

COMPLEMENTARITY OF NZIA & CRMA

NOTE ON POTENTIAL INTERPRETATION CHALLENGES

Brussels, 2 July 2024

This document aims to seek clarification on the envisaged complementarity between the Net-Zero Industry Act ([NZIA](#))¹ and the Critical Raw Materials Act ([CRMA](#))².

Two main points require further clarification to understand what precisely falls under the scope of the NZIA:

- How does the inclusion of alumina and aluminium in the Critical Raw Materials Act (CRMA) affect complementarity with the NZIA and the exemption from the scope of the Net-Zero Industrial Act (NZIA) for those processes under the scope of the CRMA?
- Are transformative industrial technologies for decarbonisation defined in the Net-Zero Industry Act (NZIA) applicable to Aluminium as a component of Net Zero Technologies?

Aluminium as a component of Net Zero Technologies

Bauxite, Alumina and Aluminium (aluminium and its value chain) have been recognised as critical and strategic raw materials under the CRMA. At the same time, aluminium is a metal that is also primarily used for the production of components for net-zero technologies. The NZIA covers processed materials that are an essential component of net-zero technologies:

- According to Article 2 paragraph 2 of the NZIA, “In the case of integrated production facilities that cover the production of materials falling both under the scope of [the CRMA] and of this Regulation, it shall be the facilities’ final product that determines which Regulation applies”
- Moreover, the NZIA defines a component as “a part of a net-zero technology final product that is manufactured and traded by a company, including processed materials,” which applies to aluminium.
- Recital 15 further explains that the NZIA shall complement the CRMA.

However, some provisions in the text (Recital 13, 11, Article 2 par 2) appear to exclude aluminium, based on the fact that it is a raw material falling under the scope of CRMA.

This provision will generate confusion for EU Member States on the scope and applicability of the two frameworks.

It is therefore important that in implementing both CRMA and NZIA, the Commission clarifies the following points in order not to undermine the effectiveness and complementarity of the two frameworks:

¹ EU Official Journal, Regulation (EU) 2024/1735 - [link](#)

² The referenced articles in this note are based on the final texts agreed by the co-legislators in trilogues and hyperlinked in this document. This note will be updated after Publication of the final version of both Regulations in the Official Journal. The CRMA was published in the [EU Official Journal](#) last 3 May 2024.

1. Under what specific circumstances is an installation producing alumina or an aluminium component primarily used for the manufacturing of a Net Zero Technology eligible under the Net-Zero Industrial Act?
2. What criteria determine whether a project which secures the existing supply of alumina or aluminium or increases the manufacturing capacity of a given aluminium component/product qualifies under the CRMA and /or the NZIA's scope?
3. Can alumina and aluminium achieve recognition as a component (incl. processed materials) of net-zero technologies solely through inclusion in the list of components listed in the Annex or market study presented by the applicant?

Transformative industrial technologies for decarbonisation

According to Recital 13) of the NZIA, supporting energy-intensive sectors like alumina and aluminium contributes to ensuring access to a sustainable supply of net-zero technologies and creates a demand-side pull for net-zero transformative and decarbonisation technologies.

Therefore, our understanding is that any industrial decarbonisation technology applicable to the entire aluminium value chain (Bauxite mining, alumina refining, Primary Aluminium, Transformation, Recycling) would fall under the scope of the NZIA. This is also confirmed by:

- Article 3 (8) which includes “transformative industrial technologies for decarbonisation” in the scope of the NZIA. The definition specifically mentions technologies for significantly and permanently reducing emission rates of CO₂-eq in energy-intensive businesses, which fits within the scope of energy-intensive industry decarbonization projects.
- The transformative industrial technologies for decarbonisation are also included in Article 4 par 1 (p) (List of net-zero technologies) and the Annex (‘List of final products and specific components considered as primarily used for the production of Net-Zero technologies’).
- Article 2 par 3 clearly states that the NZIA “applies to energy-intensive industry decarbonisation projects that are part of the supply chain of a net-zero technology and that reduce emission rates of CO₂-eq of industrial processes significantly and permanently to an extent which is technically feasible”.

