

# CONSULTATION RESPONSE

June 2023

## Bellona Europa Position On Net Zero Industry Act



# BELLONA EUROPA POSITION ON NET ZERO INDUSTRY ACT

## INTRODUCTION

Bellona Europa welcomes the European Commission's proposal for a Net Zero Industry Act (NZIA) and its aim to support deployment of climate relevant technologies to reach Net-Zero in the EU by 2050. With the inclusion of faster permitting of the proposed net-zero technologies, the act aims to keep up with climate relevant timelines. The proposed regulation further supports the European Just Transition agenda with a particular focus on skills and the creation of quality sustainable jobs for a net-zero future. One area of concern, however, is that the regulation presents a risk of blanket support for technologies that would require a more robust regulatory framework, in particular as described in this consultation response when it comes to conditionality on the inclusion of electrolysers.

## BELLONA EUROPA RECOMMENDATIONS FOR THE NET-ZERO INDUSTRY ACT:

- *Keep exclusion of Enhanced Hydrocarbon Recovery (EHR) within storage injection capacity target.*
- *Update storage injection capacity target every 5 years in line with EU climate ambition and expected supply of CO<sub>2</sub>.*
- *Update reports mentioned in article 17.1 every 5 years in line with NECPs to have current data on storage site availability.*
- *Add to reports mentioned in article 17.2, plans for multimodal transport options connecting storage sites to emitters as well as contributions to an EU-wide transport network for CO<sub>2</sub>.*
- *The Net-Zero Europe platform must work to ensure EU-wide development of storage sites and increase collaboration among member states on the topic of CCS.*
- *Provide greater clarity in terms of pricing of storage sites. To this end, the text must make provisions for transparency to avoid monopolistic tendencies.*
- *Provide a supporting text on CO<sub>2</sub> market regulation with a focus on transportation drawn up by 2025 to close the missing link in the CCS value chain.*

- *Explicitly add clarifications on how failure to meet targets on the part of oil and gas producers will be penalised.*
- *Conduct an impact assessment by 2025 on challenges and opportunities on inclusion of oil and gas imports to future storage injection capacity targets.*
- *Include an explicit mention of emission reductions when referring to the environmental sustainability and resilience award criteria in public tenders.*
- *Increase the weight of the environmental sustainability criteria to a minimum of 25%, with no upper limit, to utilise public procurement as a tool for decarbonisation.*
- *Include embodied carbon within the sustainability criteria so as to promote the uptake of low-carbon materials to the market.*
- *Ensure that the inclusion of electrolysers includes conditionality; additional renewables with temporal and geographic correlation is necessary for their operation and contribution to climate action.*

## 1. CARBON CAPTURE AND STORAGE

The proposed act highlights different technologies to strengthen Europe's net-zero technology products manufacturing ecosystem, one of particular interest being Carbon Capture and Storage (CCS). Since its inception, Bellona Europa has advocated for the key role of CCS in industrial decarbonisation, in line with findings from the IPCC, highlighting the significant role CCS plays in modelled climate pathways to limit warming to 1.5°C and 2°C.

The NZIA aims to address bottlenecks of CCS development via three articles. The first (Article 16) sets an annual target of 50 Mtpa of storage injection capacity to be achieved by 2030. The storage sites must be located in the territory of the European Union, its exclusive economic zones or on its continental shelf. Understanding this as excluding Norway and Iceland is further supported by recital (14), setting out the need to adjust this target accordingly following incorporation of the Regulation into the EEA. The wording within the text must explicitly mention the upwards revision of targets if the EEA region is included. This is of crucial importance, as an injection capacity target including Norway and Iceland would need to be substantially higher to remain ambitious and in line with expected need for storage – as further elaborated on in sections below.

This injection capacity target for CO<sub>2</sub> sends a strong signal to the market on the importance of CCS deployment to facilitate industrial decarbonisation and the EU's commitment and real action to reach this aim. This is crucial to de-risk investments in CCS, as uncertainty concerning the future role of the technology and the development of a European market has been the result of unclear political signalling in the past. This perceived uncertainty has indeed been a strong barrier for deployment of CCS projects, and Bellona Europa therefore strongly welcomes the suggested article 16, and commends the European Commission for its foresight and action. **It is important to note that the act does not include enhanced hydrocarbon recovery (EHR). Bellona Europa fully supports this wording in Article 16.** This is crucial in ensuring climate benefits of permanent storage is not affected by additional fossil fuel extraction and use. It is our strong recommendation that the important wording excluding enhanced hydrocarbon recovery stays in the Regulation throughout the legislative process.

