

The Net Zero Industry Act: an opportunity to enhance the resilience of the EU industry

FuelsEurope recommendations and proposed amendments

Brussels, 13 June 2023: FuelsEurope welcomes the Net Zero Industry Act (NZIA) in its aim of promoting the ramp-up of critical technologies and their deployment to help EU decarbonization objectives, as well as its focus on industrial investments and competitiveness. **This legislative proposal shows a renewed attention towards energy security, providing a possible response to new global challenges. With this perspective, we aim at contributing to this debate by sharing our views on how promoting the deployment of renewable and low-carbon technologies would help the resilience of the EU industry, which is currently facing a growing and dangerous trend of de-industrialization.**

Supporting private investments in energy transition while safeguarding energy security

Implementing the European Green Deal is pivotal, and the NZIA should be instrumental for the improvement of the whole European industry's competitiveness towards its global competitors. Simultaneously, EU legislation should provide stability and long-term signals to guide investors, along with safeguarding a secure and affordable energy supply. The supply and deployment of crucial technologies is of central importance for EU decarbonisation and - while ensuring imports are part of the solution - **a new industrial strategy should support the development of value chains within the EU** while taking into account the global dimension of said value chains and the related interlinkages (e.g., for waste & residues, new feedstock value chains, etc).

This is why, to enhance investments, we call on legislators to consider the following:

- **Keep a technology-open approach to foster investment opportunities for decarbonisation**
 - Whereas the act is envisaging an integrated method for the deployment of selected technologies, regulatory authorities should be open to consider a broader set of technologies based on their emissions' abatement potential;
 - To stimulate the needed investments for the transition of the entire economy towards net zero, the focus should be **extended to all low-carbon and renewable energy sources**, industrial operations as well as the decarbonization of transport. Scaling up all relevant technologies along the value chains, covering both demand and supply sides would enable the transition, while infrastructures would also be vital to create a solid EU critical value chain.
- **EU's investment potential should be unlocked to support/achieve the energy transition**
 - Unequivocal market signals and sufficiently available public funding would help industry preserve its competitiveness while helping achieve the EU climate goals;
 - Simplifying access to EU funding would give investors further confidence, enabling the EU to transition faster. This why we ask that EU funds -currently defined by a complex regulatory framework – would be further simplified to unlock their potential.
- **Provide adequate export mechanism such as an export adjustment**
 - In the absence of an effective global carbon pricing system, having ambitious decarbonization targets for EU industry can represent a competitive disadvantage that may be detrimental for the reduction of GHG emissions globally (i.e., carbon leakage risk) this danger should be addressed through adequate mechanisms for both imports and exports, as export competitiveness is critical for the resilience of the EU industry. CBAM missed this opportunity, which would have been essential to preserve the competitiveness of EU producers of globally traded products. We recommend EU legislators to cooperate with relevant trade partners with the aim of adapting the current WTO rules to become applicable to the new challenges of the energy transition.

A value chain focus: strategic technologies scope & definition shall include their deployment

Considering the defined selection criteria, we find **questionable the exclusion of technologies related to the manufacturing of sustainable alternative fuels, Carbon capture and Usage (CCU) and renewable fuels of non-biological origin from the Annex on Strategic Net-Zero Technologies¹**. In alignment with the Fit-for-55 package and RePowerEU communication, these technologies -and their deployment - should also be prioritised, for an efficient decarbonisation of transport and other economic sectors, while enhancing the EU's security of supply and its leadership in low and zero-carbon technologies.

Sustainable alternative fuels technologies: a strategic opportunity for decarbonisation

FuelsEurope welcomes the inclusion of sustainable alternative fuels in the list of “net-zero technologies”, and asks for a definition of “sustainable alternative fuel technologies” extended to all RED-compliant fuel technologies². Specifically, such inclusion should **not be limited to technologies for SAF and bunker fuels** (shipping), as suggested by footnote 67. Whilst we understand the focus on these two hard-to-abate sectors, there are two practical reasons that require broadening this to more types of fuels:

1. *Fuels production typically yields a range of different products.* For example, producing SAF will also result in the production of renewable (pursuant to RED II) and low-carbon fuels for road transport and chemical products. Including these fuels is key to leveraging the benefits and synergies with other transportation sectors, allowing to exploit of the full potential of these technologies for a net-zero transport future;
2. *The focus of NZIA is on technologies.* Fuels production processes (e.g., HEFA unit to produce SAF and other fuels) can work with a range of different feedstocks. Adding operational constraints -around the use of certain technologies cannot be practically applied in the context of legislation that only focuses on technology manufacturing.

