

# Basic Chemicals Criteria

## Frequently Asked Questions

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## Questions on Scope

### [What can be certified by these Criteria?](#)

The Basic Chemicals Criteria can certify:

1. Use-of-Proceed (UoP) bonds financing decarbonisation measures (e.g., retrofits) – see section 3 of the Basic Chemicals Criteria.
2. Use-of-Proceed (UoP) bonds financing basic chemicals production facilities (i.e., assets and activities) – see section 4 of the Basic Chemicals Criteria.
3. Entities (companies producing basic chemicals) and Sustainability Linked Bonds (SLBs) – see section 5 of the Basic Chemicals Criteria.

### [What assets and activities are within scope?](#)

The Basic Chemicals Criteria apply to eligible assets, projects, and companies producing eligible organic and inorganic basic chemicals. The following table has the basic chemicals in scope.

**Table 1: Eligible Basic Chemical**

Chemical Groups	Eligible Assets
<b>Inorganic basic chemicals</b>	<ul style="list-style-type: none"> <li>• Ammonia</li> <li>• Chlorine</li> <li>• Disodium carbonate/Soda ash</li> <li>• Nitric acid</li> <li>• Carbon black</li> </ul>
<b>Organic basic chemicals</b>	<ul style="list-style-type: none"> <li>• High value chemicals (acetylene, ethylene, propylene, butadiene)</li> <li>• Aromatics (Benzene, Toluene and Xylene (BTX))</li> <li>• Methanol</li> </ul>

The criteria can finance entire basic chemicals production facilities or groups of facilities. It can also potentially certify any measure within a basic chemicals production facility, providing it meets the following criteria. This includes, but is not limited to, decarbonisation measures such as electrification of processes, retrofitting activities and equipment acquisition for energy efficiency measures, feedstock and fuel substitution. CCS and CCU infrastructure can also be financed as decarbonisation measures. A full description of what is in scope can be found in section 2 of the Basic Chemicals Criteria document.

### [Can entire chemical companies be certified?](#)

No, only parts or business segments of chemical companies dedicated to producing basic chemicals in scope can be certified. Entire chemical companies will be certified once criteria are available for all the business segments, including intermediate and specialty chemicals.

### [What GHG must be included to calculate the carbon intensity of a production process?](#)

All relevant greenhouse gases and not just CO<sub>2</sub> should be included in the assessment of emissions, and the most up-to-date IPCC 100-year global warming potential factors should be used.

### What scope of emissions must be included to calculate the carbon intensity of a production process?

The carbon intensity benchmarks cover scope 1 or 2, depending on the product. Thus, the following emissions should be accounted for:

- Nitric Acid and Soda Ash: Scope 1 emissions which include all direct emissions from the production processes: emissions generated during the chemical reactions, emissions from fuel combustion on-site.
- Carbon black, HVC, and aromatics: Scope 1 as defined above, plus Scope 2 emissions which includes indirect emissions from the energy imported from off-site.

In the case where the scope 2 emissions are not included in the thresholds, it was considered that issuers should demonstrate the procurement for low-carbon electricity.

Scope 3 emissions can be significant; however, at this time, quantitative metrics are not considered appropriate, and instead, the requirement is for issuers to demonstrate a strategy to address and reduce scope 3 upstream emissions. Qualitative requirements are:

- Evidence for low-carbon procurement policies; or
- Partnerships with suppliers with GHG emissions reduction targets that can be measured; or
- Switching from fossil-based raw materials to alternative feedstocks such as biobased and recycled materials.

### Are fertilizers production covered by these criteria?

These criteria cover ammonia production. Fertilizers production will be addressed by the intermediate chemicals criteria once they are available for certifications.

### Are plastics, polymers production and recycling covered by these criteria?

These criteria cover the production of basic chemicals to produce polymers and plastics, it includes olefins. Plastics and polymers production and recycling will be addressed by the intermediate chemicals criteria once they are available for certifications.

## Questions on Market and Finance

### Are these criteria likely to be used by the bond market?

As a significant source of global GHG emissions and a major energy consumer, providing basic chemicals investment with transition pathways to reduce emissions overtime will be crucial to meeting decarbonisation targets in line with limiting global warming to no more than 1.5-degrees Celsius. Climate Bonds expects sustainable labelled debt to be a large part of this.

