



ESRS E1

CLIMATE CHANGE



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EFRAG's mission is to serve the European public interest in both financial and sustainability reporting by developing and promoting European views in the field of corporate reporting. EFRAG builds on and contributes to the progress in corporate reporting. In its sustainability reporting activities, EFRAG provides technical advice to the European Commission in the form of draft European Sustainability Reporting Standards ('ESRS') elaborated under a robust due process and supports the effective implementation of the ESRS. EFRAG seeks input from all stakeholders and obtains evidence about specific European circumstances throughout the standard-setting process. Its legitimacy is built on excellence, transparency, governance, due process, public accountability and thought leadership. This enables EFRAG to speak convincingly, clearly, and consistently, and be recognised as the European voice in corporate reporting and a contributor to global progress in corporate reporting.



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Revised structure and drafting conventions

As compared to ESRS Set 1 (Delegated Regulation (EU) 2023/2772 adopted by the European Commission in July 2023), the structure of the Standards has been revised and streamlined.

- All the 'shall disclose/shall include/shall report/shall describe/shall explain' are presented in the main body of the Standard. They have been counted as separate datapoints.
- Below the text of each Disclosure Requirement ('DR') in topical standards (or chapter for ESRS 1), boxed content presents the streamlined corresponding mandatory methodological guidance, which is still named 'Application Requirements' ('ARs'). This includes 'shall consider' as element of methodology for preparing the disclosure, and 'may (present)' for presentation options which does not represent voluntary disclosure but brings flexibility on how to present the disclosure.
- All the 'may' disclosures have been either eliminated or redrafted as application requirements (which do not include separate datapoints but methodology content).
- A minority of the deleted datapoints is gathered in a document named 'Non-Mandatory Illustrative Guidance' ('NMIG') and has been redrafted to fit this classification. While the content of 'shall disclose' datapoints in the main body of the standard and of application requirements are drafted to become part of the delegated act, the legal status of the NMIG (either as appendices in the Delegated Act or as document to be issued by EFRAG independently of the Delegated Act) will be considered by the European Commission ('EC') in due course. EFRAG recommends NMIG not to be part of the Delegated Act.
- The ESRS use several terms to indicate similar concepts: matters, topic, sub-topic, sub-subtopic. In Amended ESRS 'sub-subtopics' have been eliminated. In addition, to simplify the content and eliminate one term (matter), the Standards only refer to topics and sub-topics. For this reason, in all the documents the term 'matter' has been replaced by 'topic' where 'topic' is meant to refer either to topic or sub-topic depending on the context of the relevant disclosure. When used in this way, the bold italic format is used (*topic*), as this is a defined term. When used to express one of the 10 topics in Appendix A of [Draft] Amended ESRS 1, a normal font is used.
- The paragraph numbering has been revised to reflect the draft amendments. Where applicable, the paragraph number of the 2023 Delegated Act is indicated in brackets—for example, '4. (24)' or '4 (24 amended)' in paragraph [Draft] Amended ESRS 1.
- In accordance with the recommendation of the EC representatives, EFRAG did not clarify the meaning of 'compatibility with 1.5 degrees' for the Transition Plans disclosure (ESRS E1), pending developments of level 1 regulation, despite this being an area of frequent implementation questions.

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Objective

- When reporting in accordance with the ESRS, the sustainability statement shall cover information in relation to [Draft] Amended ESRS E1 Climate change, when this topic relates to material impacts, risks and opportunities. The disclosure on the material impacts, risks and opportunities is expected to cover policies, actions and targets (if in place), dependencies when relevant, metrics and financial effects.
- 2. The objective of this Standard is to specify Disclosure Requirements ('DRs') in relation to the items of information mentioned in paragraph 1, that are not covered in [Draft] Amended ESRS 2.
- 3. When only one of the sub-topics covered by this Standard is material, the undertaking shall report only on that sub-topic.
- 4. This Standard sets out DRs related to climate change and in particular, with respect to the following sub-topics: *climate change mitigation*, *climate change adaptation* and energy.
- 5. Climate change mitigation relates to the undertaking's endeavours to the general process of limiting the increase in the global average temperature to 1.5°C above pre-industrial levels in line with the Paris Agreement and the objectives of the European Climate Law (Regulation (EU) 2021/1119). This Standard covers DRs related but not limited to the seven Greenhouse Gases (GHG): carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). It also covers DRs on how the undertaking addresses its GHG emissions as well as the associated transition risks.
- 6. *Climate change adaptation* relates to the undertaking's process of adjustment to actual and expected climate change.
- 7. This Standard covers DRs regarding climate-related hazards that can lead to physical climate *risks* for the undertaking and its adaptation solutions to reduce these risks. It also covers *transition risks* arising from the needed adaptation to climate-related hazards.
- 8. The DRs related to energy cover all types of energy production and consumption.
- 9. The undertaking shall apply the provisions of [Draft] Amended ESRS 2 paragraphs 29 to 32 and GDR-P, GDR-A, GDR-T and GDR-M. In particular:
 - (a) if the undertaking has not adopted *policies*, *actions* and *targets* with reference to a *topic* related to material *impacts*, *risks and opportunities*, it shall disclose this fact;
 - (b) the undertaking may present the description of its material impacts, risks and opportunities, in accordance with [Draft] Amended ESRS 2 IRO-2, alongside information about its policies, actions, targets and *metrics* through which it addresses them, to avoid duplication and support a coherent narrative.
- 10. In this Standard, each DR is introduced by a disclosure objective, with the exception of policies, actions and targets, for which the provisions in GDR-P, GDR-A and GDR-T provide the necessary framing for the relevant DRs.
- 11. The DRs of this Standard consider the requirements of related EU legislation and regulation. These include EU Climate Law, Climate Benchmark Standards Regulation, Sustainable Finance Disclosure Regulation (SFDR), EU Taxonomy and EBA Pillar 3 DRs.

