

# European Green Bond Factsheet

10th June 2025





This document and its contents are not subject to any approval or endorsement from ESMA or any other competent authority.

# 1. General information

- Date of publication of the European Green Bond factsheet:
   10th June 2025
- The legal name of the issuer: Norsk Hydro ASA (referred to as 'Hydro' or the 'Issuer' in the factsheet)
- Legal entity identifier (LEI): 549300N1SDN71ZZ8BO45
- Website address providing investors with information on how to contact the issuer: <a href="https://www.hydro.com/en/global/investors/investor-contacts/">https://www.hydro.com/en/global/investors/investor-contacts/</a>
- The name of the bond(s) assigned by the issuer: "European Green Bond" or "EuGB"
- The international securities identification numbers (ISIN) of the bond(s): As this is a programmatic factsheet, ISIN's relating to this factsheet will be made available on Hydro's website here: <a href="https://www.hydro.com/en/global/investors/debt-investors/emtn-programme-and-bonds/">https://www.hydro.com/en/global/investors/debt-investors/emtn-programme-and-bonds/</a>
- The planned issuance date or period: Issuance on/after publication of the factsheet (10th June 2025).
- The identity and contact details of the external reviewer: Sustainable Fitch Ireland Ltd, LEI: 213800JBPPIRON5YQ587; Jeeeun Choe (jeeeun.choe@sustainablefitch.com), Saga Rad, (saga.rad@sustainablefitch.com) and Antoine Corbin (antoine.corbin@sustainablefitch.com)
- The name of the competent authority that has approved the bond prospectus(es): The Central Bank of Ireland, however this may change to another competent authority if issuing in other jurisdictions

## 2. Important information

• These bonds use the designation 'European Green Bond' or 'EuGB' in accordance with Regulation (EU) 2023/2631 of the European Parliament and of the Council (1)."



# 3. Environmental strategy and rationale

Hydro will produce an impact report at least once during the life of an EuGB, after full allocation. At the time of publication of the factsheet, Hydro does not intend to get an external review on the impact report(s). in accordance with Article 12(3) of the EuGB Regulation.

#### Overview

The climate strategy of Hydro and the environmental objectives pursued in issuing EuGBs, are consistent with the objective of climate change mitigation set out in Article 9(a) of Regulation (EU) 2020/852.

Hydro is a leading aluminium and energy company committed to a sustainable future. Hydro's purpose is to create more viable societies by developing natural resources into products and solutions in innovative and efficient ways. Hydro is present throughout the global aluminium value chain, from energy to bauxite mining and alumina refining, primary aluminium, aluminium extrusions and aluminium recycling.

- **Hydro Bauxite & Alumina** represents the first two steps in the aluminium value chain through bauxite and alumina refining.
- Hydro Aluminium Metal is a leading supplier of extrusion ingots, sheet ingots, foundry alloys, wire rods and highpurity aluminium with a global production network.

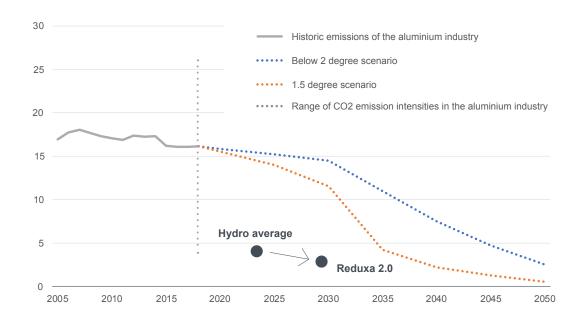
- Hydro Extrusions delivers tailored aluminium components and solutions to customers around the world.
- **Hydro Energy** is a major renewables producer, market operator and developer of businesses for the energy transition.

Alumina refining and electrolysis of primary aluminium are energy-intensive processes and constitute majority of Hydro's scope 1 and 2 GHG emissions. The energy source is a decisive factor for total as well as specific emissions, i.e. emissions per tonne of product produced. On the other hand, aluminium can save significant amounts of energy and GHG emissions in the use phase due to its lightweight properties. More than 70 percent of the electricity used in Hydro's production of primary aluminium is based on renewable power. Going forward, Hydro aims to lower its carbon footprint further through reducing the carbon footprint of raw materials and energy in combination with carbon capture and storage to decarbonize its existing primary aluminium facilities.