Bondholders have a key role to play in decarbonising the chemical industry. Globally, it is estimated that decarbonisation of the chemical and petrochemical industry will require 63 billion euros<sup>1</sup> from today up to 2050. Companies such as BASF plans to invest up to 1 billion euros by 2025 to reach its climate target presented in 2021 and a further 2- 3 billion euros by 2030<sup>2</sup>.

Potential investments might be SLBs, but equally the Use-of-Proceeds (UoP) model of bonds should be considered by basic chemicals producers and investors. The upcoming updates to the Climate Bonds Standard means that both types of bond will eventually be certifiable.

Remember, the CBI Standard and Certification scheme is an additional layer of information which gives investors an indication of whether an entity's transition strategy or bonds proceeds are aligned with the Paris Agreement. The inclusive nature of the Criteria means there are many opportunities for certification.

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<sup>1</sup> Saygin,D., Gielen,D.(2021). Zero-Emission Pathway for the Global Chemical and Petrochemical Sector. *Energies*,14(13):3772. [www.mdpi.com/1996-1073/14/13/3772](http://www.mdpi.com/1996-1073/14/13/3772)

### [Can Sustainability Linked Bonds \(SLBs\) be certified?](#)

Not yet, but soon. Climate Bonds has put out a revised overarching Standard for public consultation<sup>3</sup> which includes a ruleset for certifying whole non-financial corporate entities and Sustainability Linked Bonds (SLBs). This invites all stakeholders to provide input on the additional criteria required to certify these types of instruments or entities. Public Consultation will end in November 2022 and thus criteria will not be available for formal use in certifying entities and SLBs prior to December 2022.

However, the Basic Chemicals sector criteria component for certifying entities or SLBs means that, once consultation is ended and necessary changes are made, certification will be possible.

### [What does it mean to certify an entity?](#)

If an entity (a company producing basic chemicals) meets the entity-level sector criteria as outlined in section 5 of the Basic Chemicals Criteria document, all debt issued by that company to finance a part or business segment producing basic chemicals will, by extension, be certified by Climate Bonds. This certification is effective for five years from that point, after which the entity cannot use the certification mark without reapplying for certification.

Currently, the only entities that will be able to get certified (following update to the overarching Standard) will be non-financial corporate entities. Note, similar to SLBs (see above) entities will not be certifiable until the latest update to the Climate Bonds Standard is finalised.

### [Does CBI view securitisation as green if the backed assets are green and/or the proceeds from the securitisation are used for green purposes?](#)

It is our view that the actual use of proceeds should be green, not necessarily the securitised assets. In other words, it is the projects and assets which the proceeds are allocated to that have to pass the requirements of the Standard. While we encourage the use of green receivables for securitised bonds, it is not a prerequisite.

### [Can covered bonds be certified?](#)

Yes, covered bonds can be certified. Provided that the assets to which the proceeds will be used are compliant with their respective criteria. However, we do not require that the pool of assets used as collateral in the covered bond are compliant with the respective criteria.

### [How do the Basic Chemicals Criteria correspond to the EU Taxonomy on Sustainable Finance?](#)

The Basic Chemicals Criteria are aligned with the requirements for the corresponding economic activities (organic and inorganic chemicals) in the EU Taxonomy<sup>4</sup>. This means that if your bond is financing basic chemicals production assets or activities and is certified under these Criteria, that investment would be defined as green under the EU Taxonomy.

As the EU Taxonomy works at the scale of organic and inorganic chemicals production *as an activity*, being certified under section 3 (decarbonisation measures) or section 5 (entities or Sustainability Linked Bonds) of the Basic Chemicals Criteria would not indicate compliance with the EU Taxonomy definitions for chemicals.

## Questions on Criteria requirements

### [Can individual decarbonisation measures, retrofits activities or infrastructure improvements be certified?](#)

Yes. A bond may be financing capital investments in specific retrofits or improvements to existing infrastructure. These might be eligible under the criteria for decarbonisation measures (table 3, section 3 of the criteria document). Note, this only covers the cost of the measures, not the facility they operate within.