Interaction with other ESRS

- 12. Social and environmental *topics* closely interact with each other. The main points of interaction between [Draft] Amended ESRS E1 and the different ESRS topical standards:
 - (a) This Standard covers, but is not limited to, the seven GHGs: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). [Draft] Amended ESRS E2 addresses ozone-depleting substances (ODS), nitrogen oxides (NO_x) and sulphur oxides (SO_x), among other air emissions, that are connected to climate change but are covered under the reporting requirements in [Draft] Amended ESRS E2.

- (b) Climate change mitigation and adaptation are closely related to topics addressed in particular in [Draft] Amended ESRS E3 Water and [Draft] Amended `ESRS E4 Biodiversity and ecosystems. This Standard addresses, among others, acute and chronic physical risks which arise from the water and ocean-related hazards. This Standard also addresses GHG emissions from the use of resource, land-use and land-use change as well as removals of GHG from the atmosphere, for example through nature-based solutions which may entail co-benefits for the water, biodiversity and ecosystems. Biodiversity loss and ecosystem degradation caused or accelerated by climate change are addressed in [Draft] Amended ESRS E4 Biodiversity and ecosystems.
- (c) Impacts on people that may arise from the transition to a climate-neutral economy are covered under [Draft] Amended ESRS S1 Own workforce, [Draft] Amended ESRS S2 Workers in the value chain, [Draft] Amended ESRS S3 Affected communities and [Draft] Amended ESRS S4 Consumers and end-users.

Disclosure Requirements

Strategy

Disclosure Requirement E1-1 - Transition plan for climate change mitigation

- 13. (15 amended) The objective of this DR is to enable an understanding of the undertaking's past, current and future mitigation efforts to ensure that its strategy and *business model* are compatible with the transition to a sustainable economy and with limiting global warming to 1.5°C in line with the Paris Agreement and the objectives of the European Climate Law (Regulation (EU) 2021/1119), including achieving climate neutrality by 2050.
- 14. (16 amended) The information about the transition plan for climate change mitigation shall include:
 - (a) a description of its key features. This includes GHG emission reduction targets, the decarbonisation levers, key actions, financial and investment planning, the role of the administrative, management and supervisory bodies, and how the plan is embedded in and aligned with the undertaking's overall business strategy. It shall also include information on how the undertaking's strategy and business model are compatible with the limiting global warming to 1.5°C in line with the Paris Agreement and with the EU's objective of achieving climate neutrality by 2050;
 - (b) disclosure of significant CapEx amounts invested during the reporting period related to coal, oil and gas economic activities¹, if the undertaking has them;
 - (c) information about dependencies on which the transition plan relies, including a qualitative assessment of how potential locked-in GHG emissions from key assets and products may jeopardise the achievement of the plan and drive transition risk; and
 - (d) an explanation of the undertaking's progress in implementing the transition plan.
- 15. (17 amended) If the undertaking does not have a *transition plan for climate change mitigation* in place, it shall indicate whether and, if so, when it will adopt one.

APPLICATION REQUIREMENTS

AR 1 for para. 14 A transition plan for climate change mitigation sets out how the undertaking intends to transform its strategy and business model to ensure compatibility

¹ The CapEx amounts considered are related to the following NACE codes: (a) B.05 Mining of coal and lignite, B.06 Extraction of crude petroleum and natural gas (limited to crude petroleum), B.09.1 Support activities for petroleum and natural gas extraction (limited to crude petroleum), (b) C.19 Manufacture of coke and refined petroleum products, (c) D.35.1 - Electric power generation, transmission and distribution, (d) D.35.3 - Steam and air conditioning supply (limited to coal-fired and oil-fired power and/or heat generation), (e) D.46.81 - Wholesale of solid, liquid and gaseous fuels and related products (limited to solid and liquid fuels).

(Transition plan for climate change mitigation)

with the transition to a sustainable economy. It is a specific type of *action* plan, distinguished by its direct implications for the undertaking's strategic direction and business model. According to [Draft] Amended ESRS E1, paragraph 14(a), the undertaking shall disclose the key features of their transition plan for climate change mitigation. In doing so, the undertaking shall apply the qualitative characteristics of information (Appendix B of [Draft] Amended ESRS 1) to the disclosure on transition plan for climate change mitigation ([Draft] Amended ESRS E1-1) as a whole. This is particularly important given the complexity of transition plans, which bring together multiple sustainability aspects of the undertaking's business.

The key features referred to in paragraph 14(a) shall refer to disclosures on *policies, actions, resources* and *targets* made elsewhere (e.g. [Draft] Amended ESRS E1-5 and E1-6 as well as [Draft] Amended ESRS 2) without necessarily duplicating content but by consolidating them into a coherent narrative that demonstrates how these elements are strategically aligned to drive business transformation. The relevant disclosures for this paragraph are:

AR 2 for para. 14(a)

(Transition plan for climate change mitigation)

- (a) with reference to targets, a statement on whether the *GHG emission reduction targets* are science-based and compatible with limiting global warming to 1.5°C ([Draft] Amended ESRS E1-6). The explanation of how the targets are compatible with limiting global warming to 1.5°C in line with the Paris Agreement is done by benchmarking the target value against a 1.5°C reference target value (in accordance with the provisions in [Draft] Amended ESRS E1-6, AR 17) and/or by providing validation through an independent third party, including information on the third party, the methodology/standard applied and the trajectory used;
- (b) with reference to actions, the key actions and an explanation of the decarbonisation levers identified ([Draft] Amended ESRS E1-5), including changes in the undertaking's product and service portfolio and the adoption of new technologies in its own operations, or the upstream and/or downstream value chain;
- (c) with reference to financial resources, the disclosure of the investment and financial planning (including the short- and mediumterm financial and investment plan) and financial resources supporting the implementation and strategic ambition of its *transition plan for climate change mitigation*, including quantitative short- and medium-term CapEx, and/or OpEx figures, as well as anticipated long-term CapEx and/or OpEx ranges ([Draft] Amended ESRS 2 GDR-A, [Draft] Amended ESRS E1-5).

