

DRAFT COMMISSION NOTICE

on the interpretation and implementation of certain legal provisions of the EU Taxonomy Climate Delegated Act establishing technical screening criteria for economic activities that contribute substantially to climate change mitigation or climate change adaptation and do no significant harm to other environmental objective

In the Action Plan on Financing Sustainable Growth¹ adopted in March 2018 the Commission committed, among other actions, to establishing a clear and detailed EU classification system – or EU Taxonomy – for sustainable economic activities to create a common language for all actors in the financial system. The Regulation on the establishment of a framework to facilitate sustainable investment (‘Taxonomy Regulation’)² has created a unified EU classification system of environmentally sustainable economic activities and imposed transparency obligations on certain non-financial and financial undertakings with respect to those activities.

The Commission adopted the EU Taxonomy Climate Delegated Act³ to set out a list of technical screening criteria (‘TSC’) for certain economic activities to be considered as contributing substantially to the objectives of climate change mitigation and climate change adaptation with no significant harm to any other environmental objective (referred to as Taxonomy-aligned activities). On 9 March 2022, the Commission amended the Climate Delegated Act by providing technical screening criteria for certain energy activities⁴. Following scrutiny by co-legislators, the Climate Delegated Act was published in the Official Journal and applies as of 1 January 2022. The amendments to the Delegated Act will apply as of 1 January 2023.

This Notice is published alongside another Commission Notice containing replies to frequently asked questions (FAQs) on disclosures by undertakings regarding the Taxonomy-eligibility and alignment

¹ Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions on Action Plan: Financing Sustainable Growth (COM/2018/097 final, Celex 52018DC0097).

² Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, 22.6.2020, p.13.

³ Delegated Regulation (EU) (EU) 2021/2139 of 4 June 2021 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(OJ L 442, 9.12.2021, p. 1).

⁴ Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities (OJ L 188, 15.7.2022, p. 1).

of their activities under Article 8 of the Taxonomy Regulation and the relevant Delegated Act ('Disclosures Delegated Act'⁵). This note complements previous guidance provided by Directorate General Financial Stability, Financial Services and Capital Markets Union "FAQs: How should financial and non-financial undertakings report Taxonomy-eligible economic" and Commission Notice on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation on the reporting of eligible economic activities and assets⁶.

The application of the technical screening criteria is instrumental for undertakings to demonstrate alignment with the Taxonomy, but it is also important when identifying the potential for improvement for economic activities that are Taxonomy-eligible, but not yet aligned. The Sustainable Finance Disclosure Regulation (SFDR)⁷ requires financial market participants to use the disclosures on Taxonomy-alignment of investee companies for assessing the level of environmental performance of marketed financial products making sustainability claims.

This Notice contains technical clarifications responding to FAQs on the technical screening criteria set out in the Climate Delegated Act. The purpose of this Notice is to facilitate the effective application of the Climate Delegated Act.

This Notice does not address the many questions and proposals regarding the reasoning and evidence for the choice of criteria. On these issues, the Commission points out that the impact assessment accompanying the Climate Delegated Act contains further explanations on the development of this act, notably on the reasoning and the balance between the requirements of the Taxonomy Regulation for setting the technical screening criteria.

The replies to FAQs contained in this Notice clarify the provisions already contained in the applicable legislation. They do not extend in any way the rights and obligations deriving from such legislation nor introduce any additional requirements for the operators concerned and competent authorities. The FAQs are merely intended to assist financial and non-financial undertakings in the implementation of the relevant legal provisions. Only the Court of Justice of the European Union is competent to authoritatively interpret Union law. The views expressed in this Notice cannot prejudice the position that the Commission might take before the Union and national courts.

⁵ Commission Delegated Regulation (EU) 2021/2178) of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation (OJ L 443, 10.12.2021, p. 9–67).

⁶ Commission Notice on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation on the reporting of eligible economic activities and assets 2022/C 385/01 (OJ C 385, 6.10.2022, p. 1).

⁷ Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (OJ L 317, 9.12.2019, p. 1).

This draft has been approved in principle by the European Commission on 19 December 2022 and its formal adoption in all the official languages of the European Union will take place later on, as soon as the language versions are available.

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Relevant terms and list of applicable legislation

Term / instrument	Explanation / reference
Action Plan on Financing Sustainable Growth	Communication from the Commission, Action Plan: Financing Sustainable Growth ⁸
Activity in Section X	Activity referred to in Section X of Annex I to the Climate Delegated Act
Annex I	Annex I to the Climate Delegated Act
Annex II	Annex II to the Climate Delegated Act
Appendix A	Appendix A of Annex I to the Climate Delegated Act
Appendix B	Appendix B of Annex I to the Climate Delegated Act
Appendix C	Appendix C of Annex I to the Climate Delegated Act
BAT	Best Available Techniques
Birds Directive	Directive 2009/147/EC ⁹
BREEAM	British Research Establishment Environmental Assessment Method
Climate change adaptation (CCA)	Climate change adaptation referred to in point (b) of Article 9 of the Taxonomy Regulation
Climate change mitigation (CCM)	Climate change mitigation referred to in point (a) of Article 9 of the Taxonomy Regulation
Climate Delegated Act	Commission Delegated Regulation (EU) 2021/2139 ¹⁰

⁸ Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions Action Plan: Financing Sustainable Growth (COM/2018/097 final).

⁹ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7–25).

¹⁰ Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 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 (OJ L 442, 9.12.2021, p. 1–349).

Climate Delegated Act (DA) Impact Assessment	Impact Assessment accompanying the Delegated Act ¹¹
CLP Regulation	Regulation on classification, labelling and packaging of substances and mixtures ¹²
CO2 Regulation	Regulation (EU) 2019/631 ¹³
Commission	European Commission
Commission Delegated Regulation (EU) 2019/331	Commission Delegated Regulation (EU) 2019/331 ¹⁴
Commission Implementing Decision (EU) 2021/781	Commission Implementing Decision (EU) 2021/781 ¹⁵
Commission Recommendation on Building Modernisation	Commission Recommendation (EU) 2019/1019 of 7 June 2019 ¹⁶

¹¹ Commission Staff Working Document, ‘Impact Assessment Report’, accompanying the document Commission Delegated Regulation (EU) 2021/2139 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 (SWD(2021) 152 final, 4.6.2021).

¹² Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1–1355).

¹³ 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).

¹⁴ 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. 8–69)

¹⁵ Commission Implementing Decision (EU) 2021/781 of 10 May 2021 on the publication of a list indicating certain CO2 emissions values per manufacturer as well as average specific CO2 emissions of all new heavy-duty vehicles registered in the Union and reference CO2 emissions pursuant to Regulation (EU) 2019/1242 of the European Parliament and of the Council for the reporting period of the year 2019 (OJ L 167, 12.5.2021, p. 47–51).

¹⁶ Commission Recommendation (EU) 2019/1019 of 7 June 2019 on building modernisation (OJ L 165, 21.6.2019, p. 70–128).

Complementary Climate Delegated Act	Commission Delegated Regulation (EU) 2022/1214 ¹⁷
CSRD	Directive as regards corporate sustainability reporting ¹⁸
DGNB	Deutsches Gütesiegel nachhaltiges Bauen (German Quality Seal for Sustainable Construction)
Disclosures Delegated Act	Commission Delegated Regulation (EU) 2021/2178 ¹⁹
DNSH	Do no significant harm as referred to in Article 3 (b) and (d) of the Taxonomy Regulation
EEDI	Energy Efficiency Design Index
EIA	Environmental Impact Assessment
Enabling activities	Economic activities referred to in Article 16 of the Taxonomy Regulation
Energy Performance of Buildings Directive	Directive 2010/31/EU ²⁰
Environmental Impact Assessment Directive	Directive 2011/92/EU ²¹
Environmental objectives	The environmental objectives referred to in Article 9 of the Taxonomy Regulation
EPC	Energy Performance Certificate

¹⁷ Commission Delegated Regulation (EU) 2022/1214 of 9 March 2022 amending Delegated Regulation (EU) 2021/2139 as regards economic activities in certain energy sectors and Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities (OJ L 188, 15.7.2022, p. 1).

¹⁸ Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting, [add OJ reference when available].

¹⁹ Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation. (OJ L 443, 10.12.2021, p. 9–67.)

²⁰ Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (recast) (OJ L 153, 18.6.2010, p. 13–35).

²¹ Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (OJ L 26, 28.1.2012, p. 1–21).

EPREL	European Product Database for Energy Labelling ²²
EU	European Union
EU Climate Law	Regulation (EU) 2021/1119 ²³
EU Construction and Demolition Waste Management Protocol	EU Construction and Demolition Waste Management Protocol, compiled by Ecorys on behalf of the European Commission, as part of contract follow-up actions on the communication on sustainable competitiveness of the construction sector, 2016. ²⁴
EU Emission Type Approval Regulation	Commission Regulation (EU) 2017/1151 ²⁵
Euro 6	Regulation (EC) No 715/2007 ²⁶
Euro IV	Regulation (EC) No 595/2009 ²⁷
European Code of Conduct on Energy Efficiency in Data Centres	European Code of Conduct on Energy Efficiency in Data Centres ²⁸
FAQs	Commission staff document “ <i>FAQs: How should financial and non-financial undertakings report Taxonomy-eligible economic</i>

²² Product database available at: https://ec.europa.eu/info/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/product-database_en

²³ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (‘European Climate Law’) (OJ L 243, 9.7.2021, p. 1–17).

²⁴ Available at: <https://ec.europa.eu/docsroom/documents/20509/>

²⁵ Commission Regulation (EU) 2017/1151 of 1 June 2017 supplementing Regulation (EC) No 715/2007 of the European Parliament and of the Council 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, amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) No 1230/2012 and repealing Commission Regulation (EC) No 692/2008 (OJ L 175, 7.7.2017, p. 1–643).

²⁶ 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. 1–16).

²⁷ 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. 1–13).

²⁸ Available at: https://joint-research-centre.ec.europa.eu/energy-efficiency/energy-efficiency-products/code-conduct-ict/code-conduct-energy-efficiency-data-centres_en

	<i>activities and assets in accordance with the Taxonomy Regulation Article 8 Disclosures Delegated Act?</i> ” ²⁹
First Commission Notice	Commission Notice on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation on the reporting of eligible economic activities and assets ³⁰
GHG	Greenhouse Gas
GWP	Global Warming Potential
Habitats Directive	Directive 92/43/EEC ³¹
IMO	International Maritime Organisation
Industrial Emissions Directive	Directive 2010/75/EU ³²
IPCC	Intergovernmental Panel on Climate Change
ISO	International Standardisation Organisation
Key Performance Indicators (KPIs)	Key Performance Indicators (KPIs) of non-financial undertakings referred to in Annex I to the Disclosures Delegated Act
LEED	Leadership in Energy and Environmental Design
MARPOL	International Convention for the Prevention of Pollution from Ships ³³
Minimum safeguards	Minimum safeguards referred to in Article 18 of the Taxonomy Regulation
NACE	Nomenclature of Economic Activities

²⁹ Commission staff document published online in December 2021 (updated January 2022).

³⁰ Commission Notice on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation on the reporting of eligible economic activities and assets 2022/C 385/01, (OJ C 385, 6.10.2022, p. 1–19).

³¹ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7–50).

³² Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (recast) (OJ L 334, 17.12.2010, p. 17–119).

³³ The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

NFRD	Directive 2014/95/EU ³⁴
Non-climate environmental objectives	The environmental objectives referred to in points (c), (d), (e) and (f) of Article 9 of the Taxonomy Regulation (sustainable use and protection of water and marine resources; transition to a circular economy; pollution prevention and control; protection and restoration of biodiversity and ecosystems)
NZEB	Nearly zero-energy building
OpEx	Operational expenditure
Paris Agreement	Paris Agreement under the UNFCCC ³⁵
Platform on Sustainable Finance	The Platform on Sustainable Finance referred to in Article 20 of the Taxonomy Regulation
RCP	Representative Concentration Pathway
REACH	Regulation (EC) No 1907/2006 ³⁶ on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Regulation 2009/1005 (EU)	Regulation (EU) 2009/1005 ³⁷
Regulation 2016/1628 (EU)	Regulation (EU) 2016/1628 ³⁸
Regulation (EU)	Regulation (EU) 2017/852 ³⁹

³⁴ Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups (OJ L 330, 15.11.2014, p. 1–9).

³⁵ Paris Agreement Under the United Nations Framework Convention on Climate Change (OJ L 282, 19.10.2016, p. 4).

³⁶ 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. 1–849.

³⁷ Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer (recast) (OJ L 286, 31.10.2009, p. 1–30).

³⁸ 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. 53–117).

³⁹ Regulation (EU) 2017/852 of the European Parliament and of the Council of 17 May 2017 on mercury, and repealing Regulation (EC) No 1102/2008 (OJ L 137, 24.5.2017, p. 1–21).

2017/852	
Regulation 2019/1021	(EU) Regulation (EU) 2019/1021 ⁴⁰
Regulation 2019/1242	(EU) Regulation (EU) 2019/1242 ⁴¹
Renewable Energy Directive ('RED II')	Directive (EU) 2018/2001 ⁴²
RoHS Directive	Directive 2011/65/EU ⁴³ on Restriction of Hazardous Substances in Electrical and Electronic Equipment
Taxonomy Regulation	Regulation (EU) 2020/852 ⁴⁴
Taxonomy-aligned economic activity	An economic activity defined in point (2) of Article 1 of Disclosures Delegated Act
Taxonomy-eligible economic activity	An economic activity defined in point (5) of Article 1 of Disclosures Delegated Act
Technical screening criteria (TSC or criteria)	Technical screening criteria set out in the Climate Delegated Act
TEN-E Regulation	Regulation (EU) 2022/869 ⁴⁵

⁴⁰ Regulation (EU) 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants (recast) OJ L 169, 25.6.2019, p. 45–77.

⁴¹ 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. 202–240).

⁴² 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).

⁴³ 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 (recast), OJ L 174, 1.7.2011, p. 88–110.

⁴⁴ Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13–43).

⁴⁵ Regulation (EU) 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and (EU) 2019/943 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013, (OJ L 152, 3.6.2022, p. 45–102).

Transitional Activities	Economic activities referred to in Article 10(2) of the Taxonomy Regulation
U-value	Thermal transmittance value, expressing the rate of transfer of heat through a structure
Waste Framework Directive	Directive 2008/98/EC ⁴⁶
Water Framework Directive (WFD)	Directive 2000/60/EC ⁴⁷
WLTP	Worldwide Harmonised Light Vehicle Test Procedure

SECTION I – Horizontal Questions

Questions on process, updates and further development

1. Will the technical screening criteria set out in the Climate Delegated Act be made stricter and updated over time?

Article 19(5) of the Taxonomy Regulation requires the Commission to regularly review the TSC defining substantial contribution to environmental objectives and DNSH to those objectives. In case of activities identified as transitional in the Climate Delegated Act, the review would be conducted at least every three years to ensure the criteria remain on a credible transition pathway consistent with a climate-neutral economy. No minimum period is specified for the other activities. The TSC will be updated over time to keep them aligned with overall policy objectives, technological developments and the availability of scientifically robust evidence justifying the introduction of new or updated criteria.

In accordance with Article 20(2) of the Taxonomy Regulation, the Platform on Sustainable Finance shall advise the Commission on the development of additional TSC, including for additional activities, and updating of existing TSC.

Based on this advice, the EU's trajectory relative to its sustainability targets as well as on other feedback, the Commission may review the TSC and, where appropriate, amend the delegated acts establishing these criteria. As a result, the TSC could become stricter over time.

⁴⁶ 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. 3–30).

⁴⁷ 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).

2. How will the Taxonomy be further developed – will there be more activities contributing to climate change mitigation (CCM) included in the Climate Delegated Act?

Yes, the Taxonomy will continue to be developed over time. As far as climate change mitigation (CCM) is concerned, the Climate Delegated Act prioritised economic sectors and activities with the highest potential to make a substantial contribution to GHG emission reduction based on their share of overall emissions and their potential to reduce emissions. The scope defined for CCM has been replicated for climate change adaptation⁴⁸.

However, not all activities potentially contributing substantially to climate objectives were included in the first Climate Delegated Act. A Complementary Climate Delegated Act amending the Climate Delegated Act was adopted to cover as transitional activities certain economic activities involving specific gas and nuclear-related technologies that were not part of the Climate Delegated Act.

In addition, further activities contributing to the climate objectives may be included in the Climate Delegated Act at the time of its future review or of the adoption of any future delegated acts containing activities contributing to the other four non-climate environmental objectives.

Horizontal questions on the scope of economic activities and on technical screening criteria set out in the Climate Delegated Act

3. What does checking the compliance with the TSC on the substantial contribution and the DNSH mean in practice?

The checking of compliance with the TSC requires the collection and assessment of relevant information in order to determine if the economic activity fulfils the conditions set out in the TSC. All criteria related to substantial contribution and DNSH, as well as the minimum social safeguards referred to in Article 18 of the Taxonomy Regulation have to be met for an activity to be considered Taxonomy-aligned. For further guidance, users may consult the Taxonomy user guide on the Commission's website⁴⁹.

4. How should verification requirements in the technical screening criteria be understood? What documentary evidence could support the demonstration and verification of compliance with those criteria?

The Climate Delegated Act contains specific verification requirements for certain activities, in line with point (k) of Article 19(1) of the Taxonomy Regulation, which requires that the TSC are easy to use and be set in a manner that facilitates the verification of their

⁴⁸ See Annex 6 of the impact assessment accompanying the first Climate Delegated Act for details available at: https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-impact-assessment_en.pdf

⁴⁹ [add link when available]

compliance. This is the case where the criteria rely on elements that require specialist knowledge. The accuracy of such information would be difficult to check for investors. Therefore, the TSC for specific activities include external verification requirements for activities where such concerns are present. Where the Climate Delegated Act requires verification for certain activities, the report by the external verifier would constitute the evidence of compliance with those criteria. External verifiers can be either the relevant national competent authorities or an independent third-party verifier having no conflict of interest with the operator of the activity nor be involved in the development or operation of the activity.

For example, the forest management plans in Sections 1.1.-1.4. on the forestry activities are highly context specific, and therefore external verification of these plans and their implementation is necessary to give sufficient certainty to investors. For several energy and some manufacturing activities, such as ‘Manufacture of other low carbon technologies’ in Sections 3.6., ‘Manufacture of plastics in primary form’ in Section 3.17., ‘Electricity generation from geothermal energy’ in Section 4.6., specific thresholds for GHG emissions are central to the TSC, and their external verification can serve to inform investors of compliance with TSC.

Where required, details of the verification of the criteria should form part of the disclosure of Taxonomy-alignment. Taxonomy-verification requirements are set to evolve together with other sustainability-reporting under the CSRD, once it enters into application.

5. Can technical consultancy services be counted as Taxonomy-eligible, and potentially Taxonomy-aligned, if they are related to an activity defined in the Taxonomy Delegated Acts?

Only activities that are themselves set out in the Climate Delegated Act can be Taxonomy-eligible.

Thus, only the consultancy services that are explicitly covered by the Taxonomy, in particular with regard to climate change mitigation, in ‘*Professional services related to energy performance of buildings*’ in Section 9.3. and, with regard to climate change adaptation, in ‘*Computer programming, consultancy and related activities*’ in Section 8.1. and ‘*Engineering activities and related technical consultancy dedicated to adaptation to climate change*’ in Section 9.1.

In order to determine whether an activity is Taxonomy-eligible, the description of the activity must be used. The references to NACE codes with which such an activity could be associated are used for orientation purposes.

Consultancy services related to other Taxonomy-eligible activities listed in the Climate Delegated Act are not eligible.

6. How should GHG emissions for technical screening criteria be calculated (scope, methodologies etc.)?

There is no universal calculation method for GHG emissions in the Climate Delegated Act. Specific calculation methods are set out in the TSC for specific activities, in line with the methodological approaches based on the requirements laid out in Article 19 of the Taxonomy

Regulation. See also on this point responses to activity specific questions, such as for instance Question 52.