However, also in this case:

- **Recitals 11, 12, and Article 2 par 2 generate a set of interpretation challenges. A too narrow interpretation of these recitals and article could lead to the exclusion of decarbonisation projects applicable to aluminium because the raw material is in the scope of the CRMA.**
- **Article 2 indicates that it should be the facilities’ final product that determines which Regulation applies. This wording can be interpreted in a way to restrict the application of the financing schemes for industrial transformative technologies to aluminium. This is because while the CRMA covers mainly securing existing or the increase of production capacity, the NZIA covers both the increase of capacity of components for Net Zero Technologies, as well as “transformative industrial decarbonisation technologies”.**

Therefore, it is important that the European Commission clarifies as soon as possible in the upcoming implementing and delegated acts of the NZIA (or related guidance documents) that an ***industrial technology for decarbonization, which meets the requirements to be considered a net-zero strategic project under Article 13, paragraph 1 can access financing if proposed as part of an innovative decarbonisation project covering any step of the value chain.***

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NZIA & CRMA TEXT COMPARISON

(In bold the relevant parts of the text for this analysis)

Recitals 11, 12, 13, 15 Scope and complementarity between the NZIA and CRMA	
NZIA	CRMA
<p>RECITAL 13) Specific components in the supply chain of net-zero technologies are produced through energy-intensive production processes, incl. aluminium.</p> <p>The security of supply of specific components used for net-zero technologies also depends on intensifying decarbonisation efforts in energy-intensive industries.</p> <p>Energy-intensive industry facilities fall under the scope of the Regulation where the relevant facilities produce specific components that are primarily used in net-zero technologies.</p> <p>Due to the need to decarbonise these sectors as a whole and in order to ensure the availability of specific components produced by these sectors used in the net-zero technology supply chains [...] this Regulation should also apply to projects of energy intensive industries that produce specific components that are also used, but not exclusively, in the supply chains of net-zero technologies.</p> <p>The inclusion in the scope of such hard to abate facilities should be conditioned on a project comprising the construction or conversion of such a facility leading to a significant reduction of CO2 emissions stemming from the production activities. Supporting these sectors in a targeted manner under this Regulation contributes to ensuring access to a sustainable supply of net-zero technologies in the internal market, increases investment certainty and creates a</p>	

<p>demand-side pull for net-zero transformative and decarbonisation technologies.</p>	
<p>RECITAL 15) [...] this scaling-up should be carried out across the whole supply chain of the technologies in question, in full coherence and complementarity with the CRMA.</p>	
<p>RECITAL 11) This Regulation should complement the CRMA by focusing on the manufacturing of net-zero technologies in terms of final products, specific components, and specific machinery primarily used to produce them. The CRMA focuses instead on the upstream part of the supply chain, particularly critical raw materials, and their extraction, processing and recycling. Those are indispensable for a wide set of strategic sectors including the net zero industries, the digital industry, aerospace, and defence sectors.</p> <p>By following the same logic of nurturing a business case, upgrading, and providing adequate skills, and supporting investments, this Regulation and the CRMA work together to create regulatory support synergies across the entire supply chain of net-zero technology manufacturing in the Union. This Regulation clarifies that it also covers processed materials that are an essential component of net-zero technologies, excluding critical raw materials falling under the CRMA.</p>	
<p>RECITAL 12) Final products and specific components which are essential for the production of net-zero technologies should be listed in an annex in a non-exhaustive manner. These include final products and their components that are manufactured and traded by a company, including processed materials, but excluding raw materials covered under the CRMA.</p> <p>The aim of the Annex is to, to the extent possible, identify final products and specific components that are essential for the production of net-zero technologies and that can therefore reasonably be assumed to be</p>	<p>RECITAL 8) The strategic and critical raw materials lists should use established designations for the listed raw materials. For the strategic raw materials list, the designations should refer, where appropriate, to the grade to which a raw material has to be refined in order to be used for the manufacturing of strategic technologies. References to strategic and critical raw materials should be understood to refer to the entire value chain of those raw materials, including in their unprocessed form and at all stages of processing leading up, where applicable, to the specified grade. An exceptional clarification should be made for the</p>