While this information helps demonstrate the coherence and credibility of the *transition plan*, there is no expectation that the undertaking disclose all internal information used to manage the plan.

AR 3 for para. 14(c)

(Transition plan for climate change mitigation)

Information on *dependencies* relate to, e.g. deployment of certain technologies, market demand or *policies*. The DR shall include an explanation of the plans to manage – e.g. by transforming, decommissioning or phasing out – its GHG-intensive and energy-intensive assets and products. Where relevant, it shall also include information in line with [Draft] Amended ESRS 2, GDR-A, regarding dependencies of future financial *resources* and other resources and how these may constrain the ability to implement the *transition plan actions*.

	The qualitative <i>locked-in emission</i> assessment seeks to ensure that these emissions were adequately considered by the undertaking in its <i>transition plan</i> - explaining how the magnitude of the locked-in emissions can potentially put at risk — or not - the eventual implementation of the climate mitigation transition plan.
AR 4 for para. 14(d) (Transition plan for climate change mitigation)	When explaining its progress in implementing the <i>transition plan</i> , the undertaking shall describe the deployment of <i>resources</i> , the <i>actions</i> taken and the <i>GHG emission reductions</i> achieved or expected to be achieved. Information on progress shall include, where appropriate, sector-specific <i>metrics</i> that can be used to track progress against specific climate <i>targets</i> the undertaking may have set, using recognised sectoral decarbonisation standards.

Disclosure Requirement E1-2 – Climate-related risks and scenario analysis

- 16. The objective of this DR is to enable *users* an understanding of how the undertaking identifies and assesses climate-related *impacts*, *risks* and *opportunities* for *materiality*.
- 17. The undertaking shall explain for each climate-related material risk identified (per [Draft] Amended ESRS 2, paragraph 28) whether it classifies the risk as a *climate-related physical risk* or a *climate-related transition risk*.
- 18. In addition to the disclosure provided in accordance with [Draft] Amended ESRS 2 IRO-1 and IRO-2, the undertaking shall disclose key elements of the methodology used to assess how its assets and business activities in own operations and upstream and downstream value chain may be exposed:
 - (a) to climate-related hazards (over the short-, medium- and long-term);
 - (b) to climate-related transition events and trends (over the short,- medium- and long-term).
- 19. The key elements of the methodology include: the scope of the analysis, the methodologies and/or tools used for the analysis, the ranges of scenarios used, the time period when it was carried out and how the undertaking has used climate-related *scenario analysis*. In addition, for paragraph 18 (a) the undertaking shall include the spatial resolution of the analysis and for paragraph 18(b) it shall include the type of transition events analysed.

		ducting its <i>climate-related physical risk</i> analysis supported by <i>scenario is</i> , the undertaking shall:
AR 5 for para. 18 (Climate-related physical risk)	(a)	identify <i>climate-related hazards</i> over the short, medium and long term and screen whether its assets and business activities are exposed to these hazards;
	(b)	assess the extent to which its assets and business activities are exposed and are sensitive to the identified climate-related hazards, taking into consideration the likelihood, magnitude and duration of the hazards as well as the geospatial coordinates specific to its locations and <i>supply chains</i> ; and
	(c)	base its analysis on at least one high-emission climate scenario.
	In cond	ducting its climate-related transition risk analysis, the undertaking shall:
AR 6 for para. 19	(a)	identify transition events over the short, medium and long term and
(Climate-related transition risk)		screen whether its assets and business activities are exposed to these events;

	(b)	assess the extent to which its assets and business activities are exposed and are sensitive to the identified transition events, taking into account the likelihood, magnitude and duration of the transition events; and base its analysis on at least one climate <i>scenario</i> in line with limiting
AR 7 for para. 19 (Methodology to assess climate-related hazards and	•	global warming to 1.5°C with no, or limited, overshooting. antification of the exposure of assets and business activities to material e-related <i>risks</i> is required under DR E1-11 on <i>anticipated financial effects</i> .

Disclosure Requirement E1-3 – Resilience in relation to climate change

- 20. The objective of this DR is to provide users an understanding of the extent to which the undertaking's strategy and *business model* are prepared for, and can adapt to, climate-related *risks*.
- 21. In addition to the information disclosed in accordance with [Draft] Amended ESRS 2 SBM-3, the undertaking shall disclose the following information related to the resilience of its strategy and **business model** in response to identified climate-related **risks**:
 - (a) the results of its resilience analysis in relation to climate-related risks, explaining the implications, if any, of its assessment of its strategy and business model and how it would need to respond to the effects identified in the climate-related scenario analysis, and explaining how its current and planned mitigation and adaptation actions (as per DR E1-5) and transition plans (as per DR E1-1) support, strengthen or impact its resilience towards climate-related risks;
 - (b) significant areas of uncertainty in the assessment of its climate resilience; and
 - (c) its capacity to adjust or adapt its strategy and business model to climate change over the short-, medium- and long-term.