7. How can an undertaking's activities that are carried out in jurisdictions outside the EU be assessed for compliance with the technical screening criteria by reference to local third-country requirements or guidelines? When criteria refer to EU/national legislation or standards, should the level of requirements be adapted for criteria to be achieved outside the EU?

As set out in the answer to question 18 of the first Commission Notice, disclosure obligations under Article 8 of the Taxonomy Regulation apply to entities subject to the scope of the NFRD and to all their activities regardless of their location. While several of the TSC set out objective thresholds and requirements which do not refer to any location-specific regulatory requirements, some TSC refer to jurisdiction-specific requirements laid out in EU legislation. In general, for assessing the Taxonomy-alignment of an economic activity conducted outside the EU, undertakings should ascertain whether it is performed in compliance with the requirement applicable in Union legislation or, where mentioned in the TSC, a relevant international standard or equivalent applicable national law in a third country (for instance, references to such standards in the generic DNSH criteria for biodiversity protection set out in Appendix D of Annex I).

8. How to interpret the use of “and” and “or” in the description of economic activities (for instance in ‘Construction or operation of electricity generation facilities that produce electricity from hydropower’ in Section 4.5; or ‘Construction and operation of electricity generation installations that produce electricity exclusively from biomass, biogas or bioliquids’ in Section 4.8)?

The terms ‘and’ and ‘or’ are used interchangeably in the activity descriptions but not in the criteria where ‘and’ refers to a cumulative requirement. In general, an economic activity is Taxonomy-eligible if it constitutes any of the steps referenced in the description of the activity in bringing that activity to market (e.g. construction, operation, refurbishment, installation, maintenance etc.).

9. How to deal with technical screening criteria that are not relevant to a specific activity mentioned in the description (e.g. a maintenance-only service with no construction-related waste)?

If the economic activity manifestly does not involve an element addressed by the TSC, an explanation of this fact can be provided in the disclosure of why the activity qualifies as Taxonomy-aligned without fulfillment of a specific criterion (e.g. the provision of a service included in the description which has no impact on other environmental objectives and thereby does not give rise to any potential issues with a DNSH-criterion).

10. In a number of cases of enabling activities, benchmarks compared to industry averages, peers or best available technologies are required. However, such information is not always available publicly. How should the requirement to provide these benchmarks be met?

The TSC are not always exhaustive in how activities can qualify but in specific cases leave scope for case-by-case assessments by economic operators. Where the information required to demonstrate compliance relative to a metric or industry best practice depends on multiple factors or cannot be expressed in a straightforward way, operators should provide appropriate explanations, including any relevant independent third-party opinions, in their disclosures of why the activity is considered to qualify as Taxonomy-aligned.

11. How does the sustainable finance framework apply to access to private funding for the defence industry?

The Commission acknowledges the need to ensure access to finance and investment including from the private sector for all strategic sectors, in particular the defence industry which contributes to European citizens' security.

In its communication of 15 February 2022 on European defence (COM(2022) 60) the Commission highlighted the need for initiatives on sustainable finance to remain consistent with the European Union efforts to facilitate the European defence industry's sufficient access to finance and investment. The EU Sustainable Finance Framework focuses on ensuring transparency and does not impose any limitations to the financing any specific sector, including the defence sector.

Like in any sector, undertakings involved in defence-related activities can claim Taxonomy-alignment for eligible horizontal investments stipulated in the Climate Delegated Act. This includes, for example, investments in greening their buildings, or investment in clean transport in the form of CapEx and/or OpEx referred to in point (c) of Sections 1.1.2.2. and 1.1.3.2 of Annex I to Disclosures Delegated Act. They can also claim alignment for any other activities identified in the Climate Delegated Act (for example activities in the field of transport, data solutions, manufacturing etc.).

EU rules on sustainability disclosures apply horizontally across all industries equally and they do not single out a particular sector.

There is an explicit reference directly relevant for a limited part of the defence sector in one regulatory technical standard (RTS) under the Sustainable Finance Disclosures Regulation (SFDR), specifying further how financial market participants should disclose information about their principal adverse sustainability impacts (PAIs). This regulatory standard covers exposure to four categories of controversial weapons (anti-personnel mines, cluster munitions, chemical weapons, and biological weapons). For the remaining part of the RTS under the SFDR, the requirements (including on social aspects) are the same as for any other sector.

Similarly, the rules on MiFID/IDD sustainability preferences for retail investors apply horizontally across all industries equally and do not single out any specific sector. Therefore, they do not prevent investments in any specific sector. The principal adverse impacts taken

into consideration in the financial product only concern the controversial weapons as referred to above.

As part of a broader work following up on the European Council conclusions of March 2022 to promote and facilitate access to private funding for the defence industry, the European Defence Agency launched in May 2022 a study to provide an overview of ESG frameworks applied on financial markets and how they regard defence industry or defence industry related activities. The aim is to measure and benchmark the European defence industry's activities in relation to environmental, social and governance (ESG) criteria, and provide an analysis of the sector's contribution to the objectives set out by ESG-related frameworks.

12. How about companies without any Taxonomy-aligned activities? Will they lose access to finance?

No. The mere fact that a company does not have Taxonomy-aligned activities does not mean that conclusions can be drawn regarding the company's environmental performance or its ability to access finance.

There is also no obligation on companies to have activities aligned with the EU Taxonomy and there is no obligation on investors to invest in Taxonomy-aligned activities.

Overall, there is likely to be a higher interest in Taxonomy-aligned activities from investors who are seeking sustainable investments.

There are several reasons why a company might not have economic activities that are eligible or aligned with the criteria of the EU Taxonomy: its economic activities might simply not be covered by the EU Taxonomy, or it may be covered but not make a substantial contribution to an environmental objective; or it might make a substantial contribution but not meet the do no significant harm criteria or the minimum social safeguards. Therefore, without knowing the exact reasons why a company has no Taxonomy-aligned activities, market participants cannot make investment decisions purely on the basis of Taxonomy-related disclosures of companies, because not having Taxonomy-aligned activities does not, in itself, reveal the company's exact environmental performance. Instead, other disclosures, such as the company's disclosures under the CSRD will help inform markets about the company's environmental performance and the company's direction of travel on environmental matters.

Just as companies need to manage their portfolio of activities and should aim to gradually increase the share of green activities, similarly it can be expected that most investors will aim to gradually increase the share of sustainable investments in their portfolios. It is also important to keep in mind that financial market participants who are making decisions about allocating capital will take into account more elements than just the Taxonomy alignment. For all companies within the scope of the CSRD, even for companies not undertaking economic activities that are Taxonomy-aligned, investors will have at their disposal both (i) Taxonomy disclosures, and (ii) the information reported according to the CSRD. Aside from legally binding disclosures, companies can also make voluntary disclosures. Investors may use all of these disclosures when making investment decisions and financial products. Investors are free to design their investments as they wish and will continue to make investment decisions taking into account a large number of factors.

SECTION II: Sector specific questions on technical screening criteria

Forestry

A. Afforestation

- 13. The DNSH criteria for pollution prevention and control of the activity “Afforestation” in Section 1.1. specify that the activity should minimise the use of fertilisers and not use manure. Should the use of natural fertilisers also be minimised?**

The DNSH criterion requires the minimisation of fertilisers by favouring the use of alternative approaches or techniques including non-chemical or natural fertilisers. In cases where non-chemical or natural fertilisers are used, their overall consumption should be kept at a minimum and take account of broader ecosystem impacts.

- 14. How is the term “degradation of land with high carbon stocks” in the activity “Afforestation” in Section 1.1. defined?**

The Climate Delegated Act defines land with high-carbon stock by referring to Article 29(4), points (a), (b) and (c) of RED II, which provides:

“[...] land with high-carbon stock, namely land that had one of the following statuses in January 2008 and no longer has that status:

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

(b) 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;

(c) 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, unless evidence is provided that the carbon stock of the area before and after conversion is such that, when the methodology laid down in Part C of Annex V is applied, the conditions laid down in paragraph 10 of this Article would be fulfilled.”

The Climate Delegated Act does not provide a definition of degradation. However, the overall purpose of the criterion is to maintain the high carbon stock and avoid GHG emissions from that stock.

B. Rehabilitation and restoration of forests

- 15. What does “in accordance with the terms and conditions laid down in national law” mean in the context of the activity “Rehabilitation and restoration of forests” in Section 1.2.? What if national law does not require such consideration?**

In the context of point 1.2. (g) of the substantial contribution criteria to climate change mitigation of the activity “*Rehabilitation and restoration of forests*” in Section 1.2, the reference to a consultation of stakeholders in accordance with the terms and conditions set

out in national law regarding consideration of societal issues, is not further defined in the Climate Delegated Act. If there is no specific national law, that should be stated in the information provided under point 1.2.

16. Where is the boundary between the activity “Rehabilitation and restoration of forests” in Section 1.2 and the activity “Forest management” in Section 1.3 in the case when forest management includes reforestation after a clear cut or a natural disturbance? Specifically, under which section does the reforestation after an outbreak of pests fall?

The reforestation after an outbreak of pests would be covered under the activity “Rehabilitation and restoration of forests” in Section 1.2 as the title of the activity states *"including after an extreme event"*.

C. Forest management

17. What is the meaning of a “continuously updated” forest management plan? Does this mean renewed after the end of its validity, in the occurrence of significant events, or yearly? Or is it about having evidence of the work done in the forest?

The frequency of updates of forest management plans is not defined in the TSC, allowing for a scope for reflecting national requirements. As mentioned in the FAO Sustainable Forest Management Toolbox⁵⁰, continuous improvement through accumulating learning is an integral part of sustainable forest management, and forest management plans need to be reviewed regularly and revised accordingly as conditions change. The continuity aspect also includes the need to ensure that there is no break in time between different forest management plan updates. In the case of a 10-year-long forest management plan, the frequency should be at least 10 years.

18. Are the criteria of points 2.1 (a) and (b) of the substantial contribution criteria of the activity “Forest management” in Section 1.3 fulfilled if management systems are in place at forest sourcing level to ensure carbon stock and sink levels are maintained or strengthened?

No, only point 2.1 (b) is fulfilled in this case. It is still necessary to carry out a climate benefit analysis over a period of 30 years in accordance with point 2.1. (a), possibly using the management system in place at forest sourcing level as the baseline.

19. What does the criterion in point 2.3 (c) of the substantial contribution criteria of the activity “Forest management” in Section 1.3 mean in practice?

The criterion in point 2.3. (c) provides that *"the resolution of the analysis is proportionate to the size of the area concerned and values specific to the area concerned are used"*.

⁵⁰ See: www.fao.org/sustainable-forest-management/toolbox/modules/forest-management-planning/in-more-depth/en/

The criterion underlines that the climate benefit analysis needs to be tailored to the size of the area and the specific context, for example by using the growth assumptions associated with the specific soil and climatic conditions.

20. Criterion in point 2.4 of the substantial contribution criteria of the activity “Forest management” in Section 1.3. provide that forest holdings under 13ha are not required to perform a climate benefit analysis. What are the requirements for an owner of a 14 hectare forest holding?

The provisions in point 2.4 of Section 1.3 “Forest management” exempt forest holdings under 13ha, which corresponds to the average size of a forest holding in Europe, from the requirement to perform a climate benefit analysis. The owner of a 14 hectare forest holding needs therefore to carry out such an analysis to comply with forest management criteria, unless he can demonstrate compliance with this requirement at forest sourcing area level, as specified in point 2.1.

21. How will the compliance of the activity with the criteria set out in point 2.3 (a) of the activity “Forest management” in Section 1.3. be evaluated, especially the analysis considering a risk of leakage?

The criteria regarding audit referred to in point 4 of the TSC provide an additional level of assurance for the reported data. Reference is also made to the reply to Question 4 in Section I of this Notice.

22. What does “*in accordance with national law*” referred to in point 3.1. mean in the context of the guarantee of permanence? What if national law does not require such consideration?

This reference means that the different measures that can be used to provide a guarantee of permanence for the forest status should, where applicable, comply with national law (such as for options in points (b) or (c) of point 3.1., where the area is classified as a protected area or the area is subject to a legal or contractual agreement).

Where national law does not require such considerations, reference is made to the reply to question 15 of this Notice.

23. Is the criterion set out in point 3.1. of the substantial contribution criteria of the activity “Forest management” in Section 1.3. to be understood that there must be a contractual agreement that the forest area in question cannot be changed to other land use?

No, that is not an exclusive requirement. The criterion includes a contractual agreement as one possible way to fulfil the requirement laid out in point 3.1. of Section 1.3.

24. What does “*beyond the activity that is financed*” mean in the context of the guarantee of permanence referred to in point 3.2. in Section 1.3.?

“The activity that is financed” refers to the activity that is currently carried out and aims to qualify for Taxonomy-alignment. The terms *“beyond the activity that is financed”* imply that the activity would seek climate benefits also beyond the scope of the activity.

25. Is a forest certification audit enough to verify compliance with the technical screening criteria?

Forest certification may be used to demonstrate compliance with the TSC. However, a forest certification does not, in itself, demonstrate compliance with the TSC.

Any audit, including through a forest certification process, that addresses all applicable aspects of the criteria is suitable. Reference is also made to the reply to question 4 in Section I of this Notice.

26. How can it be known in advance that “the group of those holdings remains the same for all subsequent audits” as referred to in point 5(b) in Section 1.3.? Why does it matter if the group changes between audits?

This condition aims to ensure the comparability of the information and requires a durable relationship if it is chosen to check compliance at the level of a group of holdings. The Delegated Act does not further prescribe how participants in such a group organise their cooperation.

27. What happens when the DNSH criteria are assessed at the level of the “group of holdings” and one of the members leaves during the expected lifespan of the activity? Such lifespan can be several decades for forestry activities, and there is no assurance that the group stays the same for such a long time.

In case of group assessment, the Delegated Act requires that the group is sufficiently homogenous to allow the evaluation of risks, that the members of the group have a durable relationship and participate in the activity and that the group remains the same for the subsequent audits. The Delegated Act does not provide that the group assessment cannot be continued in the situation where a holding leaves the group that had criteria assessed at group level. If the remaining group can be reasonably expected to continue their common assessment and if the profile of the group and its homogeneity are not affected, the group would not have any additional burden of proof regarding homogeneity and could continue to carry out the verification as a group.

28. In relation to the technical screening criteria for DNSH to climate change adaptation, what is the “expected life span” referred to in Appendix A for forestry activities?

The expected life span of forestry activities should be set at several tens of years at least.

29. In relation to the technical screening criteria for DNSH to climate change adaptation, can the climate projections prepared at State or regional level be used for the climate risk assessment?

The projections that are available at State and regional level could be used as a basis for assessments provided they are made by the relevant competent authority (e.g. weather forecast service). If more granular and specific assessments are available for some areas, the forest planners, owners or managers in these areas should also use these assessments.

30. The biodiversity DNSH criteria of the activity “Forest management” in Section 1.3. require in point 6(a) to ensure the “good conservation status of habitat and species, maintenance of typical habitat species”. How should the term “good conservation status” in the DNSH criteria be interpreted?

The main aim of this criterion is to be applicable independently of whether the activity takes place in a protected area or not, or deals with priority species under the Birds and Habitats Directives or not. The first paragraphs in the criterion deal specifically with protected areas.

The text preceding point (a) which includes the reference to “good conservation status” makes clear the need for “provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions”. This indicates that the term “good conservation status” as used in this criterion, can take different interpretations in accordance with national or local provisions, and was not intended as a reference to favourable conservation status as in the Birds and Habitats Directives.

31. How can points (a) to (d) of the biodiversity DNSH criteria of the activity “Forest management” in Section 1.3. be ensured at a forest holding level?

The main aim of the criterion 6 “Protection and restoration of biodiversity and ecosystems” is to ensure that, irrespective of whether the activity takes place in a conservation or protected forest area, detailed information specified in points (a) to (h) is provided in the forest management plan.

In accordance with national or local provisions, a forest management plan or equivalent instrument defines the area in scope and the provisions for maintaining and possibly enhancing biodiversity that should be included in the management plan.

32. What does point (d) of the biodiversity DNSH criteria of the activity “Forest management” in Section 1.3. mean in practice when it refers to “improvement of physical, chemical and biological quality of the soil”?

Soil has physical, chemical, and biological components. The physical components of soil include the rocks and minerals that over time have turned into very small particles of sand, silt and clay. The chemical components of soil include the pH, the various nutrients (e.g. nitrogen) and water. Finally, the biological components of soil include the animals, plants, protozoa, bacteria and fungi that live in the soil.

In practice, improvement of the physical, chemical and biological components of the soil requires various techniques including those that avoid soil compaction, prevent soil erosion and runoff, and provide the right conditions for beneficial organisms to multiply in the soil, e.g. by leaving sufficient amounts of coarse and fine woody debris.

33. What does point (e) of the biodiversity DNSH criterion of the activity “Forest management” in Section 1.3. mean in practice when it refers to “promoting biodiversity-friendly practices that enhance forests’ natural processes”?

Forests are biologically diverse systems and offer a variety of habitats for plants, animals, fungi and micro-organisms.

In practice, restoration and conservation of biodiversity and habitats in forests would require various practices that maintain and enhance structural complexity and promote natural dynamics adapted to local conditions. Some of these practices include for example setting areas aside, establishing buffer zones for waterbody protection, ensuring appropriate volume and diversity of deadwood and presence of habitat trees and other microhabitats, promoting natural regeneration and diversifying tree species and the age structure of the holding. Measures should be defined in a forest management plan or equivalent instrument in accordance with national or local provisions.

34. What does point (f) of the biodiversity DNSH criterion of the activity “Forest management” in Section 1.3. mean in practice when it refers to “*excluding the conversion of high-biodiverse ecosystems into less biodiverse ones*”?

Forest ecosystems differ in terms of types of habitats, number of species and species diversity that they provide.

The main aim of this criterion is to ensure that a high-biodiverse ecosystem retains its status and is not converted to a less biodiverse one, as a consequence of forest management practices. This can include conversion of the forest type by reducing the species diversity of trees, shrubs and herbaceous plants and the associated fauna, as well as the conversion of high-biodiverse non-forest ecosystems into less biodiverse forest ones.

In practice, conservation of a high-biodiverse ecosystem would require various practices, adapted to local conditions. Some of these practices are defined by a forest management plan or equivalent instrument in accordance with national or local provisions.

35. What does point (g) of the biodiversity DNSH criterion of the activity “Forest management” in Section 1.3. mean in practice when it refers to “*ensuring the diversity of associated habitats and species linked to the forest*”?

The main aim of this criterion is to ensure that, irrespective of whether the activity takes place in or outside a conservation or protected area, forests are managed in a way that ensures maintenance of diverse habitat types and species linked to the forest.

In practice, ensuring diversity of habitats and species would require various practices, adapted to local conditions. Some of these practices include ensuring appropriate volume and diversity of deadwood, presence of tree-related microhabitats and creating or maintaining a diverse age-structure in the forest. They are defined by a forest management plan or equivalent instrument in accordance with national or local provisions.

36. What does point (h) of the biodiversity DNSH criterion of the activity “Forest management” in Section 1.3. mean in practice when it refers to “*ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood*”?

“*Conservation of a diverse stand structure*” and “*maintenance or enhancement of mature stage stands*” means requiring the creation of more heterogeneous, irregular, mixed forests in height, diameter, age, and species, with a mix of denser and sparser parts according to the natural mix of species and structure and depending on the type of forest.

“*Maintaining or enhancing deadwood*” means leaving appropriate amounts of deadwood, taking into account local conditions, in the forest in all stages of decomposition, including standing dead and dying trees with actual or potential nesting and roosting cavities. This is an important measure for biodiversity restoration and conservation.

Manufacturing

37. Do the manufacturing activities in Sections 3.1 to 3.6 include the manufacturing of components of its technologies?

In general, components can be counted if they are specified under the description of the activity or TSC. An example is the activity in Section 3.4. *Manufacture of batteries*, where the components are specified under the description of the activity.