Hydro has participated in the International Aluminium Institute's (IAI) work to develop a GHG emission reduction pathway for primary aluminium production towards 2050 consistent with the Paris Agreement. The analysis is based on the International Energy Agency's (IEA) 1.5-degree scenario, combined with IAI's analysis of demand in the aluminium market and material flows. Hydro's net-zero ambitions and decarbonization pathway is in line with IAI's emission reduction pathway for the aluminium sector and the 1.5-degree scenario.

#### IAI emission projection pathway towards 2050

Tonne CO2e/ tonne primary aluminium



Source: International Aluminium Institute (IAI), Hydro analysis. Note: Hydro REDUXA is Hydro's brand of low-carbon aluminium using renewable energy from water, wind and solar in the production phase. Hydro has an ambition to deliver Hydro REDUXA 2.0 with a carbon footprint of less than 2 tonnes of CO2e per tonne of aluminium by 2030.



#### Technology and decarbonization roadmap

The climate strategy emphasizes reducing Hydro's own emissions. Hydro has established a technology and decarbonization roadmap towards its 2050 ambitions by reducing GHG emissions by 10 percent by 2025 and 30 percent by 2030, based on a 2018 baseline. This is outlined in the chart below. The 2018 baseline equals approximately 10 million tonnes CO2 equivalents (CO2e), including direct emissions and indirect emissions from electricity generation (scope 1 and 2 emissions). The baseline and the associated target achievements take into consideration green Power Purchase Agreements, as opposed to the pure location-based method.

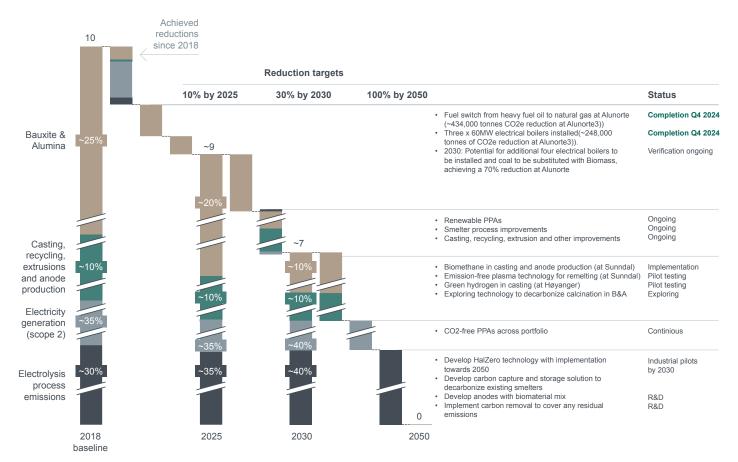
The baseline composition of Hydro's GHG emissions can be divided into four sources:

- **Bauxite & Alumina:** Fossil fuel consumption at the Alunorte alumina refinery, which constitute around 25 percent of Hydro's total emissions.
- Casting recycling extrusions and anode production:
  GHG emissions from natural gas used in Hydro's casthouses, for recycling and remelting aluminium, extrusion processes and anode production, which constitute around 10 percent of Hydro's total emissions.
- **Electricity generation:** GHG emissions from generating electricity (scope 2 emissions), which constitute around 35 percent.
- Electrolysis process emissions: which constitute around 30 percent of Hydro's total emissions and are the hardest emissions to abate.

#### Progressing on the roadmap towards net-zero

GHG emissions - ownership equity1)

Million tonnes CO2e (% of 2018 baseline emissions<sup>2)</sup>



- Scope 1 and scope 2.
- 2018 rebased baseline post-Alunorte transaction as of December 1, 2023
- 3) Hydro equity share Alunorte.