AR 8 for para. 20 (Resilience of strategy)	When performing a qualitative <i>scenario analysis</i> , the undertaking shall consider the implications of the combined assessments performed according to DRs E1-2 (with its assessment of the exposure to different climate hazards and transition events) and E1-11 (<i>anticipated financial effects</i>) for its strategy and <i>business model</i> , including <i>actions</i> required to respond to the climate-related <i>risks</i> and <i>opportunities</i> identified through scenario analysis.		
AR 9 for para. 21(a) (Resilience of strategy)	When disclosing the results and implications of its resilience analysis according to paragraph 21(a), the undertaking shall provide its assessment of its <i>climate</i> resilience as at the reporting date.		
AR 10 for para. 21(c) (Resilience of strategy)	 When disclosing on its capacity to adjust its strategy and business model according to paragraph 21(c), the undertaking shall consider: (a) the availability and flexibility of existing financial resources to manage financial impacts of climate-related risks and to capitalise on climate-related opportunities; (b) its ability to redeploy, repurpose, upgrade or decommission existing assets in response to climate-related changes; 		

(c) the effects of current and planned investments in climate mitigation, adaptation and transition *opportunities* on *climate resilience* enhancement.

Impact, risk and opportunity management

Disclosure Requirement E1-4 – Policies related to climate change

22. (24 amended) The undertaking shall disclose its climate change *policies* in accordance with the provisions of [Draft] Amended ESRS 2 GDR-P.

Disclosure Requirement E1-5 – Actions and resources in relation to climate change

- 23. (28 amended) The undertaking shall disclose its key climate change *actions* and resources allocated to their implementation in accordance with the provisions of [Draft] Amended ESRS 2 GDR-A.
- 24. (29 amended) In addition to [Draft] Amended ESRS 2 GDR-A, when disclosing current and planned actions, the undertaking shall:
 - (a) present its key climate change mitigation actions by decarbonisation lever;
 - (b) in relation to the outcome of the key climate change mitigation actions, include the achieved and expected *GHG emission reduction*; and
 - (c) in relation to the type of current and future financial resources and other resources allocated to the key actions as per [Draft] Amended ESRS 2 GDR-A, paragraph 38, include quantitative shortand medium-term CapEx and/or OpEx figures, as well as anticipated long-term CapEx and/or OpEx ranges.

Metrics and targets

Disclosure Requirement E1-6 - Targets related to climate change

- 25. (32 amended) The undertaking shall disclose its *climate change targets* in accordance with the provisions of [Draft] Amended ESRS 2 GDR-T.
- 26. (34 amended) The undertaking shall disclose the *GHG emission reduction targets* it has set, including:
 - (a) absolute GHG emission reduction targets for Scope 1, 2 and 3, either separately or combined and, where relevant, in intensity value. The undertaking shall specify, in case of combined GHG emission reduction targets, which GHG emission Scopes (1, 2 and/or 3) are covered by the target and the share related to each respective GHG emission Scope;
 - (b) if the scope of the GHG emission reduction targets diverges from the scope of the GHG inventory boundary emissions (reported under DR E1-8), the percentages for Scope 1, 2 and 3 covered by the target, as well as which GHGs are covered;
 - (c) a statement on whether the GHG emission reduction targets are science-based and compatible with limiting global warming to 1.5°C. The undertaking shall state which framework and methodology has been used to determine these targets, including whether they are derived using a sectoral decarbonisation pathway and the underlying climate and policy scenarios. As part of the critical assumptions used for setting GHG emission reduction targets, the undertaking shall briefly explain how it has considered future developments (e.g. changes in sales volumes, shifts in customer preferences and demand, regulatory factors, and new technologies) and how these will potentially impact both its GHG emissions and emissions reductions.

AR 11 for para. 26 (GHG emissions reduction targets)

The *GHG emission reduction targets* shall be gross targets, meaning that the undertaking shall not include GHG removals, *carbon credits* or avoided emissions as a means of achieving the GHG emission reduction targets.

AR 12 for para. 26 (GHG emissions reduction targets)

Under paragraph 26(a), the undertaking can disclose *GHG emission reduction targets* in intensity value. Intensity targets are formulated as ratios of *GHG emissions* relative to a unit of physical activity or economic output. In cases where the undertaking has only set a GHG intensity reduction target, it shall nevertheless disclose the associated absolute values for the target year and interim target year(s). This may result in a situation where the undertaking is required to disclose an increase of absolute GHG emissions for the target year and interim target year(s), e.g. because it anticipates the organic growth of its business.

AR 13 for para. 26 (GHG emissions reduction targets)

When applying GDR-T (base year and target year, baseline value and target year values):

- (a) the baseline value and base year are not to be changed unless key changes in either the *target* or reporting boundary occur; and
- (b) the undertaking is to select a recent base year that does not precede the first reporting year of the new target period by longer than three years. Before 2030, the base year chosen by the undertaking may be either the currently applied base year for existing targets or the first year of application of the sustainability reporting requirements.

AR 14 for para. 25 (Presentation of targets and actions)

(AR 31 amended) The undertaking may present its *GHG emission reduction targets* together with its *climate change mitigation actions* (see paragraph 24) showing the *decarbonisation levers* and their quantitative contributions to achieve the GHG emission reduction targets (e.g. energy or material efficiency and consumption reduction, fuel switching, use of *renewable energy*, phase-out or substitution of product and process):

- (a) as a list of key decarbonisation levers with disaggregation by key climate change mitigation actions (see, e.g. Figure 2); or
- (b) as a table (see, e.g. Figure 2) or graphic over time (see, e.g. Figure 1).

