants ((OJ L 209, 31.7.2006, p. 3.).

56 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (OJ L 63, 6.3.2003, p. 29)..

57 Minamata Convention on Mercury (OJ L 142, 2.6.2017, p. 6.)..

58 Montreal Protocol on Substances that Deplete the Ozone Layer (OJ L 297, 31.10.1988, p. 21).

59 The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

	(c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

1.5. Rehabilitation and restoration of forests

Description of the activity

The activity meets the definitions of rehabilitation and restoration of forests established by national law. Where national law do not contain such a definition, the activity meets a definition with broad agreement in the peer-reviewed scientific literature for specific countries.

The activity implies no change of land use and occurs on degraded land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[60].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Forest management plan or equivalent instrument

1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan or equivalent instrument, as referred to in the FAO definition of 'forest area with long-term forest management plan'[61].

The forest management plan or the equivalent instrument covers a period of 10 years or more, is continuously updated and describes a forest management system by providing detailed information on the following:

(a) management goals, including major constraints[62];

(b) general strategies and activities planned to reach the management goals, including

[60] Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[61] Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.
FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[62] Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

expected operations over the whole forest cycle;

(c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;

(d) definition of the area according to its gazetting in the land registry;

(e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;

(f) measures deployed to maintain the good condition of forest ecosystems;

(g) consideration of social issues (preservation of landscape, consultation of stakeholders);

(h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches:

(a) the forest management matches the applicable national definition of sustainable forest management,

(b) the management systems in place complies with the forest sustainability criteria laid down in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive,

1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan or equivalent instrument.

1.5. The forest management plan or equivalent instrument provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

1.6. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.

The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

2. Climate benefit analysis

2.1. The climate benefits analysis establishes a baseline, corresponding to the balance of GHG emissions and removals over a period of 20 years starting at the beginning of the activity, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the afforestation activity, and provides an estimate of the long-term average GHG balance of those business-as-usual practices.

The business as-usual practices can be one of the following:

(a) the management practices as documented in the latest version of the forest management plan or equivalent instrument before the start of the activity, if any;

(b) the most recent business-as-usual practices prior to the start of the activity;

(c) the practices corresponding to a management system ensuring that carbon stocks and sinks levels in the forest area are maintained or strengthened over the long term as set out in Article 29(7), point (b), of Directive (EU) 2018/2001.

Information on the emissions and removals used for the baseline is transparent, accurate, consistent, complete and comparable.

2.2. The climate benefit analysis demonstrate both of the following:

(a) the net balance of GHG emissions and removals generated by the activity over a period of 20 years after the beginning of the activity is higher that the baseline referred to in point 2.1;

(b) the projected long-term average GHG balance of the activity is higher than the long-term average GHG balance projected for the baseline, referred to in point 2.1.

The climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories regarding the consistency between AFOLU projects and activities and IPCC inventory guidelines[63].

The climate benefit analysis is based on the most conservative assumptions for calculations and includes appropriate considerations about the risks of non-permanence and reversals of carbon sequestration, the risk saturation and the risk of leakage.

Where the plan referred to in point 1 includes wood harvesting and removal for wood-based products, the scope of the analysis includes a consideration of the GHG emissions and removals induced by the production resulting from the planned wood harvesting and removal for wood-based products, unless it is *de minimis* for the calculation of the climate benefit to

[63] Box 2.0a "Consistency Between AFOLU Projects or Activities and IPCC Inventory Guidelines". In Chapter 2: Generic Methodologies Applicable to Multiple Land-Use Categories. In Volume 4: Agriculture, Forestry and Other Land Use. In 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf.

exclude this consideration.

2.3. Emissions and removals that occur due to natural disturbances, such as pests and diseases infestations, forest fires, wind, storm damages, that impacts the area and cause underperformance do not result in non-compliance with the criteria of Regulation (EU) 2020/852, provided that the climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas on emissions and removals due to natural disturbances.

2.4. At the beginning of the period and every five years thereafter, the correctness of the climate benefits analysis, including with regard to the emissions and removals monitored on the area, is controlled by either of the following:

(a) the relevant national competent authorities;

(b) an independent third-party certifier, at the request of national authorities or the operator of the activity.

3. Additionality

3.1. The additionality of activity is demonstrated. The demonstration provides evidence ensuring that the activity is not compulsory or customary and that, without the activity being accepted for financing as a sustainable investment, based on the recognition that activity complies with Regulation 2020/853, one of the following conditions would have been met:

(a) the activity would not have been implemented or its economic, environmental or social aspects would have been significantly altered;

(b) the activity would have not been possible due to knowledge or behavioural barriers;

(c) the area would be converted and used for other activities, having negative impacts on climate mitigation.

3.2. The additionality of the activity is demonstrated by either of the following:

(a) a relevant national competent authority if any,

(b) an independent third-party certifier, at the request of national authorities, or the operator of the activity.

4. Guarantee of permanence

The area on which the activity takes place is covered by a legal protection as defined by the national law, ensuring its non-conversion to other land uses. The operator of the activity commits that future updates to the afforestation plan and the subsequent forest management plan or equivalent instrument will continue to deliver climate benefits, as determined in

point 2.

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to in point 1 of this Section and controlled by the relevant independent third-party certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[64].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia (‘extremely

[64] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or

	enhancing of mature stage stands and dead wood.

1.6. Reforestation

Description of the activity

The activity meets the definition of reforestation established by national law. Where national law does not contain such a definition, the activity meets the FAO definition of reforestation[65] or the FAO definition of naturally regenerating forest [66]. The activity implies no change of land use and occurs on degraded land matching the definition of forest used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[67]. For the purposes of Regulation 2020/853, the category 'reforestation' applies in cases following extreme events (such as wind throws, fires), and not as part of normal, legally binding obligation to reforest after harvesting.

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Forest management plan or equivalent instrument

1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan or equivalent instrument, as referred to in the FAO definition of 'forest area with long-term forest management plan'[68].

The forest management plan or the equivalent instrument covers a period of ten years or

65 Re-establishment of forest through planting and/or deliberate seeding on land classified as forest. FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

66 FAO definition of "naturally regenerating forests". Forest predominantly composed of trees established through natural regeneration.

67 Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use. FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

68 Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised. FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

more, is continuously updated and describes a forest management system by providing the following detailed information:

(a) management goals, including major constraints[69];

(b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle;

(c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;

(d) definition of the area according to its gazetting in the land registry;

(e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;

(f) measures deployed to maintain the good condition of forest ecosystems;

(g) consideration of social issues (preservation of landscape, consultation of stakeholders);

(h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches:

(a) the forest management matches the applicable national definition of sustainable forest management,

(b) the management systems in place show compliance with the forest sustainability criteria set out in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive

1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.

1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan.

1.5. The forest management plan or equivalent instrument provides for monitoring that ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

[69] Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

1.6. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.

The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

2. Climate benefit analysis

2.1. The climate benefits analysis establishes a baseline, corresponding to the balance of GHG emissions and removals over a period of 20 years starting at the beginning of the activity, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the afforestation activity, and provides an estimate of the long-term average GHG balance of those business-as-usual practices.

The business as-usual practices can be one of the following:

(a) the management practices as documented in the latest version of the forest management plan or equivalent instrument before the start of the activity, if any;

(b) the most recent business-as-usual practices prior to the start of the activity;

(c) the practices corresponding to a management system ensuring that carbon stocks and sinks levels in the forest area are maintained or strengthened over the long term as set out in Article 29(7), point (b), of Directive (EU) 2018/2001.

Information on the emissions and removals used for the baseline is transparent, accurate, consistent, complete and comparable.

2.2. The climate benefit analysis demonstrate both of the following:

(a) the net balance of GHG emissions and removals generated by the activity over a period of 20 years after the beginning of the activity is higher that the baseline referred to in point 2.1;

(b) the projected long-term average GHG balance of the activity is higher than the long-term average GHG balance projected for the baseline, referred to in point 2.1.

The climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories regarding the consistency between AFOLU projects and activities and IPCC inventory guidelines[70].

[70] Box 2.0a "Consistency Between AFOLU Projects or Activities and IPCC Inventory Guidelines". In Chapter 2: Generic Methodologies Applicable to Multiple Land-Use Categories. In Volume 4: Agriculture, Forestry and Other Land Use. In 2019 Refinement to the 2006 IPCC Guidelines for

The climate benefit analysis is based on the most conservative assumptions for calculations and includes appropriate considerations about the risks of non-permanence and reversals of carbon sequestration, the risk saturation and the risk of leakage.

Where the plan referred to in point 1 includes wood harvesting and removal for wood-based products, the scope of the analysis includes a consideration of the GHG emissions and removals induced by the production resulting from the planned wood harvesting and removal for wood-based products, unless it is *de minimis* for the calculation of the climate benefit to exclude this consideration.

2.3. Emissions and removals that occur due to natural disturbances, such as pests and diseases infestations, forest fires, wind, storm damages, that impacts the area and cause underperformance do not result in non-compliance with the criteria of Regulation (EU) 2020/852, provided that the climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas on emissions and removals due to natural disturbances.

2.4. At the beginning of the period and every five years thereafter, the correctness of the climate benefits analysis, including with regard to the emissions and removals monitored on the area, is controlled by either of the following:

(a) the relevant national competent authorities;

(b) an independent third-party certifier, at the request of national authorities or the operator of the activity.

3. Additionality

3.1. The additionality of activity is demonstrated. The demonstration provides evidence ensuring that the activity is not compulsory or customary and that, without the activity being accepted for financing as a sustainable investment, based on the recognition that activity complies with Regulation 2020/853, one of the following conditions would have been met:

(a) the activity would not have been implemented or its economic, environmental or social aspects would have been significantly altered;

(b) the activity would have not been possible due to knowledge or behavioural barriers;

(c) the area would be converted and used for other activities, having negative impacts on climate mitigation.

3.2. The additionality of the activity is demonstrated by either of the following:

National Greenhouse Gas Inventories, https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf.

(a) a relevant national competent authority if any,

(b) an independent third-party certifier, at the request of national authorities, or the operator of the activity.

4. Guarantee of permanence

The area on which the activity takes place is covered by a legal protection as defined by the national law, ensuring its non-conversion to other land uses. The operator of the activity commits that future updates to the afforestation plan and the subsequent forest management plan or equivalent instrument will continue to deliver climate benefits, as determined in point 2.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to inpoint 1 of this Section and controlled by the relevant independent third-party certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[71].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of

[71] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard[72]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem condition (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity;

[72] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

	(e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

1.7. Improved forest management

Description of the activity

The activity meets the definition of improved forest management set out in national law. Where national law does not contain such a definition, the activity refers to management interventions in forests done for the purpose of climate change mitigation, demonstrated through a climate benefit analysis. The activity assumes no change in land use and occurs on land matching the definition of forest used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[73].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Forest management plan or equivalent instrument

1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national law does not define a forest management plan or equivalent instrument, as referred to in the FAO definition of 'forest area with long-term forest management plan'[74].

[73] Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[74] Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised.

The forest management plan or equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following detailed information:

(a) management goals, including major constraints[75];

(b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle;

(c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution;

(d) definition of the area according to its gazetting in the land registry;

(e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;

(f) measures deployed to maintain the good condition of forest ecosystems;

(g) consideration of social issues (preservation of landscape, consultation of stakeholders);

(h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured through one of the following approaches:

(c) the forest management matches the applicable national definition of sustainable forest management,

(d) the management systems in place show compliance with the forest sustainability criteria set out in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive.

1.3. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.

1.4. All DNSH criteria relevant to forest management are addressed in the forest management plan.

1.5. The forest management plan or equivalent instrument provides for monitoring which

FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf.

[75] Including an analysis of (i) long term sustainability of the wood resource (ii) impacts/pressures on habitat conservation, diversity of associated habitats and condition of harvesting minimizing soil impacts.

ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

1.6. At the beginning of the period and every 5 years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.

The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

2. Climate benefit analysis

2.1. The climate benefits analysis establishes a baseline, corresponding to the balance of GHG emissions and removals over a period of 20 years starting at the beginning of the activity, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the afforestation activity, and provides an estimate of the long-term average GHG balance of those business-as-usual practices.

The business as-usual practices can be one of the following:

(a) the management practices as documented in the latest version of the forest management plan or equivalent instrument before the start of the activity, if any;

(b) the most recent business-as-usual practices prior to the start of the activity;

(c) the practices corresponding to a management system ensuring that carbon stocks and sinks levels in the forest area are maintained or strengthened over the long term as set out in Article 29(7), point (b), of Directive (EU) 2018/2001.

Information on the emissions and removals used for the baseline is transparent, accurate, consistent, complete and comparable.

2.2. The climate benefit analysis demonstrate both of the following:

(a) the net balance of GHG emissions and removals generated by the activity over a period of 20 years after the beginning of the activity is higher that the baseline referred to in point 2.1;

(b) the projected long-term average GHG balance of the activity is higher than the long-

term average GHG balance projected for the baseline, referred to in point 2.1.

The climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories regarding the consistency between AFOLU projects and activities and IPCC inventory guidelines[76].

The climate benefit analysis is based on the most conservative assumptions for calculations and includes appropriate considerations about the risks of non-permanence and reversals of carbon sequestration, the risk saturation and the risk of leakage.

Where the plan referred to in point 1 includes wood harvesting and removal for wood-based products, the scope of the analysis includes a consideration of the GHG emissions and removals induced by the production resulting from the planned wood harvesting and removal for wood-based products, unless it is *de minimis* for the calculation of the climate benefit to exclude this consideration.

2.3. Emissions and removals that occur due to natural disturbances, such as pests and diseases infestations, forest fires, wind, storm damages, that impacts the area and cause underperformance do not result in non-compliance with the criteria of Regulation (EU) 2020/852, provided that the climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas on emissions and removals due to natural disturbances.

2.4. At the beginning of the period and every five years thereafter, the correctness of the climate benefits analysis, including with regard to the emissions and removals monitored on the area, is controlled by either of the following:

(a) the relevant national competent authorities;

(b) an independent third-party certifier, at the request of national authorities or the operator of the activity.

3. Additionality

3.1. The additionality of activity is demonstrated. The demonstration provides evidence ensuring that the activity is not compulsory or customary and that, without the activity being accepted for financing as a sustainable investment, based on the recognition that activity complies with Regulation 2020/853, one of the following conditions would have been met:

(a) the activity would not have been implemented or its economic, environmental or social

[76] Box 2.0a "Consistency Between AFOLU Projects or Activities and IPCC Inventory Guidelines". In Chapter 2: Generic Methodologies Applicable to Multiple Land-Use Categories. In Volume 4: Agriculture, Forestry and Other Land Use. In 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf.

aspects would have been significantly altered;

(b) the activity would have not been possible due to knowledge or behavioural barriers;

(c) the area would be converted and used for other activities, having negative impacts on climate mitigation.

3.2. The additionality of the activity is demonstrated by either of the following:

(a) a relevant national competent authority if any,

(b) an independent third-party certifier, at the request of national authorities, or the operator of the activity.

4. Guarantee of permanence

The area on which the activity takes place is covered by a legal protection as defined by the national law, ensuring its non-conversion to other land uses. The operator of the activity commits that future updates to the afforestation plan and the subsequent forest management plan or equivalent instrument will continue to deliver climate benefits, as determined in point 2.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to point 1 of this Section and controlled by the relevant independent third-party certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[77].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products

[77] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards for activities addressing environmental degradation risks related to preserving water quality and avoiding water stress in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	from the forest.
(5) Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard[78]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to

[78] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

	favourable and appropriate ecosystem condition (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (d) ensuring the maintenance of soil structure and fertility and soil biodiversity; (e) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (g) ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

1.8. Conservation forestry

Description of the activity

The activity covers forest management activities with the objective of preserving one or more habitats or species.. The activity assumes no change in land category and occurs on land matching the forest definition used in the national greenhouse gas inventory, or where not available, is in accordance with the FAO definition of forest[79].

The activity is classified under NACE code A2 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006. Activities are limited to NACE II 02.10, i.e. silviculture and other forestry activities, and 02.30, i.e. gathering of wild growing non-wood products.

Technical screening criteria

Substantial contribution to climate change mitigation

[79] Land spanning more than 0,5 hectares with trees higher than five meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

1. Forest management plan or equivalent instrument

1.1. The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national law or, where national regulation dos not define a forest management plan, as referred to in the FAO definition of "'orest area with long-term forest management plan'[80].

In particular, the forest management plan or the equivalent instrument covers a period of ten years or more, is continuously updated and describes a forest management system by providing the following detailed information:

(a) management goals, including major constraints;

(b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle;

(c) definition of the forest habitat context, main forest tree species and those intended and their extent and distribution; in accordance to the local forest ecosystem context;

(d) definition of the area according to its gazetting in the land registry;

(e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions;

(f) measures deployed to maintain the good condition of forest ecosystems;

(g) consideration of social issues (preservation of landscape, consultation of stakeholders);

(h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection against residual risks.

1.2. The forest management plan or the equivalent instrument:

(a) shows a primary designated management objective[81] that consists in protection of soil and water[82], conservation of biodiversity[83] or social services[84] based on the FAO definitions;

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80 Forest area that has a long-term (ten years or more) documented management plan, aiming at defined management goals, and which is periodically revised, FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf

81 The primary designated management objective assigned to a management unit (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf).

82 Forest where the management objective is protection of soil and water. (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf).

(b) follows biodiversity-friendly practices such as closer-to-nature-forestry;

(c) includes an analysis of:

(i) impacts and pressures on habitat conservation and diversity of associated habitats;
(ii) condition of harvesting minimizing soil impacts;
(iii) other activities that have an impact on conservation objectives, such as hunting and fishing, agricultural, pastoral and forestry activities, industrial, mining, and commercial activities.

1.3. The sustainability of the forest management systems as documented in the plan referred to in point 1.1 is ensured through one of the following approaches:

(a) the forest management matches the national definition of sustainable forest management, if any;

(b) the management systems in place show compliance with the forest sustainability criteria as defined in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive.

1.4. The management systems associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010.

1.5. All DNSH relevant to conservation forestry criteria are addressed in the forest management plan or equivalent instrument.

1.6. The forest management plan or equivalent instrument provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

1.7. At the beginning of the period and every five years thereafter, the compliance of forest management with the forest management plan or equivalent instrument, is controlled by either the relevant national competent authorities or by an independent third-party certifier such as a forest certification scheme, at the request of national authorities or the operator of the activity.

The independent third-party certifier is not directly linked to the owner or the funder, and not involved in the development or operation of the activity.

2. Climate benefit analysis

[83] Forest where the management objective is conservation of biological diversity. Includes but is not limited to areas designated for biodiversity conservation within the protected areas. (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf).

[84] Forest where the management objective is social services. (FAO Global Resources Assessment 2020. Terms and definitions. http://www.fao.org/3/I8661EN/i8661en.pdf)

2.1. The climate benefits analysis establishes a baseline, corresponding to the balance of GHG emissions and removals over a period of 20 years starting at the beginning of the activity, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the afforestation activity, and provides an estimate of the long-term average GHG balance of those business-as-usual practices.

The business as-usual practices can be one of the following:

(a) the management practices as documented in the latest version of the forest management plan or equivalent instrument before the start of the activity, if any;

(b) the most recent business-as-usual practices prior to the start of the activity;

(c) the practices corresponding to a management system ensuring that carbon stocks and sinks levels in the forest area are maintained or strengthened over the long term as set out in Article 29(7), point (b), of Directive (EU) 2018/2001.