The storage injection capacity target cannot be seen in a vacuum, as its contribution to emission reduction hinges on actual stored CO<sub>2</sub> from emitters across Europe. It is therefore crucial that the development of storage injection capacity clearly outlines planned connection to a European CO<sub>2</sub> transport network, here using both fixed and flexible transport modes depending on feasibility and cost-effectiveness. There is a strong need to ensure open access or third-party access to the storage sites, either through pipelines connected to hubs and clusters of emitters, or through ports accessible for ships of different dimensions and capacities. This will also be crucial to ensure market competitiveness does not fall into the trap of either monopolistic or cartel tendencies.

Industrial emitters that opt to capture their emissions for permanent storage must be able to have streamlined access to information regarding storage sites. Connecting emitters to storage sites is the crux of cross border cooperation. Supporting infrastructure is crucial to complete the CCS value chain. **Thus, there needs to be a supporting act on regulations for such a market, focused on transportation of CO<sub>2</sub>.** Such a supporting act should be released at a timeline coherent with the NZIA, and thus needs to be out by end of 2024.

The second Article (Article 17), concerning transparency of CO<sub>2</sub> storage capacity data, is of crucial importance in estimating and planning for a net-zero future where CCS reduces emissions that are difficult to tackle through other means. This would align with ongoing efforts in the European Commission's CCUS Forum, focusing on the establishment of a CO<sub>2</sub> Storage Atlas. Through 2 sets of reports under Article 17, one outlining available storage capacity in the Member State and one annual report outlining progress and potential support in development of storage injection capacity, the Commission increases the likelihood of support in reaching the set target of injection capacity in Article 16. It also fosters cooperation and vital information-sharing between Member States. While Bellona Europa welcomes Article 17, we recommend that the report outlining storage capacity (Article 17.1(a)) is not only foreseen as a one-time report 3 months following the entry into force of this regulation. Subsequent iterations would ensure sharing of any potential changes to available storage sites, resulting for example from decommissioned production sites, as well as changes to requested information as part of the NECPs. **We also strongly recommend that additional points are added to the report described under Article 17.2, focusing on the accessibility of the storage site, its contribution to a European CO<sub>2</sub> network and future opportunities for expansion.** These points are further outlined below.

The third Article (Article 18) places the responsibility on oil and gas producers (here referred to as entities holding an authorisation under Directive 94/22/EC) to develop the annual 50 Mtpa storage injection capacity available to the market by 2030. Bellona Europa welcomes the wording in the article: this is an appropriate allocation of responsibility, as these entities have not only contributed significantly to climate change under current and historic forms of operation, but also possess the know-how necessary for the development of storage sites. The firm responsibility placed on these entities, shares the burden of combatting climate change. It also puts pressure on several such entities to deliver on already publicly made promises to develop CO<sub>2</sub> injection capacity for storage.

## 1.1. BELLONA EUROPA'S REVIEW OF INJECTION CAPACITY TARGET AND THE NZIA'S CONTRIBUTION TO A EUROPEAN CO<sub>2</sub> NETWORK

- *Keep exclusion of Enhanced Hydrocarbon Recovery (EHR) within storage injection capacity target.*
- *Update storage injection capacity target every 5 years in line with EU climate ambition and expected supply of CO<sub>2</sub>.*
- *Update reports mentioned in article 17.1 every 5 years in line with NECPs to have current data on storage site availability.*
- *Add to reports mentioned in article 17.2 plans for multimodal transport options connecting storage sites to emitters as well as contributions to an EU wide transport network for CO<sub>2</sub>.*
- *The Net-Zero Europe platform must work to ensure EU-wide development of storage sites and increase collaboration among member states on the topic of CCS.*

As highlighted by Bellona Europa's work since its start in Brussels in 1996, CCS is not a silver bullet solution but plays a significant role in helping the EU industry get to net-zero. The current suggested target of 50 Mtpa for 2030 covers less than 10% of the Commission's estimate for needed permanent geological storage injection capacity by 2050.