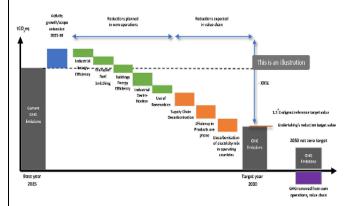


Figure 1: [Draft] Amended ESRS E1 - Graphic 1

	Base year (e.g., 2025)	2030 target	2035 target	 Up to 2050 target
GHG emissions (ktCO2eq)	100	60	40	
Energy efficiency and consumption reduction	-	-10	- 4	
Material efficiency and consumption reduction	-	- 5	-	
Fuel switching	-	- 2	-	
Electrification	-	-	-10	
Use of renewable energy	-	- 10	- 3	
Phase out, substitution or modification of product	-	- 8	-	
Phase out, substitution or modification of process	-	- 5	- 3	
Other		-		

Figure 2: ESRS E1 - Table 1

AR 15 for para. 26 (GHG emissions reduction targets)

The undertaking reporting under DR E1-8 using an operational control boundary can report Scope 1 and *Scope 2 GHG emission reduction targets* referring to this organisational boundary.

AR 16 for para. 26 (GHG emissions reduction targets compatible with 1.5°C)

(AR 26 amended) When disclosing the information required under paragraph 26(c), the undertaking shall compare its target value(s) with a sector-specific (if available) or a cross-sector emission pathway compatible with limiting global warming to 1.5°C. For this purpose, the undertaking shall calculate a 1.5°C-aligned reference target value for Scope 1 and 2 (and a separate one for Scope 3, if it has Scope 3 *GHG emissions reduction targets*) against which its own GHG emission reduction targets or interim targets in the respective Scopes can be compared.

Disclosure Requirement E1-7 – Energy consumption and mix

- 27. The objective of this DR is to provide an understanding of the undertaking's energy consumption and mix
- 28. (35 and 37 amended) The undertaking shall disclose information on its energy consumption and mix, namely on its total energy consumption in MWh related to its own operations, disaggregated by:
 - (a) total energy consumption from fossil sources²;
 - (b) total energy consumption from nuclear sources;
 - (c) total energy consumption from renewable sources.
- 29. (38 amended) The undertaking shall further disaggregate its total energy consumption from fossil sources by:
 - (a) fuel consumption from coal and coal products;
 - (b) fuel consumption from crude oil and petroleum products;
 - (c) fuel consumption from natural gas;
 - (d) fuel consumption from other fossil sources;
 - (e) consumption of purchased or acquired electricity, heat, steam, or cooling from fossil sources.

² This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 because it is derived from a mandatory indicator related to principal adverse impacts as set out by Indicator #5 in Table I of Annex I of Commission Delegated Regulation (EU) 2022/1288 with regard to disclosure rules on sustainable investments ('Share of non- renewable energy consumption and production'). The breakdown serves as a reference for an additional indicator related to principal adverse impacts as set out by Indicator #5 in Table II of the same Annex ('Breakdown of energy consumption by type of non-renewable sources of energy').

30. (39 amended) The undertaking shall also disaggregate and disclose separately its **non-renewable energy** production and **renewable energy** production in megawatt hours (MWh)³.

APPLICATION REQUIREMENTS

(AR 32 amended) When preparing the information on energy consumption required under paragraph 28, the undertaking shall adopt the following calculation approaches:

- report energy consumed from processes controlled by it applying the same organisational boundary perimeter applied for reporting GHG Scopes 1 and 2 emissions;
- (b) exclude feedstocks and fuels that are not combusted for energy purposes (e.g. natural gas to produce polymers). The undertaking that consumes fuel as feedstocks can disclose information on this consumption separately from the required disclosures;
- (c) ensure all quantitative combustion-related information is reported in megawatt-hour (MWh) in Lower Heating Value or net calorific value;
- ensure all quantitative energy-related information is reported as final energy consumption, referring to the amount of energy the undertaking actually consumes;
- (e) avoid double counting fuel consumption when disclosing self-generated energy consumption. If the undertaking generates electricity from either a non-renewable or renewable fuel source and then consumes the generated electricity, the energy consumption shall be counted only once under fuel consumption;
- (f) not offset energy consumption even if onsite generated energy is sold to and used by a third party;
- (g) not count energy that is sourced from within the organisational boundary under 'purchased or acquired' energy;
- (h) account for steam, heat or cooling received as 'waste energy' from a third party's industrial processes under 'purchased or acquired' energy;
- account for renewable hydrogen as a renewable fuel. Hydrogen that is not completely derived from renewable sources shall be included under 'fuel consumption from other non-renewable sources'; and
- (j) adopt a conservative approach when splitting the electricity, steam, heat or cooling between renewable and non-renewable sources based on the approach applied to calculate market-based *Scope 2 GHG emissions*. The undertaking shall only consider these energy consumptions as deriving from renewable sources if the origin of the purchased energy is clearly defined in the contractual arrangements with its *suppliers* (renewable power purchasing agreement, standardised green electricity tariff, market instruments like Guarantee of Origin from renewable sources in Europe⁴

AR 17 for para. 28 (Energy consumption and mix)

³ This information supports the information needs of financial market participants subject to Regulation (EU) 2019/2088 because it is derived from a mandatory indicator related to principal adverse impacts as set out by Indicator #5 in Table I of Annex I of Commission Delegated Regulation (EU) 2022/1288 with regard to disclosure rules on sustainable investments ('Share of non-renewable energy consumption and production').