Information on the emissions and removals used for the baseline is transparent, accurate, consistent, complete and comparable.

2.2. The climate benefit analysis demonstrate both of the following:

(a) the net balance of GHG emissions and removals generated by the activity over a period of 20 years after the beginning of the activity is higher that the baseline referred to in point 2.1;

(b) the projected long-term average GHG balance of the activity is higher than the long-term average GHG balance projected for the baseline, referred to in point 2.1.

The climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories regarding the consistency between AFOLU projects and activities and IPCC inventory guidelines[85].

The climate benefit analysis is based on the most conservative assumptions for calculations and includes appropriate considerations about the risks of non-permanence and reversals of carbon sequestration, the risk saturation and the risk of leakage.

Where the plan referred to in point 1 includes logging events, the scope of the analysis includes a consideration of the GHG emissions and removals induced by the production resulting from the planned wood harvesting and removal for wood-based products, unless it is *de minimis* for the calculation of the climate benefit to exclude this consideration.

[85] Box 2.0a "Consistency Between AFOLU Projects or Activities and IPCC Inventory Guidelines". In Chapter 2: Generic Methodologies Applicable to Multiple Land-Use Categories. In Volume 4: Agriculture, Forestry and Other Land Use. In 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf.

2.3. Emissions and removals that occur due to natural disturbances, such as pests and diseases infestations, forest fires, wind, storm damages, that impacts the area and cause underperformance do not result in non-compliance with the criteria of Regulation (EU) 2020/852, provided that the climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas on emissions and removals due to natural disturbances.

2.4. At the beginning of the period and every five years thereafter, the correctness of the climate benefits analysis, including with regard to the emissions and removals monitored on the area, is controlled by either of the following:

(a) the relevant national competent authorities;

(b) an independent third-party certifier, at the request of national authorities or the operator of the activity.

3. Additionality

3.1. The additionality of activity is demonstrated. The demonstration provides evidence ensuring that the activity is not compulsory or customary and that, without the activity being accepted for financing as a sustainable investment, based on the recognition that activity complies with Regulation 2020/853 and thus eligible for financing as an environmentally sustainable investment, one of the following conditions would have been met:

(a) the activity would not have been implemented or its economic, environmental or social aspects would have been significantly altered;

(b) the activity would have not been possible due to knowledge or behavioural barriers;

(c) the area would be converted and used for other activities, having negative impacts on climate mitigation.

3.2. The additionality of the activity is demonstrated by either of the following:

(a) a relevant national competent authority if any,

(b) an independent third-party certifier, at the request of national authorities, or the operator of the activity.

4. Guarantee of permanence

The area on which the activity takes place is covered by a legal protection as defined by the national law, ensuring its non-conversion to other land uses. The operator of the activity commits that future updates to the afforestation plan and the subsequent forest management plan or equivalent instrument will continue to deliver climate benefits, as determined in point 2.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed in the plan referred to inpoint 1 of this Section and controlled by the relevant independent third-party certifier, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[86].
(4) Transition to a circular economy	The silvicultural change induced by the activity is not likely to result in a significant reduction in the long-term circularity of wood products from the forest.
(5) Pollution prevention and control	The activity does not use pesticides or fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade , the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia (‘extremely hazardous’) or Ib (‘highly hazardous’) in the WHO Recommended Classification of Pesticides by Hazard[87]. The activity complies with the relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in

86 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

87 The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1.

biodiversity and ecosystems	accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (d) the use of the forest reproductive material leads to favourable and appropriate ecosystem conditions (such as climate, soil criteria, and vegetation zone, forest fire resilience); (e) the native species currently present on the site are not anymore adapted to projected climatic and pedo-hydrological conditions; (f) ensuring the maintenance of soil structure and fertility and soil biodiversity; (g) promoting close-to-nature forestry or similar concepts adapted to the local conditions; (h) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; (i) ensuring the diversity of associated habitats and species linked to the forest; (j) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood.

2. ENVIRONMENTAL PROTECTION AND RESTORATION ACTIVITIES

2.1. Restoration of wetlands

Description of the activity

Restoration of wetlands, with wetlands meaning land matching the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)[88] international definition of wetland[89]. The concerned area matches the Union definition of wetlands, as provided in the Commission Communication on the wise use and conservation of wetlands[90].

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006, but relates to class 6 of the statistical classification of environmental protection activities (CEPA) established by Regulation (EU) No 691/2011 of the European Parliament and of the Council[91].

Technical screening criteria

Substantial contribution to climate change mitigation

1. Restoration plan

1.1. The area is covered by a restoration plan, which is consistent with the Ramsar Convention's principles and guidelines on wetland restoration[92], until the area is classified as a wetland and is covered by a wetland management plan, consistent with the Ramsar Convention's guidelines for management planning for Ramsar sites and other wetlands[93]. For peatlands, the restoration plan follows the recommendations contained in relevant resolutions of the Ramsar Convention, including the resolution XIII/13.

1.2. The restoration plan contains careful consideration of local hydrological and pedological conditions, including the dynamics of soil saturation and the change of aerobic and anaerobic

88 The Convention on Wetlands of International Importance especially as Waterfowl Habitat, https://www.ramsar.org/sites/default/files/documents/library/current_convention_text_e.pdf.

89 *Wetlands include a wide variety of inland habitats such as marshes, wet grasslands and peatlands, floodplains, rivers and lakes, and coastal areas such as saltmarshes, mangroves, intertidal mudflats and seagrass beds, and coral reefs and other marine areas no deeper than six meters at low tide, as well as human-made wetlands such as dams, reservoirs, rice paddies and waste water treatment ponds and lagoons*. An Introduction to the Ramsar Convention on Wetlands, 7th ed. (previously The Ramsar Convention Manual). Ramsar Convention Secretariat, Gland, Switzerland.

90 Communication from the Commission to the Council and the European Parliament of 29 May 1995 on wise use and conservation of wetlands, COM(95) 189 final.

91 Regulation (EU) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts (OJ L 192, 22.7.2011, p. 1).

92 Ramsar Convention (2002) Principles and guidelines for wetland restoration. Adopted by Resolution VIII.16 (2002) of the Ramsar Convention (https://www.ramsar.org/sites/default/files/documents/pdf/guide/guide-restoration.pdf).

93 Ramsar Convention (2002) Resolution VIII.14 New Guidelines for management planning for Ramsar sites and other wetlands (https://www.ramsar.org/sites/default/files/documents/pdf/res/key_res_viii_14_e.pdf).

conditions.

1.3. All wetland management relevant DNSH criteria are addressed in the restoration plan.

1.4. The restoration plan provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.

1.5. At the beginning of the period and every five years thereafter, the compliance of restoration with the restoration plan, is verified by the relevant national competent authorities, if any, or, either at the request of those competent authorities or the owner, is audited by an independent third-party certifier. The independent third-party certifier is not directly linked to the owner or the funder and not involved in the development of the activity.

2. Climate benefit analysis

2.1. The climate benefits analysis establishes a baseline, corresponding to the balance of GHG emissions and removals over a period of 20 years, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the restoration activity, and provides an estimate of the long-term average GHG balance of those business-as-usual practices.

The business-as-usual practices can be one of the following:

(a) management practices as documented prior to the start of the activity, if any;

(b) the most recent business-as-usual practices prior to the start of the activity.

Information on the emissions and removals used for the baseline is transparent, accurate, consistent, complete and comparable.

2.2. The climate benefit analysis demonstrate both of the following:

(a) the net balance of GHG emissions and removals generated by the activity over a period of 20 years from the beginning of the activity is higher that the baseline referred to in point 2.1;

(b) the projected long-term average GHG balance of the activity is higher than the long-term average GHG balance projected for the baseline, referred to in point 2.1.

The climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories regarding the consistency between AFOLU projects or activities and IPCC inventory guidelines[94]. In particular, if the wetland definition used in that analysis differs from the wetland definition used in the national GHG inventory, the analysis includes an identification of the different land categories covered by

[94] Box 2.0a "Consistency Between AFOLU Projects or Activities and IPCC Inventory Guidelines". In Chapter 2: Generic Methodologies Applicable to Multiple Land-Use Categories. In Volume 4: Agriculture, Forestry and Other Land Use. In 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf.

the involved area.

The climate benefit analysis is based on the most conservative assumptions for calculations and includes appropriate considerations about the risk of non-permanence and reversals of carbon sequestration, the risk of saturation and the risk of leakage.

For coastal wetlands, climate benefit analysis considers projections of expected relative sea level rise and the potential that the wetlands will migrate.

2.3. Emissions and carbon removals that occur due to natural disturbances, such as pests and diseases infestations, fires, wind, storm damages, which impacts the area and cause underperformance do not result in non-compliance with the criteria of Regulation (EU) 2020/852, provided the climate benefit analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas on emissions and removals due to natural disturbances and, as long as the plan includes adaptation measures to limit risks related to climate change.

2.4. At the beginning of the period and every five years thereafter, the climate benefits analysis is verified by either of the following:

a) relevant national competent authorities if any;

b) an independent third-party certifier at the request of national authorities or of the operator of the activity.

3. Additionality

3.1. The additionality of the activity is demonstrated. The demonstration provides evidence ensuring that the activity is not compulsory or customary and that, without the activity being accepted for financing as a sustainable investment, based on the recognition that the activity complies with Regulation (EU) 2020/852, one of the following conditions would have been met:

(a) the activity would not have been implemented or its economic, environmental and/or social aspects would have been significantly altered;
(b) the activity would not have been possible due to knowledge or behavioural barriers;
(c) the area would be converted and used for other activities, having negative impacts on climate mitigation.

3.2. The additionality is demonstrated by either of the following:

(a) relevant national competent authorities if any;
(b) an independent third-party certifier at the request of national authorities or of the operator of the activity.

4. Permanence

The area on which the activity takes place is covered by a legal protection as defined by the national legislation, ensuring its non-conversion to other land uses. The operator of the activity commits that future updates of the wetland restoration plan or the wetland

management plan guarantee the permanence of the climate benefit provided by the activity, as determined in point 2.

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[95].
(4) Transition to a circular economy	Peat extraction is minimised.
(5) Pollution prevention and control	The use of pesticides is minimised and alternative approaches or techniques, which may include non-chemical alternatives to pesticides are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and diseases. The activity does not use fertilisers. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia (‘extremely hazardous’) or

[95] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	Ib ('highly hazardous') in the WHO recommended Classification of Pesticides by Hazard[96]. The activity complies with relevant national implementing law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs.
(6) Protection and restoration of biodiversity and ecosystems	In areas designated by the national competent authority for conservation or in habitats that are protected, the activity is in accordance with the conservation objectives for those areas. There is no conversion of habitats specifically sensitive to biodiversity loss or with high conservation value, or of areas set aside for the restoration of such habitats in accordance with national law. The plan referred to in point 1 (Restoration plan) of this Section includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive species.

[96] The WHO Recommended Classification of Pesticides by Hazard (version 2019), https://apps.who.int/iris/bitstream/handle/10665/332193/9789240005662-eng.pdf?ua=1

3. MANUFACTURING

3.1. Manufacture of renewable energy technologies

Description of the activity

Manufacture of renewable energy technologies.

The activity is classified under NACE codes C.25, C.27, C.28 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation	
The economic activity manufactures renewable energy technologies.	
Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[97].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured;

[97] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	(b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[98] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU of the European Parliament and of the Council[99]. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[100]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[101], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[102] are implemented.

3.2. Manufacture of equipment for the production of hydrogen

Description of the activity

Manufacture of equipment for the production of hydrogen.

98 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

99 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).

100 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

101 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

102 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity is classified under NACE codes C.25, C.27, C.28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The economic activity manufactures hydrogen electrolysis technologies.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[103].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.

[103] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[104] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[105]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[106], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[107] are implemented.

3.3. Manufacture of low carbon technologies for transport

Description of the activity

Manufacture of low carbon transport vehicles, fleets and vessels and key components.

The activity is classified under NACE codes C.27.1.1, C.27.9.0, C.29.1.0, C.29.2.0, C.30.1.1, C.30.1.2 C.30.2.0, C.30.9.1, C.30.9.2, C.30.9.9 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

[104] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[105] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[106] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[107] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation

The economic activity manufactures:

(a) trains, passenger coaches and wagons that have zero direct (tailpipe) CO_2 emissions;

(b) trains, passenger coaches and wagons that have zero direct tailpipe CO_2 emission when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode);

(c) urban, suburban and road passenger transport devices, where the direct (tailpipe) CO_2 emissions of the vehicles are zero;

(d) personal mobility devices with a propulsion that comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity;

(e) vehicles of category M_1 and N_1[108] with:

(i) until 31 December 2025: specific emissions of CO_2, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631 of the European Parliament and of the Council[109], lower than 50gCO_2/km (low- and zero-emission light-duty vehicles);

(ii) from 1 January 2026: specific emissions of CO_2, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are zero;

(f) vehicles of category L[110] with tailpipe CO_2 emissions equal to 0g CO_{2e}/km calculated in accordance with the emission test laid down in Regulation (EU) 168/2013 of the European Parliament and of the Council[111];

(g) vehicles not dedicated to transporting fossil fuels with a technically permissible

108 As defined in Article 4(1), points (a) and (b) of Regulation (EU)2018/858 of the European Parliament and of the Council of 30 May 2018 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (OJ L 151, 14.06.2018, p. 1).

109 Regulation (EU) 2019/631 of the European Parliament and of the Council of 17 April 2019 setting CO2 emission performance standards for new passenger cars and for new light commercial vehicles, and repealing Regulations (EC) No 443/2009 and (EU) No 510/2011 (OJ L 111, 25.4.2019, p. 13).

110 As defined in Article 4 of Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles (OJ L 60, 2.3.2013, p. 52).

111 Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles (OJ L 60, 2.3.2013, p. 52).

maximum laden mass not exceeding 7,5 tonnes that are 'zero-emission heavy-duty vehicles' as defined in Article 3, point (11), of Regulation (EU) 2019/1242[112];

(h) vehicles not dedicated to transporting fossil fuels with a technically permissible maximum laden mass exceeding 7,5 tonnes that are zero-emission heavy-duty vehicles', as defined in Article 3, point (11), of Regulation (EU) 2019/1242 or 'low-emission heavy-duty vehicles' as defined in Article 3, point (12) of that Regulation;

(i) inland passenger water transport vessels that:

(i) have zero direct (tailpipe) CO_2 emissions;

(ii) until 31 December 2025, are hybrid vessels using at least 50% of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation;

(j) inland freight water transport vessels, not dedicated to transporting fossil fuels, that:

(i) have zero direct (tailpipe) CO_2 emission;

(ii) until 31 December 2025, have direct (tailpipe) emissions of CO_2 per tonne kilometre (gCO_2/tkm), calculated (or estimated in case of new vessels) using the Energy Efficiency Operational Indicator[113], 50 % lower than the average reference value for emissions of CO_2 defined for heavy duty vehicles (vehicle subgroup 5- LH) in accordance with Article 11 of Regulation (EU) 2019/1242;

(k) sea and coastal freight water transport vessels not dedicated to transporting fossil fuels, that:

(i) have zero direct (tailpipe) CO_2 emissions;

(ii) until 31 December 2025, are hybrid vessels that use at least 50% of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation;

(iii) until 31 December 2025, and only where it can be proved that the vessels are used exclusively for provision of coastal services designed to enable modal shift of freight currently transported by land to sea, the vessels that

[112] Regulation (EU) 2019/1242 of the European Parliament and of the Council of 20 June 2019 setting CO2 emission performance standards for new heavy-duty vehicles and amending Regulations (EC) No 595/2009 and (EU) 2018/956 of the European Parliament and of the Council and Council Directive 96/53/EC (OJ L 198, 25.7.2019, p. 202).

[113] The Energy Efficiency Operational Indicator is defined as the ratio of mass of CO_2 emitted per unit of transport work. It should be a representative value of the energy efficiency of the ship operation over a consistent period which represents the overall trading pattern of the vessel. Guidance on how to calculate this indicator is provided in the document MEPC.1/Circ. 684 from IMO.

have direct (tailpipe) CO_2 emissions, calculated using the International Maritime Organization (IMO) Energy Efficiency Design Index (EEDI)[114], 50 % lower than the average reference CO_2 emissions value defined for heavy duty vehicles (vehicle subgroup 5-LH) in accordance with Article 11 of Regulation (EU) 2019/1242;

(iv) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 January 2022[115];

(l) sea and coastal passenger water transport vessels, not dedicated to transporting fossil fuels, that:

(i) have zero direct (tailpipe) CO_2 emissions;

(ii) until 31 December 2025, hybrid vessels use at least 50% of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation;

(iii) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 January 2022.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[116].
(4) Transition to a	The activity assesses availability of and, where feasible, adopts

[114] Energy Efficiency Design Index, http://www.imo.org/fr/MediaCentre/HotTopics/GHG/Pages/EEDI.aspx.

[115] As agreed by the Marine Environment Protection Committee of the International Maritime Organization on its seventy-fourth session.

[116] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

circular economy	techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[117] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[118]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[119], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[120] are implemented.

3.4. Manufacture of energy efficiency equipment for buildings

Description of the activity

Manufacture of energy efficiency equipment for buildings.

[117] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[118] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[119] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[120] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity is classified under NACE codes C16.23, C17.11, C22.23, C23.11, C23.20, C23.31, C23.32, C23.43, C25.11, C25.12, C25.21, C25.29, C25.93, C27.31, C27.32, C27.33, C27.40, C27.51, C28.11, C28.12, C28.13, C28.14, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The economic activity manufactures one or more of the following products and their key components:

(a) windows with U-value lower or equal to 0.7 W/m^2K;

(b) doors with U-value lower or equal to 1.2 W/m^2K;

(c) external cladding with U-value lower or equal to 0.5 W/m^2K;

(d) roofing systems with U-value lower or equal to 0.3 W/m^2K;

(e) household appliances falling into the top two energy efficiency classes in accordance with Regulation (EU) 2017/1369 of the European Parliament and of the Council[121];

(f) lighting appliances rated in the top two energy labelling class in accordance with Regulation (EU) 2017/1369;

(g) space heating and domestic hot water systems rated in the top energy labelling class in accordance with Regulation (EU) 2017/1369;

(h) cooling and ventilation systems rated in the top two energy labelling class in accordance with Regulation (EU) 2017/1369;

(i) presence and daylight controls for lighting systems;

(j) heat pumps compliant with the technical screening criteria set out in Section 4.16 of this Annex;

(k) façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation;

(l) energy-efficient building automation and control systems for commercial buildings;

(m) zoned thermostats and devices for the smart monitoring of the main electricity loads for residential buildings, and sensoring equipment;

(n) products for heat metering and thermostatic controls for individual homes connected to district heating systems and individual flats connected to central heating systems serving a whole building.

[121] 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).

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[122].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[123] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[124]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are

[122] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[123] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[124] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[125], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[126] are implemented.

3.5. Manufacture of other low carbon technologies

Description of the activity

Manufacture of low carbon technologies that result in substantial GHG emission reductions in other sectors of the economy.