# Link with the assets, turnover, CapEx, and OpEx key performance indicators

All EuGBs issued in accordance with this factsheet are anticipated to contribute to the development of Hydro's key performance indicators for Taxonomy-aligned, turnover, capital expenditure and operating expenditure. Reporting in line with Article 8 of Regulation (EU) 2020/852 can be found in its most recent annual report available here: <a href="https://www.hydro.com/en/global/investors/reports-and-presentations/annual-reports/">https://www.hydro.com/en/global/investors/reports-and-presentations/annual-reports/</a>

#### Link to the transition plans

Hydro's climate strategy and transition plan are described in the climate chapter of the sustainability statements in Hydro's most recent annual report available here: <a href="https://www.hydro.com/en/global/investors/reports-and-presentations/annual-reports/">https://www.hydro.com/en/global/investors/reports-and-presentations/annual-reports/</a>

Hydro's climate strategy and transition plan is an integral part of its overall business strategy. Hydro's net-zero ambitions are based on a successful transition to a 1.5-degree economy, and are in line with climate science and the Paris agreement. Hydro's climate strategy consists of three pillars, aiming to reduce the climate impact of its operations and create business opportunities by enabling its customers and society to do the same:

- Net-zero Hydro: Reduce scope 1 and 2 GHG emissions by 30 percent by 2030 and become a net-zero Hydro by 2050 or earlier
- Net-zero products: Deliver net-zero products to Hydro's customers and reduce upstream scope 3 GHG emissions per tonnes of aluminium by 30 percent by 2030
- **Net-zero society:** Use Hydro's industrial and energy competence to contribute to the transition to a net-zero society

More than 70 percent of the electricity used in Hydro's production of primary aluminium is based on renewable power. Going forward, Hydro will lower its carbon footprint further through reducing the carbon footprint of raw materials and energy in combination with carbon capture and storage to decarbonize its existing primary aluminium facilities.

The key components of Hydro's transition levers related to the casting, recycling, electricity generation and electrolysis processes, as outlined in the roadmap chart above, are enabled by EU Taxonomy aligned activities that are in scope for being financed by EuGBs.

Hydro's Alunorte alumina refinery is among the most energy efficient refineries in the world. Over the past decade, Hydro has initiated numerous projects prioritizing emissions reduction through a comprehensive energy transition. This strategy includes switching from heavy fuel oil to natural gas and incorporating biomass as a fuel source.

Towards 2050, Hydro is exploring different paths to net-zero emission primary aluminium production, including Hydro's proprietary HalZero technology for new smelters, CO2 capture at existing smelters, and scaling up use of post-consumer aluminium scrap. Hydro is also exploring alternatives to replace fossil energy in the casthouses and in the anode production. These include a biomethane project at the Sunndal site which will reduce emissions by 20,000 tonnes of CO2e each year and testing emission free plasma technology to enable electrification of the remelting process in casthouses by using the same renewable energy that powers Hydro's primary smelters.

In Hydro Extrusions, the sites are working on different initiatives and actions to lower their GHG emissions associated with energy and electricity consumption. This includes power purchasing agreements with renewable power producers, improved energy efficiency through benchmarking, process improvements and investing in new equipment. Many plants are also working with partners and governments to evaluate the possibilities of installing on-site renewable power generation, such as solar panels and windmills.

To reduce emissions, aluminium must be produced using low carbon energy solutions like renewable power throughout the value chain. While Hydro's refinery in Brazil is transitioning to more sustainable fuel sources to mitigate emissions in upstream operations, Hydro's primary aluminium production in Norway is powered by close to 100 percent renewable energy by following a location-based approach. In order to ensure continued supply of renewable power to Hydro's operations in Norway, the company operates 40 hydropower plants with a combined output of 13.7 TWh renewable electricity in a normal year. Adjusted for ownership shares, Hydro's captive hydropower production is 9.4 TWh in a normal year. In addition, Hydro operates a wind farm and purchases more than 9 TWh of renewable power annually in the Nordic market under long-term contracts. Hydro is also investing in upgrades and new projects to increase renewable power production and expand installed capacity in existing hydropower systems in Norway.

Hydro's climate strategy is integrated in the overall strategy as set by the Executive Leadership Team. The business areas are responsible for Hydro's performance and implementation of the climate strategy. All significant investment decisions are assessed for their impact on Hydro's climate strategy according to Hydro's policies addressing climate change mitigation. A thorough description of Hydro's climate related impacts and how Hydro works to prevent, mitigate and remediate these, is provided in the white paper "Positioning Hydro for the just and green transition" from 2025 available here: <a href="https://www.hydro.com/en/global/about-hydro/publications/white-papers/positioning-hydro-for-the-just-and-green-transition/">hydro-for-the-just-and-green-transition/</a>



# 4. Intended allocation of bond proceeds

# Intended allocation to taxonomy-aligned economic activities

- The issuer intends to allocate an amount equal to the EuGB proceeds in accordance with the gradual approach. The European Green Bond(s) will not be securitisation bonds.
- An amount equivalent to 100% of the EuGB proceeds will be allocated to activities that are environmentally sustainable under Article 3 of Regulation (EU) 2020/852.
- Hydro are not in a position pre-issuance to disclose the share of the amount equivalent to the EuGB proceeds to be used for financing (in the year of issuance or after the year of issuance) and refinancing.