It is crucial that the injection capacity target reflects the expected and necessary levels of captured CO<sub>2</sub> from industrial emitters to be supplied to storage sites, to reach net-zero by 2050. Heavy and energy intensive industrial emitters, as outlined below, are reliant on decarbonising via CCS for their process emissions in particular, as no other options are available. For example, the cement sector alone accounts for 4% of EU emissions and relies greatly on CCS to tackle its process emissions which are currently around 2.4% of EU emissions (65 Mtpa). **Considering the volume available for the 2030 timeline from emitters, the storage injection target cannot be below 50 Mtpa.** Considering the volume of emissions and tight climate timelines, Bellona Europa would strongly support an increase of the target, and of crucial importance is a mechanism adjusting the target upward in the future, also after 2030 once the target has been set, as highlighted below.

Bellona Europa welcomes the focus of the target on injection capacity as opposed to a wording on "CO<sub>2</sub> storage target", because it indicates the operational value and usability of the storage site rather than just its magnitude. We find it necessary though, to strengthen the legal text's wording on this point to also take into consideration not only the existence of ready-for-market CO<sub>2</sub> injection capacity, but also take into account the storage sites' accessibility. This will be particularly important in ensuring a cohesive approach to European industrial decarbonisation, not only centralised in Western and Northern Europe. **We therefore strongly recommend that wording on the storage sites in question's connectivity to emitters in harder-to-abate sectors, is included as part of the annual report to be submitted under Article 17 a-c. Likewise, plans for expansion and future connection opportunities to wider parts of a European CO<sub>2</sub> network should be outlined as future phases for expansion.** This would also necessitate updated wording on the need to ensure accessibility to the storage sites for emitters, linking to the ongoing work of the CCUS Forum and the work to ensure a coordinated approach when developing a European CO<sub>2</sub> Network. In general, the importance of CO<sub>2</sub> transport via other modalities than pipeline is underestimated throughout

EU legislation, it is crucial that the NZIA takes into consideration the important role of such transport modes. Given the ongoing efforts, and Bellona Europa's repeated call for a Regulation setting out the main principles safeguarding and regulating a European CO<sub>2</sub> market – with a particular focus on transport as highlighted by the EnTEC report.

The dispersed nature of available storage in the EU enables some member states to have the opportunity to develop sites while others cannot. This, coupled with the option under DIRECTIVE 2009/31/EC for member states to opt out of storage within their borders, increases asymmetry. To build up a CCS value chain that delivers on climate ambition, there needs to be a cohesive EU-wide development of storage capacity. In addition, the maturity of storage sites or oil and gas company capacity may vary across the member states. **Thus, support needs to be proportional across member states and should facilitate cross border cooperation.** The majority of storage developments will be concentrated in the North Sea due to offshore availability. Storage sites should also be available across Europe, to ensure strategic build-up of an EU-wide CCS value chain. There is scope to ensure cohesive information exchange, with member states outlining the storage capacity available, inclusion of CCS in their NECPs as well as the CCUS Forum's proposed "storage atlas".

Given the cross-border nature of CCS value chains, a key bottleneck is the lack of sharing of knowledge on storage site availability among member states and collaboration on connecting emitters to storage sites that are across borders. The Commission needs to address this open point, facilitate member state collaboration on a technical level as well to ensure and EU wide build-up of the CCS value chain. This could be facilitated via the Net Zero Europe Platform by establishing discussions that complement the technical competencies required to address the issue.

Although the unit of injection capacity- million tons per annum- suggests an extended obligation, the text is unclear on how targets are set post 2030. It is Bellona Europa's strong recommendation that a report estimating appropriate future targets for CO<sub>2</sub> injection capacity be delivered using the information from reports submitted by member states on relevant capture and storage projects mentioned in article 17.2. This would allow for a clear and timely revision of new binding targets, set every 5 years following 2030. **The report should also contain a clear trajectory for timely revisions of the target following 2030, a system for such an approach should be included in the aforementioned report – to be finalised before 2025.**