The activity is classified under NACE codes from C10 to C33, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The economic activity manufactures low carbon technologies (and their key components) that demonstrate substantial life-cycle GHG emission savings compared to the best performing alternative technology/product/solution available on the market.

Life-cycle GHG emission savings are calculated using Commission Recommendation 2013/179/EU[127] or, alternatively, ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emission savings are verified by an independent third party.

Do no significant harm (‘DNSH’)

[125] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[126] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[127] Commission Recommendation 2013/179/EU of 9 April 2013 on the use of common methods to measure and communicate the life cycle environmental performance of products and organisations (OJ L 124, 4.5.2013, p. 1).

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[128].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[129] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[130]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

[128] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[129] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to Article 4(2) of that Directive).

[130] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[131], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[132] are implemented.

3.6. Manufacture of cement

Description of the activity

Manufacture of cement clinker, cement or alternative blinder.

The activity is classified under NACE code C23.51 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity manufactures one of the following: (a) grey cement clinker where the specific GHG emissions[133] are lower than [xxx[134]] tCO_2e per tonne of grey cement clinker; (b) cement or alternative hydraulic binder, from grey clinker, where the specific GHG emissions[135] from the clinker and cement or alternative binder production are lower than [xxx[136]] tCO_2e per tonne of cement or alternative binder manufactured; Where CO_2 emitted from the manufacturing process is captured, the CO_2 is transported and

131 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

132 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

133 Calculated in accordance with Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council (OJ L 59, 27.2.2019, p. 8).

134 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU Emissions Trading System (EU ETS) industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).]

135 Calculated in accordance with Regulation (EU) 2019/331.

136 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC multiplied by the clinker to cement ratio (0.65).]

stored underground, in accordance with the technical screening criteria set out in Sections 5.11 and 5.12 of this Annex.

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[137].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for the production of cement, lime and magnesium oxide[138]. No significant cross-media effects occur[139]. For manufacture of cement employing hazardous wastes as alternative fuels, measures are in place to ensure the safe handling of waste.

[137] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[138] Commission Implementing Decision 2013/163/EU of 26 March 2013 establishing the best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for the production of cement, lime and magnesium oxide (OJ L 100, 9.4.2013, p. 1).

[139] See Best Available Techniques Reference Document (BREF) on Economics and Cross-Media Effects, https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/ecm_bref_0706.pdf.

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[140] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[141]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[142], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[143] are implemented.

3.7. Manufacture of aluminium

Description of the activity

Manufacture of aluminium through primary alumina (bauxite) process or secondary aluminium recycling.

The activity is classified under NACE code C24.42 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

[140] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[141] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[142] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[143] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity manufactures one of the following:

(a) primary aluminium where the sum of direct GHG emissions and indirect GHG emissions[144] is lower than [xxx[145]] tCO_2 per tonne of aluminium manufactured[146];

(b) secondary aluminium.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[147].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for the non-ferrous metals industries[148]. No significant cross-media effects occur.

144 Indirect greenhouse gas emissions are the life-cycle greenhouse gas emissions produced from the generation of the electricity used for the manufacturing of primary aluminium.

145 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC plus the substantial contribution to climate change mitigation criterion for electricity generation (100gCO2/kWh) multiplied by the average energy efficiency of aluminium manufacturing (15.5 MWh/t Al)]

146 The aluminium manufactured is the unwrought non-alloy liquid aluminium produced from electrolysis.

147 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

148 Commission Implementing Decision (EU) 2016/1032 of 13 June 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the non-ferrous metals industries (OJ L 174, 30.6.2016, p. 32).

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[149] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[150]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[151], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[152] are implemented.

3.8. Manufacture of iron and steel

Description of the activity

Manufacture of iron and steel.

The activity is classified under NACE codes C24.10, C24.20, C24.31, C24.32, C24.33, C24.34, C24.51 and C24.52 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

149 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

150 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

151 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

152 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity manufactures one of the following:

(a) iron and steel with GHG emissions[153] lower than the following values applied to the different manufacturing process steps:

(i) hot metal = [xxx[154]] tCO_2e/t product;

(ii) sintered ore = [xxx[155]] tCO_2e/t product;

(iii) coke (excluding lignite coke) = [xxx[156]] tCO_2e/t product;

(iv) iron casting = [xxx[157]] tCO_2e/t product;

(v) electric Arc Furnace (EAF) high alloy steel = [xxx[158]] tCO_2e/t product;

(vi) electric Arc Furnace (EAF) carbon steel = [xxx[159]] tCO_2e/t product.

(b) steel in electric arc furnaces (EAFs) and at least 90 % of the iron content in the final products is sourced from scrap steel.

Where the CO_2 emitted from the manufacturing process is captured, the CO_2 is transported and stored underground, in accordance with the technical screening criteria set out in Sections 5.11 and 5.12 of this Annex.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

153 Calculated in accordance with Regulation (EU) 2019/331.

154 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

155 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

156 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

157 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

158 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

159 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[160].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for iron and steel production[161]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[162] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[163]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[164], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[165] are implemented.

160 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

161 Commission Implementing Decision 2012/135/EU of 28 February 2012 establishing the best available techniques (BAT) conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for iron and steel production (OJ L 70, 8.3.2012, p. 63).

162 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

163 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

164 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

165 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

3.9. Manufacture of hydrogen

Description of the activity

Manufacture of hydrogen.

The activity is classified under NACE code C20.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity complies with the life cycle GHG emissions savings requirement of 80 % relative to a fossil fuel comparator of 94g CO_2e/MJ [resulting in 2.256 tCO_2eq/tH2] in analogy to the approach set out in Article 25(2) of and Annex V to Directive (EU) 2018/2001 of the European Parliament and of the Council[166]. Life cycle GHG emissions savings are calculated using the methodology referred to in Article 28(5) of Directive (EU) 2018/2001 or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emission savings are verified in line with Article 30 of Directive (EU) 2018/2001 where applicable, or by an independent third party. Where the CO_2 emitted from the manufacturing process is captured, the CO_2 is transported and stored underground, in accordance with the technical screening criteria set out in Section 5.11 and 5.12 of this Annex.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[167].

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

167 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[168] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[169]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[170], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[171] are implemented.

3.10. Manufacture of carbon black

Description of the activity

Manufacture of carbon black.

The activity is classified under NACE code C20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

168 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of Directive 2011/92/EU).

169 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

170 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

171 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation
GHG emissions[172] from the carbon black production processes are lower than [xxx[173]] tCO_2e per tonne of product.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[174].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the Best Available Techniques Reference Document (BREF) for the Large Volume Inorganic Chemicals- Solids and Others industry[175]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in

172 Calculated in accordance with Regulation (EU) 2019/331.

173 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

174 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

175 Best Available Techniques (BAT) Reference Document for the Large Volumes Inorganic Chemicals-Solids and Others industry, https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/lvic-s_bref_0907.pdf

	the chemical sector[176]; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[177] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[178]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[179], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[180] are implemented.

3.11. Manufacture of disodium carbonate

Description of the activity

Manufacture of disodium carbonate (soda ash).

The activity is classified under NACE code C20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

176 Commission Implementing Decision (EU) 2016/902 of 30 May 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for common waste water and waste gas treatment/management systems in the chemical sector (OJ L 152, 9.6.2016, p. 23).

177 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

178 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

179 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

180 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation
GHG emissions[181] from the disodium carbonate (soda ash) production processes are lower than [xxx[182]] tCO_2e per tonne of product.
Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[183].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the Best Available Techniques Reference Document (BREF) for the Large Volume Inorganic Chemicals- Solids and Others industry; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common

181 Calculated in accordance with Regulation (EU) 2019/331.

182 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

183 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[184] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[185]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[186], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[187] are implemented.

3.12. Manufacture of chlorine

Description of the activity

Manufacture of chlorine.

The activity is classified under NACE code C20.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

184 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of Directive 2011/92/EU).

185 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

186 In accordance with Directives 2009/147/EC and 92/43/EEC; or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

187 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Electricity consumption for electrolysis and chlorine treatment is equal or lower than 2.45 MWh per tonne of chlorine.

Average life-cycle GHG emissions of the electricity used for chlorine production is at or lower than 100 g CO_2e/kWh.

Life-cycle GHG emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[188].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the best available techniques (BAT) conclusions for the production of chlor-alkali[189]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector].

[188] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[189] Commission Implementing Decision 2013/732/EU of 9 December 2013 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions, for the production of chlor-alkali (OJ L 332, 11.12.2013, p. 34).

	No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[190] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[191]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[192], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[193] are implemented.

3.13. Manufacture of organic basic chemicals

Description of the activity

Manufacture of:

(a) high volume chemicals (HVC):
  (i) acetylene;
  (ii) ethylene;
  (iii) propylene;
  (iv) butadiene.

(b) Aromatics:
  (i) mixed alkylbenzenes, mixed alkylnaphthalenes other than HS 2707 or 2902;
  (ii) cyclohexane;
  (iii) benzene;
  (iv) toluene;

190 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

191 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

192 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

193 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(v) o-Xylene;

(vi) p-Xylene;

(vii) m-Xylene and mixed xylene isomers;

(viii) ethylbenzene;

(ix) cumene;

(x) biphenyl, terphenyls, vinyltoluenes, other cyclic hydrocarbons excluding cyclanes, cyclenes, cycloterpenes, benzene, toluene, xylenes, styrene, ethylbenzene, cumene,naphthalene, anthracene;

(xi) benzol (benzene), toluol (toluene) and xylol (xylenes)

(xii) naphthalene and other aromatic hydrocarbon mixtures (excluding benzole, toluole, xylole).

(c) vinyl chloride;

(d) styrene;

(e) ethylene oxide;

(f) monoethylene glycol;

(g) adipic acid.

The activity is classified under NACE code C20.14 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

GHG emissions[194] from the organic basic chemicals production processes are lower than:

(a) for HVC: [xxx[195]] tCO_2e/t of HVC;

(b) for aromatics: [xxx[196]] tCO_2e/t of aromatic;

(c) for vinyl chloride: [xxx[197]] tCO_2e/t of vinyl chloride;

194 Calculated in accordance with Regulation (EU) 2019/331.

195 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

196 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

197 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

(d) for styrene: [xxx[198]] tCO_2e/t of styrene;

(e) for ethylene oxide/ethylene glycols: [xxx[199]] tCO_2e/t of ethylene oxide/glycol;

(f) for adipic acid: [xxx[200]] tCO_2e /t of adipic acid.

Where the organic chemicals in scope are produced wholly or partially from renewable feedstock, the life-cycle GHG emissions of the manufactured chemical, manufactured wholly or partially from renewable feedstock, are lower than the life-cycle GHG emissions of the equivalent chemical manufactured from fossil fuel feedstock.

Life-cycle GHG emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

Food or feed crops are not used as bio-based feedstock for the manufacture of organic basic chemicals.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[201].
(4) Transition to a circular economy	N/A

198 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

199 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

200 [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

201 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the best available techniques (BAT) conclusions for the production of large volumes organic chemicals[202]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[203] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[204]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[205], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[206] are implemented.

3.14. Manufacture of anhydrous ammonia

Description of the activity

Manufacture of anhydrous ammonia.

202 Commission Implementing Decision (EU) 2017/2117 of 21 November 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the production of large volume organic chemicals (OJ L 323, 7.12.2017, p. 1).

203 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

204 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

205 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

206 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity is classified under NACE code C20.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
GHG emissions[207] from the manufacture of ammonia are lower than [xxx[208]] tCO_2e per tonne of ammonia.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[209].
(4) Transition to a circular economy	N/A
(5) Pollution	Emissions are within or lower than the emission levels associated with

[207] Calculated in accordance with Regulation (EU) 2019/331.

[208] [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

[209] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

prevention and control	the best available techniques (BAT-AEL) ranges set out in: (a) the Best Available Techniques Reference Document (BREF) for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers[210]; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[211] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[212]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[213], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[214] are implemented.

210 Best Available Techniques (BAT) Reference Document for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/lvic_aaf.pdf

211 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred in Article 4(2) of that Directive).

212 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

213 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

214 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

3.15. Manufacture of nitric acid

Description of the activity

Manufacture of nitric acid.

The activity is classified under NACE code C20.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
GHG emissions[215] from the manufacture of nitric acid are lower than [xxx[216]] tCO_2e per tonne of nitric acid.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[217].
(4) Transition to a circular economy	N/A

[215] Calculated in accordance with the Regulation (EU) 2019/331.

[216] [The average value of the top 10% of installations based on the data collected in the context of establishing the EU ETS industrial benchmarks for the period of 2021-2026 and calculated in accordance with the methodology for setting the benchmarks set out in Directive 2003/87/EC.]

[217] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in: (a) the Best Available Techniques Reference Document (BREF) for the manufacture of Large Volume Inorganic Chemicals - Ammonia, Acids and Fertilisers; (b) the best available techniques (BAT) conclusions for common waste water and waste gas treatment/management systems in the chemical sector; (c) [the best available techniques (BAT) conclusions for common waste gas management and treatment systems in the chemical sector.] No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[218] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[219]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[220], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[221] are implemented.

[218] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[219] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[220] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[221] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

3.16. Manufacture of plastics in primary form

Description of the activity

Manufacture resins, plastics materials and non-vulcanisable thermoplastic elastomers, the mixing and blending of resins on a custom basis, as well as the manufacture of non-customised synthetic resins.

The activity is classified under NACE code C20.16 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The plastic in primary form is one of the following:

(a) fully manufactured by mechanical recycling of plastic waste;

(b) fully manufactured by chemical recycling of plastic waste and the life-cycle GHG emissions of the manufactured plastic, excluding any calculated benefit from the production of fuels, are lower than the life-cycle GHG emissions of the equivalent primary plastic manufactured from fossil fuel feedstock.

Life-cycle GHG emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

(c) derived wholly or partially from renewable feedstock[222] and its life-cycle GHG emissions are lower than the life-cycle GHG emissions of the equivalent plastics in primary form manufactured from fossil fuel feedstock.

Life-cycle GHG emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

Food or feed crops are not used as bio-based feedstock for the manufacture of plastic in primary form.

Do no significant harm (‘DNSH’)

[222] Renewable feedstock refers to biomass, industrial bio-waste or municipal bio-waste.

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[223].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the Best Available Techniques Reference Document (BREF) for the Production of Polymers[224]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[225] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[226]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[227], where applicable, has

223 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

224 Best Available Techniques (BAT) Reference Document for the Production of Polymers https://eippcb.jrc.ec.europa.eu/sites/default/files/2019-11/pol_bref_0807.pdf.

225 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

226 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

227 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC

	been conducted and based on its conclusions the necessary mitigation measures[228] are implemented.

[228] Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.
Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4. ENERGY

4.1. Electricity generation using solar photovoltaic technology

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using solar photovoltaic (PV) technology.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation	
The activity generates electricity using solar PV technology.	
Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[229] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[230]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[231], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[232] are implemented.

4.2. Electricity generation using concentrated solar power (CSP) technology

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using concentrated solar power (CSP) technology.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity generates electricity using CSP technology.

[229] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[230] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[231] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[232] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[233].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[234] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[235]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

233 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

234 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

235 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[236], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[237] are implemented.

4.3. Electricity generation from wind power

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from wind power.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity generates electricity from wind power.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use	In case of construction of offshore wind, the activity complies with the

[236] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[237] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

and protection of water and marine resources	requirements of Directive 2008/56/EC of the European Parliament and of the Council[238] in relation to its Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive, and Commission Decision (EU) 2017/848[239] in relation to the relevant criteria and methodological standards for that descriptor.
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[240] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[241]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[242], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[243] are implemented.[244]

238 Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) (OJ L 164, 25.6.2008, p. 19).

239 Commission Decision (EU) 2017/848 of 17 May 2017 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU (OJ L 125, 18.5.2017, p. 43).

240 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive 2011/92/EU).

241 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

242 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

243 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

	In case of offshore wind, the activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity) and 6 (seabed integrity), laid down in Annex I to that Directive, and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for those descriptors.

4.4. Electricity generation from ocean energy technologies

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from ocean energy.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity generates electricity from ocean energy.
Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	The activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive, and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for that descriptor.
(4) Transition to a	The activity assesses availability of and, where feasible, uses equipment

[244] Practical guidance for the implementation of this criterion is contained in the European Commission document: "Wind energy developments and Natura 2000", https://ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms.pdf [being updated – add new reference if available on time for DA adoption].

circular economy	and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012 of the European Parliament and of the Council[245], which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[246] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[247]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[248], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[249] are implemented. The activity complies with the requirements of Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), laid down in Annex I to that Directive, and Commission Decision (EU)2017/848 in relation to the relevant criteria and methodological standards for those descriptors.

245 Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products (OJ L 167, 27.6.2012, p. 1).

246 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

247 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

248 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

249 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4.5. Electricity generation from hydropower

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from hydropower, including mixed pumped hydropower storage.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity complies with either of the following criteria: (a) the life-cycle GHG emissions from the generation of electricity from hydropower, including mixed pumped hydropower storage connected to a free-flowing water source are lower than 100gCO_2e/kWh. The life-cycle GHG emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018, ISO 14064-1:2018 or the G-res tool[250]. Quantified life-cycle GHG emissions are verified by an independent third party. (b) the power density of the electricity generation facility is above 5 W/m^2.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	1. Operation of existing hydropower plants, including refurbishment activities to enhance renewable energy or energy storage potential. All technically feasible and ecologically relevant mitigation measures have been implemented to reduce adverse impacts on water as well as on protected habitats and species directly dependent on water. The effectiveness of those measures is monitored in the context of the authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body. The operation of the hydropower plant fully complies with that

[250] https://www.hydropower.org/gres.

	authorisation or permit issued by the competent authority, and sets out all relevant mitigation measures necessary to: (a) ensure conditions as close as possible to undisturbed continuity in the specific water body the plant relates to, including state-of-the-art and fully functional fish passes and turbines preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant; (b) reduce the impact of hydropeaking; (c) protect or enhance habitats for aquatic species; (d) reduce adverse impacts of eutrophication. 2. Construction of new hydropower plants The plants are conceived, by design and location and by mitigation measures, so that they comply with one of the following: (a) the plants do not entail any deterioration nor compromise the achievement of good status or potential of the specific water body they relate to, as demonstrated by a cumulative impact assessment referred to in this Section; (b) the plants do neither significantly deteriorate nor compromise the achievement of good status/potential of the specific water body they relate to and are justified by overriding reasons in the public interest. The plants are conceived, by design and location and by mitigation measures, so that they do not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district. A cumulative impact assessment has been performed that identifies and addresses any significant regional or basin-level environmental impacts. The assessment: (a) addresses all potential impacts on water bodies, as well as on protected habitats and species directly dependent on water, considering in particular: (i) migration corridors, free-flowing rivers or ecosystems close to undisturbed conditions; (ii) all impacts of existing and of already authorised and planned infrastructure developments in the basin, for

example as part of a hydropower cascade or of other activities (for example agriculture, transport etc.);

(b) is based on recent, comprehensive and accurate data, including monitoring data on biological quality elements that are specifically sensitive to hydrological alterations, and on the expected status of the water body as a result of the new activities, as compared to its current one.

The cumulative impact assessment demonstrates that the project does not permanently exclude the achievement of the objectives of good status/potential in other water bodies or connected ecosystems within the same river basin district.