The treatment of key components for manufacturing activities, for example in the low carbon transport sector, covered by the Climate Delegated Act will be addressed in future revisions of the delegated act.

38. What information or document confirms the required emission limit values and demonstrate their compliance with DNSH criterion for pollution prevention and control (PPC) for the manufacturing activities in Sections 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14, 3.15, 3.16 and 3.17, if there is no obligation under Union legislation to have a permit to operate?

The DNSH criterion for pollution prevention and control (PPC) for the activities in Sections 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13, 3.14, 3.15, 3.16 and 3.17 requires that the following applies to all activities regardless of their capacity: ‘*Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges laid down in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for (...).*’ As for the activities below the thresholds specified in Annex I of the Industrial Emissions Directive, there is no obligation under Union legislation to have a permit to operate.

Even if an installation does not meet the capacity thresholds under the Industrial Emissions Directive, it might, however, fall under the respective national environmental legislation and, therefore, be subject to an operating permit under that legislation. In any case, installations can demonstrate compliance by providing the independently verified emission levels for those polluting substances that are specified in the relevant implementing decisions on BAT. The monitoring of the emission levels should be according to these implementing decisions.

A. Manufacturing of low carbon technologies for transport in Section 3.3.

39. How should the Taxonomy-alignment of passenger cars be assessed for cars that are not subject to the EU carbon emission test cycle (WLTP)?

To be classified as Taxonomy-aligned, an economic activity should fulfil the respective TSC for substantial contribution and DNSH and comply with the minimum safeguards.

The TSC for the activity “Manufacture of low carbon technologies for transport” in Section 3.3. for the environmental objective of climate change mitigation are as follows:

“The economic activity manufactures, repairs, maintains, retrofits, repurposes or upgrades: [...]

(f) vehicles of category M1 and N1 classified as light-duty vehicles with:

(i) until 31 December 2025: specific emissions of CO₂, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631 of the European Parliament and of the Council, lower than 50gCO₂/km (low- and zero-emission light-duty vehicles);

(ii) from 1 January 2026: specific emissions of CO₂, as defined in Article 3(1), point (h), of Regulation (EU) 2019/631, are zero;

(g) vehicles of category L with tailpipe CO₂ emissions equal to 0g CO₂/km calculated in accordance with the emission test laid down in Regulation (EU) 168/2013 of the European Parliament and of the Council;

The Climate Delegated Act only refers to the EU regulations setting CO₂ emission performance standards for new passenger cars and for new light commercial vehicles. The CO₂ Regulation refers to the EU Emission Type Approval Regulation⁵¹ which defines the test procedure (WLTP) for measuring the CO₂ emissions of light-duty vehicles. The EU Taxonomy related disclosures comprise the global activities of EU companies, and they are not limited to EU turnover, CapEx and OpEx. Cars/vans produced/sold outside the EU are not necessarily tested under WLTP (not EU type approved passenger cars). The Climate Delegated Act does not contain any guidance on how to deal with such vehicles.

Since the Taxonomy only sets values based on the WLTP test procedure, it does not provide specific rules for vehicles that are type-approved under other systems. While a large proportion of vehicles sold globally are registered in countries using type-approval systems based on WLTP, e.g. UNECE Regulation 154⁵², and can therefore provide proof of compliance with this requirement, a still significant proportion of vehicles sold globally cannot provide proof of such compliance. Relevant certification procedures other than WLTP include the US CAFE, Japan’s JC08 or the NEDC (New European Driving Cycle, no longer in use in the EU but still applicable in some jurisdictions). For the purpose of proving compliance with this criterion, the manufacturing of vehicles certified under systems other than EU type approval and marketed in a third country can be considered as Taxonomy-aligned if the vehicle meets the Taxonomy criteria following the application of a duly documented and scientifically valid conversion factor.

⁵¹ Commission Regulation (EU) 2017/1151 of 1 June 2017 supplementing Regulation (EC) No 715/2007 of the European Parliament and of the Council 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, amending Directive 2007/46/EC of the European Parliament and of the Council, Commission Regulation (EC) No 692/2008 and Commission Regulation (EU) No 1230/2012 and repealing Commission Regulation (EC) No 692/2008 (OJ L 175, 7.7.2017, p. 1–643).

⁵² See: <https://unece.org/transport/documents/2021/02/standards/un-regulation-no-154-worldwide-harmonized-light-vehicles-test>

B. Manufacture of energy efficiency equipment for buildings (Section 3.5.)

40. Can curtain walling be used to qualify for taxonomy-alignment under Section 3.5?

Yes, in the Delegated Act, “*curtain wall*” can be understood as a “*non-load bearing wall*”, in line with its use in (EN) ISO 12631, which covers both opaque and non-opaque elements. We recognise the proposed U-value for walling systems might be very difficult to meet by curtain walls that are fully (or almost fully) glazed.

The latter (fully or almost fully glazed walls) could qualify as window products under the respective U-value. In principle, for fully (or almost fully) glazed and transparent curtain walls, i.e. those for which at least 80% of the surface is glazed and transparent, it is necessary to apply the proposed U-value for windows.

41. What does “*highest two populated classes*” for household appliances referred to in the TSC in Section 3.5. and, where applicable, the TSC in Section 7.3. mean in practice? What household appliances fall under these classes? Could the EPREL database be used to obtain the information?

The requirement targets the two highest classes of energy efficiency that are populated, in which at least some products are on the market. To understand which classes are the highest populated in which at least some products are on the market, an overview of the available products on the market (based on official data) is provided by a reference database named EPREL (European Product Database for Energy Labelling)⁵³.

C. Manufacture of other low carbon technologies in Section 3.6.

42. How should “*substantial*” be defined in the substantial contribution criteria of the activity “*Manufacture of other low carbon technologies*” in Section 3.6. in that refer to “*substantial life-cycle GHG emission savings*”? Which data should be used as evidence for the comparison?

As the activity in Section 3.6 of Annex I refers to other low carbon technologies not covered in Sections 3.1 to 3.5, the TSC can refer to several activities across a range of sectors. Their precise application leaves some flexibility and depends on the activity in question. Consequently, there is no common performance level implied by the criterion of “*substantial life-cycle GHG emission savings compared to the best performing alternative technology/product/solution available on the market*”. Operators of the activity should justify whether and how their technology enables the achievement of substantial GHG reductions in other sectors compared to other competing technologies. In this, they should ensure that their assessment is consistent with any credible, available external sources of information on the potential of the technology to help achieve decarbonisation of the target activity, in line with the EU Climate Law or Paris Agreement objectives. Undertakings should also demonstrate

⁵³ See: <https://eprel.ec.europa.eu/screen/home>

this element for the purpose of the third-party verification required by the TSC and, notably undertakings subject to Article 8 of the Taxonomy Regulation, should disclose all relevant information as part of their non-financial statement.

43. Does the product or service intended to qualify as Taxonomy-aligned under Section 3.6. have to constitute an economically viable solution?

The rule referred to in the TSC is a requirement to demonstrate that the relevant products/services are better performing than the best available solution on the market, regardless of whether the relevant products/services are economically viable or scalable/available at industrial scale.

44. For instance, can the manufacturing of equipment for traffic management and tolling be considered as Taxonomy-eligible under the activity “*Manufacture of other low carbon technologies*” in Section 3.6.?

The activity could be eligible under Section 3.6. of Annex I. For the purpose of Taxonomy-alignment, the activity would have to prove that it delivers GHG emissions savings compared to the best performing alternative technology/product/solution available on the market (in this case, compared to other equipment for traffic management and tolling). If there are several possible uses, savings would have to occur for all potential uses.

For an indicative guide on the types of activities that could qualify under the Delegated Act based on the different industry classification systems, one may consider consulting the ‘*NACE alternate classification mapping*’ published by the Platform on Sustainable Finance⁵⁴. It is to be noted that this document is not binding, but indicative.

45. How to apply the concept of “*essential use for society*” for DNSH on pollution prevention and control for activity “*Manufacture of other low carbon technologies*” in Section 3.6.?

Reference is made to the replies in Section III below on DNSH regarding Appendix C.

D. Manufacture of aluminium in Section 3.8.

46. Are the technical screening criteria of the activity “*Manufacture of aluminium*” regarding indirect greenhouse gas (GHG) emissions fulfilled only if 100% of renewable energy is used in the manufacture of aluminium or does the electricity user need to document the carbon intensity of indirect GHG emissions (for example by purchasing Guarantees of Origin)?

Until 2025, operators are required to comply with only two out of the three conditions set out in point (a) of the TSC for substantial contribution to climate change mitigation in Section 3.8. in order to be considered as substantially contributing to that objective.

⁵⁴ See: https://ec.europa.eu/info/files/sustainable-finance-taxonomy-nace-alternate-classification-mapping_en

After 2025, all three conditions laid out in Section 3.8 of Annex I should be met in order for the activity to be considered as substantially contributing to the climate change mitigation. The requirement regarding indirect GHG emissions is that the average carbon intensity for the indirect GHG emissions does not exceed 100g CO₂e/kWh. By analogy to the 100gCO₂e/kWh threshold for substantial contribution in certain energy sectors, this requirement does, therefore, not mean that only renewable energy may be used to comply with this criterion.

E. Manufacture of iron and steel in Section 3.9.

47. How should the provisions in the technical screening criteria of the activity “Manufacture of iron and steel” in Section 3.9 referring to the attribution of emissions for the production and use of waste gases be interpreted?

The criteria for the manufacture of iron and steel referred to in point (a) of the TSC for substantial contribution to climate change mitigation in Section 3.9. specify that GHG emissions should be “*reduced by the amount of emissions assigned to the production of waste gases in accordance with point 10.1.5(a) of Annex VII to Regulation (EU) 2019/331*”. This means that the emissions attributed to the production of waste gases are not taken into consideration for the purpose of the criteria for steel laid out in the Climate Delegated Act. Notably, the requirement means that manufacturers of steel can calculate the emission attributed to the production of waste gases according to the free allocation rules (which consider these waste gases explicitly). However, for the purpose of compliance with the TSC, they are discounted. The calculation of the activity’s emissions does therefore not take into account these emissions attributed to the generation of waste gases.

48. How are the GHG emission thresholds specified in the technical screening criteria of the activity “Manufacture of iron and steel” in Section 3.9. applied? For example, does the manufacture of hot metal (1,331 tCO₂e/t product) include the provision of coke (0,144 tCO₂e/t product) or is the GHG emission threshold to be applied exclusively for the hot metal manufacturing process step?

The definitions of the processes and emissions covered by the different screening criteria (i.e. system boundaries) are given in Annex I to Commission Delegated Regulation (EU) 2019/331. The production of coke is not included in the system boundaries of hot metal.

49. What is the definition of “hot metal” as included in the substantial contribution criteria of the activity “Manufacture of iron and steel” in Section 3.9.?

Annex I to Commission Delegated Regulation (EU) 2019/331 defines the product hot metal and the related product benchmark and system boundaries.

F. Manufacture of hydrogen in Section 3.10.

50. How is the emission threshold for hydrogen used in different processes for the manufacture of hydrogen under Section 3.10?

The Climate Delegated Act recognises hydrogen as an energy carrier, storage solution, fuel or feedstock. In line with the technology-neutrality requirement referred to in point (a) of Article 19(1) of the Taxonomy Regulation, the manufacture of hydrogen is not restricted to

specific production pathways or technology. Any production of hydrogen that demonstrates meeting the life-cycle GHG emission savings of 73.4% in comparison to the fossil fuel comparator of 94gCO₂e/MJ in analogy with Article 25(2) and Annex V of RED II can be considered substantially contributing to climate change mitigation.

In line with the approach taken for defining DNSH to climate change mitigation, the Climate Delegated Act draws on the level of ambition of existing Union legislation. Annex II sets out that the production of hydrogen is considered not doing significant harm, if it achieves at least the GHG emission savings level enshrined in RED II.

51. Does the reference to RED II in the technical screening criteria of the activity “Manufacture of hydrogen” in Section 3.10. imply that the RED II additionality requirement applies?

The Climate Delegated Act does not include requirements for additionality. However, this matter is relevant in the context of the implementation of RED II and may affect the types of hydrogen that qualify as renewable (i.e. the type of electricity can be considered renewable for the production of hydrogen) and may also be relevant for determining the GHG emission intensity of renewable hydrogen.

52. How are the life cycle emissions assessed and calculated for the activity “Manufacture of hydrogen” in Section 3.10.? For example, is the manufacture of the equipment taken into account when assessing life cycle emissions?

The Climate Delegated Act sets out the relative GHG emission savings requirement in comparison to the fossil fuel comparator by analogy with Article 25(2) and Annex V of RED II.

Similar to the approach pursued for electricity and heat generation activities, the Climate Delegated Act enables the use of alternative methodologies to calculate life-cycle GHG emissions. In line with ISO standards, the alternative calculation methodology in case of hydrogen production is the one referred to in Article 28(5) of RED II.

The Commission is preparing a delegated act setting out a methodology for determining the GHG emissions savings of renewable fuels of non-biological origin and recycled carbon fuels, which includes renewable hydrogen (except hydrogen derived from biogenic sources) and certain types of low carbon hydrogen.

Energy

A. Electricity generation from hydropower in Section 4.5.

53. For the activity “Electricity generation from hydropower” in Section 4.5., what does the power density threshold of the electricity generation facility above 5 W/m² mean in practice?

Power density of hydropower plants describes the relation between the installed capacity of the power production and impounded area. According to the International Hydropower Association’s GHG emission data⁵⁵, hydropower plants above 5W/m² do not emit more than 100gCO₂e/kWh. This finding has been used to exempt power plants with a higher power density from having to carry out the life-cycle assessment (along with run-of-river plants).

54. What does “where relevant” in the criteria for DNSH to sustainable use and protection of water and marine resources of the activity “Electricity generation from hydropower” in Section 4.5. mean in practice and who assesses what measures are relevant?

The DNSH criteria for hydropower list all possible (generic) mitigation measures which must be considered in all cases. However, the implementation of these criteria for hydropower is context specific. The objective is to strike a balance between, on the one hand, to protect ecosystems and water bodies, and, on the other hand, avoiding putting an excessive administrative burden on hydropower operators. Therefore, in an individual case, a specific analysis should be performed based on the list of all measures to identify those that are appropriate. Only measures that are relevant to the ecological conditions of the project should be implemented.

The relevance of specific DNSH criteria and mitigation measures listed therein will depend on a case-by-case assessment in terms of feasibility and relevance, taking into account the broader hydro-morphological context, including the state of the ecological flow and the requirement to attain and maintain a good ecological status, or where applicable good ecological potential, of the relevant water bodies. The reference conditions for good status or good potential for water bodies differ according to the relevant ecoregion (geographical area identified in Annex XI of the Water Framework Directive). These conditions are relevant for determining the necessary and relevant mitigation measures aimed at achieving these objectives.

⁵⁵ International Hydropower Association, Hydropower Status Report 2018. See p.29. of Sector trends and insights available at: https://hydropower-assets.s3.eu-west-2.amazonaws.com/publications-docs/iha_2018_hydropower_status_report_4.pdf

55. What is meant by the ‘compensatory measures’ in point 3.5 of the DNSH criteria for sustainable use and protection of water and marine resources of the activity “Electricity generation from hydropower” in Section 4.5.? What examples of these measures could be provided?

Compensatory measures are measures to restore continuity within the same river basin district to an extent that compensates the disruption of continuity and associated impacts on aquatic ecosystems caused by the hydropower development for which compliance with TSC is claimed, for example, by removing dams or other barriers elsewhere in the river basin district. Environmental benefits stemming from the compensatory measures are proportionate to the extent of the impacts. The relevance and type of such compensatory measures are not further detailed since they require a case-by-case assessment in terms of feasibility and relevance.

56. Is there an absolute requirement that hydropower production should allow for reaching the objectives of good status or good potential of water bodies, for both new and existing hydropower production, in order to fulfil the DNSH-criteria for sustainable use and protection of water and marine resources?

There is an absolute requirement to put in place all technically and ecologically relevant measures towards achieving good ecological status or good ecological potential of water bodies in line with the definition of the Water Framework Directive. For both new and existing hydropower production the DNSH criterion for sustainable use and protection of water and marine resources provides that: *“In accordance with Directive 2000/60/EC and in particular Articles 4 and 11 of that Directive, 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”* and *“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.”*

In addition, for new hydropower production, it is indicated that *“The plant does not permanently compromise the achievement of good status/potential in any of the water bodies in the same river basin district.”* (point 3.4. of Section 4.5.)

57. The Delegated Act requires that hydropower operates in accordance with an authorisation or permit aimed at achieving good status or potential of the affected water body. Does that mean that:

- **there is an absolute requirement that all hydropower production require a permit/licence/authorisation; and**
- **all licenses/permits/authorisations should refer to the environmental objectives for the affected water bodies? Does this also mean that the DNSH-criteria require creating conditions aimed at achieving good status or potential of the affected water body?**

All hydropower production requires a permit/licence/authorisation aiming at achieving good ecological status or good ecological potential of the affected water body in line with the definitions of the Water Framework Directive. In addition, as provided in point 2.3 of

Section 4.5. of the DNSH to sustainable use and protection of water and marine resources, “*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.*”

58. Can hydropower production implying the application of Article 4(5) of the Water Framework Directive (WFD) (less stringent objectives) be considered to fulfil the DNSH criteria?

In principle, a body of water affected by a hydropower plant would have been converted into a ‘*heavily modified water body*’ in accordance with Article 4(3) WFD. That implies that it should strive towards reaching good ecological potential rather than good status. According to the WFD, derogations under Article 4(5) WFD could apply if a water body is affected by hydropower and it would be disproportionately costly or technically impossible to achieve good potential. Should such a plant nevertheless decide to apply all technically possible and ecologically relevant mitigation measures to reach good ecological potential, and be subject to a permit to monitor and control those ecologically relevant measures, it may still fulfil the DNSH criteria.

This would however imply that the water body would aim towards good status or good potential and, therefore, that the derogation under Article 4(5) WFD should be reviewed at the next revision of the relevant river basin management plan. A water body, which on the contrary would remain under the (initial) ‘lowered’ objective under Article 4(5) of WFD without putting in place the necessary measures (ecologically and technically relevant) towards good potential, does not fulfil the DNSH criteria.

B. Electricity generation from renewable non-fossil gaseous and liquid fuels in Section 4.7.

59. How should the best available techniques (BAT-AEL) ranges referenced in the technical screening criteria of the activity “*Electricity generation from renewable non-fossil gaseous and liquid fuels*” in Section 4.7. be applied in non-EU jurisdictions?

BAT-AEL ranges could be applied internationally since the ranges are not based on EU legislation. BAT-AELs describe a range of emission levels obtained under normal operating conditions using a best alternative technique (BAT) or a combination of best alternative techniques as described in BAT conclusions. They are expressed as an average over a given period of time under specified reference conditions.

C. Transmission and distribution of electricity in Section 4.9.

60. The emissions from a plant can vary based on the fuel it uses. Do the criteria for the activity “*Transmission and distribution of electricity*” in Section 4.9. imply a requirement to prove that emissions stay under 100g CO₂/kWh, independent of the fuel used?

The emission intensity of newly enabled generation capacities as well as the average system grid emission factor are based on historical emissions and power generation. The 100gCO₂/kWh applies to this historical data, on a rolling five-year period.

D. Storage of electricity in Section 4.10.

61. Is hydrogen included as part of the activity “Storage of electricity” in Section 4.10?

Storage of hydrogen is included in Section 4.12 of Annex I as a distinct activity with its own criteria for substantial contribution to climate change mitigation and for DNSH.

The storage of hydrogen is considered as making a substantial contribution to climate change mitigation if it consists in the construction of new or conversion of existing storage dedicated to hydrogen, or if it consists in the operation of storage when the hydrogen stored is produced in line with the respective criteria defined for the manufacture of hydrogen.