Considering the production of all renewable and low carbon fuels (e.g., drop-in biofuels, synthetic climate-neutral gaseous fuels, synthetic and renewable methanol, petrol, diesel, aviation and maritime fuels) and related technologies as strategic would help the EU meet its Green Deal targets, while strengthening its energy security. In addition to that, pushing for the deployment of these fuels would require an explicit reference to research and development of production processes and technologies linked with the upgrading and/or conversion of biomass wastes and residues (e.g., recyclable part of the Municipal Solid Waste), including but not limited to enzymatic or cellulosic, Fischer-Tropsch, Gasification, Pyrolysis technologies and hydrothermal liquefaction (HTL).

Carbon Capture Storage (CCS) and Carbon Capture and Use (CCU): a pragmatic approach

We praise that also the NZIA, in recognition of the value of CCS, added this technology among the ‘strategic net zero technologies’, as an essential enabler for industrial and sectorial (e.g., on-board ship CCS) decarbonisation. Its carbon abatement potential when combining CCS solutions with biomass feedstocks in bioenergy (BECCS), which may lead to negative emissions³, which is more than needed to achieve climate neutrality that is otherwise impossible target through the accumulation of positive emissions pathways, even at the lowest levels.

It should be noted that the US Inflation reduction act is proposing several rewarding provisions – such as tax rebate - to deploy technologies considered critical for decarbonisation, such as CCS; this has been established

¹ <https://www.ieabioenergy.com/wp-content/uploads/2020/11/Production-Technologies-and-Costs.pdf>

² [Sustainable biomass availability in the EU, to 2050 Publications - FuelsEurope](#), the report is aiming at providing an estimation of the sustainable biomass potential availability in the EU and UK by 2030 & 2050, giving also an evaluation of the advanced biofuel potential. The work covers only EU27 & UK feedstocks of agricultural, forest and waste origin included in Annex IX of RED II (Part A & B). Food and feed crops, and other sustainable feedstocks accepted by RED but not included in Annex IX, are not included in this study.

³ [Refinery-Technology.pdf \(concaawe.eu\)](#)

by providing targeted incentives for both industrial CO₂ capture and direct air capture, including provision related to CO₂ transport and storage infrastructure⁴.

On the other hand, for what relates to the mandate for CCS, FuelsEurope considers that **only a system based on incentives will be able to create a fully functioning CO₂ market**. However, the current proposal lacks a market-based and value-chain approach. It risks discouraging investments or result in upward costs instead of encouraging investments in net-zero technologies and improving the competitiveness of the EU. To create such a market, the NZIA should tackle the whole CO₂ value chain (including transport and storage infrastructures), and be able to promote investments via targeted incentives (e.g., measures supporting demand). In this context, Member States would play a decisive role in allowing CCS deployment (e.g., authorizing storage sites), helping to underpin investment in sufficient CO₂ capture via boosting demand and enabling the CCS value chains to be developed, reducing stranded asset risk.

We finally ask for the extension of the definition of CCS technologies to include CO₂ capture and CO₂ infrastructure projects, as only coordinated investment planning along the value chain - from emissions sources to emissions sinks - will enable a profitable CO₂ market.

FuelsEurope final recommendations

We believe that the fuel manufacturing industry is a central contributor to the EU energy and climate transition and the NZIA would be an opportunity to create the enabling regulatory framework to support the European industries' transformation. We ask for EU regulators' support through a strategic approach across policies to defend the competitiveness of our industry and maximize our contribution to the energy transition. This is why, in order to enhance investments in the energy transition, we call for the NZIA to set up the following measures:

- **Establish a framework which supports and incentivises private investments for the deployment of renewable, low or zero-carbon technologies & products along the whole value chain;**
- **Promote the conversions/repurposing/upgrading of existing refinery assets for the production of low-emission fuels/energy; therefore, enlarging the scope of the act, keeping a technology-open approach, allowing all technologies with GHG abatement potential to be scaled up:**
 - **Include renewable & low-carbon fuels as defined in the RED as well as a wider range of renewable and low-carbon liquid fuels production technologies;**
 - **Explicitly refer to the research and development for the production processes for upgrading/conversion of biomass wastes and residues including - among others - enzymatic/cellulosic, Fischer-Tropsch, Gasification and Pyrolysis technologies;**
 - **Include CCU, along with measures to create an efficient CO₂ market in support of the development of CCS.**

The European Fuels Manufacturers industry has proven to be a reliable energy supplier to EU businesses and citizens, particularly in the unprecedented crisis of the pandemic and of the war at our doorstep. The geopolitical landscape has dramatically changed and has highlighted the need of a **competitive EU industry supplying affordable and reliable energy throughout the transition to a net-zero economy**.

⁴ [FACT SHEET: President Biden to Catalyze Global Climate Action through the Major Economies Forum on Energy and Climate | The White House](#)

ANNEX I: FuelsEurope proposed amendments to the Net-Zero Industry Act
1. Art. 3(1) – Supporting the promotion of sustainable fuels

Commission Proposal	FuelsEurope’s Amendment
<p>‘net-zero technologies’ means renewable energy technologies⁶⁶; electricity and heat storage technologies; heat pumps; grid technologies; renewable fuels of non-biological origin technologies; sustainable alternative fuels technologies⁶⁷; electrolysers and fuel cells; advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle, small modular reactors, and related best-in-class fuels; carbon capture, utilisation, and storage technologies; and energy-system related energy efficiency technologies. They refer to the final products, specific components and specific machinery primarily used for the production of those products. They shall have reached a technology readiness level of at least 8.</p>	<p>‘net-zero technologies’ means renewable energy technologies⁶⁶; electricity and heat storage technologies; heat pumps; grid technologies; renewable fuels of non-biological origin technologies; all sustainable alternative fuels technologies⁶⁷; electrolysers and fuel cells; advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle, small modular reactors, and related best-in-class fuels; carbon capture, utilisation, and storage technologies; and energy-system related energy efficiency technologies. They refer to the final products, specific components and specific machinery primarily used for the production of those products. They shall have reached a technology readiness level of at least 8.</p>
<p style="text-align: center;"><i>Justification</i></p> <p><i>The inclusion of sustainable alternative fuels technologies as part of ‘Net Zero technologies’ should not be limited to technologies for SAF and bunker fuels (shipping), as suggested by footnote 67. Broadening this to all fuels pursuant to RED II is required as:</i></p> <ul style="list-style-type: none"> • <i>Fuels production typically yields a range of different products. For example, producing SAF will also result in the production of renewable and low-carbon fuels for road transport and chemical products. Including these fuels is key to leverage the benefits and synergies with other transportation sectors, allowing to exploit the full potential of these technologies for a net-zero transport future;</i> • <i>The focus of NZIA is on technologies. Fuels production processes (e.g., HEFA unit to produce SAF and other fuels) can work with a range of different feedstocks. Adding operational constraints – such as limitation to certain feedstocks - around the use of certain technologies cannot be practically applied in the context of legislation that only focuses on technology manufacturing.</i> 	

2. Art. 3(1) – keeping a value chain approach

Commission Proposal	FuelsEurope’s Amendment
<p>‘net-zero technology manufacturing project’ means a planned industrial facility or extension or repurposing of an existing facility manufacturing net-zero technologies;</p>	<p>‘net-zero technology manufacturing and deployment project’ means a planned industrial facility or extension or repurposing of an existing facility manufacturing net-zero technologies or value chains making use of the net-zero technologies;</p>
<p style="text-align: center;"><i>Justification</i></p> <p><i>The successful decarbonisation of the EU industry needs to consider the recognition of interdependencies between value chains. Deployment of net-zero technologies and value chains making use of these technologies shall be under the scope of this Regulation for ‘net-zero strategic projects’ and for ‘net-zero technology manufacturing projects’.</i></p> <p><i>The introduction of the term ‘deployment’ in the definition of ‘net-zero technology manufacturing project’ shall be consistently inserted also in articles: 3.1(f), 3.1(g), 3.1(h), 4.1, 6.1(a) and (b), 6.2, 8.1, 8.2, 10.1(a) and (b), 10.2, 10.4, 37.1, 37.2, 37.3, 37.4. The impact of introducing ‘deployment’ should be subject to further work.</i></p>	