Where the cumulative impact assessment demonstrates that the envisaged project neither deteriorates nor compromises the achievement of good status/potential of the specific water body, as a result of site-specific conditions or the use of state-of-the-art technology, the operation of the new hydropower plant fully complies with its authorisation or permit setting out the conditions aimed at achieving good status or potential of the affected water body. The plant respects appropriate environmental standards in terms of flow management and flood regime (magnitude, frequency, duration, timing and rate of change) and of mitigation measures, including controlled releases, state of the art and fully functional fish passages, state of the art turbines preventing fish kill, controlled temperature, appropriate ecological flow, sediment flow, timing of operation of turbines.

Where the cumulative impact assessment demonstrates that the envisaged project could deteriorate or compromise the achievement of good status/potential of the specific water body it relates to, a further in-depth cost-benefit assessment is performed. That in-depth cost-benefit assessment demonstrates that such deterioration will not be significant and will comply with all of the following criteria:

(a) the beneficial objectives served by the planned hydropower plant in terms of renewable energy generation and energy storage cannot, for reasons of technical feasibility or disproportionate cost, be achieved by alternative means that would lead to a better environmental outcome (alternative location, rehabilitation/refurbishment of existing hydro-power plants or infrastructures, use of technologies not disrupting river continuity, where relevant, consideration of other potential sources of electricity, which may offer in the particular case a better environmental alternative; the beneficial objectives served by the planned hydropower

plant are justified by overriding reasons in the public interest;

(b) the benefits expected from the planned hydropower plant outweigh the costs from deteriorating the status of water that are accruing to the environment and to society. The in-depth cost-benefits analysis considers the following aspects:

(i) the marginal quantity of energy generated and its contribution to increasing the share of renewable energy in the energy mix, in accordance with the national renewable energy strategy when relevant;

(ii) impacts on water status or potential upstream and downstream;

(iii) impacts on biodiversity, in particular on Protected Areas (such as Natura 2000 sites in the Union, areas relied upon for drinking water, areas with bathing water);

(iv) the benefits of ecosystem services (quantitatively where possible);

(c) all technically feasible and ecologically relevant mitigation measures are included in the permit or authorisation and are implemented to reduce the adverse impacts on the status of the water body the planned hydropower plant relates to. Those measures:

(i) ensure conditions as close as possible to undisturbed continuity (including state-of-the-art and fully functional fish passes and turbines preventing fish kill, measures to ensure minimum ecological flow and sediment flow, adaptation of the operation of the plant);

(ii) reduce the impact of hydropeaking;

(iii)protect or enhance habitats for aquatic species;

(iv)reduce adverse impacts of eutrophication;

(d) in addition to the mitigation measures referred to in point (d) and where relevant, compensatory measures are implemented to ensure that the project does not increase the fragmentation of water bodies in the same river basin district. This is achieved by restoring continuity within the same river basin district to an extent that compensates the disruption of continuity, which the planned hydropower plant may cause. Compensation starts prior to the execution

	of the project.
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[251] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[252]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[253], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[254] are implemented.[255]

4.6. Electricity generation from geothermal energy

Description of the activity

Construction or operation of electricity generation facilities that produce electricity from geothermal energy.

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

251 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

252 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

253 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

254 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

255 Practical guidance is contained in Commission notice C/2018/2619 'Guidance document on the requirements for hydropower in relation to EU nature legislation' (OJ C 213, 18.6.2018, p. 1).

Technical screening criteria

Substantial contribution to climate change mitigation
Life-cycle GHG emissions from the generation of electricity from geothermal energy are lower than 100gCO_2e/kWh. Life-cycle GHG emission savings are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emissions are verified by an independent third party.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[256].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with the air emission requirements set out in Directive 2004/107/EC of the European Parliament and of the Council[257] and Directive 2008/50/EC of the European Parliament and of the Council[258].

[256] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[257] Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (OJ L 23, 26.1.2005, p. 3).

[258] Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1).

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[259] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[260]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[261], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[262] are implemented.

4.7. Electricity generation from gaseous and liquid fuels

Description of the activity

Construction or operation of electricity generation facilities that produce electricity using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE codes D35.11 and F42.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

259 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

260 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

261 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

262 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

1. Life-cycle GHG emissions from the generation of electricity using gaseous and liquid fuels[263] are lower than 100gCO_2e/kWh.

Life-cycle GHG emissions are calculated based on project-specific data, where available, using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

2. Where facilities incorporate any form of abatement (including carbon capture or use of decarbonised fuels) that abatement activity complies with the criteria set out in the relevant Section of this Annex, where applicable. Where the CO_2 emitted from the electricity generation is captured as a way to meet the emissions limit set out in point 1 of this Section, the CO_2 is transported and stored underground in a way that meets the technical screening criteria for transport of CO_2 and storage of CO_2 set out in Sections 5.11 and 5.12, respectively of this Annex.

3. The activity meets either of the following criteria:

(a) at construction, measurement equipment for monitoring of physical emissions, such as methane leakage is installed or a leak detection and repair program is introduced;
(b) at operation, physical measurement of emissions are reported and leak is eliminated.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[264].
(4) Transition to a circular economy	N/A

[263] Regulation (EU) 2020/852 excludes power generation using solid fossil fuels, therefore they cannot be included in the scope of any of the activities in the delegated act.

[264] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[265]. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193 of the European Parliament and of the Council[266].
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[267] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[268]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[269], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[270] are implemented.

265 Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

266 Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1).

267 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred in Article 4(2) of that Directive).

268 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

269 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

270 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4.8. Electricity generation from bioenergy

Description of the activity

Construction and operation of electricity generation installations that produce electricity from biomass, biogas and biofuels.

The activity is classified under NACE code D35.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria specified in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
1. Agricultural biomass used in the activity complies with the criteria laid down in Article 29, paragraphs 2 to 5, of Directive (EU) 2018/2001. Forest biomass used in the activity complies with the criteria laid down in Article 29, paragraphs 6 and 7, of that Directive. 2. The greenhouse gas emission savings from the use of biomass are at least 80 % in relation to the GHG saving methodology and the relative fossil fuel comparator set out in Annex VI to Directive (EU) 2018/2001. 3. Where the installations rely on anaerobic digestion of organic material, the production of the digestate meets the criteria in Sections 5.6 and criteria 1 and 2 of Section 5.7 of this Annex, as applicable. 4. Points 1 and 2 do not apply to electricity generation installations with a total rated thermal input below 2 MW and using gaseous biomass fuels. 5. For electricity generation installations with a total rated thermal input from 50 to 100 MW, the activity applies high-efficiency cogeneration technology, or, for electricity-only installations, the activity meets an energy efficiency level associated with the best available techniques (BAT-AEELs) as referred to in Commission Implementing Decision (EU) 2017/1442[271]. 6. For electricity generation installations with a total rated thermal input above 100 MW, the activity complies with one or more of the following criteria:

[271] Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1)

(a) attain electrical efficiency of at least 36 %;

(b) generate highly efficient CHP (combined heat and power) as referred to in Directive 2012/27/EU of the European Parliament and of the Council[272];

(c) use carbon capture and storage technology.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[273].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For installations falling within the scope of Directive 2010/75/EU of the European Parliament and of the Council[274], emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[275]. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex

[272] Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1).

[273] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

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

[275] Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

	II, part 2, to Directive (EU) 2015/2193 of the European Parliament and of the Council[276]. For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC of the European Parliament and of the Council[277], results of the information exchange[278] which are published by the Commission in accordance with Article 6, paragraphs 9 and 10, of Directive (EU) 2015/2193 are taken into account. For anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[279]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[280] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[281].

276 Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1).

277 Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1).

278 The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details.

279 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

280 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred in Article 4(2) of that Directive).

281 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment , where applicable, has been conducted and based on its conclusions the necessary mitigation measures are implemented.

4.9. Transmission and distribution of electricity

Description of the activity

Construction and operation of transmission systems that transport the electricity on the extra high-voltage and high-voltage interconnected system.

Construction and operation of distribution systems that transport electricity on high-voltage, medium-voltage and low-voltage distribution systems.

The activity is classified under NACE codes D35.12 and D35.13 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The activity complies with one of the following criteria:

1. The transmission and distribution infrastructure or equipment in the system is the interconnected European system, i.e. the interconnected electricity system covering the interconnected control areas of Member States, Norway, Switzerland and the United Kingdom, and its subordinated systems;

2. The transmission and distribution infrastructure or equipment is in a system which complies with one or both of the following criteria:

(a) more than 67 % of newly connected generation capacity in the system where the infrastructure or equipment is to be installed is below the generation threshold value of 100 gCO_2e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year period;

(b) an average system grid emissions factor, that is calculated as the total annual emissions from power generation, divided by the total annual net electricity

production in that system, is below the threshold value of 100 gCO_2e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year average period;

3. The transmission and distribution infrastructure or equipment is not dedicated to creating a direct connection, or expanding an existing direct connection to a power production plant that is more CO_2 intensive than 100 gCO_2e/kWh, measured on a life cycle basis.

4. The activity is one of the following:

(a) construction and operation of direct connection, or expansion of existing direct connection, of low carbon electricity generation below the threshold of 100 gCO_2e/kWh measured on a life cycle basis to a substation or network;

(b) construction and operation of electronic vehicle (EV) charging stations and supporting electric infrastructure for the electrification of transport, subject to eligibility under the transport Section of this Annex;

(c) installation of transmission and distribution transformers that comply with the Tier 2 (1 July 2021) requirements set out in Annex I to the Commission Regulation (EU) No 548/2014[282] and, for medium power transformers with highest voltage for equipment not exceeding 36 kV, with AAA0 level requirements on no-load losses set out in standard EN 50588-1[283].

(d) construction/installation and operation of equipment and infrastructure where the main objective is an increase of the generation or use of renewable electricity generation;

(e) installation of equipment to increase the controllability and observability of the electricity system and to enable the development and integration of renewable energy sources, including:

(i) sensors and measurement tools (including meteorological sensors for forecasting renewable production);

(ii) communication and control (including advanced software and control rooms, automation of substations or feeders, and voltage control capabilities to adapt to more decentralised renewable infeed).

(f) installation of equipment to carry information to users for remotely acting on consumption, including customer data hubs;

(g) construction/installation of equipment to allow for exchange of specifically renewable electricity between users;

(h) interconnectors between transmission systems are eligible, provided that one of the

[282] Commission Regulation (EU) No 548/2014 of 21 May 2014 on implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to small, medium and large power transformers (OJ L 152, 22.5.2014, p. 1).

[283] CEI EN 50588-1 Medium power transformers 50 Hz, with highest voltage for equipment not exceeding 36 kV.

systems is eligible.

5. For the purpose of this Section, a ‘system’ means the transmission or distribution network control area of the network or system operator(s) where the activity takes place.

6. For the purposes of this Section, the following specifications apply:

(a) the rolling five-year (average) period used in determining compliance with the thresholds is based on historic data, and includes the year for which the most recent data are available;

(b) transmission systems may include generation capacity connected to subordinated distribution systems;

(c) distribution systems subordinated to a transmission system that is deemed to be on a trajectory to full decarbonisation may also be deemed to be on a trajectory to full decarbonisation;

(d) to determine eligibility, it is possible to consider a system covering multiple control areas which are interconnected and with significant energy exchanges between them, in which case the weighted average emissions factor across all included control areas is used to determine eligibility, and individual subordinated transmission or distribution systems within that system is not required to demonstrate compliance separately;

(e) it is possible for a system to become ineligible after having previously been eligible. In systems that become ineligible, no new transmission and distribution activities are eligible from that moment onward, until the system complies again with the threshold (except for those activities which are always eligible, see above). Activities in subordinated systems may still be eligible, where those subordinated systems meet the criteria of this Section;

(f) a direct connection or expansion of an existing direct connection to production plants includes infrastructure that is indispensable to carry the associated electricity from the power generating facility to a substation or network.

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a	A waste management plan is in place and ensures maximal reuse or

circular economy	recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	Overground high voltage lines: (a) for construction site activities, activities follow the principles of the IFC General Environmental, Health, and Safety Guidelines[284]. (b) activities respect applicable norms and regulations to limit impact of electromagnetic radiation on human health, including for activities carried out in the Union, the Council recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)[285] and for activities carried out in third countries, the 1998 Guidelines of International Commission on Non-Ionizing Radiation Protection (ICNIRP)[286]. Activities do not use PCBs polyclorinated biphenyls.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[287] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[288]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[289], where applicable, has

284 Environmental, Health, and Safety (EHS) Guidelines of 30 April 2007, https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p.

285 Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (1999/519/EC) (OJ L 199, 30.7.1999, p. 59)..

286 ICNIRP 1998 Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 ghz), https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf.

287 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

288 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

289 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC

	been conducted and based on its conclusions the necessary mitigation measures[290] are implemented[291].

4.10. Storage of electricity

Description of the activity

Construction and operation of facilities that store electricity and return it at a later time in the form of electricity. The activity includes closed-loop pumped hydropower storage.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity is the construction and operation of electricity storage including closed-loop pumped hydropower storage, defined as hydro plants with no natural water inflow into the upper reservoir, where the water that generates electricity was previously pumped uphill. Pumped storage connected to river bodies are not eligible.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of	For closed-loop pumped hydropower storage, environmental degradation risks related to preserving water quality and avoiding water

Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

290 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

291 Practical guidance for the implementation of this criterion is contained in the European Commission notice 2018/C 213/02 "Energy transmission infrastructure and EU nature legislation" (OJ C 213, 18.6.2018, p. 1).

water and marine resources	stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[292].
(4) Transition to a circular economy	A waste management plan is in place and ensures maximal reuse or recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[293] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[294]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[295], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[296] are implemented.

[292] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[293] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[294] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[295] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[296] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4.11. Storage of thermal energy

Description of the activity

Construction and operation of facilities that store thermal energy and return it at a later time in the form of thermal energy or other energy vectors.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity has no dedicated NACE code as referred to in the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity stores thermal energy, including Thermal Energy Storage (UTES) or Aquifer Thermal Energy Storage (ATES).

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	For Aquifer Thermal Energy Storage, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[297].

[297] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[298] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[299]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[300], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[301] are implemented.

4.12. Storage of hydrogen

Description of the activity

Construction and operation of facilities that store hydrogen and return it at a later time.

The activity has no dedicated NACE code in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

298 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

299 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

300 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

301 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation

The activity is one of the following:

(a) construction of hydrogen storage facilities.

(b) operation of hydrogen storage facilities where the hydrogen stored in the facility meets the criteria for manufacture of hydrogen set out in Section 3.9. of this Annex.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.
(5) Pollution prevention and control	In the case of storage above five tonnes, the activity complies with Directive 2012/18/EU of the European Parliament and of the Council[302].
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening[303] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

[302] 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 (OJ L 197, 24.7.2012, p. 1).

[303] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	completed in accordance with equivalent national provisions or international standards[304]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[305], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[306] are implemented.

4.13. Manufacture of biogas and biofuels for use in transport

Description of the activity

Manufacture of biogas or biofuels for use in transport.

The activity is classified under NACE code D35.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Agricultural biomass used in the activity for the manufacture of biogas or biofuels for use in transport complies with the criteria laid down in Article 29, paragraphs 2 to 5, of Directive (EU) 2018/2001. Forest biomass used in the activity for the manufacture of biogas or biofuels for use in transport complies with the criteria laid down in Article 29, paragraphs 6 and 7, of that Directive.

Food-and feed crops are not used in the activity for the manufacture of biofuels for use in transport.

304 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

305 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

306 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

2. The greenhouse gas emission savings from the manufacture of biofuels and biogas for use in transport are at least 65 % in relation to the GHG saving methodology and the relative fossil fuel comparator set out in Annex V to Directive (EU) 2018/2001.

3. Where the manufacture of biogas relies on anaerobic digestion of organic material, the production of the digestate meets the criteria in Sections 5.6 and criteria 1 and 2 of Section 5.7 of this Annex, as applicable.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[307].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For biogas production, a gas-tight cover on the digestate storage is applied. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[308]. No significant cross-media effects occur. In case of anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for

[307] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[308] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

	fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation EU 2019/1009 and respective national rules on fertilising products.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[309] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[310]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[311], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[312] are implemented.

4.14. Transmission and distribution networks for renewable and low-carbon gases

Description of the activity

Repurposing of gas networks for the distribution of gaseous fuels through a system of mains.

Repurposing of gas networks for long-distance transport of renewable and low-carbon gases by pipelines.

Construction or operation of transmission and distribution pipelines dedicated to the transport of hydrogen or other low-carbon gases.

The activity is classified under NACE codes D35.22, F42.21 and H49.50 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

309 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

310 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

311 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

312 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The activity consists in one of the following:

(a) construction or operation of new transmission and distribution networks dedicated to hydrogen or other low-carbon gases;

(b) conversion/repurposing of existing natural gas networks to 100 % hydrogen and retrofit of gas transmission and distribution networks, where the main purpose is the integration of hydrogen and other low-carbon gases, including any gas transmission or distribution network activity, which enables the network to increase the blend of hydrogen or other low carbon gasses in the gas system;

2. The activity includes leak detection and repair of existing gas pipelines and other network elements to reduce methane leakage.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[313].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Fans, compressors, pumps and other equipment used which is covered by Directive 2009/125/EC of the European Parliament and of the Council[314] comply, where relevant, with the top class requirements of

[313] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[314] Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (OJ L 285, 31.10.2009, p. 10).

	the energy label, and with implementing regulations under that Directive and represent the best available technology.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[315] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[316]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[317], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[318] are implemented.

4.15. District heating/cooling distribution

Description of the activity

Construction, refurbishment and operation of pipelines and associated infrastructure for distribution of heating and cooling, ending at the sub-station or heat exchanger.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

315 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

316 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

317 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

318 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity complies with one of the following criteria:

(a) for construction and operation of pipelines and associated infrastructure for distributing heating and cooling, the system meets the definition of efficient district heating and cooling systems laid down in Article 2, point 41, of Directive 2012/27/EU;

(b) for refurbishment of pipelines and associated infrastructure for distributing heating and cooling, the investment that makes the system meet the definition of efficient district heating or cooling laid down in Article 2, point 41, of Directive 2012/27/EU starts within a three year period as underpinned by a contractual obligation or an equivalent in case of operators in charge of both generation and the network;

(c) The activity is the following:

(i) modification to lower temperature regimes;

(ii) advanced pilot systems (control and energy management systems, Internet of Things).

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[319].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Fans, compressors, pumps and other equipment used which is covered by Directive 2009/125/EC comply, where relevant, with the top class requirements of the energy label, and otherwise comply with implementing regulations under that Directive and represent the best

[319] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	available technology.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[320] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[321]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[322], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[323] are implemented.

4.16. Installation of electric heat pumps

Description of the activity

Installation and operation of electric heat pumps.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

[320] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[321] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[322] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[323] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The installation and operation of electric heat pumps complies with both of the following criteria:

(a) refrigerant threshold: Global Warming Potential does not exceed 675;

(b) energy efficiency requirements laid down in the implementing regulations[324] under Directive 2009/125/EC are met.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[325].
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish. A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.

[324] Commission Regulation (EU) No 206/2012 of 6 March 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for air conditioners and comfort fans (OJ L 72, 10.3.2012, p. 7), Commission Regulation (EU) No 813/2013 of 2 August 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for space heaters and combination heaters (OJ L 239, 6.9.2013, p. 136) and Commission Regulation (EU) 2016/2281 Commission Regulation (EU) 2016/2281 of 30 November 2016 implementing Directive 2009/125/EC of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-related products, with regard to ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coil units (OJ L 346, 20.12.2016, p. 1).