## 1.2. ENSURING A WELL-FUNCTIONING MARKET, AVOIDING MONOPOLISTIC TENDENCIES

- *Provide greater clarity in terms of pricing of storage sites. To this end, the text must make provisions for transparency to avoid monopolistic tendencies.*
- *Provide a supporting text on CO<sub>2</sub> market regulation with a focus on transportation drawn up by 2025 to close the missing link in the CCS value chain.*

Bellona Europa strongly supports the responsibility put on O&G producers to develop the CO<sub>2</sub> injection capacity for the 50 Mtpa target by 2030. Given the large role foreseen by oil and gas

producers in developing storage sites in a burgeoning market facing several barriers for further development, we find it all the more important to ensure such a market does not become overly influenced by monopolistic tendencies or even cartels. **For a well-functioning market for CO2 transport and storage, there must be transparency on prices, competition among operators and continued innovative practices.** Costs of development of storage sites need to be made transparent so appropriate tariffs are set avoiding monopolistic tendencies. Of crucial importance is the open access to infrastructure in such a network, and the same must be the case for any projects developed under the NZIA. A lack of open access, in effect a lack of competition, would result in unfair price setting negatively influencing the market's development, potentially setting Europe back decades in the fight against climate change and for industrial decarbonisation – an opportunity cost we simply cannot afford.

Bellona Europa strongly support the efforts by the European Commission through the consortium led by Fraunhofer Institute for Systems and Innovation Research ISI with Trinomics contributions, to look into regulatory issues including: "solutions for third party access, tariff setting, infrastructure planning and regulatory oversight in general" as well as analyses of business models as regards transport and storage services, here also including "knowledge into the "market" prices of the different pieces of transport and storage infrastructure".

We see the main challenges here highlighted as potential barriers to a well-functioning market for CO2 transport and storage, to be well addressed through the EnTEC report. However, the timeline would need to be accelerated in light of the NZIA and the 50 Mtpa target by 2030. We have therefore suggested new wording in Article 17, setting out a timeline for an CO2 infrastructure and market regulation dealing in particular with: (1) third-party access/open access infrastructure, (2) market price setting and transparency, (3) tariff setting, (4) infrastructure planning, regulatory oversight and governance, to be finalised by 2025.

### 1.3. COMPLIANCE WITH CO2 INJECTION CAPACITY TARGETS

- *Explicitly add clarifications on how failure to meet targets on the part of oil and gas producers will be penalised.*
- *Conduct an impact assessment by 2025 on challenges and opportunities on inclusion of oil and gas imports to future storage injection capacity targets.*

There needs to be greater clarity on mechanisms that would ensure or take care of cases where oil and gas producers do not meet their targets. In order for an obligation to hold true, the act must elaborate on measures taken upon failure to comply with targets. These measures should be able to account for any delays and overruns in the development of storage sites while ensuring these sites are operational in a timely manner. **The realisation of penalty would have to be financial; a sum larger than the cost of build-up of storage site or remaining costs to reach operational status, to avoid perverse incentives for inaction.** The revenue from such penalties would then be channelled for CO2 infrastructure projects.

The Net Zero Industry Act currently refers to the CO2 storage directive in terms of monitoring and

reporting which is welcome as it sets a high standard. Currently, it rests solely on the operator of the storage site to monitor and report on various aspects of the storage site (including the quantities and properties of the CO<sub>2</sub> streams delivered and injected, including composition of those streams). A competent authority from the member state level is in charge of carrying out inspections of said storage site at a minimum time period of once a year. This is important as governance of storage sites cannot reside with oil and gas producers entirely.

A great portion of oil and gas consumed within the EU is comprised of imports. The restricted imports from Russia have not meant that share of domestic production has overtaken imports. This has been highlighted by some stating that the responsibility placed on domestic producers is disproportionate to the suppliers of the same feedstock to the EU. The inclusion of imports under the current proposal is a complex matter, **and we therefore suggest the European Commission conducts an impact assessment on challenges and opportunities for how to include imports in future injection capacity targets, to be finalised by 2025.**

## 2. GREEN PUBLIC PROCUREMENT (GPP)/EMBODIED CARBON

- *An explicit mention of emission reduction should be included when referring to the environmental sustainability and resilience award criteria in public tenders.*
- *The weight of the environmental sustainability criteria should be increased to a minimum of 25%, with no upper limit, to utilise public procurement as a tool for decarbonisation.*
- *Include embodied carbon within the sustainability criteria to promote the uptake of low-carbon materials to the market.*

Today, public procurement makes up approximately 14% of the EU's GDP and contributes about 15% of global greenhouse gas (GHG) emissions. However, public procurement remains an underutilised tool for the decarbonisation of industry.