⁴ Based on 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.

or similar instruments like Renewable Energy Certificates in the US and Canada, etc.).

Disclosure Requirement E1-8 – Gross Scopes 1, 2, 3 GHG emissions

- 31. The objective of this DR is to provide an understanding of the undertaking's direct and indirect *impacts* on climate change as a result of activities in its own operations and from within its upstream and downstream value chain.
- 32. The undertaking shall disclose absolute gross *GHG emissions* generated during the reporting period, expressed as metric tonnes of CO₂eq classified as:
 - (a) (44(a) amended) **Scope 1 GHG emissions**, including, the percentage of Scope 1 GHG emissions from regulated emission trading schemes, if it has emissions from such schemes;
 - (b) (44(b) amended) Scope 2 GHG emissions (location-based and market-based);
 - (c) (44(c) amended) **Scope 3 GHG emissions** from significant **Scope 3 categories** as a total and per category.
- 33. (AR 43(c), AR 45(e) and AR 46(j) amended) The undertaking shall disclose its biogenic CO₂ emissions from the combustion or biodegradation of biomass separately from the emission scopes.

AR 18 for para. 32 (Emissions reporting boundary)	The organisational boundary to be used in disclosing paragraph 32 shall be the reporting undertaking as defined in [Draft] Amended ESRS 1, paragraph 59, which is equivalent to the financial control (consolidation) boundary of the GHG Protocol.	
AR 19 for para. 32 (Emissions reporting boundary)	(50 amended) When, due to specific facts and circumstances, the information reported in paragraph 32(a)(b) for the reporting undertaking (equivalent to the financial control organisational boundary) fails to convey a fair presentation of the emissions deriving from operated assets that are outside the reporting undertaking, the undertaking shall also separately disclose its Scope 1 and <i>Scope</i> 2 <i>GHG emissions</i> based on the operational control (consolidation) boundary, as defined in the GHG Protocol Corporate Standard (2004).	
AR 20 for para. 32 (Emissions reporting boundary)	Emissions connected with assets and liabilities of joint operations that are recognised on balance sheets are classified as 'own operations' and calculated on the basis of the accounting share of financial <i>risks</i> and rewards.	
AR 21 for paras. 31 and 32 (Emissions reporting)	(AR 39 amended) When preparing the information for reporting <i>GHG emissions</i> , the undertaking shall: (a) (AR 39(a) amended) consider the GHG Protocol Corporate Standard (2004). The undertaking can also consider Commission Recommendation (EU) 2021/2279 ⁵ or EN ISO 14064-1:2018. If the undertaking already	

⁵ Commission Recommendation (EU) 2021/2279 of 15 December 2021 on the use of the Environmental Footprint methods to measure and communicate the life cycle environmental performance of products and organisations (OJ L 471, 30.12.2021, p. 1).

applies the GHG accounting methodology of ISO 14064-1: 2018, it shall nevertheless comply with the requirements of this Standard (e.g. regarding reporting boundaries);
(b) include emissions of CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ , and NF ₃ . Additional GHGs may be considered when significant;
(c) use the most recent <i>Global Warming Potential (GWP)</i> values published by the Intergovernmental Panel on Climate Change (IPCC) based on a 100-year time horizon to calculate CO ₂ eq emissions of non-CO ₂ gases. If emission factors based on older GWP values are the most suitable or available, the undertaking can use these and explain under [Draft] Amended ESRS 2 GDR-M, paragraph 41, which GWPs the GHG inventory is based on;
(d) (AR 43(d), AR 45(f) and AR 46(k) amended) not include any removals, any purchased, sold or transferred <i>carbon credits</i> or GHG allowances in the calculation of GHG emissions; and
(e) (AR 43(c) amended) include biogenic emissions from the combustion or biodegradation of biomass (in particular, CH_4 and N_2O).
(AR 43(e) amended) For activities reporting under the EU Emissions Trading Scheme (ETS), the undertaking shall report on Scope 1 emissions following the EU ETS methodology. The EU ETS methodology may also be applied to activities in geographies and sectors that are not covered by the EU ETS.
(AR 44 amended) When preparing the information on the percentage of Scope 1 GHG emissions from regulated emission trading schemes required under paragraph 32, the undertaking shall:
 (a) consider <i>GHG emissions</i> from the installations it operates that are subject to regulated ETS, including the EU-ETS, national ETS and non-EU ETS, if it operates such installations;
(b) ensure the same accounting period for gross Scope 1 GHG emissions and GHG emissions regulated under the ETS; and
(c) calculate the share by using the following formula:
GHG Emissions in (tCO $_2$ eq) from EU ETS installations + national ETS installations + non-EU ETS installations (divided by) Scope 1 GHG emissions (t CO $_2$ eq)
(AR 45 amended) When preparing the information on gross Scope 2 GHG emissions required under paragraph 32, the undertaking shall:
(a) (AR 45(a) amended) take into account the principles and requirements of the GHG Protocol Scope 2 Guidance (Version 2015, particularly the Scope 2 quality criteria in Chapter 7.1 relating to contractual instruments). The undertaking can also consider Commission