<p>always primarily used for all net-zero technologies listed in this Regulation. [...]</p>	<p>aluminium value chain, mentioning bauxite, its most important ore, and alumina, its intermediate processing form, in addition to aluminium. Strategic and critical raw materials are, in many cases, extracted, processed or recycled as by-products of other main extraction, processing and recycling processes. Therefore, the by-product nature of raw materials should not affect their inclusion on the list or their coverage by the relevant provisions of this Regulation.</p>
<p style="text-align: center;">Comments:</p> <p>In order to find out what concretely falls under the scope of the NZIA, we need to distinguish the different aspects in question: 1) Alumina or Aluminium as a <i>component or processed material</i> and 2) <i>transformative industrial technologies for decarbonisation</i>.</p> <p>Regarding Aluminium as a component: The NZIA Regulation intends to cover “projects of energy intensive industries that produce specific components that are also used, but not exclusively, in the supply chains of net-zero technologies.” As aluminium is “produced through energy-intensive production processes”, as mentioned in Recital 13, it means that it can fall under the scope of the NZIA. Recital 15 underlines that the NZIA shall complement the CRMA.</p> <p>However, Recital 11 further clarifies that the NZIA covers processed materials that are an essential component of net-zero technologies and specifically excludes critical raw materials falling under the CRMA. According to the points above, it is possible for aluminium as a <i>component or processed material</i> to fall under the scope of the NZIA. The concrete case needs to be defined in the scope and definitions of the NZIA.</p> <p>Regarding transformative industrial technologies for decarbonisation: According to Recital 13), supporting energy-intensive sectors under this Regulation contributes to ensuring access to a sustainable supply of net-zero technologies and creates a demand-side pull for net-zero transformative and decarbonisation technologies. These are defined in Article 3 – Definitions.</p>	

Articles

Chapter I: Subject matter, scope and definitions Articles 1 & 2	
NZIA	CRMA
<p>ARTICLE 1 – Subject matter</p> <p>Paragraph 1: The general objective of this Regulation is to improve the functioning of the internal market by establishing a framework throughout the Union in order to ensure the Union’s access to a secure and</p>	<p>Article 1 – Subject matter</p> <p>The general objective of this Regulation is to improve the functioning of the internal market by establishing a framework to ensure the Union’s access to a secure, resilient and sustainable supply of critical raw materials,</p>

<p>sustainable supply of net-zero technologies including by scaling up the manufacturing capacity of net-zero technologies and their supply chains to safeguard their resilience while contributing to achieving the Union’s climate targets [...].</p>	<p>including by fostering efficiency and circularity throughout the value chain.</p>
<p>ARTICLE 2 – Scope</p> <p>1. <i>With the exception of Articles 33 and 34 of this Regulation, which apply to innovative net-zero technologies, this Regulation applies to net-zero technologies. Critical raw materials falling under the scope of [CRMA] shall be excluded from the scope of this Regulation.</i></p> <p>2. In the case of integrated production facilities that cover the production of materials falling both under the scope of the [CRMA] and this Regulation, it shall be the facilities’ final product that determines which Regulation applies.</p> <p>3. This Regulation applies to energy-intensive industry decarbonisation projects that are part of the supply chain of a net-zero technology and that reduce emission rates of CO₂-eq of industrial processes significantly and permanently to an extent which is technically feasible.</p>	
<p style="text-align: center;">Comments:</p> <p>Article 1 includes in its subject matter the net-zero technologies, the need to scale up the manufacturing capacity and their supply chains, thus including components and transformative industrial technologies for decarbonisation.</p> <p>Regarding Aluminium as a component: Critical raw materials falling under the scope of CRMA shall be excluded from the scope of the NZIA.</p> <p>In cases of integrated production facilities that cover production of materials falling both under the scope of the CRMA and the NZIA, it shall be the facilities’ final product that determines which Regulation applies, Article 2, paragraph 2 NZIA.</p> <p>Regarding transformative industrial technologies for decarbonisation: NZIA “applies to energy-intensive industry decarbonisation projects that are part of the supply chain of a net-zero technology and that reduce emission rates of CO₂-eq of industrial processes significantly and permanently to an extent which is technically feasible”. The definition of transformative industrial technologies for decarbonisation should define whether they fall under the scope.</p>	

Article 2 indicates that it should be the facilities' final product that determines which Regulation applies. This wording can be interpreted in a way to restrict the application of the financing schemes for industrial transformative technologies to aluminium. This is because while the CRMA covers mainly the increase of production capacity, the NZIA covers both the increase of capacity of components for Net Zero Technologies, as well as "transformative industrial decarbonisation technologies".