E. Manufacture of biogas and biofuels for use in transport and of bioliquids in Section 4.13.

62. How are low-carbon gases defined in the context of the activity “Manufacture of biogas and biofuels for use in transport and of bioliquids” in Section 4.13.? Is biogas covered by any of the criteria?

The Climate Delegated Act does not include a definition of renewable and low carbon gases. All relevant gases, including biogas (as indicated in the title and the description of the activity), meeting the relevant TSC should be considered as renewable and low-carbon gases.

F. Transmission and distribution networks for renewable and low-carbon gases in Section 4.14.

63. The description of the activity “Transmission and distribution networks for renewable and low-carbon gases” in Section 4.14. includes renewable and low-carbon gases, while the criteria for substantial contribution to climate change mitigation do not refer to renewable gases. How should this be understood?

The Climate Delegated Act does not include a definition of renewable and low carbon gases. All gases meeting the relevant TSC should be considered as renewable and low-carbon gases.

64. Would the construction of hydrogen pipelines referenced in the activity “Transmission and distribution networks for renewable and low-carbon gases” in Section 4.14. only qualify where that hydrogen is manufactured with the hydrogen threshold under the Activity in Section 3.10. “Manufacture of hydrogen”?

No, there is no direct link between the two activities. It might be that a “guarantee for hydrogen” might exist in the future as the hydrogen market develops, with improved traceability. Under the TEN-E Regulation which identifies trans-European energy infrastructure priorities, hydrogen infrastructure ‘Projects of Common Interest’ need to demonstrate that they contribute significantly to sustainability, including by reducing greenhouse gas emissions, by enhancing the deployment of renewable or low-carbon hydrogen, with an emphasis on hydrogen from renewable sources.

Water supply, sewerage, waste management and remediation activities in Section 5.

A. General

- 65. Can the use of dry sludge from a non-industrial urban water treatment plant (without prior digestion and without mixing) be considered as biomass? If considered as biomass, would an incineration facility with energy recovery in the form of electricity and heat, dedicated exclusively to the burning of this sludge be Taxonomy-eligible?**

According to the definition of biomass in Article 2(24) of RED II, biomass is defined as ‘*the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin.*’ According to this definition, dry sludge from a non-industrial urban water treatment plant can be considered biomass.

However, from the perspective of classifying activities as ‘environmentally sustainable’, the Taxonomy Regulation specifically states in its Article 17(1)(d) that any ‘*activity that leads to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste*’ is considered to cause significant harm to the environment.

On this basis, Article 17(1)(d) of the EU Taxonomy Regulation applies to measures related to both incineration and co-incineration of waste, notably in waste-to-energy plants and cement plants, and measures related to the construction of new such plants, increasing existing capacities or extending their lifetime. Thus, these activities - with the exception of the incineration of non-recyclable hazardous waste – cannot meet the TSC. This would include an incineration facility with energy recovery in the form of electricity and heat, dedicated exclusively to the burning of dry sludge from a non-industrial urban water treatment plant.

B. Construction, extension and operation of water collection, treatment and supply systems in Section 5.1.

- 66. Is the manufacture of equipment for commercial and residential pools (e.g. skimmers, inlets, filters, pH regulators, chlorine regulators, valves) Taxonomy-eligible under the activities “*Construction, extension and operation of water collection, treatment and supply systems*” in Section 5.1. or “*Construction, extension and operation of waste water collection and treatment*” in Section 5.3.?**

Sections 5.1 and 5.3 of the Climate Delegated Act are targeted at the delivery of drinking water and the treatment of waste water. Therefore, in order to qualify as making a substantial contribution to climate change mitigation under the Taxonomy Regulation, the designers/operators of a drinking water/waste water system are responsible for ensuring that the system meets the technical screening criteria set out in Sections 5.1. and 5.3 of Annex I.

Manufacture of products for commercial and residential pools would not qualify under the Sections 5.1 and 5.3 of Annex I as their main purpose does not contribute to delivering drinking water or ensuring the treatment of waste water.

C. Construction, extension and operation of waste water collection and treatment in Section 5.3.

67. Can the anaerobic digestion of sewage sludge also be included in the net energy consumption referenced in the technical screening criteria for the activity “Construction, extension and operation of waste water collection and treatment” in Section 5.3. if it is within the treatment plant?

As specified in the substantial contribution criteria in point 1 of Section 5.3. “*Net energy consumption of the operation of the waste water treatment plant may take into account [...] as appropriate, energy generation within the system (such as hydraulic, solar, thermal and wind energy).*” The list specified is a non-exhaustive list.

The energy generated through anaerobic digestion of sewage sludge falls within the scope of energy generation within the system, even if not explicitly mentioned.

D. Material recovery from non-hazardous waste in Section 5.9.

68. Does the activity “Material recovery from non-hazardous waste” in Section 5.9. also cover sorting facilities where final recycling or recovery is carried out in a different facility or country?

The activity does not cover pure sorting facilities. Instead, it covers those facilities that carry out recycling of separately collected waste, whereas part of the process is often an initial ‘sorting’ step, e.g. to separate plastics and metals in case of co-mingled separately collected waste, or to separate different types of plastics such as PET, HDPE, PP.

The Climate Delegated Act prioritises the material recovery aspect as this has the greater potential to reduce GHG emissions, i.e. by replacing virgin material in production.

E. Transport of CO₂ in Section 5.11.

69. For the activity “Transport of CO₂” in Section 5.11, can the installation of assets that increase the flexibility and improve the management of an existing network be considered in their own right or does such an installation have to be an integral part of the transport of captured CO₂?

No, complying with a single element of the substantial contribution criteria to climate change mitigation does not imply Taxonomy-alignment. The criteria are cumulative and all criteria should be complied with.

Transport in Section 6.


A. General

70. What does “the highest populated classes” based on an official dataset mean regarding tyres?


The technical screening criteria target the two highest classes for rolling resistance (influencing energy efficiency) that are populated, in which at least some tyres are on the market. To understand which classes are the highest populated in which at least some tyres are on the market, an overview of the available products on the market (based on official

data) is provided by a reference database named EPREL (European Product Database for Energy Labelling). Public information on tyres is available from <https://eprel.ec.europa.eu/screen/product/tyres>. For instance, for severe snow conditions tyres for vans with size 195R15C, the highest performing tyres in rolling resistance (energy efficiency) are ranked class D (at the time of writing).

71. Are “the highest populated classes” of tyres determined by dimension or categories?

The highest populated classes should be determined for the specific tyre dimension and properties (the tyres that could be actually fitted on the vehicle, and including the three peak mountains snowflake () pictogram if use of the vehicle is for severe snow conditions). The information can be checked in the EPREL. The class for a whole category would be meaningless, as the class for the same brand and model can change based on the tyre size: for every different size, classes for rolling resistance coefficient, wet grip and noise can be different.

72. Is comparison of tyre Fuel Efficiency, Wet Grip and Rolling Noise classes done across all tyres or separately within tyre categories, e.g. winter, all-season, and summer tyres?

Comparison is done within a specific tyre category, meaning tyre size and certified special properties. Tyres with the three peak mountains snowflake () pictogram can be specifically selected (those that are also for ice can be selected). Beyond this, distinctions do not exist for “winter” “all-season” or “summer” (however, arguably a tyre marketed “all-season” but without the three peak mountains snowflake pictogram would not have sufficient performance in severe snow conditions). For example tyres of size “205/55 R16” from the same brand and with the same tread design (thus same seasonality as well) may have different classes for the 3 parameters depending on the speed category index or other aspects (e.g. specifically designed for an original equipment manufacturer (OEM) or another OEM). All necessary parameters (size designation, load capacity index, speed category, season) have to be entered in EPREL for a correct comparison of the selected tyres.

73. Do the tyre screening criteria for M and N vehicles apply to the whole European market or are there country-specific criteria?

The tyre technical screening criteria for M and N vehicles derive from an EU regulation and as such apply to the European market, with no country-specific variation. As for any criteria in the delegated act, compliance with these criteria would also be required for activities taking place outside of the EU. C1, C2 and C3 tyres are registered with the tyre class indicated.

74. Is the substantial contribution criterion for climate change mitigation in Sections 6.2, 6.6, 6.8, 6.9, 6.10, 6.12, 6.14, 6.15, 6.16. and 6.17 of Annex I to be understood that the wagons or vessels and the fuel distribution infrastructure cannot be intended to be exclusively used for the transport or storage of fossil fuels?

While applying this criterion to exclude assets, operations and infrastructure that are dedicated to the transport of fossil fuels, it is necessary to take into account the multiple uses, different ownerships, user arrangements and fuels blending rates, in line with the relevant existing market practices. The consideration should inter alia include the type of mobile asset or infrastructure under consideration and their other uses, including whether it is intended to be used also for transport and storage of low-carbon alternatives.

For example, for maritime transport, whilst it is possible to clearly identify crude oil tankers as exclusively providing for the fossil fuel market, the same cannot be assumed for product, chemical tankers, or vessels carrying dry bulk products. The latter are vessel types which can be used for the transport of non-fossil fuel products and should not be excluded outright.

Depending on the planned use and context, relevant existing market practices referred to in recital (35) of the Climate Delegated Act could be for example those used by the European Investment Bank⁵⁶ or by Climate Bonds Initiative⁵⁷. For example, in the case of *freight rail transport* in Section 6.2., universal wagons that are acquired specifically for the transport of coal would fail to meet the criterion of not being dedicated to the transport of fossil fuels.

In all cases, turnover derived from transporting fossil fuels by assets that are not dedicated to the transport of fossil fuels should be excluded from the numerator of the turnover KPI under the Disclosures Delegated Act.

75. Is ammonia considered as a zero direct (tailpipe) CO2 emission fuel?

Ammonia (NH₃) is by definition carbon-free and it does not emit any CO₂ emissions when combusted or used in a fuel cell. It can therefore be considered as a zero direct (tailpipe) CO₂ emission fuel.

⁵⁶ For project finance, in the context of the ambitious climate assessment. Dedicated is defined as built and acquired with the explicit intention to predominantly transport or store fossil fuels over the life of the project.

⁵⁷ Dedicated is defined by transport mode, e.g. in case more than 25% of the freight in t-km transported by the line is comprised of fossil fuels or more than 25% of the rolling stock is dedicated to the transport of fossil fuels or 25% of tonnage transported annually is fossil fuels (threshold declines geometrically at 5.3% from the year 2020 onwards). See:

https://www.climatebonds.net/files/files/CBI%20Transport%20Criteria%20document_Aug2022%281%29.pdf

also:

<https://www.climatebonds.net/files/files/standards/Waterborne%20Transport%20%28Shipping%29/CBI%20Certification%20-%20Shipping%20Criteria%20V1b%2020211215.pdf> and:

[https://www.climatebonds.net/files/files/CBI Transport Criteria document_Jan2020\(1\).pdf](https://www.climatebonds.net/files/files/CBI%20Transport%20Criteria%20document_Jan2020(1).pdf)

It is however important to note that, when ammonia is used together with hydrocarbon oil fuels used for piloting/ignition, namely in marine internal combustion engines, there will be an associated presence of CO₂ emissions derived from multi-fuel combustion process.

B. Passenger interurban rail transport in Section 6.1.

76. Do particularly low CO₂ diesel locomotives classify as transitional technology in the description of the activities “Passenger interurban rail transport” in Section 6.1. and “Freight transport” in Section 6.2.?

The Climate Delegated Act does not classify technologies. According to the criteria in Sections 6.1 and 6.2 of Annex I that define substantial contribution to climate change mitigation, for any locomotive to qualify, it should be able to operate on zero direct tailpipe CO₂ emissions. Any locomotive producing emissions, including low CO₂ emissions, that does not comply with the requirement for having zero tailpipe CO₂ emissions when operated on a track with necessary infrastructure (i.e. that is not bi-mode) does not therefore comply with the criteria. Bi-mode locomotives which have zero tailpipe emissions when operated on electrified tracks but can be run on diesel where tracks are not electrified qualify as a transitional activity.

77. What type of train would be able to be classified as a transitional technology in the activity “Passenger interurban rail transport” in Section 6.1.?

The Climate Delegated Act does not classify technologies. For the purposes of classifying economic activities under the EU Taxonomy, activities that comply with the substantial contribution criteria in point 1.b, as well as with the DNSH criteria, would be considered transitional activities, as set out in the description of the activity in Section 6.1 of Annex I.

Bi-mode locomotives which have zero tailpipe emissions when operated on electrified tracks but can be run on diesel where tracks are not electrified qualify as a transitional activity.

C. Freight rail transport

78. For the activity “Freight rail transport” in Section 6.2., is there a threshold for what proportion of the operating time a train can be operated with a conventional engine, e.g. 80% of the operating time on rails with required infrastructure and a maximum of 20% of the operating time with conventional engine?

The Climate Delegated Act does not set such thresholds. To comply with the TSC, the trains can use a conventional engine only where the infrastructure allowing for zero direct tailpipe CO₂ emission is not available.

79. What else, apart from current-carrying infrastructure, is meant by “track with necessary infrastructure” as referenced in the substantial contribution criteria of activities “Passenger interurban rail transport” in Section 6.1. and “Freight rail transport” in Section 6.2.?

The necessary infrastructure referred to in the substantial contribution criteria point (1.b) in Sections 6.1 and 6.2 of Annex I (reference to bi-mode rolling stock) refers to tracks that are electrified.

80. Regarding the DNSH criteria to circular economy in the activity “Freight rail transport” in Section 6.2., when exactly is compliance with the waste hierarchy reached? Are there any percentage requirements?

There are no percentage requirements. The DNSH criteria to circular economy for “freight rail transport” in Section 6.2. simply require to demonstrate that measures are in place to ensure that waste treatment options higher up the waste hierarchy, as set out in Article 4 of the Waste Framework Directive, are preferred.

81. Regarding the DNSH criteria to pollution prevention and control of the activity “Freight rail transport” in Section 6.2., for engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) complying with emission limits set out in Annex II to Regulation (EU) 2016/1628 , can it be generally considered that engines with zero CO2 emissions comply with the emission limits?

Yes, it can generally be considered that engines such as RLL and RLR with zero CO2 emission comply with the emission limits under the DNSH criteria for freight rail transport (Section 6.2).

D. Operation of personal mobility devices, cycle logistics in Section 6.4.

82. What are some concrete use cases of the activity “Operation of personal mobility devices, cycle logistics” in Section 6.4.? For example, are mail carts pulled by postmen included in the scope (where the propulsion comes from the physical activity of the user)?

The activity in Section 6.4. “*Operation of personal mobility devices, cycle logistics*” includes the “*selling, purchasing, leasing, renting and operation of personal mobility or transport 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. This includes the provision of freight transport services by (cargo) bicycles.*”

A mail cart may be seen as a similar transport device as a cargo bike (which is explicitly mentioned in the description of the activity) as it:

- has the primary aim of transporting an item from one point to another, and;
- the propulsion comes solely from the physical activity of the user.

E. Transport by motorbikes, passenger cars and commercial vehicles in Section 6.5.

83. Why is there a different application date for vehicles of category N1 in the activity “Transport by motorbikes, passenger cars and commercial vehicles” in Section 6.5. than in the activity “Freight transport services by road” in Section 6.6.?

The transition period for vehicles of category N1 in Section 6.5. takes into account the specificities and current state-of-technology of passenger cars and of light commercial vehicles in Section 6.5, which differ for freight transport vehicles in Section 6.6.

84. Vehicle category N1 (classified as vehicle for good transport) is covered in the activity “Transport by motorbikes, passenger cars and light commercial vehicles” in Section 6.5., as well as in the activity “Freight transport services by road” in Section 6.6. Why is N1 covered in both activities? What are the differences?

Vehicle category N1 are vans, i.e. motor vehicles designed and constructed primarily for the carriage of goods with a maximum mass under 3.5 tons. However, their emissions can be regulated under two different regimes, depending on the “reference mass” of the vehicles concerned. In most cases, vehicles with a reference mass of less than 2610 kg, have to follow the “light-duty vehicle” type approval rules (for CO₂ and pollutant emissions – Euro 6 Regulation (EC) No 715/2007) which also apply for cars and are subject to the CO₂ fleet standards. N1 vehicles with a reference mass exceeding 2610 kg normally have to follow the “heavy-duty vehicle” emission type approval rules (Euro VI Regulation (EC) No 595/2009) and are generally not subject to CO standards.

For this reason, the description in Activity in Section 6.6 is as follows: “Purchase, financing, leasing, rental and operation of vehicles designated as category N1, N2 (240) or N3 (241) falling under the scope of EURO VI (242), step E or its successor, for freight transport services by road.” In this way, all vehicles type-approved with the light duty framework (cars and vans with a reference mass below 2610 kg) will be covered in Section 6.5, while some N.1 (vans that use the above mention derogation) will be covered in Section 6.6.

85. For the activities “Transport by motorbikes, passenger cars and commercial vehicles” in Section 6.5. and “Freight transport services by road” in Section 6.6., should M1 and N1 vehicles have a reference mass not exceeding 2610 kg in order to be Taxonomy-aligned?

N1 vehicles either fall under the provisions of Section 6.5 or Section 6.6 of Annex I, depending on whether they fall under the provisions of Euro 6 (Regulation (EC) No 715/2007) or the provisions of Euro VI (Regulation (EC) No 595/2009), therefore different mass thresholds apply. The scope of application of those Regulations is determined by the reference mass of the vehicles concerned.

M1 vehicles fall only under the provisions of Section 6.5 (passenger cars and light commercial vehicles), referring to Euro 6 (Regulation (EC) No 715/2007) and thus covering only vehicles with a reference mass not exceeding 2 610 kg.

F. Inland freight water transport in Section 6.8.

86. For the activity “Inland freight water transport” in Section 6.8., are there any categories/classes for individual rivers for individual operation categories?

The TSC for inland freight water transport in the Climate Delegated Act do not address questions related to possible additional categories or classes.

87. How is the “overall trading pattern of the vessel” in footnote 245 referred to in Section 6.8. of Annex I defined?

As noted in footnote 245 in Section 6.8 of Annex I, the guidance on how to calculate this indicator is provided in the document MEPC.1/Circ. 684 from IMO.

88. What is the definition used for the Energy Efficiency Operational Indicator in the activity “inland freight waterway transport” in Section 6.8.?

Footnote 245 in Section 6.8 of Annex I sets out the definition used for the Energy Efficiency Operational Indicator. It is defined as the ratio of mass of CO₂ emitted per unit of transport work. This is 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.

89. Who will calculate the Energy Efficiency Operational Indicator?

The operator of the activity reporting Taxonomy-alignment should obtain the information needed for reporting.

90. Is the “best in class” exception for transitional activities referred to in the activity “Inland freight water transport” in Section 6.8. limited to 2025 for water transport vessels?

The Climate Delegated Act limits the recognition of certain transitional activities for water transport until 2025.

91. What does “able to run on fuels from renewable sources” mean?

This means that a vessel can use renewable or low carbon fuels. Fuels that meet the TSC specified in Sections 3.10 and 4.13 of Annex I.

G. Sea and coastal freight water transport, vessels for port operations and auxiliary activities in Section 6.10.

92. What is the scope of “chartering” with or without a crew as referred to in the activity “Sea and coastal freight water transport, vessels for port operations and auxiliary activities” in Section 6.10.?

The Delegated Act does not define chartering. However, this is a well-established terminology in commercial shipping practice, used by all major organisations, such as the International Chamber of Shipping (ICS) or the Baltic and International Maritime Council (BIMCO).

Ship chartering is the hiring out of a ship by a ship owner to another company, the charterer, for the transportation of goods over a limited and well-defined period of time.

The two main parties in ship chartering are the ship owner and the charterer. Other parties can include the ship broker who negotiates deals between ship owners and charterers, the shipping agent who takes care of the essential in-port details and the ship manager, who takes care of operating and crewing the vessel on behalf of the owner for a fee.