quantification of *indirect GHG emissions* from imported energy in EN ISO 14064-1:2018; and (b) (AR 45(d) amended) reflect the share and types of contractual instruments it has used to purchase energy or to claim specific attributes about it in its Scope 2 market-based figure, taking also [Draft] Amended ESRS E1-7, AR 18(j), into account. When preparing the information on gross Scope 3 GHG emissions required under paragraph 32, the undertaking shall adopt the following calculation approaches: (AR 46(a) amended) consider the principles and provisions of the GHG (a) Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Version 2011). The undertaking can also consider Commission Recommendation (EU) 2021/2279 or the relevant requirements for the quantification of indirect GHG emissions from EN ISO 14064-1:2018; (b) screen its total Scope 3 GHG emissions based on the 15 Scope 3 categories identified by the GHG Protocol Corporate Standard and GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Version 2011) using appropriate estimates. Alternatively, it may screen its *indirect GHG emissions* based on the categories provided by EN ISO 14064-1:2018, Clause 5.2.4 (excluding indirect GHG emissions from imported energy); (c) identify and disclose its significant Scope 3 categories based on the magnitude of their estimated GHG emissions and other criteria AR 25 for para. provided by the GHG Protocol Corporate Value Chain (Scope 3) 32(c) Accounting and Reporting Standard (Version 2011, p. 61 and 65-68) or EN ISO 14064-1:2018, Annex H.3.2, such as financial spend, influence, (Scope 3 related transition risks and opportunities or stakeholder views; emissions reporting) (d) (AR 46(g) amended) prioritise direct measurement of Scope 3 GHG emissions and, where this is not possible, further prioritise their inputs and assumptions based on the characteristics of the data (e.g. data from specific activities within the entity's upstream and downstream value chain, timely data that faithfully represents the jurisdiction of, and the technology used for, the upstream and downstream value chain activity and its GHG emissions, and data that has been verified); (e) update Scope 3 GHG emissions in each significant category every year on the basis of current activity data and update the full Scope 3 GHG inventory at least every three years or on the occurrence of a significant event or a significant change in circumstances; (f) (AR 46(b) amended) if it reports financed emissions, consider the GHG Accounting and Reporting Standard for the Financial Industry from the Partnership for Carbon Accounting Financial (PCAF), specifically Part A Financed Emissions (Version December 2022); and (g) (AR 51 amended) if significant, disclose GHG emissions from purchased cloud computing and data centre services as a subset of the overarching Scope 3 category 1 'upstream purchased goods and services'.

AR 26 for paras. 31 and 32 (Emissions disaggregation)

(AR 41 and AR 49 amended) The undertaking shall disaggregate information on its *GHG emissions* in accordance with the provisions of [Draft] Amended ESRS 1, Chapter 3.7, for common and relevant categories used for disaggregation of GHG emissions, which include reporting by country, operating segments, economic activity, subsidiary, GHG (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, and other GHGs considered by the undertaking) or source type (stationary combustion, mobile combustion, process emissions and fugitive emissions).

(AR 48 amended) The undertaking may present its *GHG emissions* disaggregated by Scopes 1 and 2 and significant Scope 3 in accordance with the table below, populating the rows as relevant in line with its disclosures under paragraph 32. A comparison of the undertaking's emissions over time may be performed by comparing current year emissions to a meaningful comparative, e.g. a *GHG emission reduction target* base year, indicating the percentage change (reduction/increase) in the corresponding column.

Current Comparative % Change Year Year **Emissions Emissions** Scope 1 GHG emissions Gross Scope 1 GHG emissions (tCO2eq) Percentage of Scope 1 GHG emissions from regulated emission trading schemes Scope 2 GHG emissions Gross location-based Scope 2 GHG emissions (tCO₂eq) Gross market-based Scope 2 GHG emissions (tCO₂eq) Significant scope 3 GHG emissions Total gross indirect (Scope 3) GHG emissions (tCO₂eq) 1. Purchased goods and services

AR 27 for paras. 31 and 32 (Emissions disaggregation)

[Optional sub-category: Cloud computing and data centre services		
2. Capital goods		
 Fuel and energy- related activities (not included in Scope 1 or Scope 2) 		
4. Upstream transportation and distribution		
5. Waste generated in operations		
6. Business traveling		
7. Employee commuting		
8. Upstream leased assets		
9. Downstream transportation		
10. Processing of sold products		
11. Use of sold products		
12. End-of-life treatment of sold products		
13. Downstream leased assets		
14. Franchises		
15. Investments		

Disclosure Requirement E1-9 – GHG removals and GHG mitigation projects financed through carbon credits

^{34. (57} amended) The objective of this DR is to provide an understanding of: (1) the undertaking's *actions* to reduce and permanently remove GHGs from the atmosphere; and (2) the extent and quality of *carbon credits* it has purchased or intends to purchase from the voluntary market.

- 35. (58 amended) If it has implemented *GHG removal and storage* projects, the undertaking shall disclose information about GHG removal projects it has developed in its own operations or contributed to in its upstream and downstream value chain, including:
 - (a) a brief description of the GHG removal and storage projects;
 - (b) the amount of GHG removals and storage resulting from those projects;
 - (c) the assumptions regarding permanence and how the risk of non-permanence is managed, including determining and monitoring leakage and reversal events as appropriate; and
 - (d) disclose any reversals (in tCO₂eq) that may have occurred in the reporting period and decrease the amount of CO₂ removed and stored by the same amount.
- 36. (59 amended) The undertaking shall disclose information about projects outside its own operations, upstream and downstream value chain that it has financed or intends to finance through any purchase of *carbon credits*, if it has financed such projects, including:
 - (a) the amount of carbon credits that are verified against recognised quality standards and cancelled in the reporting period;
 - (b) the amount of carbon credits planned to be cancelled in the future; and
 - (c) (AR 62(a) amended) the share (percentage of volume) of removal projects, with an explanation of whether they are from nature-based or technological sinks.
- 37. (61 amended) In the case where the undertaking has made public claims of GHG neutrality that involve the use of *carbon credits*, it shall explain:
 - (a) whether and how these claims and the reliance on carbon credits neither impede nor reduce the achievement of its *GHG emission reduction targets*;
 - (b) the credibility and integrity of the carbon credits used, namely by referring to *recognised quality standards*, and any other factors necessary to understand the credibility and integrity of the carbon credits the undertaking plans to use.