- The targeted environmental objective(s), as referred to in Article 9 of Regulation (EU) 2020/852 is Climate Change Mitigation.
- An amount equivalent to the use of proceeds will be allocated to economic activities in accordance with Delegated Regulation (EU) 2021/2139 and the provisions of the Taxonomy Regulation for the climate change mitigation objective, with their respective NACE codes in accordance with the statistical classification of economic activities established by Regulation (EC) No 1893/2006 of the European Parliament and of the Council (4). The technical screening criteria, as defined by the Climate Delegated Act, is summarised in Annex 1.

| EU Objective                                       | Activity  | NACE Codes              |
|--|---|-------------------------|
| Climate Change Mitigation<br>Enabling activity     | 3.2 Manufacture of equipment for the production and use of hydrogen         | C25, C27, C28,          |
| Climate Change Mitigation<br>Transitional activity | 3.8 Manufacture of aluminium  | C24.42, C24.53          |
| Climate Change Mitigation                          | 3.10 Manufacture of hydrogen  | C20.11                  |
| Climate Change Mitigation                          | 4.1. Electricity generation using solar photovoltaic technology             | D35.11, F42.22          |
| Climate Change Mitigation                          | 4.2. Electricity generation using concentrated solar power (CSP) technology | D35.11, F42.22          |
| Climate Change Mitigation                          | 4.3. Electricity generation from wind power                                 | D35.11, F42.22          |
| Climate Change Mitigation                          | 4.5. Electricity generation from hydropower                                 | D35.11, F42.22          |
| Climate Change Mitigation<br>Enabling activity     | 4.10. Storage of electricity  | No dedicated NACE codes |
| Climate Change Mitigation<br>Enabling activity     | 4.11. Storage of thermal energy   | No dedicated NACE codes |
| Climate Change Mitigation<br>Enabling activity     | 4.12. Storage of hydrogen   | No dedicated NACE codes |



# Intended allocation to specific taxonomy-aligned economic activities

- As outlined in the table above, Hydro may allocate an amount equivalent to EuGB proceeds to both enabling and transitional economic activities:
  - Transitional:
    - 3.8 Manufacture of aluminium
  - Enabling:
    - 3.2 Manufacture of equipment for the production and use of hydrogen
    - 4.10 Storage of electricity
    - 4.11 Storage of thermal energy
    - 4.12 Storage of hydrogen
- At the time of publication, as outlined in Hydro's annual reporting (<a href="https://www.hydro.com/en/global/investors/reports-and-presentations/">https://www.hydro.com/en/global/investors/reports-and-presentations/</a>), the majority of Hydro's EU Taxonomy aligned CapEx and OpEx is associated with activity 3.8 Manufacture of aluminium. EuGBs issued in the near future would likely reflect this however this may change over time
- Hydro does not intend to allocate an amount equivalent of EuGB proceeds to taxonomy-aligned activities related to nuclear energy and fossil gas in accordance with Articles 10(2) and 11(3) of Regulation (EU) 2020/852.

# Intended allocation to economic activities not aligned with the technical screening criteria

• EuGB proceeds are not intended to be allocated in accordance with Article 5 of Regulation (EU) 2023/2631

#### Process and timeline for allocation

Hydro intends to allocate an amount equivalent to the use of proceeds of EuGBs within two years after issuance.

Hydro will determine how projects align with the criteria for environmentally sustainable economic activities set out in Article 3 of Regulation (EU) 2020/852 ('taxonomy requirements') by leveraging its existing governance for its green bond programme and existing processes.