The charter party, i.e. the contract, defines the rate, duration, and terms agreed between the ship owner and the charterer. Many different types of charter contracts exist in practice:

- Voyage Charter - basic hiring of a vessel and its crew for a voyage between the port of loading and the port of discharge known as a voyage charter. In this type of contract, the ship owner is paid by the charterer either on a per-ton basis, or as a lump sum. Port costs, with the exception of stevedoring, fuel costs, and the crew costs are paid by the owner, and payment for the use of the vessel is known as freight.
- Time Charter - hiring of a vessel for a specific period of time, where the owner still manages the ship, but the charterer selects the ports, decides the routing, and has full operational control of the vessel for the duration of the contract. It pays the fuel costs, port charges, cargo handling costs, commissions, and a daily hire fee.
- Bareboat Charter – chartering arrangement where charterer has full control of the vessel. Apart from the capital cost of building the vessel, which is the owner’s responsibility, all other costs including fuel, crew, port charges and insurance, are paid by the charterer. The legal and financial responsibility for the vessel rests with the charterer.

93. How is alignment with the technical screening criteria of the activity “*Sea and coastal freight water transport, vessels for port operations and auxiliary activities*” in Section 6.10. demonstrated by undertakings chartering or operating vessels?

The demonstration of Taxonomy-alignment by undertakings chartering or operating vessels should be made on a basis of the relevant provisions in the chartering contract.

Such demonstration could typically be the responsibility of the undertaking that was granted financing based on Taxonomy-alignment, in accordance with the relevant TSC. If this was granted to the owner of the ship, then the relevant responsibility of the charterer, or operator, would be to present all the information on fuel purchased to the owner, who has responsibility vis-à-vis the financing institution. If, on the other hand, the financing was provided to the charterer, to cover OpEx, then the relevant responsibility to demonstrate Taxonomy-alignment, would be on the charterer directly towards the financing institution.

As regards the mandatory disclosures pursuant to the Disclosures Delegated Act, the undertaking that generates revenues and/or incurs CapEx and/or OpEx related to this activity should assess their Taxonomy-eligibility and Taxonomy-alignment and report this in its KPIs.

94. What is the “best in class” criterion referred to in the activity “*Sea and coastal freight water transport, vessels for port operations and auxiliary activities*” in Section 6.10. covering?

Given that for shipping technologically and economically feasible low-carbon alternatives are not yet commercially available, it qualifies as a transitional activity referred to in Article 10(2) of the Taxonomy Regulation. The “best in class” criterion in this context captures that a compliant ship: (a) has greenhouse gas emission levels that correspond to the best performance in the sector; (b) does not hamper the development and deployment of low-carbon alternatives; and (c) does not lead to a lock-in of carbon-intensive assets.

The “best in class” criterion accordingly allows certain vessels to comply with the substantial contribution criteria even though the vessels do not have zero direct CO₂ tailpipe emissions until the end of 2025. This is particularly the case in paragraph 1(d) of Section 6.10., according to which the vessels need to have attained an EEDI value 10% below the EEDI requirements applicable on 1 April 2022. The vessels have to be able to run on zero direct (tailpipe) CO₂ emission fuels or on fuels from renewable sources (that meet the technical screening criteria specified in Sections 3.10 and 4.13 of Annex I), to prove that there is no lock-in of carbon-intensive assets.

95. For the activity “Sea and coastal freight water transport, vessels for port operations and auxiliary activities” in Section 6.10., does a vessel have to run on zero direct emission fuels or on fuels from renewable sources in order to be Taxonomy-aligned, or is it sufficient that the vessel is certified for fuels from renewable sources such as biofuels?

The substantial contribution criteria in Section 6.10. of Annex I specify four alternative ways to demonstrate compliance. In particular, for the criterion specified in point (1.d), a vessel, having an attained Energy Efficiency Design Index (EEDI) value 10% below the EEDI requirements applicable on 1 April 2022, should be able to *inter alia* run on zero CO₂ emission or renewable fuels that comply with the criteria in Section 3.10 “Hydrogen and h₂-based synthetic fuels” or in Section 4.13 “Manufacture of biogas and biofuels for use in transport and of bioliquids” of Annex I.

The attained EEDI reference is the main criterion in this point (1.d) in Section 6.10 of Annex I. The ability to run on zero direct CO₂ emission or renewable fuels represents an enabling provision in the criterion which does not impose, or further specify, which type of fuel to be used.

Furthermore, the criterion does not impose further limitation on the use of different types of fuels during operation. In practice, the verification of the enabling condition is made with reference to the energy conversion system installed on board, rather than the fuel used.

As an example, a vessel equipped with dual fuel gas engines is able to use liquefied natural gas (LNG), but would also be “able to use” either liquefied bio or synthetic methane.

Thus, for compliance with the TSC, it is sufficient that the vessel meets the minimum EEDI requirements and is equipped and certified with energy conversion systems able to run with fuels that comply with the criteria in Section 3.10. or 4.13.

96. Are vessels operated with biofuels included in the zero tailpipe CO₂ emission criterion of the activity “Sea and coastal freight water transport, vessels for port operations and auxiliary activities” (Section 6.10.)?

No, they are not. The reference to zero direct tailpipe emissions in the TSC does not prejudice the type of fuel selected. Internal combustion engines, whether using biofuels or other, have, as a rule, direct CO₂ emissions, whether associated to the main fuel used or to piloting fuels used for ignition. Any vessel with such emissions does not comply with the requirement for having zero tailpipe CO₂ emissions. Also, fuel cell installations, if using fuel other than hydrogen or ammonia will have CO₂ emissions associated to the fuel reforming process.

Zero direct tailpipe emissions must be demonstrated based on the technological choices made for the propulsion installation.

Without considering the possibility of on-board carbon capture and storage (OCCS) the only possible options for zero tailpipe CO₂ emissions would be technological solutions, such as:

- Electric ships, operated on an all-electrical configuration, with energy stored in batteries;
- Hydrogen Fuel Cell installations, with hydrogen or hydrogen carrier as source of energy;
- Ammonia Fuel Cell installations, with ammonia as source of energy;
- different combinations of renewable energy sources, directly used in propulsion assistance (e.g. wind assisted propulsion) or as energy source for electricity production (wind generators or photovoltaic).

97. How can the Energy Efficiency Design Index (EEDI) be applied in the activity “Sea and coastal freight water transport, vessels for port operations and auxiliary activities” in Section 6.10. under points (c) and (d) if the ship is outside the scope of EEDI?

A ship can be outside the scope of EEDI when:

- it is not meeting the relevant size and deadweight provisions in MARPOL Annex VI, Chapter 4, regulations 19 and 24, respectively;
- it is not being part of the ship types covered by EEDI (MARPOL Annex VI, Chapter 4, regulation 24).

According to footnote 261 of Annex I, vessels that fall into the ship types set out in MARPOL Annex VI Regulation 2, but are not considered as new ships under that Regulation may provide attained EEDI value calculated on a voluntary basis in line with MARPOL Annex VI Chapter 4 and have those calculations verified in line with MARPOL Annex VI, Chapter 2.

For any ship outside the group of ship types considered for EEDI calculation, irrespective of the size or deadweight, it is not possible to apply EEDI methodology and, therefore, only the applicable criteria of (1.a) and (1.b) of Section 6.10 of Annex I would apply.

Finally, and, in particular, for vessels of smaller size and deadweight, it is very likely that the adoption of all electrical solutions or hydrogen fuel cell systems may be adopted. EEDI would not work in such cases and the applicable criteria for such vessels are included in points (1.a) and (1.b) of Section 6.10 of Annex I.

98. Why does the point 1(c) of the substantial contribution criteria of the activity “Sea and coastal freight water transport, vessels for port operations and auxiliary activities” in Section 6.10. refer to a reference value applicable to heavy duty vehicles? How is it relevant for shipping? What is the actual value of this reference?

As set out in the Impact Assessment of the Climate Delegated Act, this criterion is designed to incentivise a modal shift from road to more sustainable modes. The criterion therefore uses

a comparison between land and maritime emissions. Until 31 December 2025, are considered as compliant with TSC operations which:

- are designed to enable modal shift of freight transport from land to sea, and
- their emissions are half of those defined for heavy duty vehicle sub-group 5-LH.

The data for the average reference CO₂ emissions value defined for heavy duty vehicles in accordance with Article 11 of Regulation 2019/1242 can be found in Commission Implementing Decision (EU) 2021/781. The CO₂ emissions reference value for vehicle sub-group 5-LH is 56.60 gCO₂/tkm.

H. Sea and coastal passenger water transport in Section 6.11.

99. For the activity “Sea and coastal passenger water transport” in Section 6.11., which criteria apply to vessels that carry both passenger and freight?

Vessels that carry both freight and passengers can apply either the criteria set out in the freight section or those set out in the passenger section. In any case, the criteria are broadly the same except for 1(c) incentivising modal shift.

I. Infrastructure for rail transport in Section 6.14.

100. Is airport infrastructure dedicated to the provision of rail-air multimodal services for the airport’s passengers and cargo covered in activity “Infrastructure for rail transport” in Section 6.14.?

As long as the activity corresponds to the activity description of Section 6.14 “*Infrastructure for rail transport*” of Annex I, the installations at or linked to airports would be eligible, notably where “*the infrastructure and installations are dedicated to the transfer of passengers from rail to rail or from other modes to rail*” as well as “*the infrastructure and installations are dedicated to transshipping freight between the modes: terminal infrastructure and superstructures for loading, unloading and transshipment of goods*”.

J. Infrastructure enabling low-carbon road transport and public transport in Section 6.15.

101. Does the activity “Infrastructure enabling low-carbon road transport and public transport” in Section 6.15. include infrastructure dedicated to the urban transport carried out by air, such as infrastructure dedicated to operate an electric vertical take-off and landing (eVTOL) vehicle with zero tailpipe CO₂ emissions, for the purpose of urban transport of passengers and goods? Does it include intelligent transport systems (ITS) enabling for example traffic flow optimisation and facilitation of energy efficiency in road transport?

In order to be regarded as included in Section 6.15 of Annex I, infrastructure must either be dedicated to the operation of road vehicles with zero tailpipe CO₂ emissions, or be dedicated to urban and suburban public passenger transport, i.e. regular passenger transport services of general economic interest provided to the public on a non-discriminatory and continuous basis. This would include, for example, bus and metro lines, but not a taxi service.

Infrastructure dedicated to urban transport carried out by air can therefore only be regarded as included in Section 6.15 of Annex I if the service provided is urban public passenger transport open to the public on a non-discriminatory and continuous basis.

'*Intelligent transport system*' activities could be eligible engineering and technical consultancy services under Section 6.15 of Annex I, when they consist in systems enabling connected and automated multimodal mobility of passengers, traffic flow optimisation, congestion reduction, facilitation of energy efficiency in road transport, and/or electronic tolling systems.

Construction and real estate activities in Section 7.

A. General

102. Regarding the preparation of construction site waste for recycling (DNSH to circular economy), can it be assumed that compliance with national law and any applicable threshold values is sufficient for a construction activity to be Taxonomy-aligned?

In the DNSH criteria for circular economy for the activity "*Construction of new Buildings*" in Section 7.1., non-hazardous construction and demolition waste generated on construction sites for new buildings and major renovations shall be prepared for reuse, recycling and other material recovery, including backfilling operations using waste as a substitute for other materials, in at least 70 percent of the masses generated. The TSC require that the specific threshold for the reuse, recycling, and other material recovery construction and demolition waste applies on the construction site. This means that this threshold has to be reached per specific project and cannot necessarily be considered fulfilled merely by complying with the relevant threshold values in national legislation (i.e. the transposition of the Waste Framework Directive). Reference is also made to the 'EU Construction and Demolition Waste Management Protocol', in the form of non-binding guidelines.⁵⁸

103. How can non-EU real estate assets be classified as Taxonomy-aligned? How are building standards (LEED, BREEAM, DGNB) treated in the EU Taxonomy? Is there any way to demonstrate that a LEED or BREEAM building is Taxonomy-aligned?

The standards mentioned are not explicitly considered in the Climate Delegated Act. Where they can help demonstrating compliance with the TSC, they can be accepted for the purpose of compliance with the TSC.

⁵⁸ See: https://single-market-economy.ec.europa.eu/news/eu-construction-and-demolition-waste-protocol-2018-09-18_en

- 104. As of today many Energy Performance Certificates (EPC) in some Member States are based on energy consumption rather than energy demand. Can these consumption-based energy certificates be used as an equal basis to prove Taxonomy-alignment?**

If it is an officially produced EPC, it can be accepted, and used on equal terms.

B. Construction of new buildings in Section 7.1.

- 105. What are the actual Nearly Zero-Energy Buildings (NZEB) thresholds in each Member State (region)?**

This information can be obtained from national authorities. Any new building in the EU should have an Energy Performance Certificate (EPC), and the EPC indicates the relevant value for the respective building and how it compares to reference values, such as NZEB.

- 106. For the activity “Construction of new buildings” in Section 7.1., is the date of submission of the building application decisive for the technical screening criteria to be applied?**

Yes, the date of submission of the complete application is the relevant date for deciding which TSC apply at that point in time.

- 107. Is the scope of the activity “Construction of new buildings” in Section 7.1. only limited to companies constructing the new buildings or also companies, which commission the construction of buildings (e.g. car manufacturing company which contract a construction company to build an office building)?**

This applies to both construction companies and entities that commission a new building. However, the way they can claim relevant turnover/CapEx/OpEx as Taxonomy-eligible/aligned may differ, and for the entity owning the building it is also possible to use the relevant criteria in Section 7.7. of Annex I.

- 108. For the activity “Construction of new buildings” in Section 7.1., do the requirements regarding air-tightness, thermal integrity measurement and life-cycle Global Warming Potential (GWP) apply to non-residential buildings?**

Yes, the proposed TSC regarding air-tightness, thermal integrity measurement and life-cycle Global Warming Potential (GWP) do not differentiate between residential and non-residential buildings and thus apply to both.

- 109. For residential buildings, can compliance with the technical screening criteria of the activity “Construction of new buildings” in Section 7.1. be demonstrated by using a limited sub-set of apartment units, instead of checking compliance for the whole property? Does this possibility also apply in non-residential buildings?**

For the energy threshold, this depends on national regulations, i.e. if the EPC applies to the whole building, or to each apartment. Whichever is the requirement at national level, it should apply for both residential and non-residential buildings. The correct EPC will be provided in any case, in line with the national regulations. For identical apartments, having

normally identical EPCs, a limited sub-set can be used. However, if there are different types of apartments, with different EPCs, all types need to be checked.

For the specific TSC for buildings larger than 5000 m², the compliance with the requirements that *'the building resulting from the construction undergoes testing for airtightness and thermal integrity'* and *'the life-cycle Global Warming Potential (GWP) 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'* should be proven for the building (not for apartments), for both residential and non-residential buildings.

110. Regarding the proof of thermal integrity measurement, what should be done with buildings that are completed or handed over outside the required heating period? Can proof of thermal integrity measurement only be provided after the building has been handed over and, until then, be recorded as a declaration of intent by those responsible in accordance with EU law?

Yes, the proof can be provided later, if it is not possible to perform the necessary tests before the building is handed over.

111. Regarding the determination of the life-cycle Global Warming Potential (GWP) as referenced in the activity "Construction of new buildings" in Section 7.1.:

- **What is the process to be followed if individual phases of the life cycle (such as: Phase C - disposal of the building; but in particular Phase D - benefits and pressures outside the system boundary) are currently not available in the form of corresponding (product-specific) environmental indicators according to EN 15978 / EN 15804 (in particular GWP) in the form of robust product databases at national level? In this case, can "partial conformity or conformity based on national framework conditions" be assumed by naming the parts of the life cycle considered (for example: phase A, phase B; parts of phase C)?**
- **What is the process if, apart from possible restrictions of the overall assessment approach, the availability of reliable environmental indicators for the technical building equipment cannot be included in the balancing, or only to a very limited extent? In this case, can "partial conformity or conformity on the basis of national framework conditions" be assumed by mentioning this restriction?**
- **Are nationally established assessment procedures permitted for proof of conformity if they currently have the limitations, but at the same time are largely established in practice (for example, in building assessment systems, in the allocation of housing subsidies)?**

As specified in footnote 286 of Annex I, 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 (EN 15978:2011. Sustainability of construction works. Assessment of environmental performance of buildings. Calculation method). The scope of building elements and technical equipment is 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 set out by the Level(s) common EU framework⁵⁹, see indicator 1.2 user manual.

112. Is dedicated building land for the new construction of buildings no longer considered arable and cultivated land, regardless of the soil fertility of the land that is still undeveloped? Or is it generally prohibited in the sense of the ordinance to construct a new building on arable and cultivated land with medium to high soil fertility and subsurface biodiversity, regardless of its dedication under building law?

The purpose of including the DNSH criterion for the protection and restoration of biodiversity and ecosystems is to ensure that new construction does no significant harm to land types that have a high biodiversity and ecosystem value. More specifically, their purpose is that the three land types identified by the DNSH criterion are not converted to land for construction purposes.

On this basis, any project involving new construction on arable land and crop land with a moderate to high level of soil fertility and below ground biodiversity is considered to do significant harm to biodiversity and ecosystems.

113. For the activity “Construction of new buildings” in Section 7.1., is building land awaiting development, dedicated but still undeveloped building land generally excluded from development according to the EU Taxonomy?

The purpose of including the DNSH criterion for the protection and restoration of biodiversity and ecosystems is to ensure that new construction complies with the criteria set out in Appendix D and does no significant harm to land types that have a high biodiversity and ecosystems value. More specifically, it aims to ensure that the three land types identified by the DNSH criterion are not converted to land used for new construction.

On this basis, every type of land – with the exclusion of the land types in points (a), (b) and (c) under point (6) – is considered suitable to fulfil the DNSH criterion for biodiversity and ecosystems. Therefore, building land awaiting development, dedicated but still underdeveloped building land, may fulfil the DNSH criterion for biodiversity and ecosystems.

⁵⁹ <https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/412/documents>

- 114. Point 1 of the substantial contribution criteria of the activity “Construction of new buildings” in Section 7.1. provides that “the Primary Energy Demand (...) is at least 10 % lower than the threshold set for the nearly zero-energy building (...) in national measures implementing Directive 2010/31/EU (...)”. Where national legislation related to Energy Performance of Buildings Directive and the NZEB concept has recently changed, should compliance with this criterion be performed using the legislation applicable at the time of the building licensing (the old one) or the legislation currently in force?**

The TSC applicable at the time of the building permit should be used (i.e. the date of the complete application for receiving the building permit).

- 115. The substantial contribution criteria of the activity “Construction of new buildings” in Section 7.1. indicate that the energy performance is certified using an ‘as built Energy Performance Certificate (EPC)’. What is meant by ‘as built’? Can during the construction phase a calculated estimated primary energy demand (PED) be used to determine Taxonomy-alignment until the final energy performance assessment has been performed? If during the construction phase the calculated estimated PED value is only available on building level and not on individual building unit level (which is often the case for apartments), can the PED value for the total building be used as a proxy for the PED of the individual apartment during the construction phase?**

For new buildings, either an EPC (valid for 10 years) or an EPC as-built are valid. It is understood that often for construction projects the loan is provided before the works start and funds are made available as the works progress. Since it is not possible to obtain the EPC as-built until the very end of the project, it should be possible as a provisional measure to obtain and use an EPC as-designed. This would allow the building process to start. However, upon completion of the works, there needs to be an EPC as-built to certify that indeed the building complied with the criterion 10% better than NZEB.

This depends also on the availability of the EPCs and the scope of the project as such. When the project concerns a whole building, there is no need to check the EPC for each individual apartment. When the project is about construction or acquisition/ownership of an apartment, the EPC for the respective apartment can be used.

- 116. Paragraph 2 of the substantial contribution criteria of the activity “Construction of new buildings” in Section 7.1. states that ‘as an alternative, where robust and traceable quality control processes are in place during the construction process this is acceptable as an alternative to thermal integrity testing’. What quality process qualifies as a traceable quality control process and, therefore, guarantees compliance with this criterion?**

Certification of construction or of installation companies in the respective field qualify.

