

E.DSO- T&D Europe amendments to Net Zero Industrial Act (NZIA)

Brussels, May 2023

On 16 March, the European Commission [published](#) a proposal for Regulation on a Net-Zero Industry Act (NZIA), a key tenant of the Green Deal Industrial Plan.

E.DSO and T&D Europe welcome the European Commission's Net Zero Industrial Act (NZIA) and Temporary Crisis and Transition State aid Framework (TCTF) to accelerate the transition of the EU's net zero industrial sectors towards climate neutrality by 2050. As proposed, the NZIA is a positive start of a necessary holistic and long-term strategy plan detailing specific financial and regulatory support to address all the global current and future challenges, securing an EU-built industrial ecosystem and ensuring a tailor-made strategic autonomy for every key sector identified.

We understand and welcome the package of both NZIA and TCTF as an accelerator tool for clean tech industries with proposed non-financial regulatory measures. In this paper, we outline how the scope of the proposed NZIA might fail in supporting European specificities. In addition, some financial measures should also be included. Without these measures, the NZIA may fall short of achieving its intended goals and fail to provide the necessary support to European clean industries.

We would like to share the following recommendations:

Ensuring all enabling technologies from transmission to distribution are represented as 'grid technologies' under the strategic net-zero technologies.

Reaching the Union's annual deployment needs for grid technologies can only be achieved with future-planning investments.

Clarify how the Act will enable investment to meet the EU's ambitious target of manufacturing grid technologies domestically.

Detailed recommendations

1. Ensuring all enabling technologies from transmission to distribution are represented as 'grid technologies' under the strategic net-zero technologies

We welcome the inclusion of grid technologies in the list of strategic net-zero technologies. Such an inclusion recognises the vital role of electricity grids and infrastructures in achieving the Green Deal objectives.

With a lack of definition on 'grid technologies' beyond examples cited in Recital 8, we expect 'grid technologies' to cover a **wide range of technologies at the electricity transmission and distribution-level**.

As a reminder, grid technologies are essential to enable the enormous reinforcement and expansion of the European **physical infrastructure** both at transmission and distribution level which is needed for the energy transition to become a reality. They also play a key role in enabling a better grid management, including using new solutions for congestion management, especially as the electrification of key sectors is progressing. Innovation in grid technology feeds into the Union's 2030 decarbonisation targets and 2050 climate neutrality target, covering all segments of a widespread and robust smart grid that includes low, medium, high and extra high voltage overhead lines, underground and subsea cables, optical fibre cables, onshore and offshore substations, power transformers, electrical switchgear, electronic components, superconducting transmission, microgrid, large-grid operation control, and other key technologies.

While the proposal focuses on investment in net-zero technology manufacturing, **digital technologies** should also not be forgotten. Developing a reliable, flexible, and smart power system will require the manufacturing of the necessary hardware and the development of specific software to support the smarter and more efficient and reliable electricity networks.

It is worth reminding that what makes a grid smart is the ability to predict events and outcomes and respond accordingly, even automatically in some cases. To this end, digital technologies such as network digital twins can be used to simulate power outage scenarios and help utilities plan for certain situations and/or inevitabilities.

2. Reaching the Union's annual deployment needs for grid technologies can only be achieved with future-planning investments

Article 1§2(a) of the NZIA provides that *"by 2030, manufacturing capacity in the Union of the strategic net-zero technologies listed in the Annex approaches or reaches a benchmark of at least 40% of the Union's annual deployment needs for the corresponding technologies necessary to achieve the Union's 2030 climate and energy targets"*.

Whereas manufacturers will need additional time to assess the indicative target for the Union's deployment needs, to ensure that the planning is successful, we call for:

A clarification on how the proposed measures could realistically help achieve the indicative target, while not slowing down the green transition and ensuring investment certainty.

This clarification should be detailed in a **long-term plan which includes forecasting on the number of electricity grid technologies** needed to achieve the target necessary to secure the Union's 2030 climate and energy targets.

While we welcome Art.30 on alignment with NECPs, this planning should also consider the other planning tools for electricity distribution and transmission, such as **the Ten-Year Network Development Plans (TYNDPs), national network development plans and any other legislative tool that the European framework could propose.**

Such an assessment on manufacturing capacities and volume forecasting on key electricity grid technologies, low, medium, high and extra high voltage overhead lines, underground and subsea cables, optical fibre cables, onshore and offshore substations, power transformers, electrical switchgear, electronic components, superconducting transmission, , microgrid, large-grid operation control, and other key technologies.will help provide an optimal number of grid technologies needed to achieve the ambitious objective, solving the trade-off between cost-efficiency and resilience across Member States.

3. Clarify how the Act will enable investment to meet the EU's ambitious target of manufacturing grid technologies domestically

The proposal sets out measures to promote net-zero- manufacturing technologies, with a focus on projects which could benefit from access to funding within the eight strategic net-zero technologies, including grid technologies.

While we welcome the streamlined administrative and shorter permit granting under Article 13, and the financial support and additional administrative support for strategic technologies under Article 14, the Act does not assess whether these conditions would be sufficient to meet EU's ambitious target of manufacturing clean tech domestically.