The process of evaluating and selecting projects, as well as the allocation of proceeds will comprise the following steps:

As part of the annual reporting process in line with requirements in EU Regulation 2020/852, Article 8, Hydro assesses conformance with minimum social safeguards and the alignment of Taxonomy-eligible activities with the relevant Substantial Contribution (SC) criteria and Do No Significant Harm (DNSH) criteria. Please find a summary of the possible EU Taxonomy activities and technical screening criteria for Hydro's EuGBs in Annex 1.

- 2. Representatives from Hydro's different business segments, supported from time to time by sustainability experts, will put forward potential projects to Hydro's Green Finance Committee ("GFC") that meet the criteria outlined in step (1).
- 3. A list of potential projects is presented to the GFC. The GFC is solely responsible for the decision to acknowledge the project aligns with the taxonomy requirements. Projects which are approved will be tracked using a dedicated "Green Project Register". A decision to allocate proceeds will require a consensus decision by the GFC. The decisions made by the GFC will be documented and filed.

Activities will also be carried out in compliance with the minimum safeguards outlined in Article 18 of the Taxonomy Regulation. At a company level Hydro's activities are carried out in compliance with the minimum safeguards. Hydro has implemented due diligence processes based on the OECD Guidelines that cover labor rights for own workers and workers in the value chain. Due diligence processes related to bribery, taxation and fair competition are integrated in the compliance system, including Hydro's Code of Conduct applicable to all employees. Hydro's compliance with minimum safeguard are described in Hydro's most recent annual report available here: <a href="https://www.hydro.com/en/global/investors/reports-and-presentations/annual-reports/">https://www.hydro.com/en/global/investors/reports-and-presentations/annual-reports/</a>

The GFC is chaired by the Chief Financial Officer and includes senior member representatives from the following departments:

- Group Performance, Planning & Control
- Group Accounting and Reporting
- Group Treasury and Tax
- Group Sustainability
- Portfolio Development

The GFC may call upon other business segments as relevant.

The GFC will convene twice a year or when otherwise considered necessary. For the avoidance of doubt, the GFC holds the right to exclude any project already funded by an EuGB if the project no longer meets the eligibility criteria. If a project is sold, or for other reasons loses its eligibility, funds will be reallocated to other eligible projects.

The GFC will also be responsible for preparing and verifying reporting on the allocation and impact of the EuGBs.

#### Issuance costs

An amount equivalent to the gross proceeds of any EuGB will be allocated to projects in line with the taxonomy requirements.



## 5. Environmental impact of bond proceeds

Hydro will produce an impact report at least once during the life of an EuGB, after full allocation. At the time of publication of the factsheet, an estimate of the anticipated environmental impacts of the proceeds is not available given that the impact will be specific to the underlying projects. Examples of impact metrics are listed below in the table.

| Activity  | Impact Metrics   |
|---|--|
| 3.2 Manufacture of equipment for the production and use of hydrogen         | <ul> <li>Annual capacity (tonnes of hydrogen)</li> <li>Carbon footprint of hydrogen (tonnes of CO2e / tonne of hydrogen)</li> </ul>  |
| 3.8 Manufacture of aluminium  | <ul> <li>Annual capacity (tonnes of aluminium)</li> <li>GHG emission intensity of aluminium produced compared to world<br/>average (tonnes of CO2e/ tonne of aluminium)</li> <li>Estimated tonnes of CO2e avoided</li> </ul> |
| 3.10 Manufacture of hydrogen  | <ul> <li>Annual capacity (tonnes of hydrogen)</li> <li>Carbon footprint of hydrogen (tonnes of CO2e / tonne of hydrogen)</li> </ul>  |
| 4.1. Electricity generation using solar photovoltaic technology             | Installed renewable energy capacity (GW)   |
| 4.2. Electricity generation using concentrated solar power (CSP) technology | <ul> <li>Annual renewable energy generation (GWh)</li> <li>Annual GHG emissions avoided (tonnes of CO2e emissions)</li> </ul>  |
| 4.3. Electricity generation from wind power                                 | New capacity installed / financed (if SPVs)  |
| 4.5. Electricity generation from hydropower                                 |  |
| 4.10. Storage of electricity  | Storage capacity (GWh)   |
| 4.11. Storage of thermal energy   |  |
| 4.12. Storage of hydrogen   |  |

