



Answer to the European Consultation

Net Zero Industry Act (NZIA)

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Summary

The Net Zero Industry Act (NZIA) is a welcome and necessary response to the protectionist policies adopted by the major powers competing with the European Union, and in particular to the Inflation Reduction Act passed in the United States. Nevertheless, this text, which aims at supporting the location in the European Union of strategic value chains for decarbonisation, presents shortcomings.

No budget is identified to support the NZIA, compared to the \$370 billion the United States announced with the IRA. For the NZIA to be an effective response enabling the development and protection of the European industry, funds must be clearly identified to provide real incentives for industrial investment in the EU, as in the IRA, and to support the competitiveness of European industries through innovation.

There must be consistency in the treatment of nuclear power between Article 3 (partial inclusion) and the Annex (non-inclusion). In addition, nuclear energy should be fully included – not just SMRs and the 4th generation value chains. For all low-carbon energies that are expected to play a role in the decarbonisation of the Member States, it is in the interest of the EU to develop domestic know-how and value chains. In the specific case of nuclear energy, the acceleration of licensing procedures (Article 6) should however only apply to stages that are not dependent on national nuclear safety authorities, which may need longer examination periods.

The NZIA focuses too much on carbon capture and storage, given its low maturity and the uncertainties – particularly economic – surrounding its deployment. Conversely, the NZIA does not sufficiently support carbon capture and utilisation, even though the associated technologies are essential to produce synthetic hydrocarbons, which are necessary to achieve carbon neutrality.

R&D should be supported in the NZIA. Effective R&D is an essential basis for creating and maintaining competitive strategic value chains within the EU. Following the example of the EU Chips Act, the NZIA should include a technology infrastructure development pillar to accelerate, through public-private partnerships, the maturation and deployment of the net-zero technologies that the EU will need to meet its target of 40% of manufacturing output in the EU by 2030.

The issue of industrial skills in support of the NZIA would merit further attention, to ensure that it does not jeopardise the EU's industrial capacity building objectives.

Finally, the coherence of the digital and energy transitions should be formalised so that digital technologies are oriented and developed in Europe to support its decarbonised reindustrialisation.

The major powers competing with the European Union have been adopting protectionist measures for a long time, such as the Inflation Reduction Act (IRA) passed by the United States of America in 2022. Without a response from the European Union, these policies are increasingly threatening the European industry. They encourage relocation of industrial investments outside the EU and prevent the creation



of strategic value chains on the European soil, particularly for the equipment needed to achieve our climate objectives.

In this respect, the CEA supports and welcomes the European Commission's response, which aims at fostering the emergence in Europe of equipment production value chains for the technologies needed to decarbonise our economy. However, as it stands, the NZIA offers much weaker incentives for investment in the Union than those offered by the IRA in the United States. Through this consultation, the CEA would like to make a number of remarks and recommendations.

Budgetary aspects

The proposal for a NZIA presented by the European Commission does not contain any budgetary aspect. The IRA passed in 2022 in the US has a budget of \$370 billion over 10 years to fund climate and clean energy provisions in line with their greenhouse gas emission reduction commitments. To be a meaningful response to this text, **it is crucial that the NZIA includes budget lines** to support the value chains it identifies as strategic for European decarbonisation.

The NZIA's support to European industry should be both streamlined and sustained. The IRA's support to the US' industry is both simple in principle and lasting, which increases its impact. US industries know what they can expect and that this support is a long-term commitment.

Technologies in the NZIA

Technology neutrality should be the guiding principle of the NZIA in particular when choosing sectors and technologies covered by the text. In any case, the NZIA should aim at supporting or accompanying the strengthening of value chains with regard to their potential for decarbonisation in the short or medium term. The NZIA should also enable the preparation, via R&D, of future generations of technologies and new industrial sectors to be deployed after 2030.

Nuclear energy

The treatment of nuclear energy in the NZIA must be commensurate with its place in the European energy mix and its decarbonisation potential. Nuclear energy is both the leading low-carbon energy and the leading source of electricity in the European Union. Its role in decarbonisation – while obviously not unique – is therefore major.

The CEA calls for improving the internal consistency of the NZIA regarding the treatment of nuclear energy. It is indeed partially included in Article 3 but not in the annex listing the strategic technologies for achieving carbon neutrality. Article 3 and the NZIA Annex should therefore be aligned.

An exclusion or partial inclusion of nuclear power in the NZIA cannot be justified under any circumstances:

- The NZIA does not provide any guidance on the energy mix to be adopted by Member States. It focuses on the location of production of low-carbon energy equipment. Thus, it does not compel nor encourage a country that does not wish to use nuclear power to develop it;
- Whatever the low-carbon energy considered – whether solar photovoltaic, wind or nuclear energy – it is in the interest of the European Union to establish strategic value chains (R&D, intellectual property, industries, etc.) in Europe as much as possible. This is independent of the role envisaged for any particular energy source in the energy mix;
- As guardian of the Treaties, the Commission is committed by articles 1 and 2 of Euratom to support the development of nuclear energy, in particular by “creating the conditions necessary for the speedy establishment and growth of nuclear industries” (art. 1) and “facilitat[ing] investment and ensur[ing], particularly by encouraging ventures on the part of undertakings, the establishment of the basic installations necessary for the development of nuclear energy in the Community” (art. 2).

