European Semiconductor Industry Association

Position

"Net-Zero Industry Act"

Brussels, 06 October 2023

To quote European Commissioner for Internal Market Thierry Breton: "*Without chips, no digital transition, no green transition, no technological leadership.*"[1]

ESIA concurs: without semiconductors, many of the *Net-Zero technologies* cited in the Commission proposal would simply not be possible. **Whether it is power converters in wind turbines, solar inverters in photovoltaic panels, semiconductor-powered motor drives in heat pumps, battery management controllers, or the plethora of efficiencies in energy storage systems and power consumption: semiconductors play an irreplaceable role for the functionality & efficiency of Net-Zero technologies, and for lowering the carbon footprint at every step of the value chain.**

ESIA would like to stress that the "*Net-Zero Industry Act*" (NZIA) contains relevant provisions for the European semiconductor industry and downstream Net-Zero technologies. This is why the semiconductor perspective needs to be carefully considered in the NZIA process.

The NZIA and other Acts also need to be aligned. For example, the "*EU Chips Act*" provides a framework of incentives for production, whereas the NZIA proposes targeted measures regarding workforce development, clustering, and testing. The two Acts must complement each other.

Due to the closely intertwined nature of the supply chains, ESIA would like to clearly state from the onset that we support "*Net-Zero Industry Academies*", "*Net-Zero Europe Platform*", "*Net-Zero Industry Valleys*", as well as the "*Net-Zero regulatory sandboxes*" as suggested in the NZIA proposal.

The Net-Zero Industry Act and the EU Chips Act – a different rationale

The semiconductor industry welcomes the Net-Zero Industry Act (NZIA) proposal which aims to accelerate the green transition. The Act intends to create better conditions for the manufacturing of Net-Zero technologies, such as photovoltaic, wind, battery, heat pumps and their components. The Act can strengthen Europe's strategic role in clean technologies and make a significant contribution to decarbonization.

Rue de la Duchesse 11/13
1150 Brussels
Belgium
Tel.: +32 2 290 36 60
Fax: +32 2 290 36 65
secretariat@eusemiconductors.eu
www.eusemiconductors.eu

ESIA is an industry association under the umbrella of
EECA: European Electronic Component Manufacturers' Association
EU Transparency Registry: 22092908193-23

The proposed Amendment 43 of the EU Parliament's ITRE draft NZIA report[2] seeks to exclude components falling under the scope of the EU Chips Act. This is gravely concerning given that semiconductors are a key component of all Net-Zero technologies. An explicit exclusion would restrict the ambitions of the NZIA and leave the key enabling sector "semiconductors" completely out of sight.

ESIA wants to stress that origin and scope of the EU Chips Act and the NZIA differ significantly. The EU Chips Act aims to increase the resilience of semiconductor supply chains and reduce dependencies on third countries, with a strong focus on manufacturing and R&D. Meanwhile, the NZIA also puts strong emphasis on training, education, job creation and testing of innovative solutions. Justifying the exclusion of the semiconductor industry by referencing the existence of the EU Chips Act seems to stem from a misinterpretation of the EU Chips Act's scope. In other words, the two Acts must ensure that a coherent framework for semiconductor development is in place.

It is also worth noting that the "first-of-a-kind facilities in Europe" state aid instrument of the EU Chips Act will likely be used mainly by large companies due to the important investments required. Smaller companies, in particular SMEs, may not be able to benefit from this state aid framework, but rather see opportunities in realizing Net-Zero Strategic Projects.

In addition, the new EU Chips Joint Undertaking does not contain any restrictions on Net-Zero technology providers. In the same vein, it should be ensured that the NZIA's R&D initiatives will be open to the participation of semiconductor companies.

Semiconductors are a key component of Net-Zero technologies

The rapidly growing demand in wind and solar plants, grids, storage, electric cars, heating systems, and many others relies on semiconductors. They are essential for solar panels, wind turbines, electricity grids and batteries[3] and increasingly applied to improve energy efficiency, controllability, and reliability[4]. For instance, the complete upstream photovoltaic value chain includes metallurgical silicon, polysilicon, wafers, ingots, cells, modules, solar glass, inverters, **semiconductors**, production tools, equipment, components (such as crucible and silver paste) and much more[5].

In 2022 components of one single ESIA member alone were installed into 2,5 million new solar systems and 11.813 wind systems. This enabled the generation of a total clean energy capacity of 125 GW and a yearly avoidance of 128 million tons of CO_2 emissions[6].

ESIA thus urges the Institutions to include semiconductors and related materials either as (specific) components of Net-Zero technologies in the definitions of Article 3 of the proposal or as a Net-Zero technology in the annex.

For further information:

Hendrik Abma
Director-General
European Semiconductor Industry Association (ESIA)
Tel: + 32 2 290 36 60 • Web: https://www.eusemiconductors.eu/

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 (08/02/2022). *Digital sovereignty: Commission proposes Chips Act to confront semicon ductor shortages and strengthen Europe's technological leadership*, Press corner. URL: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_729 (retrieved 06/10/2023).

[2] European Parliament 2019-2024 (26/05/2023). ***I DRAFT REPORT on 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) (COM(2023)0161 – C9-0062/2023 – 2023/0081(COD)). Rapporteur: Christian Ehler, PE749.154v01-00, Committee on Industry, Research and Energy. URL: https://www.europarl.europa.eu/doceo/document/ITRE-PR-749154_EN.pdf (retrieved 06/10/2023).

[3] International Energy Agency, Energy Technology Perspectives, 2023, URL: https://iea.blob.core.windows.net/assets/a86b480e-2b03-4e25-bae1-da1395e0b620/EnergyTechnologyPerspectives2023.pdf (retrieved 06/10/2023).

[4]U.S. Department of Energy, Semiconductor: Supply Chain Deep Dive Assessment U.S. Department of Energy Response to Executive Order 14017, "America's Supply Chains", 2022, https://www.energy.gov/sites/default/files/2022-02/Semiconductor%20Supply%20Chain%20Report%20-%20Final.pdf (retrieved 05/10/2023).

[5] *European Solar and PV Industry Alliance Recommendations Paper Series I: Recommendations on financial mechanisms to fill the cost gap and restore the PV industry in Europe, p. 3,* URL: https://solaralliance.eu/wp-content/uploads/2023/09/Recommendations-on-financial-mechanisms-to-fill-the-cost-gap-and-restore-the-PV-industry-in-Europe-VF.pdf (retrieved 06/10/2023).

[6] *Infineon, URL :* https://www.infineon.com/cms/en/about-infineon/energy-efficiency-technologies/electric-power-generation/ (retrieved 06/10/2023).