## 6. Information on reporting

- A link to the issuer's website as required by Article 15(1) of Regulation (EU) 2023/2631: <a href="https://www.hydro.com/en/en/">https://www.hydro.com/en/en/</a>
- Hydro's relevant reports, such as the consolidated management report or the consolidated sustainability report pursuant to Directive 2013/34/EU:
  - Integrated annual reporting available here: <a href="https://www.hydro.com/en/global/investors/reports-and-presentations/">https://www.hydro.com/en/global/investors/reports-and-presentations/</a>
  - EuGB and Green and sustainability-linked financing framework related information and reporting available here: <a href="https://www.hydro.com/en/global/investors/">https://www.hydro.com/en/global/investors/</a> debt-investors/
- The first reporting period starts from January 1 of the calendar year of the EuGB's issuance date until December 31 of the calendar year of the EuGB's issuance date.
- The availability of project-by-project information on amounts allocated and the expected environmental impacts will be decided at the time of reporting.

## 7. CapEx plan

Hydro will not publish a CapEx plan referred to in Article 7 of Regulation (EU) 2023/2631 as it intends to allocate an amount equivalent to the proceeds of EuGB's to activities that are fully aligned with the taxonomy criteria.

### 8. Other relevant information

Hydro's EuGBs are also aligned with the International Capital Market Association (ICMA) Green Bond Principles published in June 2021 (With June 2022 Appendix I)



#### **Annex 1: EU Taxonomy Criteria**

Hydro's projects financed/refinanced by the EuGBs will meet the substantial contribution criteria for climate mitigation and do no significant harm (DNSH) criteria as outlined in the Climate Delegated Act: <a href="https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1">https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1</a> en.pdf. Please find below a summary of the Activities and criteria below. For the full wording please visit the delegated act.

Activities will also be carried out in compliance with the minimum safeguards laid down in Article 18 of the Taxonomy Regulation, ensuring the alignment with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work and the International Bill of Human Rights.

#### 3.2 Manufacture of equipment for the production and use of hydrogen

#### **Substantial Contribution Criteria**

The economic activity manufactures equipment for the production of hydrogen compliant with the Technical Screening Criteria set out in Section 3.10 and equipment for the use of hydrogen.

| Do No Significant Harm                                       |  |
|--|--|
| Climate Change adaptation                                    | APPENDIX A1: GENERIC CRITERIA  |
| Sustainable use and protection of water and marine resources | APPENDIX B1: GENERIC CRITERIA  |
| Transition to a circular economy                             | The activity assesses the availability of and, where feasible, adopts techniques that support:  (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process; (d) information on and traceability of substances of concern EN 41 EN throughout the life cycle of the manufactured products |
| Pollution prevention and control                             | APPENDIX C1: GENERIC CRITERIA  |
| Protection and restoration of biodiversity and ecosystems    | APPENDIX D1: GENERIC CRITERIA  |

#### 3.8 Manufacture of aluminium

#### **Substantial Contribution Criteria**

The activity manufactures one of the following:

- (a) primary aluminium where the economic activity complies with two of the following criteria until 2025 and with all of the following criteria<sup>2</sup> after 2025:
  - (i) the GHG emissions do not exceed 1,4842 tCO2e per ton of aluminium manufactured3:
  - (ii) the average carbon intensity for the indirect GHG emissions does not exceed 100g CO2e/kWh;
  - (iii) the electricity consumption for the manufacturing process does not exceed 15.5 MWh/t Al.
- (b) secondary aluminium.

| Do No Significant Harm – as outlined in Climate Delegated Act |  |
|---|--|
| Climate Change adaptation                                     | APPENDIX A1: GENERIC CRITERIA  |
| Sustainable use and protection of water and marine resources  | APPENDIX B1: GENERIC CRITERIA  |
| Transition to a circular economy                              | N/A  |
| Pollution prevention and control                              | The activity complies with the criteria set out in Appendix C to this Annex. Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the latest relevant best available techniques (BAT) conclusions, including the best available techniques (BAT) conclusions for the non-ferrous metals industries. No significan cross-media effects occur. |
| Protection and restoration of biodiversity and ecosystems     | APPENDIX D1: GENERIC CRITERIA  |

- 1) Please refer to the relevant appendix in the Climate Delegate Act:
- https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1\_en.pdf
- 2) Please refer to the Climate Delegated act for the footnote detail:
  - https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1\_en.pdf
- The aluminium manufactured is the unwrought non alloy liquid aluminium produced from electrolysis.