Recent studies point out weaknesses of procurement practice(s) in Europe today, of which the following are consistently highlighted:

- Mostly voluntary criteria and varying levels of implementation.
- Fragmentation of green public procurement (GPP) policies, approaches, oversight, and responsibilities.
- Lack of resources and (comparable) data.

Bellona Europa welcomes the GPP provisions in the Net-Zero Industry Act proposal, where the European Commission sets out to remedy some of these weaknesses in order to create lead markets for net-zero technologies. However, there are elements that need to be amended to address loopholes that go against the aim of the Act. The text does not propose a definition of "environmental sustainability" and does not mention "**emission reduction**". As it stands the text fails to recognise that not all net-zero technologies listed have the same contribution to emission reduction to reach climate neutrality by 2050– which should not be forgotten as the driver of the ultimate objective of the Act.

The text on Article 19 (2) should be amended to include an explicit mention to “emission reduction”. A definition of “environmental sustainability” should be added to Article 3, and such a definition must include emission reduction as a crucial element.

We also find that Article 19 (2) does not provide enough solid criteria to be able to properly assess the sustainability and resilience contribution of a tender and rank the bids (as stated in Article 20 (1)). Additionally Article 21 (1) states that it is up to any contracting authority to design the schemes, there is a risk of missing the objective of Chapter IV, “help public authorities create and maintain a stable public demand for net-zero technologies”. This highlights three needs:

- Firstly, **the need for a strong Article 19 (2) that outlines the criteria that should be used**, or, in its absence, the need for the Commission to suggest Expert Groups that set the specific criteria (while bearing in mind the need for a speedy process).
- Secondly, the need for the Net-Zero Europe Platform to assist contracting authorities on the implementation of emission reduction criteria in public tenders in an efficient way.
- And lastly, it brings to light the need for a recast of a Public Procurement Directive, to be able to provide safeguards and avoid loopholes that prevent us from reaching the EU’s decarbonisation and competitiveness goals and utilise public procurement as a decarbonisation tool.

In Article 19 (3), the sustainability and resilience contribution of a tender is given a weight between 15% and 30% of the award criteria (with contracting authorities having the possibility of increasing this should they wish to). Although this is a step in the right direction, **Bellona Europa considers that awarding a weight of 15% to the sustainability and resilience criteria of public tenders would be insufficient to enable market access at the needed speed to both decarbonise and scale net-zero technologies, and therefore suggests that the lower limit is increased to 25%**. There are clear examples of public tenders that include environmental criteria with higher thresholds (such as those in zero-emission construction sites projects) that have proven to have competitive costs and emissions reduction. As to the upper value, Bellona Europa strongly recommends that its mention is removed, as it is made obsolete by Recital 32, which acknowledges the right of contracting authorities to set a higher threshold for environmental sustainability criteria should they wish to do so. It is also explicitly mentioned in Article 19 (1) that the contract shall be granted to the most economically advantageous tender, thus also removing the need to have an upper threshold.

Moreover, such weighting should be complemented by specific criteria and/or targets for lower-carbon alternatives, such as lower-carbon cement or steel. This sends a clearer market signal, which is necessary to drive the decarbonisation options in these industries. **Since the deployment of the net-zero technologies that the NZIA covers depends on the use of materials such as cement or steel, the issue of the material procurement should be explicitly mentioned in the test.** When considering the contribution of the construction products industry to global emissions (15% between cement and steel alone), it becomes obvious that failing to include an explicit incentive to promote the uptake of low-carbon materials through green public procurement is a missed opportunity.