DEFINITIONS

Chapter I: Subject matter, scope, and definitions Article 3 & 4	
NZIA	CRMA
(1) 'net-zero technologies' means the technologies listed in Article 4 where they are final products, specific components or specific machinery primarily used for the production of those products;	Article 2 1. 'raw material' means a substance in processed or unprocessed state used as an input for the manufacturing of intermediate or final products , excluding substances predominantly used as food, feed or combustion fuel;
(2) 'component' means a part of a net-zero technology final product that is manufactured and traded by a company, including processed materials ;	4. 'extraction' means the extraction of ores, minerals and plant products from their original source as a main product or as a by-product, including from mineral occurrence underground, mineral occurrence under and in water, and from brine and trees;
(8) 'transformative industrial technologies for decarbonisation' means the scaling up of manufacturing capacity for transformative industrial technologies that are used to significantly and permanently reduce emission rates of CO ₂ -eq of a commercial facility of an energy-intensive business, as defined by Article 17(1)a of Council Directive 2003/96/EC, in the steel, aluminium , non-ferrous metals [...] sectors to the extent which is technically feasible;	5. 'Union extraction capacity' means an aggregate of the maximum annual production volumes of extractive operations for ores, minerals, plant products and concentrates containing strategic raw materials, including processing operations that are typically located at or near the extraction site, located in the Union;
(10) 'primarily used' means final products and specific components which are essential for the production of net-zero technologies, as set out in the Annex , or final products, specific components and specific machinery which are essential for the production of net-	8. ' processing ' means all physical, chemical and biological processes involved in the transformation of a raw material from ores, minerals, plant products or waste into pure metals, alloys or other economically usable forms, including beneficiation, separation,

<p>zero technologies on the basis of evidence provided to a national competent authority by the project promoter, with the exception of energy-intensive industry decarbonisation projects, for which such evidence is not required;</p>	<p>smelting and refining, and excluding metal working and further transformation into intermediate and final goods;</p>
<p>(11) ‘processed material’ means a material that has been processed in such a way to be suitable for a specific function in a net-zero technology supply chain, with the exception of critical raw materials defined pursuant to Article 4 of [CRMA];</p>	<p>9. ‘Union processing capacity’ means an aggregate of the maximum annual production volumes of processing operations for strategic raw materials, excluding such operations that are typically located at or near the extraction site, located in the Union;</p>
<p>(13) ‘other innovative technologies’ means energy-related or climate-related technologies with a proven potential to contribute to the decarbonisation of industrial or energy systems and to reduce strategic dependencies that comprise genuine innovations that are not currently available on the Union market and that are advanced enough to be tested in a controlled environment;</p>	<p>25. ‘raw materials supply chain’ means all activities and processes of the raw materials value chain up to the point where a raw material is used as an input for the manufacturing of intermediate or final products;</p>
<p>(16) ‘net-zero technology manufacturing project’ means a planned commercial facility or an extension or repurposing of an existing facility to manufacture net-zero technologies, or an energy intensive industry decarbonisation project;</p>	<p>30. ‘strategic technologies’ means the key technologies instrumental for the green and digital transitions as well as for defence and aerospace applications;</p>
<p>(17) ‘energy intensive industry decarbonisation projects’ means the construction or conversion of a commercial facility of an energy-intensive business as defined by Article 17(1)a of the Council Directive 2003/96/EC in the steel, aluminium, nonferrous metals [...] sectors, and which is part of the supply chain of a net-zero technology, and which have to reduce emission rates of CO2-eq of industrial processes significantly and permanently to an extent which is technically feasible</p>	
<p>ARTICLE 4 - List of net-zero technologies Paragraph 1 - The net-zero technologies within the scope of this Regulation shall be:</p>	