#### 3.10 Manufacture of hydrogen

#### **Substantial Contribution Criteria**

The activity complies with the life-cycle GHG emissions savings requirement of 73.4% for hydrogen [resulting in life-cycle GHG emissions lower than 3tCO2e/tH2] and 70% for hydrogen-based synthetic fuels relative to a fossil fuel comparator of 94g CO2e/MJ in analogy to the approach set out in Article 25(2) of and Annex V to Directive (EU) 2018/2001.

Life-cycle GHG emissions savings are calculated using the methodology referred to in Article 28(5) of Directive (EU) 2018/2001 or, alternatively, using ISO 14067:2018<sup>2</sup> or ISO 14064- 1:2018<sup>2</sup>.

Quantified life-cycle GHG emission savings are verified in line with Article 30 of Directive (EU) 2018/2001 where applicable, or by an independent third party. Where the CO2 that would otherwise be emitted from the manufacturing process is captured for the purpose of underground storage, the CO2 is transported and stored underground, in accordance with the technical screening criteria set out in Sections 5.11 and 5.12 of the Climate Delegated Act.

| Do No Significant Harm                                       |   |
|--|---|
| Climate Change adaptation                                    | APPENDIX A1: GENERIC CRITERIA   |
| Sustainable use and protection of water and marine resources | APPENDIX B1: GENERIC CRITERIA   |
| Transition to a circular economy                             | N/A   |
| Pollution prevention and control                             | The activity complies with the criteria set out in Appendix C. Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the relevant best available techniques (BAT) conclusions, including:  (a) the best available techniques (BAT) conclusions for the production of chlor-alkali and the best available techniques (BAT) conclusions for common wastewater and waste gas treatment/ management systems in the chemical sector;  (b) the best available techniques (BAT) conclusions for the refining of mineral oil and gas |
|  | No significant cross-media effects occur.   |
| Protection and restoration of biodiversity and ecosystems    | APPENDIX D1: GENERIC CRITERIA   |

#### 4.1. Electricity generation using solar photovoltaic technology

#### **Substantial Contribution Criteria**

The activity generates electricity using solar PV technology.

Protection and restoration of biodiversity and ecosystems

# Climate Change adaptation APPENDIX A¹: GENERIC CRITERIA Sustainable use and protection of water and marine resources N/A Transition to a circular economy The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish. Pollution prevention and control N/A

APPENDIX D1: GENERIC CRITERIA



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

| Substantial Contribution Criteria                            |   |
|--|---|
| The activity generates electricity using CSP technolog.      |   |
| Do No Significant Harm                                       |   |
| Climate Change adaptation                                    | APPENDIX A1: GENERIC CRITERIA   |
| Sustainable use and protection of water and marine resources | APPENDIX B1: GENERIC CRITERIA   |
| Transition to a circular economy                             | The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish. |
| Pollution prevention and control                             | N/A   |
| Protection and restoration of biodiversity and ecosystems    | APPENDIX D¹: GENERIC CRITERIA   |

#### 4.3. Electricity generation from wind power

| Substantial Contribution Criteria   |  |  |
|---|--|--|
| The activity generates electricity from wind power.  Do No Significant Harm |  |  |
|   |  |  |
| Sustainable use and protection of water and marine resources                | In case of construction of offshore wind, the activity does not hamper the achievement of good environmental status as set out in Directive 2008/56/EC of the European Parliament and of the Council <sup>2</sup> , requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptor 11 (Noise/Energy), laid down in Annex I to that Directive, and as set out in Commission Decision (EU) 2017/848 <sup>2</sup> in relation to the relevant criteria and methodological standards for that descriptor.     |  |
| Transition to a circular economy  | The activity assesses availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish   |  |
| Pollution prevention and control  | N/A  |  |
| Protection and restoration of biodiversity and ecosystems                   | The activity complies with the criteria set out in Appendix D to this Annex. In case of offshore wind, the activity does not hamper the achievement of good environmental status as set out in Directive 2008/56/EC, requiring that the appropriate measures are taken to prevent or mitigate impacts in relation to that Directive's Descriptors 1 (biodiversity) and 6 (seabed integrity), laid down in Annex I to that Directive, and as set out in Decision (EU) 2017/848 in relation to the relevant criteria and methodological standards for those descriptors. |  |