[325] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	For air to air heat pumps with rated capacity of 12kW or below, indoor and outdoor sound power levels are below the threshold set out in Commission Regulation (EU) No 206/2012 [326]
(6) Protection and restoration of biodiversity and ecosystems	N/A

4.17. Cogeneration of heat/cool and power from solar energy

Description of the activity

Construction and operation of facilities co-generating electricity and heat/cool from solar energy.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity consists in the cogeneration[327] of electricity and heat/cool from solar energy.
Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A

[326] Commission Regulation (EU) No 206/2012 of 6 March 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for air conditioners and comfort fans (OJ L 72, 10.3.2012, p. 7).

[327] Cogeneration is defined in Article 2 point 30 of Directive 2012/27/EU.

(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[328] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[329]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[330], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[331] are implemented.

4.18. Cogeneration of heat/cool and power from geothermal energy

Description of the activity

Construction and operation of facilities co-generating heat/cool and power from geothermal energy.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

328 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

329 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

330 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

331 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation
The life-cycle GHG emissions from the combined generation of heat/cool and power[332] from geothermal energy are lower than 100gCO_2e per 1 kWh of energy input to the combined generation. Life-cycle GHG emissions are calculated based on project-specific data, where available, using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018. Quantified life-cycle GHG emissions are verified by an independent third party.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[333].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with air emission requirements laid down in Directives 2004/107/EC and 2008/50/EC.

[332] Cogeneration is defined in Article 2 point 30 of Directive 2012/27/EU.

[333] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[334] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[335]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[336], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[337] are implemented.

4.19. Cogeneration of heat/cool and power from gaseous and liquid fuels

Description of the activity

Construction and operation of combined heat/cool and power generation facilities using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

334 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

335 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

336 In accordance with Directives 2009/147/EC and 92/43/EEC; or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

337 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

1. The life-cycle GHG emissions from the co-generation of heat/cool and power[338] from gaseous and liquid fuels[339] are lower than 100gCO_2e per 1 kWh of energy input to the co-generation.

Life-cycle GHG emissions are calculated based on project-specific data, where available, using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

2 Where facilities incorporate any form of abatement (including carbon capture or use of decarbonised fuels) that abatement activity complies with the relevant Sections of this Annex, where applicable.

Where the CO_2 emitted from the electricity generation is captured as a way to meet the emissions limit set out in point 1 of this Section, the CO_2 is transported and stored underground in a way that meets the technical screening criteria for transport of CO_2 and storage of CO_2 set out in Sections 5.11 and 5.12, respectively of this Annex.

3. The activity meets either of the following criteria:

(a) at construction, measurement equipment for monitoring of physical emissions, such as methane leakage is installed or a leak detection and repair program is introduced;
(b) at operation, physical measurement of emissions are reported and leak is eliminated.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[340].

338 Cogeneration is defined in Article 2 point 30 of Directive 2012/27/EU.

339 The Regulation (EU) 2020/852 excludes power generation using solid fossil fuels, therefore they cannot be included in the scope of any of the activities in the delegated act.

340 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[341] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[342]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[343], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[344] are implemented.

[341] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[342] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[343] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[344] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4.20. Cogeneration of heat/cool and power from bioenergy

Description of the activity

Construction and operation of installations used for cogeneration of heat/cool and power from biomass.

The activity is classified under NACE codes D35.11 and D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
1. Agricultural biomass used in the activity complies with the criteria laid down in Article 29, paragraphs 2 to 5, of Directive (EU) 2018/2001. Forest biomass used in the activity complies with the criteria laid down in Article 29, paragraphs 6 and 7 of that Directive. 2. The greenhouse gas emission savings from the use of biomass in cogeneration installations are at least 80 % in relation to the GHG emission saving methodology and fossil fuel comparator set out in Annex VI to Directive (EU) 2018/2001. 3. Where the cogeneration installations rely on anaerobic digestion of organic material, the production of the digestate meets the criteria in Sections 5.6 and criteria 1 and 2 of Section 5.7 of this Annex, as applicable. 4. Points 1 and 2 do not apply to electricity generation installations with a total rated thermal input below 2 MW and using gaseous biomass fuels.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[345].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For installations falling within the scope of Directive 2010/75/EU, emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[346], ensuring at the same time that no significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193. For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC, results of the information exchange[347], which are published by the Commission in accordance with Article 6, paragraphs 9 and 10, of Directive (EU) 2015/2193 are taken into account. In case of anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for

345 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

346 Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

347 The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details.

	anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[348]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[349] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[350]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[351], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[352] are implemented.

4.21. Production of heat/cool from solar thermal heating

Description of the activity

Construction and operation of facilities producing heat/cool from solar thermal heating technology.

Where the activity is an integral element of the activity 'Installation, maintenance and repair of renewable energy technologies' as referred to in Section 7.6 of this Annex, the technical screening criteria specified in Section 7.6 apply.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

348 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

349 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

350 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

351 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

352 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity produces heat/cool using solar thermal heating.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[353] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[354]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented.

[353] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[354] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[355], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[356] are implemented.

4.22. Production of heat/cool from geothermal energy

Description of the activity

Construction or operation of facilities that produce heat/cool from geothermal energy.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

The life-cycle GHG emissions from the generation of electricity from geothermal energy are lower than 100gCO_2e/kWh.

Life-cycle GHG emissions are calculated based on project-specific data, where available, using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

355 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

356 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[357].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For the operation of high-enthalpy geothermal energy systems, adequate abatement systems are in place to comply with air emission requirements set out in Directives 2004/107/EC and 2008/50/EC.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[358] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[359]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[360], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[361] are implemented.

357 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

358 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

359 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

360 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

361 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

4.23. Production of heat/cool from gaseous and liquid fuels

Description of the activity

Construction and operation of heat generation facilities that produce heat/cool using gaseous and liquid fuels (not exclusive to natural gas, oil or other refined products).

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The life-cycle GHG emissions from the generation of heat/cool using gaseous and liquid fuels[362] are lower than 100gCO_2e/kWh.

Life-cycle GHG emissions are calculated based on project-specific data, where available, using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

2 Where facilities incorporate any form of abatement (including carbon capture or use of decarbonised fuels) that abatement activity complies with the relevant Sections of this Annex, where applicable.

Where the CO_2 emitted from the electricity generation is captured as a way to meet the emissions limit set out in point 1 of this Section, the CO_2 is transported and stored underground in a way that meets the technical screening criteria for transport of CO_2 and storage of CO_2 set out in Sections 5.11 and 5.12 of this Annex.

3. The activity meets either of the following criteria:

(a) at construction, measurement equipment for monitoring physical emissions, such as methane leakage is installed or a leak detection and repair program is introduced;

(b) at operation, physical measurement of emissions are reported and leak is eliminated.

Do no significant harm (‘DNSH’)

[362] Regulation (EU) 2020/852excludes power generation using solid fossil fuels, therefore they cannot be included in the scope of any of the activities in the delegated act.

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[363].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set in the best available techniques (BAT) conclusions for large combustion plants. No significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex II, part 2, to Directive (EU) 2015/2193.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[364] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[365]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO

363 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

364 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

365 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[366], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[367] are implemented.

4.24. Production of heat/cool from bioenergy

Description of the activity

Construction and operation of facilities that produce heat/cool from biomass.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria specified in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Agricultural biomass used in the activity for the production of heat and cool complies with the criteria laid down in Article 29, paragraphs 2 to 5, of Directive (EU) 2018/2001. Forest biomass used in the activity complies with the criteria laid down in Article 29, paragraphs 6 and 7, of that Directive.

2. The greenhouse gas emission savings from the use of biomass are at least 80 % in relation to the GHG emission saving methodology and relative fossil fuel comparator set out in Annex VI to Directive (EU) 2018/2001.

3. Where the installations rely on anaerobic digestion of organic material, the production of the digestate meets the criteria in Sections 5.6 and criteria 1 and 2 of Section 5.7 of this Annex, as applicable.

4. Points 1 and 2 do not apply to electricity generation installations with a total rated thermal input below 2 MW and using gaseous biomass fuels.

Do no significant harm (‘DNSH’)

366 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

367 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[368].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For installations falling within the scope of Directive 2010/75/EU, emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the best available techniques (BAT) conclusions for large combustion plants[369], ensuring at the same time that no significant cross-media effects occur. For combustion plants greater than 1 MW thermal input but below the thresholds for the BAT conclusions for large combustion plants to apply, emissions are below the emission limit values set out in Annex 2, part 2, to Directive (EU) 2015/2193. For plants in zones or parts of zones not complying with the air quality limit values laid down in Directive 2008/50/EC[370], results of the information exchange[371], which are e published by the Commission in accordance with Article 6, paragraphs 9 and 10 of Directive (EU) 2015/2193 are taken into account. For anaerobic digestion of organic material, the produced digestate is used as fertiliser or soil improver, either directly or after composting or

368 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

369 Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants (OJ L 212, 17.8.2017, p. 1).

370 Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe

371 The final technology report resulting from the exchange of information with Member States, the industries concerned and non-governmental organisations contains technical information on best available technologies used in medium combustion plants to reduce their environmental impacts, and on the emission levels achievable with best available and emerging technologies and the related costs: https://circabc.europa.eu/ui/group/06f33a94-9829-4eee-b187-21bb783a0fbf/library/9a99a632-9ba8-4cc0-9679-08d929afda59/details.

	any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009 and relevant national law on fertilising products. For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[372]. No significant cross-media effects occur.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[373] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[374]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[375], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[376] are implemented.

4.25. Production of heat/cool using waste heat

Description of the activity

Construction and operation of facilities that produce heat/cool using waste heat.

372 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

373 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

374 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

375 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

376 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity is classified under NACE code D35.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity produces heat/cool from waste heat.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish.
(5) Pollution prevention and control	Pumps and the kind of equipment used, which is covered by Ecodesign and Energy labelling comply, where relevant, with the top class requirements of the energy label laid down in Regulation (EU) 2017/1369, and with implementing regulations under Directive 2009/125/EC and represent the best available technology.
(6) Protection and restoration of biodiversity and	An Environmental Impact Assessment (EIA) or screening[377] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been

[377] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

ecosystems	completed in accordance with equivalent national provisions or international standards[378]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[379], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[380] are implemented.

[378] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[379] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[380] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

5. WATER SUPPLY, SEWERAGE, WASTE MANAGEMENT AND REMEDIATION

5.1. Construction, extension and operation of water collection, treatment and supply systems

Description of the activity

Construction, extension and operation of water collection, treatment and supply systems.

The activity is classified under NACE codes E36.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The front-to-end water supply system complies with one of the following criteria: a) the average energy consumption of that system, including abstraction, treatment and distribution, equals to or is lower than 0.5 kWh per cubic meter billed/unbilled authorised water supply; b) the leakage level, calculated using the Infrastructure Leakage Index (ILI)[381] rating method, equals to or is lower than 1.5.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[382].

381 The Infrastructure Leakage Index (ILI) is calculated as current annual real losses (CARL)/unavoidable annual real losses (UARL): The current annual real losses (CARL) represent the amount of water that is actually lost from the distribution network (i.e. not delivered to final users). The unavoidable annual real losses (UARL) take into consideration that there will always be some leakage in a water distribution network. The UARL is calculated based on factors such as the length of the network, the number of service connections and the pressure at which the network is operating.

382 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[383] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[384]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[385], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[386] are implemented.

5.2. Renewal of water collection, treatment and supply systems

Description of the activity

Renewal of water collection, treatment and supply systems including renewals to water collection, treatment and distribution infrastructures for domestic and industrial needs.

The activity is classified under NACE codes E36.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

383 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that).

384 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

385 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

386 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation

The renewal of the front-to-end water supply system leads to improved energy efficiency in one of the following ways:

(a) by decreasing the average energy consumption of the system by at least 20 % compared to own baseline performance averaged for three years, including abstraction, treatment and distribution, measured in kWh per cubic meter billed/unbilled authorised water supply;

(b) by closing the gap by at least 20 % between the current leakage level, calculated using the Infrastructure Leakage Index (ILI) rating method[387] (baseline performance averaged for three years) of the water supply network and an ILI of 1.5.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[388].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	N/A

[387] The Infrastructure Leakage Index (ILI) is calculated as current annual real losses (CARL)/unavoidable annual real losses (UARL): The current annual real losses (CARL) represent the amount of water that is actually lost from the distribution network (i.e. not delivered to final users). The unavoidable annual real losses (UARL) take into consideration that there will always be some leakage in a water distribution network. The UARL is calculated based on factors such as the length of the network, the number of service connections and the pressure at which the network is operating.

[388] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

control	
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[389] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[390]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[391], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[392] are implemented.

5.3. Construction, extension and operation of waste water collection and treatment

Description of the activity

Construction, extension and operation of centralised waste water systems including collection (sewer network) and treatment.

The activity is classified under NACE codes E37.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

389 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

390 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

391 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

392 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

1. The front-to-end waste water system, including collection, treatment and discharges of waste water, has net zero energy use, demonstrated on an annual basis.

2. The energy use of the system is calculated in kWh per cubic meter waste water effluent treated, taking into account measures improving energy use relating to source control (reduction of storm water or pollutant load inputs to the sewer network), network design or process design, and taking into account energy generation within the system (including hydraulic, solar and wind energy).

3. An assessment of the direct GHG emissions from the centralised waste water system, including collection (sewer network) and treatment, has been performed[393]. The results are disclosed to investors and clients on demand.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[394]. Where the waste water is treated to a level suitable for reuse in agricultural irrigation, the required risk management actions to avoid adverse environmental impacts have been defined and implemented[395].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	Discharges to receiving waters meet the requirements laid down in Directive 91/271/EEC[396].

393 For example, following IPCC guidelines for national GHG inventories for waste water treatment: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/5_Volume5/19R_V5_6_Ch06_Wastewater.pdf

394 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

395 As set out in Annex II of Regulation (EU) 2020/741 of the European Parliament and of the Council of 25May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

control	Appropriate measures have been implemented to avoid and mitigate excessive storm water overflows from the waste water collection system, which may include nature-based solutions, separate storm water collection systems, retention tanks and treatment of the first flush. Sewage sludge is managed or used, including anaerobic digestion and land application, in accordance with Council Directive 86/278/EEC[397] and national law.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[398] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[399]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[400], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[401] are implemented.

5.4. Renewal of waste water collection and treatment

Description of the activity

Renewal of centralised waste water systems including collection (sewer network) and treatment.

396 Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (OJ L 135, 30.5.1991, p. 40).

397 Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture (OJ L 181, 4.7.1986, p. 6).

398 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

399 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

400 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

401 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

The activity is classified under NACE codes E37.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The renewal of the front-to-end waste water system, including collection, treatment and discharges of waste water, improves energy efficiency by decreasing the average energy use of the system by at least 10 % compared to own baseline performance averaged over 3 years, demonstrated on an annual basis. 2. The operator of the front-to-end waste water system demonstrates that there are no material changes relating to external conditions, including modifications to discharge authorisation(s) or changes in load to the agglomeration that would lead to a reduction of energy use independent of efficiency measures taken. 3. The energy use of the system is calculated in kWh per cubic meter waste water effluent treated, taking into account measures improving energy use relating to source control (reduction of storm water or pollutant load inputs to the sewer network), network design or process design, and taking into account energy generation within the system (including hydraulic, solar and wind energy). 4. An assessment of the direct GHG emissions from the centralised waste water system, including collection (sewer network) and treatment, has been performed[402]. The results are disclosed to investors and clients on demand.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[403].

[402] For example, following IPCC guidelines for national GHG inventories for waste water treatment: https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/5_Volume5/19R_V5_6_Ch06_Wastewater.pdf

[403] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

	Where the waste water is treated to a level suitable for reuse in agricultural irrigation, the required risk management actions to avoid adverse environmental impacts have been defined and implemented[404].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Discharges to receiving waters meet the requirements laid down in Council Directive 91/271/EEC[405]. Appropriate measures have been implemented to avoid and mitigate excessive storm water overflows from the waste water collection system, which may include nature-based solutions, separate storm water collection systems, retention tanks and treatment of the first flush. Sewage sludge is managed or used, including anaerobic digestion and land application, in accordance with Council Directive 86/278/EEC and national law.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[406] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[407]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[408], where applicable, has

404 Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

405 As set out in Annex II to Regulation (EU) 2020/741 of the European Parliament and of the Council of 25May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

406 Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (OJ L 135, 30.5.1991, p. 40).

407 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

408 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC

	been conducted and based on its conclusions the necessary mitigation measures[409] are implemented.

5.5. Collection and transport of non-hazardous waste in source segregated fractions

Description of the activity

Separate collection and transport of non-hazardous waste in single or comingled fractions aimed at preparing for reuse or recycling.

The activity is classified under NACE code E38.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
All separately collected and transported non-hazardous waste that is segregated at source, including co-mingling, is sent to preparation for reuse or recycling.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Separately collected waste fractions are not mixed in waste storage and transfer facilities.
(5) Pollution prevention and	N/A

409 Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.
Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

control	
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.6. Anaerobic digestion of sewage sludge

Description of the activity

Construction and operation of facilities for the treatment of sewage sludge by anaerobic digestion with the resulting production and utilisation of biogas or chemicals.

The activity is classified under NACE codes E37.00 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
1. A monitoring plan is in place for methane leakage at the facility. 2. The produced biogas is used directly for the generation of electricity or heat, or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel or as feedstock in chemical industry.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[410].

[410] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[411]. No significant cross-media effects occur. Where the resulting digestate is intended for use as soil improver it complies with the following criteria: (a) it meets the requirements for fertilising materials set out in Annex II to Regulation 2019/1009[412] or national rules on fertilisers/soil improvers for agricultural use; (b) its nitrogen content (with tolerance level ±25 %) is communicated to the buyer or the entity in charge of taking off the digestate.
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.7. Anaerobic digestion of bio-waste

Description of the activity

Construction and operation of dedicated facilities for the treatment of separately collected bio-waste through anaerobic digestion with the resulting production and utilisation of biogas and digestate and/or chemicals.

The activity is classified under NACE codes E38.21 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

411 Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

412 Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003 (OJ L 170, 25.6.2019, p. 1). For the requirements on digestate, see Component Material Categories (CMCs) 4 and 5 set out in annex II of Regulation 2019/1009.

Technical screening criteria

Substantial contribution to climate change mitigation

1. A monitoring and contingency plan is in place for methane leakage at the facility.

2. The produced biogas is used directly for the generation of electricity or heat, or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel or as feedstock in chemical industry.

3. The bio-waste that is used for anaerobic digestion is source segregated and collected separately.

4. The produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment, and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009, or national rules on fertilisers or soil improvers for agricultural use.

5. In the dedicated bio-waste treatment plants, bio-waste constitutes at least 90 % of the input feedstock, measured in weight, as an annual average, and the share of other input material is less than or equal to 10 % of the input feedstock. Such other input material may not include food or feed crops.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[413].
(4) Transition to a circular economy	N/A

[413] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(5) Pollution prevention and control	For anaerobic digestion plants treating over 100 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set for anaerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[414]. No significant cross-media effects occur. The Nitrogen content (with tolerance level ±25 %) of the digestate used as fertiliser or soil improver is communicated to the buyer or the entity in charge of taking off the digestate.
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.8. Composting of bio-waste

Description of the activity

Construction and operation of dedicated facilities for the treatment of separately collected bio-waste through composting (aerobic digestion) with the resulting production and utilisation of compost[415].