3. ANNEX – Supporting the promotion of sustainable fuels

Commission Proposal	FuelsEurope's Amendment
Solar photovoltaic and solar thermal technologies	Solar photovoltaic and solar thermal technologies
Onshore wind and offshore renewable technologies	Onshore wind and offshore renewable technologies
Battery/storage technologies	Battery/storage technologies
Heat pumps and geothermal energy technologies	Heat pumps and geothermal energy technologies
Electrolysers and fuel cells	Electrolysers and fuel cells
Sustainable biogas/biomethane technologies	Sustainable biogas/biomethane and sustainable liquid fuels technologies
Carbon Capture and storage (CCS) technologies	Carbon Capture and storage (CCS) technologies
Grid technologies	Grid technologies
<i>Justification</i>	
In coherence with amendment n.1, we believe that all sustainable fuels technologies should be included among the strategic net-zero technologies in order to reflect their contribution to decarbonization.	

4. ANNEX – Supporting the inclusion of Carbon Capture and Usage technologies

Commission Proposal	FuelsEurope's Amendment
Solar photovoltaic and solar thermal technologies	Solar photovoltaic and solar thermal technologies
Onshore wind and offshore renewable technologies	Onshore wind and offshore renewable technologies
Battery/storage technologies	Battery/storage technologies
Heat pumps and geothermal energy technologies	Heat pumps and geothermal energy technologies
Electrolysers and fuel cells	Electrolysers and fuel cells
Sustainable biogas/biomethane technologies	Sustainable biogas/biomethane technologies
Carbon Capture and storage (CCS) technologies	Carbon Capture and storage (CCS) Carbon Capture and Use (CCU) technologies
Grid technologies	Grid technologies
<i>Justification</i>	
CCU technologies should be considered – along with CCS – in the list of strategic net-zero technologies contributing to the European Net Zero goals. CCU technologies represent an array of solutions critical for the achievement of the EU climate and energy ambitions and products and fuels from CCU technologies will displace fossil resources and lower EU GHG emissions.	

ANNEX II: Comparing EU and US: The Inflation Reduction Act

The current US policy intervention provides the opportunity to make an important comparison with the EU policy framework. In the last years, the EU legislation has been focussing on ambitious targets, underpinned by exclusions or bans of some technologies and penalties, which gave signals as to the requirements, size and shape of future markets. Such a framework does not favour investment decisions and impedes clear financial evaluations of how low-carbon products would increase above the value of today's incumbent products.

In contrast, the **US IRA focus is on rate of progress, facilitating early and sustained investment, project-by-project.** The incentives that would be created – specifically through federal tax credits - would allow an easy and simple incremental value to be assigned to an investment for low or zero-carbon production of goods (similar to a contract-for-difference). If these incentives can be seen to be stable for several years, they may also contribute to trigger private investments for a 10+ year financial spreadsheet project plan.

We believe that the transition of the European industry will need the inclusion of low-carbon and non-fossil fuels and products manufacturers, which would strongly benefit from measures similar to those announced in the US. **It is not just about increasing public investment, but triggering the financial leverage through a simpler, more technology-open regulatory framework.**

IRA provides an excellent example of the definition of clean vehicles (e.g., including plug-in & hybrid vehicles). It promotes hydrogen production based on the life cycle GHG emissions as well as sustainable fuels, which are currently not benefiting from any tax advantage in the EU. This is also why we believe that **revising the fuels Taxation in the EU** would be crucial to achieve the EU's emissions reduction ambition. This would also create the opportunity to incentivise the deployment of renewable and low-carbon liquid fuels, via favourable tax regimes, as this will help their development and deployment.

Finally, it is also to be noted that many European energy companies have businesses and operations in the USA, and do not want to be drawn into regional competition and trade frictions.

FuelsEurope, the voice of the European fuel manufacturing industry.

FuelsEurope represents with the EU institutions the interest of 39 companies manufacturing and distributing liquid fuels and products for mobility, energy & feedstocks for industrial value chains in the EU.

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