(p) transformative industrial technologies for decarbonisation not covered under the previous categories;	
<p style="text-align: center;">Comments:</p> <p>Regarding Aluminium as a component: The definition of "component" in the NZIA includes "a part of a net-zero technology final product that is manufactured and traded by a company, including processed materials." The NZIA also states that final products and specific components essential for the production of net-zero technologies should be listed in an annex, excluding critical raw materials. Aluminium could fall under the scope of the Regulation if included in the annex or if evidence demonstrates its primary use for net-zero technology production.</p> <p>Regarding transformative industrial technologies for decarbonisation: The definition aligns with the described scope in Article 1. It specifically mentions technologies for significantly and permanently reducing emission rates of CO₂-eq in energy-intensive businesses, which fits within the scope of energy-intensive industry decarbonization projects. They are also included in Article 4 Par 1 (p) (List of net-zero technologies) <u>and</u> the annex.</p>	

Selection criteria for NZIA & CRMA Projects

Section II – Net-Zero Strategic projects	
Article 13 – Selection criterion	
NZIA	CRMA
<p>Paragraph 1: Member States shall recognise as net-zero strategic projects net-zero technology manufacturing projects located in the Union that contributes to the realisation of the objectives set out in Article 1, including contributing to the Union’s climate or energy targets and fulfil at least one of the following criteria:</p> <p>(a) the net-zero technology manufacturing project contributes to the technological and industrial resilience of the Union’s net-zero technologies by increasing the manufacturing capacity of a component or a segment of the net-zero technology supply chain [...]</p> <p>(b) the net-zero technology manufacturing project has a clear positive impact on the Union’s net-zero industry supply chain or downstream sectors by providing European net-zero industries with access to the best available net-zero technology or to products</p>	<p>Article 6 – Strategic Projects criteria</p> <p>Following an application of the project promoter and in accordance with the procedure established in Article 7, the Commission shall recognise as Strategic Projects raw material projects that meet the following criteria:</p> <p>(a) the project would make a meaningful contribution to the security of the Union’s supply of strategic raw materials;</p> <p>(b) the project is or will become technically feasible within a reasonable timeframe and the expected production volume of the project can be estimated with a sufficient level of confidence;</p> <p>(c) the project would be implemented sustainably, in particular as regards the monitoring, prevention and minimisation of environmental impacts, the prevention and minimisation of socially adverse impacts through the use of socially responsible</p>

<p>produced in a first-of-a-kind manufacturing facility [...]</p> <p>(c) the project contributes to reaching the Union’s climate or energy objectives by manufacturing net-zero technologies through practices that implement improved environmental sustainability and performance or circularity features, including comprehensive low-carbon, energy, water or material efficiency and practices that significantly and permanently reduce emission rates of CO2-eq.</p>	<p>practices including respect for human rights, indigenous peoples and labour rights, in particular in the case of involuntary resettlement, potential for quality job creation and meaningful engagement with local communities and relevant social partners, and the use of transparent business practices with adequate compliance policies to prevent and minimise risks of adverse impacts on the proper functioning of public administration, including corruption and bribery;</p> <p>(d) for projects in the Union, the establishment, operation or production of the project would have cross-border benefits beyond the Member State concerned, including for downstream sectors;</p> <p>(e) for projects in third countries that are emerging markets or developing economies, the project would be mutually beneficial for the Union and the third country concerned by adding value in that third country.</p>
<p>Paragraph 5: A net-zero technology manufacturing project located in the Union that contributes to achieving the objectives set out in Article 1(1) and that benefits from the ETS Innovation Fund or is part of Important Projects of Common European Interest, of European Hydrogen Valleys or of the Hydrogen Bank, where the funds support investment in manufacturing capacities, shall be recognised by Member States as a net-zero strategic project under Article 14(3) upon the written request of the project promoter without the project promoter having to submit a formal application under Article 14(2).</p>	
<p style="text-align: center;">Comments :</p> <p>Transformative industrial technologies for decarbonisation may also fall under Article 3 par 1 (8).</p>	