The activity is classified under NACE codes E38.21 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The bio-waste that is composted is source segregated and collected separately. 2. The compost produced is used as fertiliser or soil improver and meets the requirements for fertilising materials set out in Component Material Categories (CMC) 4 and 5 in Annex II to Regulation (EU) 2019/1009.

[414] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

[415] Bio-waste is defined in Article 3, point 4, of Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	For composting plants treating over 75 tonnes per day, emissions to air and water are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out for aerobic treatment of waste in the best available techniques (BAT) conclusions for waste treatment[416]. No significant cross-media effects occur. The site has a system in place that prevents leachate reaching groundwater.
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.9. Material recovery from non-hazardous waste

Description of the activity

Construction and operation of facilities for the sorting and processing of separately collected non-hazardous waste streams into secondary raw materials involving a mechanical transformation process.

The activity is classified under NACE codes E38.32 and F42.99 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

[416] Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council (OJ L 208, 17.8.2018, p. 38).

Technical screening criteria

Substantial contribution to climate change mitigation
The activity converts at least 50 %, in terms of weight, of the processed separately collected non-hazardous waste into secondary raw materials that are suitable for the substitution of virgin materials in production processes.
Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.10. Landfill gas capture and utilisation

Description of the activity

Installation and operation of infrastructure for landfill[417] gas capture and utilisation in permanently closed landfills using new or supplementary dedicated technical facilities and equipment installed during or post landfill closure.

[417] ‘Landfill’ is defined in Article 2, point (g), of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, p. 1).

The activity is classified under NACE code E38.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The landfill has not been opened after 8 July 2020. 2. The landfill or landfill cell where the gas capture system is newly installed, extended, or retrofitted is permanently closed and is not taking further biodegradable waste. 3. The produced landfill gas is used for the generation of electricity or heat as biogas[418], or upgraded to bio-methane for injection in the natural gas grid, or used as vehicle fuel or as feedstock in chemical industry. 4. Methane emissions from the landfill and leakages from the landfill gas collection and utilisation facilities are subject to control and monitoring procedures set out in Annex III to Council Directive 99/31/EC[419].

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The permanent closure and remediation as well as the after-care of old landfills, where the landfill gas capture system is installed, are carried out in accordance with the following rules: (a) general requirements set out in Annex I to Directive 99/31/EC;

[418] 'Biogas' is defined in Article 2, point 28, of Directive (EU) 2018/2001.

[419] Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, p. 1)

	(b) control and monitoring procedures set out in Annex III to that Directive.
(6) Protection and restoration of biodiversity and ecosystems	N/A

5.11. Transport of CO_2

Description of the activity

Transport of captured CO_2.

Construction and operation of CO_2 pipelines and retrofit of gas networks where the main purpose is the integration of captured CO_2.

The activity is classified under NACE code F42.21 and H49.50 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity in accordance with Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The CO2 transported from the installation where it is captured to the injection point does not lead to CO2 leakages above 0.5 % of the mass of CO_2 transported.

2. The CO_2 is delivered to a permanent CO_2 storage site that meets the criteria for underground geological storage of CO_2 set out in Section 5.11 of this Annex; or to other transport modalities, which lead directly to permanent CO_2 storage site that meet those criteria.

3. Appropriate leak detection systems are applied and a monitoring plan is in place, with the report verified by an independent third party.

4. Where assets that increase the flexibility and improve the management of an existing network are installed, the installation is eligible.

Do no significant harm ('DNSH')

(2) Climate change	The activity complies with the criteria set out in Appendix E to this

adaptation	Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[420].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[421] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[422]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[423], where applicable, has

420 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

421 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

422 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

423 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

	been conducted and based on its conclusions the necessary mitigation measures[424] are implemented.

5.12. Underground permanent geological storage of CO_2

Description of the activity

Permanent storage of captured CO_2 in appropriate underground geological formations.

The activity is classified under NACE code E39.00 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

1. Characterisation and assessment of the potential storage complex and surrounding area (exploration) is carried out in order to establish whether the geological formation is suitable for use as a CO_2 storage site.

2. For operation of underground geological CO_2 storage sites, including closure and post-closure obligations:

(a) appropriate leakage detection systems are implemented to prevent release during operation;

(b) a monitoring plan of the injection facilities, the storage complex, and, where appropriate, the surrounding environment is in place, with the regular reports checked by the competent national authority.

3. For the exploration and operation of storage sites within the Union, the activity complies with Directive 2009/31/EC of the European Parliament and of the Council[425]. For the exploration and operation of storage sites in third countries, the activity complies with ISO 27914:2017 for geological storage of CO_2.

Do no significant harm ('DNSH')

(2) Climate change	The activity complies with the criteria set out in Appendix E to this

[424] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

[425] 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 (OJ L 140, 5.6.2009, p. 114).

adaptation	Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[426].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	The activity complies with Directive 2009/31/EC.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[427] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[428]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[429], where applicable, has

[426] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[427] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[428] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

[429] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

	been conducted and based on its conclusions the necessary mitigation measures[430] are implemented.

430 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

6. TRANSPORT

6.1. Passenger interurban rail transport

Description of the activity

Retrofit, upgrade or operation of transport of passengers using railroad rolling stock on mainline networks, spread over an extensive geographic area, passenger transport by interurban railways and operation of sleeping cars or dining cars as an integrated operation of railway companies. The activity excludes passenger transport by urban and suburban transit systems, passenger terminal activities, operation of railroad infrastructure; related activities such as switching and shunting and operation of sleeping cars or dining cars when operated by separate units.

The activity is classified under NACE code H49.10 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity complies with one or both of the following criteria: (a) the trains and passenger coaches have zero direct (tailpipe) CO_2 emissions; (b) the trains and passenger coaches have zero direct tailpipe CO_2 emission when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode).

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste in accordance with the waste hierarchy, in particular during maintenance.

(5) Pollution prevention and control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628 of the European Parliament and of the Council[431].
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.2. Freight rail transport

Description of the activity

Retrofit, upgrade or operation of freight transport on mainline rail networks as well as short line freight railroads. This activity excludes warehousing and storage, freight terminal activities, operation of railroad infrastructure as well as related activities such as switching and shunting and cargo handling.

The activity is classified under NACE code H49.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The activity complies with one or both of the following criteria: (a) the trains and wagons have zero direct tailpipe CO_2 emission; (b) the trains and wagons have zero direct tailpipe CO_2 emission when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode). 2 The trains and wagons are not dedicated to the transport of fossil fuels.

[431] Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC (OJ L 252, 16.9.2016, p. 53).

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste hierarchy, in particular during maintenance.
(5) Pollution prevention and control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628.
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.3. Urban, suburban and road passenger transport

Description of the activity

Operation of urban and suburban transport systems for passengers and road passenger transport. This may include different modes of land transport, such as by motor bus, tramway, streetcar, trolley bus, underground and elevated railways. The transport is carried out on scheduled routes normally following a fixed time schedule, entailing the picking up and setting down of passengers at fixed stops. The activity also includes town-to-airport or town-to-station lines and operation of funicular railways and aerial cableways where part of urban or suburban transit systems. The activity also includes scheduled long-distance bus services, charters, excursions and other occasional coach services, airport shuttles, operation of school buses and buses for the transport of employees and other passenger transport by man- or animal-drawn vehicles. This activity excludes ambulance transport. It includes operation of vehicles designated as category M2 or M3, in accordance with Article 4(1) of Regulation (EU) 2018/8582, for the provision of passenger transport.

The activity is classified under NACE codes H49.31, H49.3.9 and N77.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
The direct (tailpipe) CO_2 emissions of the vehicles are zero.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life of the fleet. For battery-operated fleet, those measures include reuse and recycling of batteries and electronics, including critical raw materials therein. Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC of the European Parliament and of the Council[432].
(5) Pollution prevention and	For road vehicles of categories M and N, tyres comply with external rolling noise Class A and with energy performance class A or B set out

[432] Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles (OJ L 269, 21.10.2000, p. 34). Though Directive 2000/53/EC currently only applies to vehicles designated as category M1 or N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

control	in Regulation (EU) 2020/740 of the European Parliament and of the Council[433]. Where applicable, tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009 of the European Parliament and of the Council[434].
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.4. Operation of personal mobility devices

Description of the activity

Operation of personal mobility devices where the propulsion comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity.

The activity is classified under NACE codes N77.11 and N77.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The propulsion of personal mobility devices comes from the physical activity of the user, from a zero-emissions motor, or a mix of zero-emissions motor and physical activity. 2. The personal mobility devices are allowed to be operated on the same public infrastructure as bikes or pedestrians.
Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this

[433] Regulation (EU) 2020/740 of the European Parliament and of the Council of 25 May 2020 on the labelling of tyres with respect to fuel efficiency and other parameters, amending Regulation (EU) 2017/1369 and repealing Regulation (EC) No 1222/2009 (OJ L 177, 5.6.2020, p. 1).

[434] Regulation (EC) No 661/2009 of the European Parliament and of the Council of 13 July 2009 concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 200, 31.7.2009, p. 1).

	Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Measures are in place to manage waste, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life. For battery-operated personal mobility devices, those measures include reuse and recycling of batteries and electronics, including critical raw materials therein. Mobility devices of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC[435].
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.5. Transport by motorbikes, passenger cars and light commercial vehicles

Description of the activity

Operation of vehicles designated as category M1[436], N1[437] or L (2- and 3-wheel vehicles and quadricycles)[438].

[435] Though Directive 2000/53/EC currently only applies to vehicles designated as category M1 or N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

[436] As referred to in Article 4(1), point (a)(i), of Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (OJ L 151, 14.6.2018, p. 1)

[437] As referred to in Article 4(1), point (b)(i), of Regulation (EU) 2018/858.

[438] As referred to in Article 4(1) of Regulation (EU) 2018/858.

The activity is classified under NACE codes H49.32, H49.39 and N77.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity complies with the following criteria: (a) for vehicles of category M1 and N1: (i) until 31 December 2025, specific emissions of CO_2, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are lower than 50gCO_2/km (low- and zero-emission light-duty vehicles); (ii) from 1 January 2026, specific emissions of CO_2, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are zero. (b) for vehicles of category L, the tailpipe CO_2 emissions equal to 0g CO_{2e}/km calculated in accordance with the emission test laid down in Regulation (EU) 168/2013.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Vehicles of categories M1 and N1 are: (a) reusable or recyclable to a minimum of 85 % by weight; (b) reusable or recoverable to a minimum of 95 % by weight[439].

[439] As set out in Annex I of Directive 2005/64/EC of the European Parliament and of the Council of 26 October 2005 on the type-approval of motor vehicles with regard to their reusability, recyclability and recoverability and amending Council Directive 70/156/EEC (OJ L 310, 25.11.2005, p. 10).

	Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC[440].
(5) Pollution prevention and control	Vehicles comply with the requirements of the most recent applicable stage of the Euro 6 light-duty emission type-approval[441] set out in accordance with Regulation (EC) No. 715/2007 of the European Parliament and of the Council[442]. Vehicles comply with the emission thresholds for clean light-duty vehicles set out in Table 2 of the Annex to Directive 2009/33/EC of the European Parliament and of the Council[443]. For vehicles of categories M1 and N1, tyres comply with rolling noise Class A and with energy performance class A or B set out in Regulation (EU) 2020/740. Tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009. Vehicles comply with Regulation (EU) No 540/2014 of the European Parliament and of the Council[444].

440 Though Directive 2000/53/EC currently only applies to vehicles designated as M1 or N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

441 Commission Regulation (EU) 2018/1832 of 5 November 2018 amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) 2017/1151 for the purpose of improving the emission type approval tests and procedures for light passenger and commercial vehicles, including those for in-service conformity and real-driving emissions and introducing devices for monitoring the consumption of fuel and electric energy (OJ L 301, 27.11.2018, p. 1).

442 Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 171, 29.6.2007, p. 1).

443 Directive 2009/33/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles (OJ L 120, 15.5.2009, p. 5).

444 Regulation (EU) No 540/2014 of the European Parliament and of the Council of 16 April 2014 on the sound level of motor vehicles and of replacement silencing systems, and amending Directive 2007/46/EC and repealing Directive 70/157/EEC (OJ L 158, 27.5.2014, p. 131).

(6) Protection and restoration of biodiversity and ecosystems	N/A

6.6. Freight transport services by road

Description of the activity

Operation of vehicles designated as category N2[445] or N3[446] for freight transport services by road. The activity is classified under NACE codes H49.4.1, H53.10, H53.20 and N77.12 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

That activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852.

Technical screening criteria

Substantial contribution to climate change mitigation
1. Vehicles with a technically permissible maximum laden mass not exceeding 7,5 tonnes are 'zero-emission heavy-duty vehicles' as defined in Article 3, point (11), of Regulation (EU) 2019/1242. 2. Vehicles with a technically permissible maximum laden mass exceeding 7,5 tonnes are 'zero-emission heavy-duty vehicles', as defined in Article 3, point (11), of Regulation (EU) 2019/1242 or 'low-emission heavy-duty vehicles' as defined in Article 3, point (12), of that Regulation. 3. Vehicles are not dedicated to transporting fossil fuels.

Do no significant harm ('DNSH')	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.

445 As referred to in Article 4(1), point (b)(ii), of Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (OJ L 151, 14.6.2018, p. 1).

446 As referred to in Article 4(1), point (b)(iii), of Regulation (EU) 2018/858.

(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	Vehicles of category N1 are: (a) reusable or recyclable to a minimum of 85 % by weight, (b) reusable or recoverable to a minimum of 95 % by weight[447]. Measures are in place to manage waste both in the use phase (maintenance) and the end-of-life of the fleet, including through reuse and recycling of batteries and electronics (in particular critical raw materials therein), in accordance with the waste hierarchy. Vehicles of all types purchased or operated do not contain lead, mercury, hexavalent chromium and cadmium, except for the exemptions listed in Annex II to Directive 2000/53/EC[448].
(5) Pollution prevention and control	Vehicles comply with the requirements of the most recent applicable stage of the Euro VI heavy duty emission type-approval[449] set out in accordance with Regulation (EC) No 595/2009 of the European Parliament and of the Council[450]. Tyres comply with rolling noise Class A and with energy performance class A or B set out in Regulation (EU) 2020/740. Tyres comply with the noise requirements laid down in Regulation (EC) No 661/2009.

447 As set out in Annex I to Directive 2005/64/EC.

448 Though Directive 2000/53/EC currently only applies to vehicles designated as category M1 and N1 vehicles, for the purposes of this criterion, the restrictions on content of lead, mercury, hexavalent chromium and cadmium (and the associated exemptions, where relevant) apply to all types of vehicles purchased or operated within the activity.

449 Commission Regulation (EU) No 582/2011 of 25 May 2011 implementing and amending Regulation (EC) No 595/2009 of the European Parliament and of the Council with respect to emissions from heavy duty vehicles (Euro VI) and amending Annexes I and III to Directive 2007/46/EC of the European Parliament and of the Council (OJ L 167, 25.6.2011, p. 1).

450 Regulation (EC) No 595/2009 of the European Parliament and of the Council of 18 June 2009 on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC (OJ L 188, 18.7.2009, p. 1).

	Vehicles comply with Regulation (EU) No 540/2014.
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.7. Inland passenger water transport

Description of the activity

Transport of passengers on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.30 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity complies with one or both of the following criteria: (a) the vessels have zero direct (tailpipe) CO_2 emissions; (b) until 31 December 2025, hybrid vessels use at least 50% of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a

water and marine resources	water use and protection management plan, developed in consultation with relevant stakeholders[451].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their safe recycling.
(5) Pollution prevention and control	Engines in vessels comply with emission limits set out in Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.8. Inland freight water transport

Description of the activity

Transport of freight on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE code H50.4 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

[451] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

1. The activity complies with one or both of the following criteria:

(a) the vessels have zero direct (tailpipe) CO_2 emission;

(b) until 31 December 2025, the vessels have direct (tailpipe) emissions of CO_2 per tonne kilometre (gCO_2/tkm), calculated (or estimated in case of new vessels) using the Energy Efficiency Operational Indicator[452], 50 % lower than the average reference value for emissions of CO_2 defined for heavy duty vehicles (vehicle subgroup 5-LH) in accordance with Article 11 of Regulation 2019/1242;

2. Vessels purchased or operated are not dedicated to transport fossil fuels.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[453].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their safe recycling.
(5) Pollution prevention and control	Vessels comply with the emission limits set out in Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and	N/A

[452] The Energy Efficiency Operational Indicator is defined as the ratio of mass of CO_2 emitted per unit of transport work. It should be a representative value of the energy efficiency of the ship operation over a consistent period which represents the overall trading pattern of the vessel. Guidance on how to calculate this indicator is provided in the document MEPC.1/Circ. 684 from IMO.

[453] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

restoration of biodiversity and ecosystems	

6.9. Retrofitting of inland water passenger and freight transport

Description of the activity

Retrofit and upgrade of vessels for transport of freight or passengers on inland waters, involving vessels that are not suitable for sea transport.

The activity is classified under NACE codes H50.4, H50.30 and C33.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
1. Until 31 December 2025, the retrofitting activity reduces fuel consumption of the vessel by at least 10 % expressed in litre of fuel per tonne kilometre, as demonstrated by a comparative calculation for the representative navigation areas (including representative load profiles) in which the vessel is to operate or by means of the results of model tests or simulations. 2. Vessels retrofitted or upgraded are not dedicated to transport fossil fuels.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[454].

[454] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy, including the control and management of hazardous materials on board of ships and ensuring their safe recycling.
(5) Pollution prevention and control	Vessels comply with emission limits set out in Annex II to Regulation (EU) 2016/1628 (including vessels meeting those limits without type-approved solutions such as through after-treatment).
(6) Protection and restoration of biodiversity and ecosystems	N/A

6.10. Sea and coastal freight water transport

Description of the activity

Transport of freight on vessels designed for operating on sea or coastal waters, and of vessels required for port operations, such as tugboats, mooring vessels, pilot vessels.

The activity is classified under NACE codes H50.2 and H52.22 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The activity complies with one or more of the following criteria:

(a) the vessels have zero direct (tailpipe) CO_2 emissions;

(b) until 31 December 2025, hybrid vessels use at least 50 % of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation;

(c) until 31 December 2025, and only where it can be proved that the vessels are used exclusively for provision of coastal services designed to enable modal shift of freight currently transported by land to sea, the vessels have direct (tailpipe) CO_2 emissions, calculated using the International Maritime Organization (IMO) Energy Efficiency

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

Design Index (EEDI)[455], 50 % lower than the average reference CO_2 emissions value defined for heavy duty vehicles (vehicle sub group 5-LH) in accordance with Article 11 of Regulation 2019/1242;

(d) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI) value 10 % below the EEDI requirements applicable on 1 January 2022[456];

2. Vessels are not dedicated to the transport of fossil fuels.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[457].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy. For ships above 500 gross tonnage, the activity complies with the requirements of Regulation (EU) No 1257/2013 of the European Parliament and of the Council[458] relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure that ships are recycled in facilities included on the

[455] Energy Efficiency Design Index, http://www.imo.org/fr/MediaCentre/HotTopics/GHG/Pages/EEDI.aspx.