117. In Annex II to the Delegated Act, the DNSH criteria to climate change mitigation of the activity “Construction of new buildings” in Section 7.1. of Annex II provide that *“The building is not dedicated to extraction, storage, transport or manufacture of fossil fuels.”* Is this to be interpreted as excluding the operation of fossil fuel systems?

The criterion for DNSH to mitigation in Section 7.1. of Annex II means to exclude as Taxonomy-aligned the adaptation activities for buildings that are dedicated to certain activities involving fossil fuels. This criterion does not exclude from fulfilling the DNSH criterion buildings where small quantities of fuels might need to be stored or transported, e.g. for ensuring the functioning of the on-site energy production facilities, but where the building is dedicated to a completely different use (for example, residential building).

118. The DNSH criteria to pollution prevention and control of the activity “Construction of new buildings” in Section 7.1. provide that: *‘Building components and materials used in the building renovation that may come into contact with occupiers emit less than 0,06 mg of formaldehyde per m³ of material or component upon testing in accordance with the conditions specified in Annex XVII to Regulation (EC) No 1907/2006 and less than 0,001 mg of other categories IA and IB carcinogenic volatile organic compounds per m³ of material or component, upon testing in accordance with CEN/EN 16516 or ISO 16000-3:2011 or other equivalent standardised test conditions and determination methods.’*

- **Annex XVII to REACH does not specify conditions to determine formaldehyde emissions. What testing methodology needs to be performed: specific standard or a test method such as EN 16516?**
- **Why does the criteria refer to “0,06 mg of formaldehyde per m³ of material or component” when formaldehyde emission are expressed as air concentration?**

As regards point 1, the reference to REACH Annex XVII is appropriate, as it is under revision for formaldehyde and the revised version will include provisions regarding methods for testing emissions of formaldehyde. We expect that the new restriction of formaldehyde and formaldehyde releasing substances will be added to REACH Annex XVII and will be published in Q2 2023.

As regards point 2, the reference is meant to refer to m³ of chamber air in the test system. The formulation could be corrected in the review of the Delegated Act.

119. The DNSH to pollution prevention and control of the activity “Construction of new buildings” in Section 7.1. require compliance with the criteria set out in Appendix C. Is compliance with Appendix C already ensured by complying with Union legislation referred— in the DNSH criteria for Section 7.1. or should other matters be taken in consideration?

Full compliance with the legislation mentioned in Appendix C (i.e. Regulations (EU) 2019/1021, 2017/852, 2009/1005, 1907/2006 and Directive 2011/65/EU) is not sufficient for fulfilling the generic criteria for DNSH to pollution prevention and control regarding use and

presence of chemicals specified in Appendix C. The reference to EU legislation in that Appendix identifies substances in the scope of the generic DNSH criteria. The requirements that need to be fulfilled as regards these chemicals are specified in the Appendix C itself.

120. Construction of buildings implies the use of thousands of substances/products stemming from a very wide range of suppliers, which themselves integrate components from third parties. The bulk of information to be gathered can be very difficult to collect. Is there a methodology or path of compliance that can be indicated to ensure compliance with Appendix C?

All conditions set out in Appendix C, i.e. points (a) to (g), apply whenever a reference is made to Appendix C.

No simplified list of substances is available for construction products and building components. Nevertheless, the substances covered by points (a) to (e) of the DNSH criteria are listed in the relevant provisions of the respective regulations referenced.

The list of substances covered by point (f) are available by consulting the candidate list of substances of very high concern managed by the European Chemicals Agency pursuant to Article 59(10) of the REACH Regulation. The candidate list is available on-line.⁵²

Substances covered by point (g) can be found in several sources, depending on the particular paragraph of REACH Art 57 they belong to:

As regards REACH Art. 57(a-c): one source is the classification and labelling inventory managed by the European Chemical Agency pursuant to Article 42 of the CLP Regulation. The inventory provides information on the hazard classifications of substances, which can be compared with the criteria laid down in Article 57 (a)-(c) of REACH. The inventory lists substances with harmonised classifications (assessed and concluded by authorities) as well as self-classifications (assessed and concluded by industry itself). The classification and labelling inventory is available on-line at: C&L Inventory – ECHA on europa.eu

As regards REACH Art. 57(d-f): The hazard categories mentioned in this paragraph are not yet covered by the C&L Inventory. ECHA manages lists of substances under assessment by its informal ECHA Expert Groups. The lists provide an indication of substances that might meet the criteria laid down in Article 57 (d)-(f) of REACH as well as substances that likely do not meet the criteria or substances under assessment. The persistency, bioaccumulation and toxicity (PBT) assessment list provides information on those properties of substances, which can be compared with the criteria laid down in Article 57 (d)-(e) of REACH. The inventory is available on-line at: <https://echa.europa.eu/pbt>.

The endocrine disruptor (ED) assessment list provides information on those properties of substances, which can be compared with the criteria laid down in Article 57 (f) of REACH. The inventory is available on-line at: <https://echa.europa.eu/ed-assessment>.

In line with the Chemicals Strategy for Sustainability commitment, the Commission is preparing inclusion of new hazard classes (including PBTs, vPvBs and EDs) in the CLP Regulation (EC) No 1272/2008. If and when the hazard classes are included in the CLP

Regulation, the C&L Inventory will gradually include information on the hazard classifications of substances covered by the point (g) in Appendix C.

- 121. The DNSH criterion for pollution prevention and control of the activity “Construction of new buildings” in Section 7.1. requires that “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”. If contamination is detected, should decontamination be implemented to comply with this criterion? Which thresholds should be considered to define if a site is contaminated? Is there any international reference or are national/local references to be used?**

The purpose of the criterion is to require, prior to the construction of a new building or a real estate project, the investigation of contaminants on a potentially contaminated site. This includes the investigation of sites where potentially contaminating risk activities took place, or sites where the presence of soil contamination is suspected (e.g. after an accident or calamity). The criterion requires that the investigation is aimed at collecting the necessary information for the confirmation of the presence of soil contamination and the determination of a risk assessment. Once the risk assessment is undertaken, the requirements of the criteria are met.

A contaminated site is determined on a case-by-case basis after soil investigation and soil sampling (for instance, following the guidance of standard ISO 18400). Currently, there are no common EU thresholds to evaluate whether or not a site is contaminated. Most Member States have national legislation in place to tackle soil contamination, which in some cases include specific limit values and requirements for the investigation, sampling, risk assessment and remediation.

- 122. The DNSH criteria for water and marine resources of the activity “Construction of new buildings” in Section 7.1. explicitly exclude “installations in residential building units” from the scope of the requirements. How is that to be understood? Is this a general exemption for residential buildings?**

Residential building units are single-family homes or flats in multi-flat buildings. These have been excluded from the DNSH criteria to minimise the administrative burden on individual homeowners and associated construction or renovation projects.

However, multi-flat or multi-home developments by a single economic operator are covered by the DNSH criteria for water and marine resources. Therefore, the criteria do not provide a general exemption for residential buildings.

- 123. The DNSH for water and marine resources of the activity “Construction of new buildings” in Section 7.1. state that ‘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’. How shall the maximum average flush be calculated? Is the BREEAM methodology applicable?**

The Building Research Establishment Environmental Assessment Method (BREEAM), or equivalent instrument, applies to calculate the maximum average flush for WCs, including suites, bowls, and flushing cisterns.

- 124. For the DNSH criterion to circular economy for the activity “Construction of new buildings” in Section 7.1., is it acceptable that material prepared for energy recovery (incineration) can be counted towards the requirement that 70% of the non-hazardous construction and demolition waste generated on the construction site is prepared for reuse, recycling and other material recovery? Or should incineration/waste be considered outside the 70%?**

The purpose of including the DNSH criterion to the objective on the transition to a circular economy is to require that 70% (by weight) of the non-hazardous construction and demolition waste generated on the construction site is prepared for reuse, recycling and other material recovery, including backfilling operations using waste to substitute other material.

Under Article 17(1)(d) of the Taxonomy Regulation, economic activities leading to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste, should be considered to significantly harm the circular economy.

On this basis, the use of non-hazardous construction and demolition waste that would significantly increase incineration must be considered to harm the circular economy and does therefore not count towards the 70% threshold (by weight).

- 125. What degree of adherence to the ISO 20887 or other standards for assessing the disassembly or adaptability of buildings needs to be demonstrated to ensure compliance with the DNSH to circular economy criterion of the activity “Construction of new buildings” in Section 7.1.? How will compliance with this requirement be evaluated/audited by the responsible authority?**

The purpose of including the DNSH criterion for the transition to a circular economy is to demonstrate that, when a building is designed and constructed, this is done in a way to enable reuse and recycling of the materials used.

The DNHS criterion does not qualify the degree to which adherence with the ISO 20887 or other standards for assessing the disassembly or adaptability of buildings has to be demonstrated. To ensure compliance with TSC, a relevant set of measures needs to be put in place by the construction company to demonstrate that a new building is more (a) resource efficient, (b) adaptable, (c) flexible and (d) dismantlable compared to the average new built building.

126. Which elements should be provided to prove that the new construction is not built on one of the sites referred in the criteria for DNSH to biodiversity for the activity “Construction of new buildings” in Section 7.1. (e.g. arable land or high in biodiversity)?

The purpose of including the DNSH criterion for the protection and restoration of biodiversity and ecosystems is to ensure that new construction complies with the criteria set out in Appendix D and does no significant harm to land types that have a high biodiversity and ecosystems value. More specifically, this implies that the three land types identified by the DNSH criterion are not converted to land used for new construction.

On this basis, the building permit can be used as proof of compliance to show that new construction is not built on the land types in points (a), (b) and (c) of the criterion.

127. How should it be demonstrated that a new construction does not fall under point a) of the criterion for DNSH to biodiversity of the activity “Construction of new buildings” in Section 7.1., if for that piece of land soil fertility is still under research at EU level and below ground biodiversity maps have not yet been published?

The purpose of inclusion of the criterion (a) under DNSH to the biodiversity objective for the construction of new buildings is to rule out that buildings on fertile arable or cropland (or any of the other categories of land as covered in points (b) and (c)) would be considered environmentally sustainable, due to the negative environmental impact of using such land.

It should be noted that if according to the applicable laws and spatial planning regime it would be allowed or permitted by the authorities to build on the parcel of land, this DNSH criterion is always met. So, the provisions here are most relevant in places with no clear zoning/planning law.

128. How should the DNSH to biodiversity criterion for the activity “Construction of new buildings” in Section 7.1., which states ‘An Environmental Impact Assessment (EIA) or screening has been completed in accordance with Directive 2011/92/EU’, be understood?

According to the criteria on the ‘Construction of new buildings’, real estate projects fall under Annex II of the Environmental Impact Assessment Directive and are subject to a screening. In each Member State, the competent authority decides whether for such projects an Environmental Impact Assessment is deemed necessary. Such a decision is based on a screening procedure that determines whether projects shall be subject to an assessment either on the basis of thresholds/criteria, or on the basis of a case-by-case examination taking into account the relevant selection criteria set out in Annex III of the Directive.

In order to ensure a high level of protection of the environment and human health, screening procedures and environmental impact assessments should take account of the impact of the whole project in question, including, where relevant, its subsurface and underground, during the construction, operational and, where relevant, demolition phases.

Further guidance on the implementation of the EIAD can be found on https://environment.ec.europa.eu/law-and-governance/environmental-assessments/environmental-impact-assessment_en

C. Renovation of existing buildings in Section 7.2.

129. For the activity “Renovation of existing buildings” in Section 7.2., what is the definition of major renovation in each Member State?

According to Article 2(1)(10) of the Energy Performance of Buildings Directive, “*major renovation*” means the renovation of a building where:

(a) the total cost of the renovation relating to the building envelope or the technical building systems is higher than 25 % of the value of the building, excluding the value of the land upon which the building is situated; or

(b) more than 25 % of the surface of the building envelope undergoes renovation.

Member States may choose to apply option (a) or (b) or both. The information can be checked with the Member State concerned.

130. Footnote 299 in Annex I Section 7.2. on “Renovation of existing buildings” specifies that “*the reduction of the net primary energy demand of energy from renewable sources shall not be taken into account*”. How is this to be interpreted?

The footnote referred to indicates that: “*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 (EPC). 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*”.

It follows that the reductions in the primary energy demand are to be validated by an EPC, and should be estimated based on the methodology applicable, in line with the provisions of the Energy Performance for Buildings Directive. The directive clarifies that ‘primary energy’ means energy from renewable and non-renewable sources which has not undergone any conversion or transformation process.

Improving the energy source to use renewable energy can qualify under Section 7.6. – “Installation, maintenance and repair of renewable energy technologies”.

131. How can undertakings meet the DNSH criterion for water of the activity “Renovation of existing buildings” in Section 7.2. as long as there are no corresponding legal restrictions or manufacturer specifications and thus no data exist with which one could track compliance?

The DNSH criterion for the sustainable use and protection of water and marine resources aims at limiting water use for the specified water appliances installed as part of the

renovation works in non-residential building units. The appliances include (a) wash hand basin taps and kitchen taps; (b) showers; (c) WCs, and (d) urinals.

On this basis, compliance with the specific water use can be undertaken based on either of these elements: (a) product datasheets, (b) a building certification, and (c) an existing product label in the Union, such as the EU Ecolabel.

- 132. To determine whether or not a 30% reduction in Primary Energy Demand (PED) will be/has been achieved, a starting-PED-value and an end-PED-value needs to be determined. Does the term “*validated through an Energy Performance Certificate*” as included in the technical screening criteria of the activity “Renovation of existing buildings” in Section 7.2. mean that the end-PED-value is only valid / acceptable if it is a PED value as included in a new EPC? Is the preceding sentence (*‘is based on a detailed building survey, an energy audit conducted by an accredited independent expert or any other transparent and proportionate method’*) also applicable to the end- PED-value (post-renovation PED value)?**

The calculation of reduction should be based on the values in an EPC before and after the renovation, based on the numeric indicators in kWh/m² indicated in the EPC.

- 133. For the activity “Renovation of existing buildings” in Section 7.2., does the wording *‘is based on a detailed building survey, an energy audit conducted by an accredited independent expert or any other transparent and proportionate method’* mean that to determine the starting Primary Energy Demand (PED) value in addition to an on-site measurement of the PED, alternative methods are acceptable as long as they are *‘transparent and proportionate’*? Would it be acceptable to determine (e.g. by using property characteristics and year of construction) upper and lower estimated PED-values for existing energy labels and use the upper PED-values as the starting-PED-value to determine the starting point of a renovation?**

Where an Energy Performance Certificate (EPC) is not available or cannot be generated, the initial primary energy demand and the estimated improvement can be based on a detailed building survey, an energy audit conducted by an accredited independent expert or any other transparent and proportionate method. The 30 % improvement should result 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.

- 134. For the activity “Renovation of existing buildings” in Section 7.2., can all renovation measures taken during a three-year period be counted to determine if the 30% reduction (compared to the starting-PED-value as at the beginning of the three-year period) has been realised?**

Yes.

D. Installation, maintenance and repair of energy efficiency equipment in Section 7.3.

135. What are the technical specifications of energy efficient windows, doors, light sources, and highly efficient HWAC technologies referred to in points (b) to (e) of the activity “Installation, maintenance and repair of energy efficiency equipment” in Section 7.3.?

These specifications are defined at national level.

E. Installation, maintenance and repair of renewable energy technologies

136. What is the technical specification of heat pumps contributing to targets for renewable energy in heat and cool in accordance with RED II?

Annex VII of RED II (Accounting energy from heat pumps) states that “*only heat pumps for which $SPF > 1,15 * 1/\eta$ shall be taken into account*”, where:

- “*SPF = the estimated average seasonal performance factor for those heat pumps*”
- “ *η = the ratio between total gross production of electricity and the primary energy consumption for the production of electricity and shall be calculated as an EU average based on Eurostat data.*”

137. How to distinguish the installation of heat pumps referred to in Section 4.16. (“Installation and operation of electric heat pumps”) from those in Section 7.6. (“Installation, maintenance and repair of renewable energy technologies”)? What does installation ‘on-site’ mean? Can you provide examples?

Section 7.6 covers the installation, maintenance, repair and upgrade of heat pumps and the ancillary technical equipment, if installed on-site as technical building systems. A heat pump installed on-site to provide heating for a specific building is covered by Section 7.6.

Section 4.16 covers the installation and operation of other types of electric heat pumps, which are not installed on-site as technical building systems (e.g. industrial heat pumps, heat pumps installed as part of a district heating system).

138. Are bioenergy and hydropower eligible under the activity “Installation, maintenance and repair of renewable energy technologies” in Section 7.6.?

The renewable energy technologies included in Section 7.6 are the ones likely to be installed on-site, and for which an assessment has been performed, concluding that they contribute substantially to climate change mitigation, and do not cause significant harm to any other environmental objective. The list provided in Section 7.6 of the Climate Delegated Act is exhaustive. Therefore, hydropower and bioenergy are not covered by this section. Additional technologies could be included in the future, subject to a more detailed assessment.

- 139. How do the Sections 4.3 (“Electricity generation from wind power”) and 7.6 (“Installation, maintenance and repair of renewable energy technologies”) interact when it comes to the construction or operation of electricity generation facilities that produce electricity from wind power and the installation, maintenance and repair of wind turbines? Which activities are to be allocated to activity 7.6?**

Section 7.6 covers installation, maintenance and repair of wind turbines and the ancillary technical equipment, if installed on-site as technical building systems. A wind turbine installed on-site to provide electricity for a specific building is covered by Section 7.6.

Section 4.3 covers the construction or operation of electricity generation facilities that produce electricity from wind power in all other situations, when the wind turbines are not installed on-site as technical building systems.

F. Acquisition and ownership of buildings in Section 7.7.

- 140. Do the technical screening criteria of the activity “Acquisition and ownership of buildings” in Section 7.7. relate exclusively to residential buildings or also to non-residential buildings?**

The criteria related to the energy performance of the building apply to both residential and non-residential buildings. For the non-residential building there is an additional requirement (not applicable to residential buildings): *“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.”*

- 141. The substantial contribution criteria of the activity “Acquisition and ownership of buildings” in Section 7.7. state that ‘For buildings built after 31 December 2020, the building meets the criteria specified in Section 7.1 of this Annex that are relevant at the time of the acquisition’. Does this refer both to the substantial contribution and DNSH criteria of Section 7.1 (“Construction of new buildings”)?**

As this text is included under the substantial contribution criteria, and there are specific criteria listed below for DNSH, the text refers only to the relevant criteria specified in Section 7.1. for substantial contribution to climate change mitigation. Where the DNSH criteria under Section 7.7 indicate N/A it means there are no specific requirements for the respective environmental objective.

- 142. For the activity “Acquisition and ownership of buildings” in Section 7.7., what happens if a building has several Energy Performance Certificates (EPCs)?**

When a building has several EPCs, the parts of the buildings covered by EPCs that qualify under the technical screening criteria are to be considered Taxonomy-aligned.

143. For the activity “Acquisition and ownership of buildings” in Section 7.7., to determine when a property was ‘built’, which date should be used:

- **the date a property was actually completed and delivered to the owner / occupier;**
- **the date of the application for a construction permit; or**
- **the date of the confirmation of completion of a construction permit?**

For the application of the Taxonomy criteria, the date of the application for a construction permit is relevant.

144. For buildings built after 31 December 2020, can the construction phase of a newly constructed property be considered as being part of the acquisition process? Can the drawn part of a construction mortgage loan therefore be considered under Section 7.7 (“Acquisition and ownership of buildings”), paragraph 2? Put differently: should Section 7.7 paragraph 2 only be used for buildings that have been completed or also for buildings that are being built? Or alternatively, should the consumer be seen as the entity undertaking the economic activity of Section 7.1 (“Construction of new buildings”) and the realised part of a property be considered for EU Taxonomy alignment according to 7.1 only?