### 3. ELECTROLYSERS AND HYDROGEN PRODUCTION

- *Ensure that the inclusion of electrolyzers includes conditionality; additional renewables with temporal and geographic correlation is necessary for their operation and contribution to climate action.*

Electrolysers for hydrogen production are net zero technologies only if the electricity used comes from additional renewable sources. In many cases, production and use of electrolytic hydrogen not sourced renewably and efficiently used in relevant sectors, will result in net-increases of emissions. The NZIA currently contains no conditionality that hydrogen produced via electrolysers needs to be sourced via additional renewable sources. This risks an increase in emissions by incentivising production using grid electricity, which inevitably results in an increase of fossil-based power production. If an electrolyser runs on coal-fired electricity its associated carbon emissions can be 70 times higher compared to hydrogen coming from wind power.

Moreover, the NZIA does not form any conditionality for the use of hydrogen produced by such electrolysers. Only targeted use of hydrogen would ensure efficient use of available renewable electricity. This is key as renewables will remain a scarce resource for the foreseeable future, and thus should be used in the most efficient way to abate current emissions. For example, using hydrogen for home heating, has proven to be far less efficient than the option of direct electrification. Heat pumps displace four times as many emissions compared to renewable hydrogen when using the same amount of electricity.

Finally, hydrogen is already supported by ample number of policy files and instruments; the target set out in the Renewable Energy Directive, RefuelEU aviation, FuelEU Maritime and the subsidies via the Hydrogen Bank. Therefore, it already receives a favourable treatment compared to other technologies and does not need further unchecked support to allow its massive deployment.

**The NZIA must include conditionality for electrolyzers; additional renewables with geographic and temporal correlation are necessary for electrolyzers to be included in the list of net zero technologies. The hydrogen produced under these conditions must not be wasted on uses within particular sectors such as home heating, blending, road transport and power generation.**

## 4. SKILLS AND JUST TRANSITION

The Act aims to ensure the availability of a skilled workforce for the clean energy transition, and thus proposes to set-up specialised Net-Zero Industry Academies. Together with Member States, industry, social partners and other stakeholders, training courses to reskill and upskill workers will be designed. This focus on skills in the Net-Zero Industry Act is not only crucial to strengthening production of key net-zero technology products in Europe, it is also crucial for Europe's Just Transition, a vital piece of the puzzle to reach the set climate targets and in the fight against climate change.

Bellona Europa welcomes the NZIA's strong focus on a Just transition through reskilling and upskilling, as well as job creation in net-zero technologies. This will not only create quality, long-term sustainable employment in Europe for a net-zero future, but also support the existing largely welfare-bearing jobs

in the industry sector ensuring that the transition toward climate neutrality is done in a socially just way. This is crucial for the support and the success of the green transition. The Act is foreseen to complement the already existing agenda on a Just transition from the Commission, including but not limited to the EU Pact for Skills and the European Skills agenda.

The proposed Net-Zero Europe Platform will support the establishment of the aforementioned Academies, the mobility of skilled workers and the matching of skills and jobs.

## 5. GOVERNANCE OF THE NET-ZERO EUROPE PLATFORM

While Bellona Europa welcomes the establishment of the Net-Zero Europe Platform as a positive added value to the Regulation, it mostly excludes civil society representation and coordination. The Platform is composed by representatives from the Member States and the Commission (art. 29.1), and it can receive technical and logistical support by the Commission itself, with an executive secretariat (art. 29.5). There is no specific timeline regarding the frequency of the meeting of the Platform, and the Parliament can be involved in its work only via invitation. If invited, the Parliament will have an observer role or as a member of the sub-groups that may be established (art. 29.7). Civil society is never mentioned explicitly in the regulation although it is stated that “[w]here appropriate, the Platform or the Commission may invite experts and other third parties to Platform and sub-group meetings or to provide written contributions.” (art. 29.8). Bellona therefore asks that equitable representation is guaranteed between the different stakeholders to ensure that all relevant positions are taken into account.

About Bellona



### CONTACT

**Aravind Dhakshinamoorthy**  
Policy Analyst

#### Phone

Mobile: +32 (0)486 139 840

#### Online

Email: [aravind@bellona.org](mailto:aravind@bellona.org)

Website: [www.bellona.org](http://www.bellona.org)

Bellona Europa is an independent, non-profit organisation that meets environmental and climate challenges head-on. We are result-oriented and have a comprehensive and cross-sectoral approach to assess the economics, climate impacts and technical feasibility of necessary climate solutions. To do this, we work with civil society, academia, governments and polluting industries.

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