#### 4.5. Electricity generation from hydropower

#### **Substantial Contribution Criteria**

The activity complies with either of the following criteria:

- (a) the electricity generation facility is a run-of-river plant and does not have an artificial reservoir;
- (b) the power density of the electricity generation facility is above 5 W/m2;
- (c) the life-cycle GHG emissions from the generation of electricity from hydropower, are lower than 100gCO2e/kWh. The life-cycle GHG emissions are calculated using Recommendation 2013/179/EU or, alternatively, using ISO 14067:2018², ISO 14064-1:2018² or the G-res tool. Quantified life-cycle GHG emissions are verified by an independent third party.

# Climate Change adaptation APPENDIX A¹: GENERIC CRITERIA Sustainable use and protection of water and marine resources Seen Climate Delegated Act for full wording – link Transition to a circular economy N/A Pollution prevention and control N/A Protection and restoration of biodiversity and ecosystems APPENDIX D¹: GENERIC CRITERIA

#### 4.10. Storage of electricity

#### **Substantial Contribution Criteria**

The activity is the construction and operation of electricity storage including pumped hydropower storage. Where the activity includes chemical energy storage, the medium of storage (such as hydrogen or ammonia) complies with the criteria for manufacturing of the corresponding product specified in Sections 3.7 to 3.17 of the Climate Delegated Act. In case of using hydrogen as electricity storage, where hydrogen meets the technical screening criteria specified in Section 3.10 of this Annex, re-electrification of hydrogen is also considered part of the activity.

| Da Na Olassifia and Hama                                     |  |
|--|--|
| Do No Significant Harm                                       |  |
| Climate Change adaptation                                    | APPENDIX A1: GENERIC CRITERIA  |
| Sustainable use and protection of water and marine resources | In case of pumped hydropower storage not connected to a river body, the activity complies with the criteria set out in Appendix B. In case of pumped hydropower storage connected to a river body, the activity complies with the criteria for DNSH to sustainable use and protection of water and marine resources specified in Section 4.5 |
| Transition to a circular economy                             | A waste management plan is in place and ensures maximal reuse or recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.  |
| Pollution prevention and control                             | N/A  |
| Protection and restoration of biodiversity and ecosystems    | APPENDIX D1: GENERIC CRITERIA  |

#### 4.11. Storage of thermal energy

| Substantial Contribution Criteria  The activity stores thermal energy, including Underground Thermal Energy Storage (UTES) or Aquifer Thermal Energy Storage (ATES).  Do No Significant Harm |   |  |   |
|--|---|--|---|
|  |   | Climate Change adaptation                                    | APPENDIX A1: GENERIC CRITERIA   |
|  |   | Sustainable use and protection of water and marine resources | For Aquifer Thermal Energy Storage, the activity complies with the criteria set out in Appendix B |
| Transition to a circular economy   | A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation. |  |   |
| Pollution prevention and control   | N/A   |  |   |
| Protection and restoration of biodiversity and ecosystems  | APPENDIX D1: GENERIC CRITERIA   |  |   |



#### 4.12. Storage of hydrogen

#### **Substantial Contribution Criteria**

- The activity is one of the following:
  (a) construction of hydrogen storage facilities;
  (b) conversion of existing underground gas storage facilities into storage facilities dedicated to hydrogen-storage;
  (c) operation of hydrogen storage facilities where the hydrogen stored in the facility meets the criteria for manufacture of hydrogen set out in Section 3.10. of this Annex.

| Do No Significant Harm                                       |   |  |
|--|---|--|
| Climate Change adaptation                                    | APPENDIX A1: GENERIC CRITERIA   |  |
| Sustainable use and protection of water and marine resources | N/A   |  |
| Transition to a circular economy                             | A waste management plan is in place and ensures maximal reuse, remanufacturing or recycling at end of life, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation. |  |
| Pollution prevention and control                             | In the case of storage above five tonnes, the activity complies with Directive 2012/18/EU of the European Parliament and of the Council <sup>2</sup>  |  |
| Protection and restoration of biodiversity and ecosystems    | APPENDIX D1: GENERIC CRITERIA   |  |