[456] As agreed by the Marine Environment Protection Committee of the International Maritime Organization on its seventy-fourth session.

[457] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

[458] Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC (OJ L 330, 10.12.2013, p. 1).

	European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323[459]. The activity complies with Directive (EU) 2019/883 of the European Parliament and of the Council[460] as regards the protection of the marine environment against the negative effects from discharges of waste from ships. The ship is operated in accordance with Annex V to the IMO International Convention for the Prevention of Pollution from Ships (IMO MARPOL)[461].
(5) Pollution prevention and control	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802 of the European Parliament and of the Council[462], and with Regulation 14[463] of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO[464]. As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13[465] of Annex VI to IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions[466]. Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention.

459 Commission Implementing Decision 2016/2323 establishing the European List of ship recycling facilities pursuant to Regulation (EU) No 1257/2013 of the European Parliament and of the Council on ship recycling (OJ L 345, 20.12.2016, p. 119).

460 Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships, amending Directive 2010/65/EU and repealing Directive 2000/59/EC (OJ L 151, 7.6.2019, p. 116).

461 The International Convention for the Prevention of Pollution from Ships (MARPOL) of 2 November 1973.

462 Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels (OJ L 132, 21.5.2016, p. 58).

463 http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-(SOx)-%E2%80%93-Regulation-14.aspx.

464 As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

465 http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Nitrogen-oxides-(NOx)-–-Regulation-13.aspx.

466 In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

	Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.[467]. Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.
(6) Protection and restoration of biodiversity and ecosystems	The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM). Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise[468] and with the provisions set out under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.

6.11. Sea and coastal passenger water transport

Description of the activity

Transport of passengers overseas and coastal waters, whether scheduled or not as well as renting of pleasure boats with crew for sea and coastal water transport. This activity excludes restaurant and bar activities on board ships, when provided by separate units, renting of pleasure boats and yachts without crew, renting of commercial ships or boats without crew and operation of "floating casinos".

The activity is classified under NACE code H50.10 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

[467] International Convention on the Control of Harmful Anti-fouling Systems on Ships of 5 October 2001.

[468] IMO Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life, (MEPC.1/Circ.833).

The activity complies with one or more of the following criteria: a) the vessels have zero direct (tailpipe) CO_2 emissions; b) until 31 December 2025, hybrid vessels use at least 50 % of zero direct (tailpipe) CO_2 emission fuel mass or plug-in power for their normal operation; c) until 31 December 2025, the vessels have an attained Energy Efficiency Design Index (EEDI)[469] value 10 % below the EEDI requirements applicable on 1 January 2022[470].

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[471].
(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy. For ships above 500 gross tonnage, the activity complies with the requirements of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure that ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323. The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from

469 Energy Efficiency Design Index, http://www.imo.org/fr/MediaCentre/HotTopics/GHG/Pages/EEDI.aspx.

470 As agreed by the Marine Environment Protection Committee of the International Maritime Organization on its seventy-fourth session.

471 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	discharges of waste from ships. The ship is operated in accordance with Annex V to the IMO MARPOL Convention.
(5) Pollution prevention and control	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802, and with Regulation 14 of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO[472]. As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13 of Annex VI to IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions[473]. Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention. Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.. Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.
(6) Protection and restoration of biodiversity and ecosystems	The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM). Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise and with the provisions set out under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological

[472] As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

[473] In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

	standards for those descriptors, as applicable.

6.12. Retrofitting of sea and coastal freight and passenger water transport

Description of the activity

Retrofit and upgrade of vessels for the transport of freight or passengers on vessels designed for operating on sea or coastal waters, and of vessels required for port operations, such as tugboats, mooring vessels, pilot vessels.

The activity is classified under NACE codes H50.10, H50.2, H52.22, C33.15 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
1. Until 31 December 2025, the retrofitting activity reduces fuel consumption of the vessel by at least 10 % expressed in grams of fuel per deadweight tons per nautical mile, as demonstrated by computational fluid dynamics (CFD), tank tests or similar engineering calculations. 2. Vessels are not dedicated to the transport of fossil fuels.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[474].

[474] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	Measures are in place to manage waste, both in the use phase and in the end-of-life of the vessel, in accordance with the waste hierarchy. For ships above 500 gross tonnage, the activity complies with the requirements of Regulation (EU) No 1257/2013 relating to the control and management of hazardous materials on board of ships and the requirements applicable for their recycling. In particular, measures are in place to ensure that ships are recycled in facilities included on the European List of ship recycling facilities as laid down in Commission Implementing Decision 2016/2323. The activity complies with Directive (EU) 2019/883 as regards the protection of the marine environment against the negative effects from discharges of waste from ships. The ship is operated in accordance with Annex V to the IMO MARPOL Convention.
(5) Pollution prevention and control	As regards the reduction of sulphur oxides emissions and particulate matters, vessels comply with Directive (EU) 2016/802 , and with Regulation 14 of Annex VI to the IMO MARPOL Convention. Sulphur in fuel content does not exceed 0,5 % in mass (the global sulphur limit) and 0,1 % in mass in emission control area (ECA) designated in the North and Baltic Seas by the IMO[475]. As regards nitrogen oxides (NOx) emissions, vessels comply with Regulation 13 of Annex VI to IMO MARPOL Convention. Tier II NOx requirement applies to ships constructed after 2011. Only while operating in NOx emission control areas established under IMO rules, ships constructed after 1 January 2016 comply with stricter engine requirements (Tier III) reducing NOx emissions[476]. Discharges of black and grey water comply with Annex IV to the IMO MARPOL Convention. Measures are in place to minimise toxicity of anti-fouling paint and biocides as laid down in Regulation (EU) No 528/2012, which implements in Union law the International Convention on the Control

[475] As regards the extension of the requirements applying in Emission Control Area to other EU seas, countries bordering the Mediterranean Sea are discussing the creation of relevant ECA under the legal framework of the Barcelona Convention.

[476] In Union seas, the requirement is applicable as of 2021 in the Baltic and North Seas.

	of Harmful Anti-fouling Systems on Ships adopted on 5 October 2001.. Where exhaust gas cleaning systems (EGCS) are used, they are closed-loop systems.
(6) Protection and restoration of biodiversity and ecosystems	The activity does not lead to releases of ballast water containing aquatic organisms as referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM). Noise and vibrations comply with the IMO Guidelines for the Reduction of Underwater Noise[477] and with the provisions set out under Directive 2008/56/EC in relation to its Descriptors 1 (biodiversity), 2 (non-indigenous species), 6 (seabed integrity), 8 (contaminants), 10 (marine litter), 11 (Noise/Energy) and Commission Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors, as applicable.

6.13. Infrastructure for personal mobility

Description of the activity

Construction and operation of infrastructure for personal mobility, including the construction of roads, motorways bridges and tunnels and other infrastructure that are dedicated to pedestrians and bicycles, with or without electric assist.

The activity is classified under NACE codes F42.11; F42.12; F43.21; F71.1 and F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The infrastructure that is constructed and operated is dedicated to personal mobility: pavements, bike lanes and pedestrian zones, electrical charging and hydrogen refuelling installations for personal mobility devices.

[477] IMO Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life, (MEPC.1/Circ.833).

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[478].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC[479]) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[480]. Operators limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol, taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.

478 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

479 Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (OJ L 226, 6.9.2000, p. 3).

480 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en .

(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[481] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[482]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[483], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[484] are implemented.

6.14. Infrastructure for rail transport

Description of the activity

Construction, operation and maintenance of railways and subways as well as bridges and tunnels, and traffic management systems including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products.

The activity is classified under NACE codes F42.12; F42.13; F71.1, F71.20 and F43.21 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

481 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

482 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

483 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

484 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The activity complies with one of the following criteria: (a) the infrastructure (as defined in Annex II.2 to Directive (EU) 2016/797 of the European Parliament and of the Council[485]) is either : (i) electrified trackside infrastructure and associated subsystems: infrastructure, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems as defined in Annex II.2 to Directive (EU)2016/797; (ii) trackside infrastructure and associated subsystems where there is a plan for electrification or the infrastructure will be fit for use by zero tailpipe CO_2 emission trains within 10 years from the beginning of the activity: infrastructure, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems as defined in Annex II.2 to Directive (EU)2016/797; (b) the infrastructure and installations are dedicated to transhipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transhipment of goods; (c) infrastructure and installations are dedicated to the transfer of passengers from other modes to rail.; 2. The infrastructure is not dedicated to the transport of fossil fuels.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[486].

485 Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system within the European Union (OJ L 138, 26.5.2016, p. 44).

486 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[487]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Where appropriate, given the sensitivity of the area affected, in particular in terms of the size of population affected, noise and vibrations from use of infrastructure are mitigated by introducing open trenches, wall barriers, or other measures and comply with Directive 2002/49/EC of the European Parliament and of the Council[488]. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[489] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[490]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas

487 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

488 Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise (OJ L 189, 18.7.2002, p. 12).

489 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

490 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	(including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[491], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[492] are implemented.

6.15. Infrastructure enabling low-carbon road transport

Description of the activity

Construction and operation of motorways, streets, roads, other vehicular and pedestrian ways, surface work on streets, roads, highways, bridges or tunnels and construction of airfield runways, including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products. This activity excludes installation of street lighting and electrical signals.

The activity is classified under NACE codes F42.11; F42.13; F71.1 and F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The activity complies with one or more of the following criteria: (a) the infrastructure is dedicated to the operation of vehicles with zero tailpipe CO_2 emissions: electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric road systems (ERS); (b) the infrastructure and installations are dedicated to transhipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transhipment of goods; (c) the infrastructure and installations that are dedicated to public passenger transport.

[491] In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

[492] Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

2. The infrastructure is not dedicated to the transport of fossil fuels.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[493].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[494]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.

493 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

494 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

(5) Pollution prevention and control	Where relevant, noise and vibrations from use of infrastructure are mitigated by introducing open trenches, wall barriers or other measures and comply with Directive 2002/49/EC. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[495] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[496]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[497], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[498] are implemented. Where relevant, maintenance of vegetation along road transport infrastructure ensures that invasive species do not spread. Mitigation measures have been implemented to avoid wildlife collisions.

6.16. Infrastructure for water transport

Description of the activity

Construction and operation of waterways, harbour and rivers works, pleasure ports, locks, dams and dykes and other as well as the dredging of waterways, including the provision of architectural services, engineering services, drafting services, building inspection services and

495 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article4(2) of that Directive).

496 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

497 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

498 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products. This activity excludes project management activities related to civil engineering works.

The activity is classified under NACE code F42.91; F71.1 or F71.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The activity complies with one or more of the following criteria:

(a) the infrastructure is dedicated to the operation of vessels with zero direct (tailpipe) CO_2 emissions: electricity charging, hydrogen-based refuelling;

(b) the infrastructure is dedicated to the provision of shore-side electrical power to vessels at berth;

(c) the infrastructure is dedicated to the performance of the port's own operations with zero direct (tailpipe) CO_2 emissions;

(d) the infrastructure and installations are dedicated to transhipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transhipment of goods.

2. The infrastructure is not dedicated to the transport of fossil fuels.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[499].

[499] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.

(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[500]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, vibration, dust and pollutant emissions during construction maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[501] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[502]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[503], where applicable, has

Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

500 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

501 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

502 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

503 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC

	been conducted and based on its conclusions the necessary mitigation measures[504] are implemented.

6.17. Low carbon airport infrastructure

Description of the activity

Construction and operation of infrastructure that is required for zero tailpipe CO_2 operation of aircraft or the airport's own operations, as well as for provision of fixed electrical ground power and preconditioned air to stationary aircraft.

The activity is classified under NACE codes F41.20 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1) point (i) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The activity complies with one or more of the following criteria:

(a) the infrastructure is dedicated to the operation of aircraft with zero tailpipe CO_2 emissions: electricity charging and hydrogen refuelling;

(b) the infrastructure is dedicated to the provision of fixed electrical ground power and preconditioned air to stationary aircrafts;

(c) the infrastructure is dedicated to the zero direct emissions performance of the airport's own operations: electric charging points, electricity grid connection upgrades, hydrogen refuelling stations.

2. The infrastructure is not dedicated to the transport of fossil fuels.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.

[504] Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.
Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[505].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[506]. Operators limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.
(5) Pollution prevention and control	Measures are taken to reduce noise, vibration, dust and pollutant emissions during construction maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[507] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[508].

505 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

506 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

507 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

508 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[509], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[510] are implemented.

509 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

510 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

7. CONSTRUCTION AND REAL ESTATE ACTIVITIES

7.1. Construction of new buildings

Description of the activity.

Development of building projects for residential and non-residential buildings by bringing together financial, technical and physical means to realise the building projects for later sale as well as the construction of complete residential or non-residential buildings, on own account for sale or on a fee or contract basis.

The activity is classified under NACE codes F41.1 and F41.2, including also activities under F43, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

Technical screening criteria

Substantial contribution to climate change mitigation

Constructions of new buildings for which:

1. The Primary Energy Demand (PED)[511], defining the energy performance of the building resulting from the construction, is at least 20 % lower than the threshold set for the nearly zero-energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU of the European Parliament and of the Council[512]. The energy performance is certified using an as built Energy Performance Certificate (EPC).

2. For buildings larger than 5000 m^2 [513], upon completion, the building resulting from the construction undergoes testing for air-tightness and thermal integrity[514], and any deviation in the levels of performance set at the design stage or defects in the building envelope are disclosed to investors and clients.

3. For buildings larger than 5000 m^2[515], the life cycle Global Warming Potential (GWP)[516] of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed to investors and clients on demand.

511 The calculated amount of energy needed to meet the energy demand associated with the typical uses of a building expressed by a numeric indicator of total primary energy use in kWh/m2 per year and based on the relevant national calculation methodology and as displayed on the Energy Performance Certificate (EPC).

512 Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (OJ L 153, 18.6.2010, p. 13).

513 For residential buildings, the testing is made for a representative set of dwelling/apartment types.

514 The testing is carried out in accordance with EN13187 (Thermal Performance of Buildings - Qualitative Detection of Thermal Irregularities in Building Envelopes - Infrared Method) and EN 13829 (Thermal performance of buildings. Determination of air permeability of buildings. Fan pressurisation method) or equivalent standards accepted by the respective building control body where the building is located.

515 For residential buildings, the calculation and disclosure are made for a representative set of dwelling/apartment types.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	Where installed, the specified water use for the following water appliances are attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in Appendix D to this Annex: (a) wash hand basin taps, kitchen taps and showers have a maximum water flow of 6 litres/min; (b) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; (c) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre. To avoid impact from the construction site, environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[517].
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling

516 The GWP is communicated as a numeric indicator for each life cycle stage expressed as kgCO2e/m2 (of useful internal floor area) averaged for one year of a reference study period of 50 years. The data selection, scenario definition and calculations are carried out in accordance with EN 15978 (BS EN 15978:2011. Sustainability of construction works. Assessment of environmental performance of buildings. Calculation method). The scope of building elements and technical equipment shall be as defined in the Level(s) common EU framework for indicator 1.2. Where a national calculation tool exists, or is required for making disclosures or for obtaining building permits, the respective tool may be used to provide the required disclosure. Other calculation tools may be used if they fulfil the minimum criteria laid down by the Level(s) common EU framework: https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/412/documents, see indicator 1.2 user manual.

517 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

	operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[518]. Operators limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste. Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887[519] or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantleable to enable reuse and recycling.
(5) Pollution prevention and control	Building components and materials used in the construction do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006 of the European Parliament and of the Council[520]. Building components and materials used in the construction that may come into contact with occupiers[521] emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516[522] and ISO 16000-3[523] or other comparable standardised test conditions and determination methods[524].

518 EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

519 ISO 20887:2020, Sustainability in buildings and civil engineering works - Design for disassembly and adaptability - Principles, requirements and guidance.

520 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p. 1).

521 Applying to paints and varnishes, ceiling tiles, floor coverings, including associated adhesives and sealants, internal insulation and interior surface treatments, such as those to treat damp and mold.

522 CEN/TS 16516: 2013, Construction products - Assessment of release of dangerous substances - Determination of emissions into indoor air.

523 ISO 16000-3:2011, Indoor air — Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air — Active sampling method.

524 The emissions thresholds for carcinogenic volatile organic compounds relate to a 28-day test period.

	Where the new construction is located on a potentially contaminated site (brownfield site), the site has been subject to an investigation for potential contaminants, for example using standard ISO 18400[525]. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[526] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[527]. Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[528], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[529] are implemented. The new construction is not built on one of the following: (a) arable land and crop land with a moderate to high level of soil fertility and below ground biodiversity as referred to the EU LUCAS survey[530]; (b) greenfield land of recognised high biodiversity value and land that serves as habitat of endangered species (flora and fauna) listed on the European Red List[531] or the IUCN Red List[532];

525 ISO 18400 series on Soil quality — Sampling

526 The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

527 For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

528 In accordance with Directives 2009/147/EC and 92/43/EEC, or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

529 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

530 JRC ESDCA, LUCAS: Land Use and Coverage Area frame Survey, https://esdac.jrc.ec.europa.eu/projects/lucas

531 IUCN, *The IUCN European Red List of Threatened Species.* https://www.iucn.org/regions/europe/our-work/biodiversity-conservation/european-red-list-threatened-species.

532 IUCN, *The IUCN Red List of Threatened Species.* https://www.iucnredlist.org.

	(c) forest land (whether or not covered by trees), other wooded land or land that is partially or wholly covered or intended to be covered by trees, even where those trees have not yet reached the size and cover to be classified as forest or other wooded land, as defined in accordance with the [FAO definition of forest[533]].

7.2. Renovation of existing buildings

Description of the activity

Construction and civil engineering works or preparation thereof.

The activity is classified under NACE codes F41 and F43 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The building renovation complies with the applicable requirements for major renovations[534].

Alternatively, it leads to a reduction of primary energy demand (PED) of at least 30 %[535].

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.

533 Land spanning more than 0.5 hectares with trees higher than five meters and a canopy cover of more than 10 %, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use.

534 As set in the applicable national and regional building regulations for ‘major renovation’ implementing Directive 2010/31/EU. The energy performance of the building or the renovated part upgraded meets cost-optimal minimum energy performance requirements in accordance with the respective directive.

535 The initial primary energy demand and the estimated improvement is based on a detailed building survey, an energy audit conducted by an accredited independent expert or any other transparent and proportionate method, and validated through an Energy Performance Certificate. The 30 % improvement results from an actual reduction in primary energy demand (where the reductions in net primary energy demand through renewable energy sources are not taken into account), and can be achieved through a succession of measures within a maximum of three years.

(3) Sustainable use and protection of water and marine resources	Where installed as part of the renovation works, the specified water use for the following water appliances is attested by product datasheets, a building certification or an existing product label in the Union, in accordance with the technical specifications laid down in Appendix D to this Annex: (a) wash hand basin taps, kitchen taps and showers have a maximum water flow of 6 litres/min; (b) WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres; (c) urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.
(4) Transition to a circular economy	At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol[536]. Operators limit waste generation in processes related construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste. Building designs and construction techniques support circularity and in particular demonstrate, with reference to ISO 20887 or other standards for assessing the disassemblability or adaptability of buildings, how they are designed to be more resource efficient, adaptable, flexible and dismantleable to enable reuse and recycling.
(5) Pollution prevention and control	Building components and materials used in the building renovation do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in

[536] EU Construction and Demolition Waste Protocol. Available at https://ec.europa.eu/growth/content/eu-construction-and-demolition-waste-protocol-0_en.