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(AR 58 amended) GHG removals and storage include both *nature-based solutions* as well as technological removals and storage. When preparing the information on its projects the undertaking shall:

AR 28 for para. 35 (GHG removals and storage)

- (a) apply consensus methods on accounting for GHG removals as soon as they are available, notably the EU Carbon Removals and Carbon Farming Certification (CRCF) Regulation⁶;
- (b) include in the calculation the removals from operations that it owns, controls or contributes to, that have not been sold to another party through *carbon credits* and that are not double counted or reported;
- (c) account for the *GHG emissions* associated with a removal activity, including transport and storage, under DR E1-8;
- (d) (AR 59 amended) include in the calculation the removal activities in the upstream and downstream value chain that the undertaking is actively supporting, e.g., through a cooperation project with a *supplier*.

⁶ Regulation (EU) 2024/3012 of the European Parliament and of the Council of 27 November 2024 establishing a Union certification framework for permanent carbon removals, carbon farming and carbon storage in products

(AR 62 and AR 63 amended) When preparing the information on *carbon credits*, the undertaking shall:

(a) consider recognised quality standards;

AR 29 for para. 36 (Carbon credits)

- (b) not include carbon credits issued from *GHG emission reduction* projects and GHG emission removal projects within its own operations, upstream and downstream value chain to avoid double counting; and
- (c) calculate the amount of carbon credits to be cancelled in the future as the sum of carbon credits in metric tonnes of CO₂eq over the duration of existing contractual agreements.

Disclosure Requirement E1-10 - Internal carbon pricing

- 38. (62 amended) The undertaking shall disclose information related to its use of *internal carbon pricing schemes*, namely:
 - (a) an explanation of whether and how the entity is applying a carbon price in decision-making (for example, investment decisions, transfer pricing and *scenario analysis*) and the consistency of the prices used with the prices used in the financial statement for impairment tests;
 - (b) the price per metric tonne of *GHG emissions*.

Disclosure Requirement E1-11 – Anticipated financial effects from material physical and transition risks and potential climate-related opportunities

[THE OPTIONS 1 AND 2 ON RELIEF FOR FINANCIAL EFFECTS EQUALLY APPLY TO THIS DISCLOSURE]

- 39. (64 amended) The objective of this DR is to provide an understanding of how the identified material *impacts*, *risks* and *opportunities* are expected to affect the undertaking's financial position and future performance. The information required for this DR is in addition to the information on current financial effects required under [Draft] Amended ESRS 2 SBM-3, paragraphs 23 and 24.
- 40. (66 amended) The disclosure about *anticipated financial effects* from *material physical risks* shall include:
 - (a) the monetary amount and percentage of assets at material physical risk before considering *climate change adaptation actions*;
 - (b) the location of key assets at material physical risks;
 - (c) the percentage of assets at material physical risk addressed by the climate change adaptation actions;
 - (d) the monetary amount and percentage of revenue from its business activities at material physical risk before considering climate change adaptation actions;
 - (e) the methodology applied to quantify the amounts disclosed under paragraphs 40(a)-(c), including the scope of application, time horizons, critical assumptions, parameters and limitations and whether the calculation *leverages* on the process used to identify and assess *physical risks*.
- 41. (67 amended) The undertaking shall disclose the *anticipated financial effects* from material *transition risks*, including:
 - (a) the monetary amount and percentage of assets at material transition risk before considering *climate change mitigation actions*;
 - (b) the percentage of assets at material transition risk addressed by the climate change mitigation actions;

- (c) a breakdown of the carrying amount of its real estate assets that have been used as loan collaterals by energy-efficiency classes;
- (d) potential liabilities related to climate transition that do not meet the accounting recognition criteria at the reporting date but that may have to be recognised in financial statements;
- (e) the monetary amount and percentage of revenue from its business activities at material transition risk and, where relevant, the net revenue from its customers operating in coal, oil and gas-related activities;
- (f) an estimate of the amount of potential stranded assets from the reporting year until the midterm and long-term time horizons as a single value or as a range of values based on different climate and policy scenarios, including a scenario aligned with limiting climate change to 1.5°C; and
- (g) the methodology applied to quantify the amounts disclosed under paragraphs 41(a)–(f), including the scope of application, time horizons, critical assumptions, parameters and limitations, including whether the calculation *leverages* on the process used to identify and assess transition risks.
- 42. (69 amended) The undertaking shall disclose the amount and percentage of assets or revenue derived from its business activities aligned with climate-related opportunities, including the associated time horizons.

APPLICATION REQUIREMENTS

APPLICATION REQUIREMENTS				
		ded AR 69) When disclosing the information required under paragraphs 40 he undertaking shall adopt the following calculation approaches:		
	(a)	consider the time horizons (short, medium and long-term) over which the effects of <i>climate-related risks</i> and <i>opportunities</i> could reasonably be expected to occur;		
AR 30 for paras. 40-42 (Anticipated financial effects)	(b)	include all types of assets including finance-lease / right-of-use assets; present the monetary amounts (or percentages) as either a single amount or range;		
	(d)	for paragraph 41(c), present the energy efficiency class in terms of either ranges of energy consumption in kWh/m² or the EPC (Energy Performance Certificate) label class. If the undertaking cannot obtain this		

based on internal estimates.

information based on its best efforts, it shall disclose the total carrying amount of the real estate assets for which the energy consumption is