In the case of the construction of a new building, for the construction company (and for its revenues to be considered under the EU Taxonomy), the criteria under Section 7.1. apply. For the owner of the new building (whether it acquires the building through an acquisition, or if it is building its own building), the value of the building can be considered under the EU Taxonomy based on the criteria under Section 7.7.

145. Can companies use Energy Performance Certificate (EPC) equivalents for assessing alignment with the technical screening criteria of the activity “Acquisition and ownership of buildings” in Section 7.7. in countries where EPC is not offered?

In the EU, all Member States have EPCs. However, some Member States may exclude specific types of buildings from EPC schemes e.g. industrial buildings, temporary buildings. Within the EU, whenever an EPC is available for the relevant building considered, it should be used. When this is not possible, equivalents can be used instead. Outside the EU, equivalents can be used instead of the EPCs.

146. How are buildings assessed in countries where there is no Nearly Zero Energy Buildings (NZEB) threshold, i.e. countries outside the EU? Can companies use equivalents or thresholds from an EU country with a similar climate?

Some countries, even outside EU, have defined NZEB and low energy buildings. Wherever such definitions exist, they can be used. When NZEB are not clearly defined in the national legislation, equivalents can be used, e.g. equivalents or thresholds from an EU country with a similar climate, when possible.

147. Can the construction of a building for own use count towards the activity "Construction of new buildings" in Section 7.1. or "Acquisition and ownership of buildings" in Section 7.7.?

Yes, the construction of a new building for own use can be covered under Section 7.1 "*Construction of new buildings*", or Section 7.7 "*Acquisition and ownership of buildings*".

148. Does the Energy Performance Certificate (EPC) class A in the substantial contribution criteria for activities related to the construction and real estate sector refer to primary energy demand or total energy demand?

The Energy Performance Certificate (EPC) 'class A' that is required under the substantial contribution criteria of activity in Section 7.7. ("*Acquisition and Ownership of buildings*") refers to the EPC class of the EPC scheme in the relevant Member State. The numerical indicator expressed in kWh/m², mentioned in the EPC, is relevant and should be considered.

149. What are the rules for defining the top 15% and top 30% benchmarks of the national market (with a distinction between residential and commercial) as referenced in the technical screening criteria of the activity "Acquisition and ownership of buildings" in Section 7.7.? What should be done if there is no Energy Performance Certificate (EPC) nor any data to determine whether a building belongs to the best 15% of the national building stock?

For determining Taxonomy-alignment, it should be demonstrated that a building is within the top 15% (or 30% for climate change adaptation) of the national or regional building stock, by adequate evidence. There are no specific rules for defining the top 15% or 30% of the building stock, beyond the requirements of referring to the national or regional building stock expressed as operational Primary Energy Demand (PED), and distinguishing at least between residential and non-residential buildings.

In the absence of a relevant EPC, a technical study can be done to estimate the relevant threshold for the top 15% of the national (or regional) building stock for that category of building. There may be information available from national databases or studies produced by certain organisations (e.g. World Green Building Council).

Whenever there is such a study publicly available, it can be used. When there is no study available, it has to be conducted. It can be expected that e.g. interested market actors or associations/institutes/public authorities could be willing to conduct or commission such studies and make them public, so that other entities (in particular smaller ones) could use them afterwards.

The EPC remains the simplest option, in the EU, as it can easily be obtained for most buildings, and it is also a mandatory when a building is sold.

The revision of the Energy Performance of Buildings Directive is considering how to address the availability of information on energy performance as well as databases on energy performance certificates.

- 150. What should be done if it is currently not possible to quantitatively name the top 15 % of the building stock before 31.12.2020, and there is no corresponding national evaluation of the Energy Performance Certificates (EPCs) already issued, and there is no valid data based on the operating energy demand of the existing building stock? As a first simplification, can calculated energy efficiency data (e.g. from energy performance certificates with standardised energy requirements for household electricity / operating electricity) be used as opposed to real consumption data (from buildings in operation) to determine Taxonomy-alignment with the substantial contribution criteria of the activity “Acquisition and ownership of buildings” in Section 7.7.?**

In order to use the option of demonstrating that the building is within the top 15% of the national or regional building, adequate evidence should be provided (e.g. a recent study), which at least compares the performance of the relevant asset to the performance of the national or regional stock built before 31 December 2020 and at least distinguishes between residential and non-residential buildings. If such data is not available, a study can be conducted to perform such an assessment. Alternatively, the option of an EPC class A can be used.

There is no requirement to conduct the assessment based on real consumption data for demonstrating that a building is within the top 15% of the building stock. In fact, it is recommended to use estimated energy consumption, which better reflects the energy performance of the building (being less influenced by occupancy and behaviour patterns). Only for large non-residential buildings (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 required to show that the building is also efficiently operated through energy performance monitoring and assessment.

- 151. Is it permissible to use a weighted requirement value based on the valid new building regulations of the last 15 years for the definition of the necessary requirement value for "the best 15 % of the stock" as referred to in substantial contribution criteria of the activity “Acquisition and ownership of buildings” in Section 7.7.?**

The technical screening criteria require “*adequate evidence, which at least compares the performance of the relevant asset to the performance of the national or regional stock built before 31 December 2020 and at least distinguishes between residential and non-residential buildings*” if the option of the “*top 15% of the national or regional building stock*” is used. It is not possible to use proxies, such as the year of the construction of the building.

- 152. The top 15% is a dynamic metric. Is grandfathering guaranteed for properties, e.g. over the entire term of a green bond, if they were among the top 15% at the time of issue?**

There is no grandfathering of the technical screening criteria themselves. If the criteria are revised and changed, or an activity falls out of compliance with criteria that are dynamic, a new assessment of (and where relevant effort to ensure) compliance is needed, as of the date when the criteria apply. This is distinct from the grandfathering of financial instruments or

transactions on the basis of the criteria at the time of issuance or conclusion of a loan, where separate rules apply. (see for instance Article 7(5) of the Disclosures Delegated Act which allows financial undertakings to report financed Taxonomy-aligned activities as such for up to five years after the application of revised criteria/changed coverage of criteria).

153. What is the definition of operational Primary Energy Demand (PED)?

The Annex I to the Delegated Act clarifies in footnote 281 that the Primary Energy Demand is *‘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).’*

The Energy Performance of Buildings Directive defines in Article 2(5) primary energy as *“energy from renewable and non-renewable sources which has not undergone any conversion or transformation process”*. It also explains in Annex I that *“the energy performance of a building shall be determined on the basis of calculated or actual energy use and shall reflect typical energy use for space heating, space cooling, domestic hot water, ventilation, built-in lighting and other technical building systems”*.

154. The non-existing differentiation between residential and non-residential buildings in some Member States leads to the *de facto* inapplicability of these assessment categories for non-residential buildings, especially in the area of primary energy demand and the calculated CO₂ emissions. Due to the higher electricity demand for non-residential buildings, the achievement of an A rating for primary energy demand and CO₂ applies to very few buildings (even highly efficient non-residential buildings). What approach should be followed in such a situation?

EU Member States have a certain flexibility in how to define the requirements for various types of buildings. In many cases the requirements are different for residential and non-residential buildings. For the purpose of the EU Taxonomy, the relevant criteria applicable to the relevant type of building should be complied with. In some Member States the criteria are strict and a very small share of buildings would qualify under the EPC class A. In such cases, the option of demonstrating that the building is within the top 15% of the national or regional building stock can be used.

155. How should an energy management programme or system look like (e.g. according to ISO 50001 or EMAS)? Who is responsible – the tenant/user of the building or the landlord? What happens if tenants are changing or when the type of use changes within the property? Will there be concrete requirements regarding the documentation?

The requirement is *“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”*. Commission Recommendation on Building Modernisation provides guidance and interpretation on this.

156. What is the procedure if there is no national implementation of the requirements contained in Article 14(4) and Article 15(4) of Energy Performance of Buildings Directive as amended? Until national requirements are established, can an equivalent listing of the measures actually taken be used to determine alignment with the technical screening criteria of the activity “Acquisition and ownership of buildings” in Section 7.7.?

The technical screening criteria require that large non-residential buildings (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) are efficiently operated through energy performance monitoring and assessment. 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 Energy Performance of Buildings Directive. Therefore, a certain flexibility is allowed on how to demonstrate that a building is efficiently operated.

Wherever a national definition for building automation and control systems exists, it can be used. In case such a national definition does not exist, best practices should be used instead, and the elements included in the Energy Performance of Buildings Directive in relation to building automation and control systems can be used as a reference.

157. Are heritage or protected buildings that are exempt from the Energy Performance Certificates (EPC) under national law, also exempt from demonstrating compliance with the EPC or Primary Energy demand requirements specified in Section 7.7 (“Acquisition and ownership of buildings”)?

Section 7.7 does not provide a derogation for buildings with heritage or protected status. Therefore, in order to qualify as making a substantial contribution to climate change mitigation, all buildings that are built before 31 December 2020 must have at least an Energy Performance Certificate of Class A or be within the top 15% of the national or regional buildings stock expressed as operational Primary Energy Demand.

However, entities have the option to explain in the narrative part of their reporting under Section 1.2.3. of Annex I to the Disclosures Delegated Act why certain assets are not Taxonomy-aligned, e.g. because they are heritage buildings.

158. Does Section 7.7 (“Acquisition and ownership of buildings”) differentiate the eligibility of the revenues derived from the ownership of the building (meeting technical screening criteria) depending on the type of economic activity being carried out? For example, in the case of airport buildings and terminals meeting the technical screening criteria under Section 7.7, can the revenues derived from the building ownership be covered regardless of their nature e.g. rents from duty-free shops or rents from ground handlers operations in the terminal?

Activities detailed within the framework of Section 7.7 do not define the type of revenues derived from the building ownership that can be eligible or not. However, only revenues derived from the ownership of the building, e.g. rents, can be considered regardless of the

activities that take place in a building (duty free shops, ground handlers operations). Other non-related revenues, e.g. revenues that are not derived from the ownership of the building, but directly from aeronautical activities carried out by the airport operator cannot be considered and are not covered by this activity. For instance, the rents for the occupation of the building paid by duty free-shops are eligible, but not the revenues generated by duty free shops from the sale of products to consumers.

Information and Communication in Section 8

A. General

159. Are electronic communications networks (telecommunication) covered under the activities “Data processing, hosting and related activities” in Section 8.1. or “Data-driven solutions for GHG emissions reductions” in Section 8.2 ?

Electronic communications networks (telecommunication) as such are not included as an activity under the current coverage of the Taxonomy delegated act.

Section 8.2 of Annex I to the Climate Delegated Act targets specific digital solutions that are developed with the predominant (main) purpose to reduce emissions. Such solutions can be an innovative combination of digital networks and technologies and applications such as 5G, Internet of Things, Artificial Intelligence (AI), and blockchain.

An example of such a solution can be a precision farming solution, solutions for improving the energy efficiency of buildings or AI based solutions that reduce the energy consumption of 5G base stations. Consequently, solutions that significantly reduce emissions of the electronic communications services compared to best available alternative technologies are eligible under Section 8.2 of Annex I to the Climate Delegated Act.

While the generic public electronic communications network is an important and necessary infrastructure for the ICT solutions mentioned above, its predominant use or deployment is often not to reduce emissions. In cases where the electronic communications network is deployed and used in the context of the solution for GHG emissions reductions (for example, a specific machine-to-machine communication infrastructure to be used for precision farming) it is eligible under Section 8.2. Additions to a public electronic communication infrastructure required in the context of supporting the connectivity needs of the solution for GHG emissions reductions (such as network enhancement or support of network features required for the solution) are also eligible under Section 8.2.

B. Data processing, hosting and related activities in Section 8.1.

160. For the activity “Data processing, hosting and related activities” in Section 8.1., how can compliance with the European Code of Conduct on Data Centre Energy Efficiency be audited?

The substantial contribution criteria for climate change mitigation require an independent verification and regular audit (at least every three years) of the implementation of all relevant expected practices laid down in the European Code of Conduct on Data Centre Energy Efficiency.

The Code of Conduct will shortly (late 2022/ early 2023) be complemented with an assessment framework to assist auditors in verifying a data centre’s compliance with the relevant expected practices set out in the Code of Conduct on Data Centre Energy Efficiency.

161. For the activity “Data processing, hosting and related activities” in Section 8.1., who carries the burden of proof to demonstrate Taxonomy-alignment in the case of colocation data centres?

The burden of proof lies with the economic undertakings that are required to disclose their share of Taxonomy-aligned activities under the Disclosures Delegated Act or wish to have their economic activities classified as environmentally sustainable under the Taxonomy Regulation.

In the case of colocation data centres, the demonstration of compliance with the European Code of Conduct on Data Centre Energy Efficiency might require close cooperation and the exchange of technical data between hosts and tenants.

C. Data-driven solutions for GHG emissions reduction in Section 8.2.

162. Does the ICT solution referred to in the technical screening criteria of the activity “Data-driven solutions for GHG emissions reduction” in Section 8.2. need to be predominantly aimed at the provision of data and analytics and greenhouse gas (GHG) emission reductions have to be a necessary side effect or does the ICT solution need to be predominantly aimed at reducing GHG emissions using data and analytics?

The ICT solution could be substantially contributing in either case, provided that, where an alternative solution/technology is already available on the market, the ICT solution demonstrates substantial life-cycle GHG emission savings compared to the best performing alternative solution/technology.

163. How is ‘substantial’ defined in point 2 of the substantial contribution criteria of the activity “Data-driven solutions for GHG emissions reduction” in Section 8.2., which refer to ‘substantial life-cycle GHG emission savings’? How is ‘best performing alternative’ defined?

Please refer to the replies to questions 42-43 of this Notice regarding the activity “Manufacture of other low carbon technologies”.

Professional, scientific and technical activities in Section 9.

A. Close to market research, development and innovation in Section 9.1.

164. Should expenses relating to research and development (R&D) be considered as part of the activity they relate to or as a separate activity under Section 9.1. (“Close to market research, development and innovation”)?

Both scenarios are possible.

When R&D is an integral part of the activity that is covered in the Climate Delegated Act (in-house R&D that is integrated in the activity), it can be counted under that activity and the associated expenditures disclosed accordingly.

In other cases, where research is not integrated in a Taxonomy activity, but helps other Taxonomy activities reach their substantial contribution thresholds, it can be counted as a separate enabling activity under Section 9.1 and, where relevant, disclosed as a revenue-generating activity.

SECTION III: Questions on recurring DNSH criteria

Appendix A – Generic criteria for DNSH to climate change adaptation

165. What is the difference between the technical screening criteria for substantial contribution to climate change adaptation set out in Annex II and the technical screening criteria for DNSH to climate change adaptation set out in Annex I (climate change mitigation)?

The DNSH criteria for climate change adaptation, which are included in Annex I to the Climate Delegated Act, cover a part of the substantial contribution criteria for climate change adaptation, i.e. a risk and vulnerability assessment must be carried out to identify adaptation solutions.

However, the substantial contribution criteria for climate change adaptation as included in Annex II to the Climate Delegated Act, add the requirement to *implement* the identified adaptation solutions. The criteria for their implementation are specified in point 4 of the substantial contribution criteria. Thus, as regards to the implementation of adaptation solutions that substantially reduce the most important physical climate risks, material to the activity under scrutiny, the substantial contribution criteria for adaptation (included in Annex II to the Climate Delegated Act) reflect a higher level of ambition than those for DNSH in Appendix A in Annex I to the Climate Delegated Act.

Some economic activities cover only part of the value chain and have no impact on the part of the value chain that is predominantly threatened by climate change. How should this be addressed in the climate risk and vulnerability assessment?

It should be assured beyond reasonable doubt that the economic activity that is being targeted, cannot be affected by secondary or cascading impacts since major damage can often occur as a result of a succession of events (e.g. landslide after heavy rains). This can be done upfront or on the basis of the climate risk and vulnerability assessment.

The depth of the assessment may also vary, as long as it is sufficient to identify the physical climate risks that are material to the activity. For example, the extent to which risks may exist in the supply chain or in upstream production processes and whether these aspects need to be considered in the assessment can be weighed up individually for each activity. Decisive factors for the proportionality of the selected assessment approach can be the size of the company, the type, scale and context of the activity, the business model or the position in the supply chain.

The climate risk and vulnerability assessment needs to divide the economic activity (to the extent possible) into separate individual objects such as production sites, transport lines, adjacent administrative buildings, suppliers of critical material, their geographic location, etc.

The basis for a robust climate risk assessment is an understanding of how hazards can affect each individual object with regard to the activity under assessment. Some impacts of hazards are obvious, such as direct damage to production sites from flooding or storm events. However, not all climate impacts occur in a direct manner, but rather in succession with the potential of secondary impacts in a chain (so-called cascading effects). For example, storm events can damage the site of a critical supplier or energy infrastructure and cause power outages. Furthermore, risks can reinforce each other. Some risks even arise only through the combined effect of several climate hazards: some risks are exacerbated by successive hazards; for example, the risk of flooding is intensified when heavy rainfall hits dried-out soils.

166. With the submission of the 6th IPCC Assessment Report, the IPCC presented new climate scenarios. Are these to be taken into account instead of the existing scenarios cited in the EU Taxonomy?

Criterion 3 of the substantial contribution criteria to climate change adaptation specifies that *“climate projections and assessment of impacts are based on best practice and available guidance and take into account the state-of-the-art science for vulnerability and risk analysis and related methodologies in line with the most recent Intergovernmental Panel on Climate Change reports”*.

Therefore, users should refer to the most recent IPCC Assessment Reports once they become available.

167. By when should an implementation in regional, high-resolution climate scenarios be aimed for? How will conformity with the requirements of the EU Taxonomy be ensured in this case?

Progress is being made in the asset-level modelling through the European Horizon Europe research programme and in the development of specific regional high-resolution projections. In all likelihood, the higher the demand for the high-resolution climate scenarios, the faster the supply will adjust. For the Representative Concentration Pathway (RCP) scenarios RCP2.6, RCP4.5 and RCP8.5, regional climate models with approx. 12.5*12.5 km² resolution are available on the European level. For some countries, there are further regionalized data with 5*5 km² resolution.

168. Is it required to use all 4 IPCC pathways (RCP 2.6, RCP 4.5, RCP 6.0 and RCP 8.5)? Do the outcomes of each analysis have to be assessed separately?

No, it is not required to use all 4 Intergovernmental Panel on Climate Change (IPCC) pathways.

To start the assessment, it is important to see whether the activity that is subject to the climate risk and vulnerability assessment has been subject to impacts from some hazards in the past (e.g. sea-level rise). If this is not the case, following line with the precautionary

principle, RCP 8.5 (i.e. low mitigation) should be always used. If positive, lower end scenarios, e.g. RCP 4.5 could be used.

The outcomes of each analysis should be assessed separately.

169. How should a company proceed if not all of the four main scenarios of the IPCC are available?

In principle, the available IPCC models should be used at a scale that is meaningful and proportionate for assessing potential impacts from hazards within the timeframe of the economic activity (above 10 years).

The undertaking should make sure it has access to the climate data relevant for the climate risk assessment. This data is normally available on CORDEX. Regionalised climate data with the highest possible resolution should be requested from the national meteorological services. The European Environment Agency (EEA) provides an interactive report with climate data (based on CMIP5 and EURO-CORDEX) aggregated at the level of subnational administrative regions and already assigned to climate hazards. In addition, climate data for individual scenarios can be retrieved from the European Climate Data Explorer.

Regarding the choice of adequate Representative Concentration Pathway (RCP) to be taken into consideration, according to the Technical guidance on the climate proofing of infrastructure in the period 2021-2027⁶⁰, RCP 4.5 may be used for climate projections up to 2060 as until that year there are only small differences between the scenarios. However, for subsequent years, RCP 4.5 may begin to underestimate the changes, in particular, if GHG emissions prove higher than anticipated. Hence, it could be more relevant to use RCP 6.0 and RCP 8.5 for current projections until 2100. Warming under RCP 8.5 is widely considered to be greater than current business-as-usual scenarios, but it has relevance from the perspective of risk management since tipping points could not be fully accounted for in IPCC projections, while climate change impacts have already been more pronounced than expected.

