

FEEDBACK

Net-Zero Industry Act

Brussels, 2 May 2023

Introduction

The European Semiconductor Industry Association (ESIA) welcomes the “**Net Zero Industry Act**”^{1,2} and its goal to simplify the regulatory framework and improve the investment environment for net-zero technologies. ESIA fully supports the transition to a climate neutral, clean economy, and the corresponding redesign of the EU’s energy system. As co-legislators begin scrutinising the proposed regulation and its provisions, ESIA would like to draw their attention on a series of points. Semiconductors are essential to manufacturing clean technologies and enabling Europe’s clean-energy transition. Against this backdrop, it should be clear that semiconductors are within the scope of the “*Net-Zero Industry Act*”. ESIA, therefore, asks the co-legislators to add semiconductors to the ANNEX as “*strategic net-zero technology*” and include it in the regulation. Further comments are provided below.

Unclear scope

First off, it is not entirely clear whether semiconductors would indeed be in scope of the legislation. In part, **Article 2**³ reads:

Regulation, which apply to innovative net-zero technologies. Raw materials processed materials or components falling under the scope of Regulation (EU) .../... [add footnote with publication references of the Critical Raw Materials Regulation] shall be excluded from the scope of this Regulation.

However, the “*Critical Raw Materials Regulation*”⁴ does not provide a definition of “*component*”. In addition, the regulation’s Article 23 refers to “*advanced chips*” as “*strategic technologies using strategic raw materials*”⁵. Following that rationale, semiconductors would not be in the scope of the “*Net Zero Industry Act*” proposal.

Articles 3(1)(a) appears to provide a different interpretation. Aside from listing a number of ‘net-zero technologies’, the definition argues that:

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.

Semiconductor devices are essential components for most of the listed technologies and their production. As such, we think that the “*Net Zero Industry Act*” should explicitly cover semiconductors.

Strategic role

The ANNEX to the proposed regulation contains a total of eight “*strategic net-zero technologies*”⁶ that figure particularly central to the Act’s objectives:

1.	Solar photovoltaic and solar thermal technologies
2.	Onshore wind and offshore renewable technologies
3.	Battery/storage technologies
4.	Heat pumps and geothermal energy technologies
5.	Electrolysers and fuel cells
6.	Sustainable biogas/biomethane technologies
7.	Carbon Capture and storage (CCS) technologies
8.	Grid technologies

While ESIA does not question the importance and rightful place of those technologies in the list, semiconductors play an essential and irreplaceable function in those and virtually all applications enabling low-carbon and energy-efficient innovative solutions. They underpin almost all net-zero technologies (strategic or not) in a crucial manner, corresponding to selection criteria under **Article 10(1)**⁷. Therefore, and in line with similar initiatives carried out at national level (such as the current proposal by the French Ministry of Economics, Finance and Industrial and Digital Sovereignty^{8,9}), semiconductors should be listed as essential and indispensable instruments enabling decarbonisation of the EU economy and thus be covered by the “*Net Zero Industry Act*” as a strategic technology.

Conclusion

Plainly put, without semiconductors, many of the technologies cited in the Act would simply not be possible. Whether it is power converters in wind turbines, solar inverters in photovoltaic panels, thyristors in high-voltage power supply, battery management systems, or the plethora of efficiencies in energy storage systems and power consumption: chips are indispensable for lowering the carbon footprint at every step of the value chain.

Accordingly, ESIA advocates adding semiconductors to the list in ANNEX to enshrine their significance as a ‘strategic net-zero technology’ into EU law. Also, in the interest of legal certainty across the Single Market, ESIA calls upon national and EU lawmakers to utilise congruent lists of strategic projects when formulating initiatives for transitioning toward climate-neutral and clean economies.

As the “*Net Zero Industry Act*” seeks to simplify the regulatory framework and improve the investment environment for net-zero technologies, ESIA wants to emphasise the key enabling role that the semiconductor industry in Europe plays in attaining greenhouse gas emissions reduction of at least 55% by 2030.

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ABOUT ESIA

The European Semiconductor Industry Association (ESIA) is the voice of the semiconductor industry in Europe. Its mission is to represent and promote the common interests of the Europe-based semiconductor industry towards the European institutions and stakeholders in order to ensure a sustainable business environment and foster its global competitiveness. As a provider of key enabling technologies, the industry creates innovative solutions for industrial development, contributing to economic growth and responding to major societal challenges. Being ranked as the most R&D-intensive sector by the European Commission, the European semiconductor ecosystem supports approx. 200.000 jobs directly and up to 1.000.000 induced jobs in systems, applications and services in Europe. Overall, micro- and nano-electronics enable the generation of at least 10% of GDP in Europe and the world.

¹ EUROPEAN COMMISSION (16/03/2023). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act) (Text with EEA relevance)*, 2023/0081 (COD), EUR-Lex. URL: https://eur-lex.europa.eu/resource.html?uri=cellar:6448c360-c4dd-11ed-a05c-01aa75ed71a1.0001.02/DOC_1&format=PDF (retrieved 02/05/2023)

² EUROPEAN COMMISSION (16/03/2023). *ANNEXES to the proposal for a Regulation of the European Parliament and of the Council on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act)*, ANNEX, p. 1, EUR-Lex. URL: https://eur-lex.europa.eu/resource.html?uri=cellar:6448c360-c4dd-11ed-a05c-01aa75ed71a1.0001.02/DOC_2&format=PDF (retrieved 02/05/2023)

³ EUROPEAN COMMISSION (16/03/2023). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act) (Text with EEA relevance)*, *Op. cit.*, p. 36.

⁴ EUROPEAN COMMISSION (16/03/2023). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020 (Text with EEA relevance)*, 2023/0079 (COD), EUR-Lex. URL: https://eur-lex.europa.eu/resource.html?uri=cellar:903d35cc-c4a2-11ed-a05c-01aa75ed71a1.0001.02/DOC_1&format=PDF (retrieved 02/05/2023)

⁵ *Ibid.*, p. 37.

⁶ EUROPEAN COMMISSION (16/03/2023). *ANNEXES to the proposal for a Regulation of the European Parliament and of the Council on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act)*, *Op. cit.*, p. 1.

⁷ EUROPEAN COMMISSION (16/03/2023). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem (Net Zero Industry Act) (Text with EEA relevance)*, *Op. cit.*, p. 42.

⁸ MINISTÈRE DE L'ÉCONOMIE, DES FINANCES ET DE LA SOUVERAINETÉ INDUSTRIELLE ET NUMÉRIQUE (03/04/2023). *Industrie verte : un projet de loi en co-construction à Bercy*, Industrie. URL: <https://www.economie.gouv.fr/industrie-verte> (retrieved 02/05/2023)

⁹ ASSEMBLÉE NATIONALE (05/04/2023). *FRANCE NATION VERTE > Agir · Mobiliser · Accélérer. Propositions des pilotes pour le projet de loi Industrie Verte*, #IndustrieVerte, avril 2023, MINISTÈRE DE L'ÉCONOMIE, DES FINANCES ET DE LA SOUVERAINETÉ INDUSTRIELLE ET NUMÉRIQUE. URL: https://www.economie.gouv.fr/files/files/2023/Rapport_consultation_PJL_industrie_verte.pdf (retrieved 02/05/2023)