In the same way that the NZIA does not restrain the inclusion of solar PV to a limited set of its production technologies only, the CEA calls for nuclear energy to be fully included in the NZIA and not only technologies associated with SMR and 4th generation reactors. While these new technologies can play a role in European decarbonisation in the medium and long term respectively, only existing nuclear technologies can be developed in the short and medium term.

Regarding the acceleration of licensing procedures (Article 6), the time limits of 12 and 18 months should, in the case of nuclear energy, only concern stages that are not dependent on national nuclear safety authorities. Indeed, safety studies may require more time. These time limits should therefore apply to State-dependent permit procedures (building permits, environmental studies, appeals, etc.).

Carbon capture and use or storage

From the CEA's point of view, the NZIA focuses excessively on the role of carbon capture and storage (CCS) given its currently demonstrated potential. While this technology will be necessary to decarbonise some processes, the ability to develop it on a large scale – taking into account economic and geological constraints – has yet to be demonstrated. Moreover, CCS technologies entail a risk of stranded investments if new decarbonisation processes and technologies emerge, particularly in industry.

In this respect, it seems surprising that carbon capture and storage (not developed on an industrial scale) is considered a strategic technology under the Annex, when nuclear energy (the Union's leading low-carbon energy) is not qualified as such.

Conversely, the NZIA does not give sufficient importance to carbon capture and utilisation. These technologies will be essential to produce synthetic hydrocarbons in order to move away from fossil ones, whether they are used as raw materials or fuels.

Building research in the NZIA: technology infrastructure

The proposal for a NetZero Industry Act devotes a chapter to innovation, but it is limited to the creation of **“regulatory sandboxes” which exact function and scope are difficult to grasp.**

The CEA wishes to insist on the necessary articulation between research and innovation policy and industrial policy. In this respect, the NZIA lacks a technological and R&D component. The creation and development of low-carbon industries in the European Union cannot be dissociated from a strong support to research and development, both in the fields of new technologies and of new production processes for materials, components and equipment. The role of R&D must therefore be fully recognised and supported in the NZIA.

In order to achieve the 2030 targets set by the NZIA, the development of competitive industries in the European Union requires R&D efforts, in collaboration between research actors and the industry. In particular, **technology infrastructures** that accelerate the transfer from laboratories to production are crucial to industrial innovation capacities. The “EU chips Act” was designed in such a way. Its first pillar is dedicated to technological development, in particular by investing in “pilot lines” to support the development of new generation chips, and organising transnational access to these pilot lines and to design tools. This technological pillar is an integral part of the industrial strategy aiming at increasing the EU's share in the global semiconductor market to 20%.

The situation is the same for most of the net-zero industries as defined in the proposed regulation: these are sectors that require heavy development resources, for which a common European approach would be relevant, and around which innovation ecosystems are built between public and private players. It is this capacity for innovation that will enable Europe and its industries to withstand global competition.

Without such technology infrastructures in the EU, local companies may have to rely on non-European technologies (with the associated intellectual property rules) to develop their innovations and bringing them to industrial maturity more quickly.

The CEA therefore recommends an initial phase of support from the Commission, via the Horizon Europe programme, for each of the net-zero technologies, consisting of:

- A precise mapping of the existing technological infrastructures within the EU in each field;
- An identification of investment needs for the renovation of existing infrastructures or new technological infrastructures necessary for the EU's industrial objectives.

This work could be entrusted to the Horizon Europe public-private partnerships, when they exist for the net-zero technologies concerned (hydrogen, batteries, etc.).

On this basis, a dedicated programme of investment support and transnational access to technology infrastructures for EU companies and laboratories could be set up by the EU to accelerate the industrial development of European technologies and to achieve the objective of an EU manufacturing capacity covering at least 40% of deployment needs.

The skills issue

The issue of skills is central to reinforcing the industrial sector in Europe. It concerns top skills (specialist or even expert profiles) but also of all the skills needed to build and operate industries (workers, technicians, etc.).



Strengthening human resources in industry will take time and requires attracting young people back to the industry. This challenge should not be underestimated and needs to be addressed upstream, as a labour shortage – in quantity or in skill level – is likely to jeopardise the strengthening of European industrial value chains.

Complementarities with other strategic regulations

The NZIA mentions the need to take into account other strategic regulations such as the CRMA, but barely considers the articulation and coherence with them, particularly with the digital transition. **The environmental, energy and digital transitions are closely linked and must complement each other.**

However, these transitions can generate apparently antinomic impacts, particularly with the increase in digital uses and the relocation of production and therefore environmental impacts. **Digital technologies are likely to have an increasing direct carbon impact, but they do contribute to an effective energy and industrial decarbonation.** Digital technologies must therefore be clearly identified as contributing to the NZIA, provided that their contribution is managed in Europe in low-carbon energy countries, with strict control of environmental standards, and on the basis of frugal technologies.

Europe must regain control of the production and operation centres of the main activities in the digital chain (in relation to the Chips Act, but also production of screens, data centres, cloud computing, and equipment reconditioning), right down to the critical materials whose extraction and recycling outside Europe are far from meeting European environmental standards.