Decarbonisation measures include electrification of processes, retrofitting activities and equipment acquisition for energy efficiency measures, feedstock and fuel substitution. For example, electric boilers, electric furnaces, infrastructure for biobased production. CCS and CCU infrastructure can also be financed as part of the decarbonisation measures.

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<sup>3</sup> Climate Bonds Standard V4.0 | Climate Bonds Initiative

<sup>4</sup> [https://eur-lex.europa.eu/resource.html?uri=cellar:d84ec73c-c773-11eb-a925-01aa75ed71a1.0021.02/DOC\\_2&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:d84ec73c-c773-11eb-a925-01aa75ed71a1.0021.02/DOC_2&format=PDF)

### [Do decarbonisation measures and retrofitting activities need to meet the carbon intensity benchmarks?](#)

No. Decarbonisation measures and retrofitting activities do not have to comply with the carbon intensity benchmarks; they must comply with the specific requirements. See **Section 3, Table 3** of the criteria document.

### [Why are there different Adaptation & Resilience requirements for decarbonisation measures and basic chemicals plants?](#)

When evaluating the climate credentials of an asset, in light of the Climate Resilience Principles (CRP), all system boundaries and interdependencies within them must be identified. This ensures that all relevant climate risks and impacts on system resilience are managed by the issuer. When the scope of evaluation is a basic chemicals plant, this is naturally a more complex and larger list of interdependencies than a single piece of equipment. When a single decarbonisation measure is being financed, it is clearly unfair to require the issuer to consider all possible climate risks that would exist for an entire plant. As such, the A&R checklist for measures is considerably smaller than for plants. This reflects the narrower scope of assessment.

### [How do I determine whether my carbon intensity meets the threshold?](#)

In terms of meeting the emissions intensity thresholds going forward, issuers must meet the threshold at the time of issuance and commit to 3 yearly assessments by an approved verifier throughout the period of issuance to verify that at each 3 yearly checks in the asset meets the lower emissions intensity threshold in place at that time. If on any 3 yearly verification the asset is not demonstrated to meet the emissions intensity threshold then in place, certification will be removed.

To demonstrate compliance with any of the emissions intensity thresholds set in **Section 4.1, Table 5** of the criteria document, applicants are required to carry out a GHG emissions assessment as described in Box 2 of the criteria document.

### [For production facilities producing a mix of products, how do I determine whether the emissions intensity of the products meets the threshold?](#)

For a production plant producing a mix of products, such as olefins and aromatics, a mass balance must be used to estimate the carbon intensity of assets.

### [How to assess an entity that produces several chemical products?](#)

Assessment of whether the assessed entity's basic chemicals production activities meet the emissions intensity and energy intensity threshold is determined at a portfolio level. That is, the average emissions intensity and energy intensity across all of the basic chemicals production facilities is calculated and compared to the respective thresholds. The assessment must be conducted separately for each product or group of products under the scope of these criteria. It is not necessary to assess each facility individually.

### [Do these criteria cover other environmental impacts?](#)

Climate Bonds Criteria focus on climate; however, because of the nature of the chemical industry (the toxicity of some chemicals and the hazardous substances managed and stored by production facilities), some requirements were defined. These include presenting a thorough environmental impact assessment and meeting pollution levels based on Best Available Techniques for some production processes.

## Questions on the Pathways

### [How was the Basic Chemicals pathway defined?](#)

The emissions reduction pathway developed by University Technology Sydney (UTS) for the chemical industry was adopted for the basic chemicals criteria. The pathway was used to determine the appropriate rate of change per decade, down to zero emissions in 2050. This ensures the ambition of the pathway reflects technological availability balanced with necessary emissions reductions.

### [How was the starting point for the benchmarks defined?](#)

The starting point for the benchmarks was taken from the EU taxonomy, except for olefins production, for which more ambitious thresholds were estimated based on literature review.

Are there regional differences, including availability of feedstock, infrastructure, and technology considered to evaluate a basic chemicals facility?

No. Regional differences were discussed and analysed. These criteria aim to be globally applicable and ambitious enough, regardless of these potential differences.