	Annex XIV to Regulation (EC) No 1907/2006. Building components and materials used in the building renovation that may come into contact with occupiers[537] emit less than 0,06 mg of formaldehyde per m³ of material or component and less than 0,001 mg of categories 1A and 1B carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/TS 16516 and ISO 16000-3 or other comparable standardised test conditions and determination methods[538]. Measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works.
(6) Protection and restoration of biodiversity and ecosystems	N/A.

7.3. Installation, maintenance and repair of energy efficiency equipment

Description of the activity

Individual renovation measures consisting in installation, maintenance or repair of energy efficiency equipment.

The activity is classified under NACE code F42, F43, M71, C16, C17, C22, C23, C25, C27 or C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The activity consists in one of the following individual measures provided that they comply with minimum requirements set for individual components and systems in the applicable national measures implementing Directive 2010/31/EU and, where applicable, achieve energy ratings of at least class A in accordance with Regulation (EU) 2017/1369:

(a) addition of insulation to existing envelope components, such as external walls (including green walls), roofs (including green roofs), lofts, basements and ground

[537] Applying to paints and varnishes, ceiling tiles, floor coverings (including associated adhesives and sealants), internal insulation and interior surface treatments (such as to treat damp and mold)

[538] The emissions thresholds for carcinogenic volatile organic compounds relate to a 28-day test period.

floors (including measures to ensure air-tightness, measures to reduce the effects of thermal bridges and scaffolding) and products for the application of the insulation to the building envelope (including mechanical fixings and adhesive);

(b) replacement of existing windows with new energy efficient windows;

(c) replacement of existing external doors with new energy efficient doors;

(d) installation and replacement of heating, ventilation and air-conditioning (HVAC) and water heating systems, including equipment related to district heating services, with highly efficient technologies;

(e) installation of low water and energy using kitchen and sanitary water fittings which comply with technical specifications set out in Appendix D to this Annex and, in case of shower solutions, mixer showers, shower outlets and taps, have a max water flow of 6 L/min or less attested by an existing label in the Union market.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	Building components and materials used in carrying out the activity do not contain asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) 1907/2006 Regulation (EC) No 1907/2006. In case of addition of thermal insulation to an existing building envelope, a building survey is carried out in accordance with national law by a competent specialist with training in asbestos surveying. Any stripping of lagging that contains or is likely to contain asbestos, breaking or mechanical drilling or screwing or removal of insulation board, tiles and other asbestos containing materials is carried out by appropriately trained personnel, with health monitoring before, during

	and after the works, in accordance with national law.
(6) Protection and restoration of biodiversity and ecosystems	N/A

APPENDIX D: TECHNICAL SPECIFICATIONS[539] FOR WATER APPLIANCES

1. The flow rate is recorded at the standard reference pressure 3 -0/+ 0,2 bar or 0,1 -0/+0,02 for products limited to low pressure.

2. The flow rate at the lower pressure 1,5 -0/+ 0,2 bar is ≥ 60 % of the maximum available flow rate.

3. For mixer showers, the reference temperature is 38 ± 1 ℃.

4. Where the flow has to be lower than 6 L/min, it complies with the rule set out in point 2.

5. For taps the procedure described in clause 10.2.3 of EN 200 is followed, with the following exceptions:

(a) for taps that are not limited to low pressure applications only: apply a 3 -0/+ 0,2 bar pressure to both the hot and the cold inlets, alternatively;

(b) for taps that are limited to low pressure applications only: apply a 0,4 -0/+0,02 bar pressure to both the hot and the cold inlets and fully open the flow control.

7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)

Description of the activity

Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings.

539 [Reference to EU standards is available at EU level to assess technical specifications of products: EN 200 on "Sanitary tapware. Single taps and combination taps for water supply systems of type 1 and type 2. General technical specification"; EN 816 "Sanitary tapware –Automatic shut-off valves PN 10";·EN 817 "Mechanical mixing valves (PN 10) -General technical specifications";·EN 1111 "Sanitary tapware –Thermostatic mixing valves (PN 10) – General technical specification"; EN 1112 on "Sanitary tapware. Shower outlets for sanitary tapware for water supply systems of type 1 and type 2 –General technical specification";·EN 1113 on "Sanitary tapware –Shower hoses for sanitary tapware for water supply systems of type 1 and type 2 –General technical specification", including a method to test the resistance to flexing of the hose;·EN 1287 on "Sanitary tapware. Low pressure thermostatic mixing valves. General technical specifications";·EN 15091 "Sanitary tapware –Electronic opening and closing sanitary tapware".']

The activity is classified under NACE code F42, F43, M71, C16, C17, C22, C23, C25, C27 or C28 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
Installation, maintenance or repair of charging stations for electric vehicles.
Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.5. Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings

Description of the activity

Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings

The activity is classified under NACE code F42, F43, M71, and C16, C17, C22, C23, C25, C27, C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
The activity consists in one of the following individual measures: (a) installation of zoned thermostats, smart thermostat systems and sensing equipment, including. motion and day light control; (b) installation of building automation and control systems, building energy management systems (BMS), lighting control systems and energy management systems (EMS); (c) installation of smart meters for gas, heat, cool and electricity; (d) installation of façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and	Building components and materials used in the activity do not contain

control	asbestos nor substances of very high concern as identified on the basis of the list of substances subject to authorisation set out in Annex XIV to Regulation (EC) No 1907/2006.
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.6. Installation, maintenance and repair of renewable energy technologies

Description of the activity

Installation, maintenance and repair of renewable energy technologies, on-site.

The activity is classified under NACE code F42, F43, M71, C16, C17, C22, C23, C25, C27 or C28, in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The activity consists in one of the following individual measures, if installed on-site as technical building systems:

(a) installation, maintenance and repair of solar photovoltaic systems and the ancillary technical equipment;

(b) installation, maintenance and repair of solar hot water panels and the ancillary technical equipment;

(c) installation, maintenance, repair and upgrade of heat pumps contributing to the targets for renewable energy in heat and cool in accordance with Directive (EU) 2018/2001 and the ancillary technical equipment;

(d) installation, maintenance and repair of wind turbines and the ancillary technical equipment;

(e) installation, maintenance and repair of solar transpired collectors and the ancillary technical equipment;

(f) installation, maintenance and repair of thermal or electric energy storage units and the ancillary technical equipment;

(g) installation, maintenance and repair of high efficiency micro CHP (combined heat and power) plant;

(h) installation, maintenance and repair of heat exchanger/recovery systems.

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

7.7. Acquisition and ownership of buildings

Description of the activity

Buying real estate and exercising ownership of that real estate.

The activity is classified under NACE code L68 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. For buildings built before 31 December 2020, the building has at least Energy Performance Certificate (EPC) class A.

2. For buildings built after 31 December 2020, the building meets the criteria set out for the activity 'construction of new buildings' in Section 7.1 of this Annex that are relevant at the time of the acquisition.

3. Where the building is a large non-residential building (with an effective rated output for heating systems, systems for combined space heating and ventilation, air-conditioning systems or systems for combined air-conditioning and ventilation of over 290 kW) it is efficiently operated through energy performance monitoring and assessment.[540]

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	An Environmental Impact Assessment (EIA) or screening[541] has been completed, for activities within the Union, in accordance with Directive 2011/92/EU. For activities in third countries, an EIA has been completed in accordance with equivalent national provisions or international standards[542].

[540] This can be demonstrated, for example, through the presence of an Energy Performance Contract or a building automation and control system in accordance with Article 14 (4) and Article 15 (4), of Directive 2010/31/EU.

[541] The procedure through which the competent authority determines whether projects listed in Annex II to Directive 2011/92/EU is to be made subject to an environmental impact assessment (as referred to in Article 4(2) of that Directive).

[542] For example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.

	Where an EIA has been carried out, the required mitigation and compensation measures for protecting the environment are implemented. For sites/operations located in or near biodiversity-sensitive areas (including the Natura 2000 network of protected areas, UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas), an appropriate assessment[543], where applicable, has been conducted and based on its conclusions the necessary mitigation measures[544] are implemented. The building was not built on one of the following: (a) arable land and crop land with a moderate to high level of soil fertility and below ground biodiversity as referred to in the EU LUCAS survey[545]; (b) greenfield land of recognised high biodiversity value and land that serves as habitat of endangered species (flora and fauna) listed on the European Red List[546] or the IUCN Red List[547]; (c) forest land (whether or not covered by trees), other wooded land or land that is partially or wholly covered or intended to be covered by trees, even where those trees have not yet reached the size and cover to be classified as forest or other wooded land, as defined in accordance with the [FAO definition of forest].

8. INFORMATION AND COMMUNICATION

8.1. Data processing, hosting and related activities

Description of the activity

Storage, manipulation, management, movement, control, display, switching, interchange, transmission or processing of data through data centres[548], including edge computing.

543 In accordance with Directives 2009/147/EC and 92/43/EEC; or, for activities located in third countries, in accordance with equivalent national provisions or international standards, for example IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

544 Those measures have been identified to ensure that the project, plan or activity will not have any significant effects on the conservation objectives of the protected area.

545 JRC ESDCA, LUCAS: Land Use and Coverage Area frame Survey, https://esdac.jrc.ec.europa.eu/projects/lucas.

546 IUCN, *The IUCN European Red List of Threatened Species.* https://www.iucn.org/regions/europe/our-work/biodiversity-conservation/european-red-list-threatened-species.

547 IUCN, *The IUCN Red List of Threatened Species.* https://www.iucnredlist.org.

548 Data centres include the following equipment: ICT equipment and services; cooling; data centre power equipment; data centre power distribution equipment; data centre building; monitoring systems.

The activity is classified under NACE code J63.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is a transitional activity as referred to in Article 10(2) of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The activity has implemented all relevant practices listed as expected practices in the most recent version of the European Code of Conduct on Data Centre Energy Efficiency[549], or in CEN-CENELEC document CLC TR50600-99-1 "Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management"[550].

The implementation of those practices is verified by an independent third-party and audited at least every three years.

2. Where an expected practice is not considered relevant due to physical, logistical, planning or other constraints, an explanation of why the expected practice is not applicable or practical is provided. Alternative best practices from the European Code of Conduct on Data Centre Energy Efficiency or other equivalent sources may be identified as direct replacements if they result in similar energy savings.

3. The global warming potential (GWP) weighted average for the mixture of refrigerants used in the data centre cooling system does not exceed 10, unless it is proven that such low GWP refrigerants cannot be used for exceptional reasons or would significantly reduce the energy efficiency of the cooling systems. The calculation of the global warming potential weighted average, including the inventory of the refrigerants used at the sites or to provide the service, is consistent with the method described in Annex IV to Regulation (EU) No 517/2014 of the European Parliament and of the Council[551].

Do no significant harm (‘DNSH’)	
(2) Climate change	The activity complies with the criteria set out in Appendix E to this

549 https://e3p.jrc.ec.europa.eu/publications/2020-best-practice-guidelines-eu-code-conduct-data-centre-energy-efficiency

550 Issued on 1 July 2019 by the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC),https://www.cenelec.eu/dyn/www/f?p=104:110:508227404055501::::FSP_ORG_ID,FSP_PROJECT,FSP_LANG_ID:1258297,65095,25.

551 Regulation (EU) No 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006, (OJ L 150, 20.5.2014, p. 195).

adaptation	Annex.
(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[552].
(4) Transition to a circular economy	The equipment used meets the requirements laid down in Directive 2009/125/EC for servers and data storage products. The equipment used does not contain the restricted substances listed in Annex II to Directive 2011/65/EU of the European Parliament and of the Council[553], except where the concentration values by weight in homogeneous materials do not exceed the maximum values listed in that Annex. A waste management plan is in place and ensures maximal recycling at end of life of electrical and electronic equipment, including through contractual agreements with recycling partners, reflection in financial projections or official project documentation. At its end of life, the equipment undergoes preparation for re-use, recovery or recycling operations, or proper treatment, including the removal of all fluids and a selective treatment in accordance with Annex VII to Directive 2012/19/EU of the European Parliament and of the Council[554].
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and	N/A

552 As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards for activities addressing environmental degradation risks related to preserving water quality and avoiding water stress in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

553 Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (OJ L 174, 1.7.2011, p. 88).

554 Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (OJ L 197, 24.7.2012, p. 38).

ecosystems	

8.2. Data-driven solutions for GHG emissions reductions

Description of the activity

Development or use of ICT solutions that are aimed at collecting, transmitting, storing data and at its modelling and use where these activities are predominantly aimed at the provision of data and analytics for decision making (by the public and private sector) enabling GHG emission reductions.

The activity is classified under NACE codes J61, J62 and J63.11 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation
1. The ICT solutions, built on technologies, such as decentralised technologies (i.e. distributed ledger technologies), Internet of Things (IoT) and Artificial Intelligence, are predominantly used for the provision of data and analytics on GHG emissions or data and analytics relevant for decision making enabling GHG emission reductions. 2. The ICT solutions demonstrate substantial life-cycle GHG emission savings compared to the best performing alternative technology/ solution available on the market. Life-cycle GHG emissions are calculated using the Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018, ISO 14064-1:2018 or the ITU Recommendation L.1450[555]. Quantified life-cycle GHG emission reductions are verified by an independent third party.

Do no significant harm (‘DNSH’)	
(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of	N/A

[555] https://www.itu.int/rec/T-REC-L.1450-201809-I/en.

water and marine resources	
(4) Transition to a circular economy	The equipment used meets the requirements set in accordance with Directive 2009/125/EC for servers and data storage products. The equipment used does not contain the restricted substances listed in Annex II to Directive 2011/65/EU, except where the concentration values by weight in homogeneous materials do not exceed those listed in that Annex. A waste management plan is in place and ensures maximal recycling at end of life of electrical and electronic equipment, including through contractual agreements with recycling partners, reflection in financial projections or official project documentation. At its end of life, the equipment undergoes preparation for re-use, recovery or recycling operations, or proper treatment, including the removal of all fluids and a selective treatment in accordance with Annex VII to Directive 2012/19/EU.
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

9. PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES

9.1. Research, development and innovation

Description of the activity

Research, applied research, experimental development in natural sciences and engineering of solutions, processes, technologies and other products dedicated to the reduction, avoidance or removal of GHG emissions (RD&I).

The activity is classified under NACE codes M71.1.2 and M72.1 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

1. The activity researches, develops or provides innovation for technologies, products or other solutions that are dedicated to enable one or more economic activities for which the technical screening criteria have been set out in this Annex, with the exception of activities considered as transitional and enabling activities in accordance with Articles 10(1), point (i), and 10(2) of Regulation EU 2020/852, to meet those respective criteria for substantial contribution to climate change mitigation, while respecting the relevant criteria for doing no significant harm to other environmental objectives.

2. The ability of the research, development and innovation to reduce, remove or avoid GHG emissions through RD&I solutions in the target economic activities has at least been demonstrated in a relevant environment[556], satisfying at least the criteria for substantial contribution to climate change mitigation for the target activities.

3. The economic activity aims at bringing to market a solution that is not yet in the market and has better performance in terms of lifecycle GHG emissions than best commercially available technologies based on public or market information. The implementation of the technologies, products or other solutions being researched results in overall net GHG emissions reductions over their lifecycle.

Life-cycle GHG emissions are calculated using Commission Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018 or ISO 14064-1:2018.

Quantified life-cycle GHG emissions are verified by an independent third party.

4. Where the researched, developed or innovated technology, product or other solution already enables an activity or several activities addressed in this Annex to meet the technical screening criteria in the applicable Section of this Annex, the research, development and innovation activity focuses on the development of equally low- or lower-emission technologies, products or other solutions with new significant advantages, such as lower cost.

Do no significant harm ('DNSH')

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.

[556] Corresponding to at least TRL 6 in accordance with Annex G of the General Annexes of HORIZON 2020 WORK PROGRAMME 2016– 2017, p.29. https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016-2017/annexes/h2020-wp1617-annex-ga_en.pdf

(3) Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed, in accordance with a water use and protection management plan, developed in consultation with relevant stakeholders[557].
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

9.2. Professional services related to energy performance of buildings

Description of the activity

Professional services related to energy performance of buildings.

The activity is classified under NACE code M71 in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006.

The activity is an enabling activity as referred to in Article 10(1), point (i), of Regulation (EU) 2020/852 where it complies with the technical screening criteria set out in this Section.

Technical screening criteria

Substantial contribution to climate change mitigation

The activity consists in one of the following:

(a) technical consultations (energy consultations, energy simulations, project management, production of energy performance contracts, dedicated trainings) linked to the individual measures set out in Section 7.3, 7.5 and 7.6 of this Annex;

(b) accredited energy audits and building performance assessments;

[557] As required by Directive 2000/60/EC for activities subject to Union law or as required by equivalent national provisions or international standards addressing environmental degradation risks related to preserving water quality and avoiding water stress for activities in third countries.
Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.

(c) energy management services;

(d) energy performance contracts;

(e) energy services provided by energy service companies (ESCOs).

Do no significant harm (‘DNSH’)

(2) Climate change adaptation	The activity complies with the criteria set out in Appendix E to this Annex.
(3) Sustainable use and protection of water and marine resources	N/A
(4) Transition to a circular economy	N/A
(5) Pollution prevention and control	N/A
(6) Protection and restoration of biodiversity and ecosystems	N/A

APPENDIX E: GENERIC CRITERIA FOR DNSH TO CLIMATE CHANGE ADAPTATION

I. Criteria

New activity

The physical climate risks that are material to the activity have been identified from those listed in the table in Section II of this Appendix by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The economic operator has developed a plan to implement adaptation solutions to reduce material physical climate risks to the activity. Those adaptation solutions do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities and are consistent with local, sectoral, regional or national adaptation efforts.

Activity upgrading or altering existing assets or processes

The physical climate risks that are material to the activity have been identified from those listed in the table in Section II of this Appendix by performing a robust climate risk and vulnerability assessment. The assessment is proportionate to the scale of the activity and its expected lifespan, such that:

(a) for investments into activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections;

(b) for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.

The economic operator has developed a plan to implement adaptation solutions to reduce material physical climate risks to the activity. The adaptation solutions identified need to be implemented within five years from the start of the activity. These adaptation solutions do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities and are consistent with local, sectoral, regional or national adaptation efforts.

II. Classification of climate-related risks

	Temperature-related	**Wind-related**	**Water-related**	**Solid mass-related**
Chronic	Changing temperature (air, freshwater, marine water)	Changing wind patterns	Changing precipitation patterns and types (rain, hail, snow/ice)	Coastal erosion
	Heat stress		Precipitation or hydrological variability	Soil degradation
	Temperature variability		Ocean acidification	Soil erosion
	Permafrost thawing		Saline intrusion	Solifluction
			Sea level rise	
			Water stress	
Acute	Heat wave	Cyclone, hurricane, typhoon	Drought	Avalanche
	Cold wave/frost	Storm (including blizzards, dust and sandstorms)	Heavy precipitation (rain, hail, snow/ice)	Landslide
	Wildfire	Tornado	Flood (coastal, fluvial, pluvial, ground water)	Subsidence
			Glacial lake outburst	