170. How does proportionality influence the scope of the robust climate risk and vulnerability assessment that has to be conducted as part of the DNSH climate change adaptation criteria?

The objective of the robust climate risk and vulnerability assessment is to identify significant physical climate risks to the performance of the economic activity. This assessment then forms the basis for the identification of suitable adaptation measures that are presented as part of an adaptation plan.

⁶⁰ Commission Notice — Technical guidance on the climate proofing of infrastructure in the period 2021-2027 (OJ JOC_2021_373_R_000).

According to the Climate Delegated Act, Annex 1, Appendix A, the climate risk and vulnerability assessment carried out should follow state-of-the-art methodology and take into account the most recent highest-resolution data available. The scope of the assessment, methods and data used to achieve this objective may vary to maintain proportionality. For example, in many cases it may be enough to use a pessimistic scenario, such as RCP 8.5, and not consider all four RCP scenarios, provided that the consideration of additional scenarios is unlikely to yield new insights relevant for the risk assessment.

The depth of the assessment may also vary, as long as it is sufficient to identify the physical climate risks that are material to the activity. For example, the extent to which risks may exist in the supply chain or in upstream production processes and whether these aspects need to be considered in the assessment can be weighed up individually for each activity. Decisive factors for the proportionality of the selected assessment approach can be the size of the company, the type, scale and context of the activity, the business model or the position in the supply chain. For example, replacing windows in an office building to improve energy efficiency requires a less detailed climate risk assessment than building a dam to generate hydropower.

The frequency of the climate risk and vulnerability assessment should also be proportionate to its objectives. Appropriate occasions for updates of the assessment and the resulting adaptation plan are changes that increase the exposure to the identified risks or that may pose new risks or significantly alter already identified risks to the performance of the economic activity, such as changes in:

- the assessed economic activity, e.g. new suppliers or new production facilities;
- the climate data basis of the assessment, e.g. unforeseen changes in climatic systems, changes in assumptions for climate models, or technological advances in climate modelling.

171. What documentation must be provided to meet DNSH requirements related to climate change adaptation?

To meet the requirements for DNSH to climate change adaptation for an economic activity for the purpose of the EU Taxonomy, it is essential to present a coherent adaptation plan if climate risks have been identified. The measures included in the plan should have been systematically assessed for their suitability to reduce the most important physical climate risks for the activity while meeting additional requirements outlined in the Climate Delegated Act. The adaptation plan should also include a timetable for implementing the measures and a documentation of measures already implemented. Adaptation measures have to be implemented for new assets at the time of completion and for existing assets within five years of the identification of the associated climate risks.

The most important physical climate risks have to be identified using a robust, comprehensible and proportionate climate risk and vulnerability assessment.

172. Will the use of existing environmental risk inventories (e.g. for floods, avalanches) with consideration of particularly relevant environmental risk scenarios (e.g. for temperature, precipitation, wind) suffice for the time being?

The existing environmental risk inventories that include the most important and relevant climate parameters are sufficient for the time being.

173. What are the minimum requirements for a climate risk and vulnerability assessment in terms of scope and level of details (materiality of risks etc.)?

- Lifespan
- All relevant objects of the economic activity should be considered
- A range of climate projections based on future scenarios
- Catalogue of climate-related “hazards that are to be taken into account as a minimum” (Climate Delegated Act, Annex I, Appendix A)

174. Which standards need to be used to conduct a climate risk and vulnerability analysis (ISO, EU guidelines on climate resilience for infrastructure projects)? Are undertakings free to choose their own method?

There is no single method of developing the climate risk and vulnerability assessment. They can be based on a wide range of approaches to gather information, from data and model driven approaches (e.g., climate data, impact models) to more review, or expert-based approaches. However, an ISO-norm (ISO/DIS 14091: Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment)⁶¹ transposed also as European standard and national standards in Member States, contains a selection of useful tools, covering the entire process of preparing, conducting, and communicating the results of the assessment. More specifically, these tools provide guidance on, e.g. developing impact chains, aggregating indicators and risk components, or assessing adaptive capacity. Recently, there is also a grant under preparation⁶² with “*an operational, consistent and more advanced multi-risk assessment framework tool across scales and levels of governance that can be used by all regions and communities in Europe*” among the expected outcomes.

175. What is meant by ‘state-of-the-art climate projections’ referred to in the substantial contribution criteria to climate change adaptation?

Latest projections taking into account the evolving scientific knowledge (e.g. on tipping points).

⁶¹ The norm is a part of a family of ISO 14090 standards which address climate change adaptation in the stage of pre-planning, assessing impacts including opportunities, adaptation planning, implementation, monitoring and evaluation, and reporting and communication. ISO 14091 elaborates on assessing impacts including opportunities.

⁶² Call HORIZON-MISS-2021-CLIMA-02-01: Development of climate change risk assessments in European regions based on a transparent and harmonised Climate Risk Assessment approach.

Appendix C – Generic criteria for DNSH to pollution prevention and control regarding use and presence of chemicals

176. How are the criteria in points (d), (e) and (f) of Appendix C to be applied?

The generic DNSH criteria to pollution prevention and control regarding use and presence of chemicals as set out in Appendix C of Annex I to the Delegated Act specify that an activity does not cause significant harm to pollution prevention and control if the activity does not lead to the manufacture, placing on the market or use of two groups of substances (whether on their own, in mixtures or in an article).

These include (under points (f) and (g)):

- Substances meeting the criteria set out in Article 57 of REACH and identified in accordance with Article 59 (1) of that Regulation (i.e. substances identified as of very high concern and placed on the ‘candidate list’ under REACH), except where their use has been proven to be essential for the society;
- Other substances meeting the criteria set out in Article 57 of REACH (i.e. substances meeting the criteria for substance of very high concern), except where their use has been proven to be essential for the society.

In order to apply the concept of an “*essential use for the society*”, it is necessary to determine whether the concept is applicable, i.e. whether the economic activity leads to the manufacture, placing on the market or use of those substance identified in points (f) or (g), (i.e. substances identified as substance of very high concern and substances meeting the criteria for substances of very high concern). This information should be obtained through the supply chain.

In line with the commitment in the Chemicals Strategy for Sustainability, the Commission is preparing a horizontal document to define criteria for essential use to ensure that the most harmful chemicals are only allowed if their use is necessary for health, safety or is critical for the functioning of society and if there are no alternatives that are acceptable from the standpoint of environment and health. The aim is to define the criteria coherently across the EU legislation and to explain how to assess whether uses of chemicals are essential for society. In this work, criteria for essential use in the Montreal Protocol are taken into account, while adapting them to be workable for the whole EU chemicals acquis. The Commission aims to finalise this work in early 2023.

Compliance with point (d) of Appendix C only applies within the scope of the Directive 2011/65/EU (RoHS Directive). The scope of the RoHS Directive is set in Article 2 of this Directive, e.g., large-scale fixed installations or means of transport for persons or goods, excluding electric two-wheel vehicles which are not type-approved, are excluded.

177. Does the same restriction on building elements and materials, as for activities in Sections 7.1 (“Construction of new buildings”) and 7.2 (“Renovation of existing buildings”) for formaldehyde and other carcinogenic volatile organic compounds of categories 1A and 1B (“ ... with which occupants come into contact ...”) apply to the demonstration of compliance?

To demonstrate compliance with the requirements of the DNSH criteria for pollution prevention and control as set out in Sections 7.1 and 7.2, building components and materials used in construction that may come into contact with occupiers should fulfil two conditions:

- These building components and materials do not contain substances identified in Appendix C. This is a general condition and it can be achieved by asking suppliers for information about the presence of a substance in manufacture, materials and articles. If the substance specified in points (f) and (g) of Appendix C is present, proof is provided to justify that their use is essential for the society.
- When using formaldehyde, formaldehyde releasing substances or volatile organic carcinogens – and these uses are essential for society – the use of these substances should comply with the emission limits set in the second paragraph of the DNSH criteria for Pollution prevention and control. Compliance with such emission limits has to be verified by testing.

178. In particular with regard to REACH and CLP compliance, is there a specific, reduced listing of pollutants to be avoided, to be reduced for construction products and building components or are the above-mentioned regulations to be applied in their full length for construction products and building components? If yes, which EU-wide available data / product inventory with regard to product conformity can be used for this purpose?

All conditions set out in Appendix C, i.e. points (a) to (g), apply whenever a reference is made to the Appendix C in the DNSH criteria for pollution prevention and control.

No simplified list of substances is available for construction products and building components. Nevertheless, the substances covered in points (a) to (e) of the DNSH criteria are listed in the relevant Articles and/or Annexes of the respective regulations referenced.

The list of substances covered in point (f) are available by consulting the candidate list of substances of very high concern managed by the European Chemicals Agency pursuant to Article 59(10) of the REACH Regulation. The candidate list is available on-line on the following link: [Candidate List of substances of very high concern for Authorisation - ECHA \(europa.eu\)](https://echa.europa.eu)

Substances covered by point (g) can be found in several sources, depending on the particular paragraph of REACH Art 57 they belong to:

As regards REACH Art. 57(a-c): one source is the classification and labelling inventory managed by the European Chemical Agency pursuant to Article 42 of the CLP Regulation. The inventory provides information on the hazard classifications of substances, which can be

compared with the criteria laid down in Article 57 (a)-(c) of REACH. The inventory lists substances with harmonised classifications (assessed and concluded by authorities) as well as self-classifications (assessed and concluded by industry itself). The classification and labelling inventory is available on-line at: C&L Inventory – ECHA on europa.eu

As regards REACH Art. 57(d-f): The hazard categories mentioned in this paragraph are not yet covered by the C&L Inventory. ECHA manages lists of substances under assessment by its informal ECHA Expert Groups. The lists provide an indication of substances that might meet the criteria laid down in Article 57 (d)-(f) of REACH as well as substances that likely do not meet the criteria or substances under assessment. The persistency, bioaccumulation and toxicity (PBT) assessment list provides information on those properties of substances, which can be compared with the criteria laid down in Article 57 (d)-(e) of REACH. The inventory is available on-line at: <https://echa.europa.eu/pbt>.

The endocrine disruptor (ED) assessment list provides information on those properties of substances, which can be compared with the criteria laid down in Article 57 (f) of REACH. The inventory is available on-line at: <https://echa.europa.eu/ed-assessment>.

In line with the Chemicals Strategy for Sustainability commitment, the Commission is preparing inclusion of new hazard classes (including PBTs, vPvBs and EDs) in the CLP Regulation (EC) No 1272/2008. If and when the hazard classes are included in the CLP Regulation, the C&L Inventory will gradually include information on the hazard classifications of substances covered by the point (g) in Appendix C.

179. Point (g) in Appendix C seems similar to point (f). Is this meant to broaden the scope to other substances not currently under consideration and if so, how should it apply?

The criterion in point (g) aims to broaden the list of possible substances subject to Appendix C. This criterion aims to identify substances – whether on their own, in mixtures or in an article – that meet the criteria set out in Article 57 of REACH but that are not yet included in a candidate list for potential inclusion in Annex XIV to that Regulation.

Whenever a substance meets the criteria of Article 57 of REACH but has not yet been placed on the candidate list for eventual inclusion in Annex XIV, this substance is subject to the criterion in point (g).

Substances covered by point (g) can be found in several sources, depending on the particular paragraph of REACH Art 57 they belong to:

As regards REACH Art. 57(a-c): one source is the classification and labelling inventory managed by the European Chemical Agency pursuant to Article 42 of the CLP Regulation. The inventory provides information on the hazard classifications of substances, which can be compared with the criteria laid down in Article 57 (a)-(c) of REACH. The inventory lists substances with harmonised classifications (assessed and concluded by authorities) as well as self-classifications (assessed and concluded by industry itself). The classification and labelling inventory is available on-line at: C&L Inventory – ECHA on europa.eu

As regards REACH Art. 57(d-f): The hazard categories mentioned in this paragraph are not yet covered by the C&L Inventory. ECHA manages lists of substances under assessment by its informal ECHA Expert Groups. The lists provide an indication of substances that might meet the criteria laid down in Article 57 (d)-(f) of REACH as well as substances that likely do not meet the criteria or substances under assessment. The persistency, bioaccumulation and toxicity (PBT) assessment list provides information on those properties of substances, which can be compared with the criteria laid down in Article 57 (d)-(e) of REACH. The inventory is available on-line at: <https://echa.europa.eu/pbt>.

The endocrine disruptor (ED) assessment list provides information on those properties of substances, which can be compared with the criteria laid down in Article 57 (f) of REACH. The inventory is available on-line at: <https://echa.europa.eu/ed-assessment>.

In line with the Chemicals Strategy for Sustainability commitment, the Commission is preparing inclusion of new hazard classes (including PBTs, vPvBs and EDs) in the CLP Regulation (EC) No 1272/2008. If and when the hazard classes are included in the CLP Regulation, the C&L Inventory will gradually include information on the hazard classifications of substances covered by the point (g) in Appendix C.

180. Do the generic do no significant harm criteria in Appendix C cover the manufacturing process? How shall undertakings deal with the list of substances in Appendix C point (g) regarding compliance of an alignment assessment?

Yes, the manufacturing process is subject to the criteria set out in Appendix C.

Substances covered by point (g) can be found in several sources, depending on the particular paragraph of REACH Art 57 they belong to:

As regards REACH Art. 57(a-c): one source is the classification and labelling inventory managed by the European Chemical Agency pursuant to Article 42 of the CLP Regulation. The inventory provides information on the hazard classifications of substances, which can be compared with the criteria laid down in Article 57 (a)-(c) of REACH. The inventory lists substances with harmonised classifications (assessed and concluded by authorities) as well as self-classifications (assessed and concluded by industry itself). The classification and labelling inventory is available on-line at: C&L Inventory – ECHA on europa.eu

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The endocrine disruptor (ED) assessment list provides information on those properties of substances, which can be compared with the criteria laid down in Article 57 (f) of REACH. The inventory is available on-line at: <https://echa.europa.eu/ed-assessment>.

In line with the Chemicals Strategy for Sustainability commitment, the Commission is preparing inclusion of new hazard classes (including PBTs, vPvBs and EDs) in the CLP Regulation (EC) No 1272/2008. If and when the hazard classes are included in the CLP Regulation, the C&L Inventory will gradually include information on the hazard classifications of substances covered by the point (g) in Appendix C.

181. What is the scope of the required analysis for the “use” of the listed substances?

The generic DNSH criteria to pollution prevention and control regarding the use and presence of chemicals set out in Appendix C of Annex I to the Delegated Act specify that an activity does not cause significant harm to pollution prevention and control if the activity does not lead to the manufacture, placing on the market or use of certain substances (whether on their own, in mixtures or in an article).

The information on the manufacture, placing on the market or use of substances should be obtained through the supply chain by request to a direct supplier.

Proof of compliance that the manufacture, placing on the market or use of substances is in accordance with Appendix C can be achieved by requesting this information from the suppliers.

Appendix D: Generic criteria for DNSH to protection and restoration of biodiversity and ecosystems

182. Environmental impact assessments (EIAs) are not always required by national law. If the EIA is not required by EU law, is waiving the EIA then harmless for the assessment of Taxonomy-alignment?

Not all activities are subject to a mandatory EIA in accordance with EU law. Nevertheless, for an economic activity to align with a DNSH criteria that requires compliance with Appendix D, the activity has to fulfil both of the following conditions:

- An Environmental Impact Assessment or screening has been completed and the required mitigation and compensation measures implemented and;
- An appropriate assessment within the meaning of Art. 6(3) of the Habitat Directive 92/43/EEC has been conducted, where applicable, for sites/operations located in or near biodiversity sensitive areas, and the mitigation measures implemented.

Therefore, there is no need for an EIA in every case. The requirement in the criteria is to go through the process to determine whether there is need for an EIA – “*An Environmental Impact Assessment (EIA) or screening has been completed in accordance with Directive 2011/92/EU*”. If the screening has been done and the conclusion is that no EIA is needed, this part of the requirement is met.

As regards the approach outside of the EU, this is spelled out in footnote 334 of Appendix D: “*For activities in third countries, in accordance with equivalent applicable national law or international standards requiring the completion of an EIA or screening, for example, IFC Performance Standard 1: Assessment and Management of Environmental and Social Risks.*”

183. What are the minimum requirements of the Environmental Impact Assessment to achieve Taxonomy-alignment?

The formal procedure to undertake an Environmental Impact Assessment (EIA) is laid out by Directive 2011/92/EC. In practice, the EIA procedure can be summarised as follows:

- The developer of a project may request the competent authority to declare what should be included in the EIA report to be provided (scoping stage);
- The developer must provide the EIA report including information, in accordance with Art. 5(1) and Annex IV of the Directive;
- The environmental authorities, local and regional authorities and the public (as well as affected Member states) must be informed and consulted;
- The competent authority decides whether or not to authorize the project, taking into consideration the results of consultation;
- The public is informed of the decision and can challenge the decision before the appropriate courts.

184. What does “for sites/operations located in or near biodiversity-sensitive areas” mean in practice?

This applies either to activities that would take place within such areas, or activities that are likely to have a significant impact on such areas (hence the “*or near*”). It was not considered feasible to define a kilometre radius for “*or near*”, as this will vary from site to site (e.g. a dam on a river many kilometres downstream could affect the migration of protected fish species such as salmon in a Natura 2000 area upstream). In other words, where there is a likelihood of a significant risk to such area or site (i.e. that would hamper the conservation objectives for the site) from a development within or outside the site, this needs to be assessed by way of an appropriate assessment, prior to any development consent. In the EU, this is in line with EU Bird and Habitats Directives 2009/147/EC and 92/43/EEC. The approach for countries outside of the EU is spelled out in footnote 335 of Appendix D.

185. Some DNSH criteria seem to be company strategies or plans, rather than activity specific criteria. Is it enough to comply on company level or does it need to be broken down per activity or product level?

Yes, compliance at company level is sufficient in those cases where information at the level of the undertaking is sufficient to determine whether alignment is achieved at the activity-level.

186. The Taxonomy criteria referring to the appropriate assessment according with Directive 2009/147/EC and Directive 92/43/EEC for UNESCO World Heritage sites and Key Biodiversity Areas, as well as other protected areas, are complex to implement in absence of the conservation objectives. How can an appropriate assessment be undertaken in the sites and protected areas mentioned in absence of conservation objectives?

Site-specific Conservation objectives are required for sites designated under the Habitats Directive (as soon as designated as “Special Area of Conservation” - SAC) and the Birds Directive (“Special Protection Area” - SPA).⁶³

Any appropriate assessment under Article 6.3 of the Habitats Directive should be carried out in light of those objectives.⁶⁴

In the case of a project requiring an appropriate assessment because it is likely to have a significant impact on a site (SAC or SPA) for which there are no conservation objectives yet (whereas the 6-year deadline for the designation as SAC has passed), the setting of conservation objectives should be a precondition, before the appropriate assessment. A project requiring such an assessment would not be compliant with the DNSH criteria for biodiversity if there would not be site-specific conservation objectives for the concerned site.

187. Could the application of Article 6(4) of the Habitats Directive (Directive 92/43/EEC) with regard to the application of compensation measures be clarified? If compensation measures are defined, can a project be considered sustainable according to the criteria of the Climate Delegated Act?

In Natura 2000 sites, compensation measures are required for projects that will adversely affect the integrity of a site (Article 6(4) of the Habitats Directive). Such projects do not fulfil the criteria for DNSH to biodiversity and are therefore not Taxonomy-aligned.

⁶³ See:

https://ec.europa.eu/environment/nature/natura2000/management/docs/commission_note/commission_note2_EN.pdf

⁶⁴ See: https://ec.europa.eu/environment/nature/natura2000/management/pdf/methodological-guidance_2021-10/EN.pdf