In terms of financing, the Commission has released a separate assessment¹ which finds that 'the current EU budget has insufficient possibilities for supporting the objectives of the Net-Zero Industry Act and for ensuring a level-playing field between Member States, relative to the identified public investment needs.

If we wish to avoid risking slowing expansion, reinforcement and modernisation of the grids and smart grids, we need additional incentives in particular for financing grid expansion in Europe. **Access to the Temporary Crisis and Transition Framework (TCTF) for state aid does not specifically refer to grid technologies** despite proposing to address the productive investment gap in 'strategic equipment necessary for the net-zero transition'.

We urge a **consistent application of what is considered 'strategic net-zero technologies'** across the NZIA and the TCTF to facilitate access to finance through legal certainty. We also need a dedicated financial framework for grid technologies manufacturing and grid development operating across Europe, from private to public investment with specific state aid schemes.

Furthermore, access to a secure, diversified, affordable and sustainable supply of critical raw materials is vital for European manufacturers to deliver. The recently published **Critical Raw**



Materials Act proposal fails to reflect the needs of grid technologies manufacturers: We miss the inclusion of aluminium – which is critical for a wide range of applications necessary for the green transition and an indispensable component of Europe’s strategic industrial ecosystems – from the current text. Therefore, we call on European Institutions to fill this gap.

In addition, we strongly support the following Commission’s proposals as vital incentives for promoting a competitive industry across Europe:

- Considering increased sustainability and resilience criteria for strategic net-zero technologies, including grid technologies, in procurement processes and auctions.
- Setting-up Net-Zero Industry Academies to promote and provide training and education on net-zero technologies.
- Enabling industrial alliances to collaborate with the advisory body of the Net-Zero Europe Platform.
- Mandating the Commission to monitor supply chains and anticipate and prevent shortages for manufacturing net-zero technologies.

In particular, we recommend the following amendments to the NZIA Regulation proposal:

Art. & Topic	Commission proposal	Our amendments	Our justifications
<p>Art. 30 Articulation with National Energy and Climate Plans and Network Development Plans</p>	<p>Member States shall take into consideration this Regulation when preparing their national energy and climate plans and their updates, submitted pursuant to Articles 3, 9, and 14 of Regulation (EU) 2018/1999, in particular as regards the dimension “research, innovation and competitiveness” of the Energy Union, and in the submission of their biennial progress reports in accordance with Article 17 of that Regulation.</p>	<p>Member States shall take into consideration this Regulation when preparing their national energy and climate plans and their updates, submitted pursuant to Articles 3, 9, and 14 of Regulation (EU) 2018/1999, in particular as regards the dimension “research, innovation and competitiveness” of the Energy Union, and in the submission of their biennial progress reports in accordance with Article 17 of that Regulation.</p> <p><i>Transmission and distribution system operators shall take into consideration this Regulation when preparing network development plans, pursuant to Regulation (EU) 2019/943, Article 32 and 51 of the Electricity Directive.</i></p>	<p>To ensure consistency with other existing planning tools for the electricity grid networks, TSOs and DSOs should take into account this Regulation in their network development plans, and in particular the political targets for manufacturing capacity for grid technologies.</p> <p>Such consideration can only enable the most appropriate and up-to-date network planning in light of the external & internal challenges to integrate higher RES in the grids, and in line with the latest political ambition from this Act and REPowerEU.</p> <p>Doing so also will prevent misalignment and avoiding fully relying on the NECPs, which have experienced challenges as regards delays, inconsistencies with EU climate and energy targets,</p>



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			and lack of transparency in the consultation process.

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<p>Article 31 (1) Monitoring</p>	<p>1. The Commission shall monitor on an ongoing basis:</p> <p>(a) The Union’s progress with respect to the Union’s objectives referred to in Article 1, and the related impact of this Regulation;</p> <p>(b) the progress with respect to the Union level objective of CO2 injection capacity referred to in Article 16.</p>	<p>1. The Commission shall monitor on an ongoing basis:</p> <p>(a) The Union’s progress with respect to the Union’s objectives referred to in Article 1, and the related impact of this Regulation;</p> <p>(b) the progress with respect to the Union level objective of CO2 injection capacity referred to in Article 16.</p> <p><i>(new)</i> <i>(c) the progress with respect to the assessment referred to in Article 31(2) for the development of net-zero grid technologies to achieve the objectives under Article 1§2(a).</i></p>	<p>T&D Europe supports an institutional monitoring framework on the progress realised to develop the manufacturing of grid technologies as strategic net-zero ones.</p> <p>Developing a clear transparent review process on the investment needs and the investments achieved in the power networks will enable an effective reference benchmark for operators prior to planning.</p>
<p>Article 31 (2) Monitoring</p>	<p>2. Member States and the national authorities they designate for this purpose shall collect and provide data and other evidence required pursuant to paragraph 1, points (a) and (b). In particular, they shall collect and report each year to the Commission data on:</p> <p>(a) net-zero technology developments and market trends, including average</p>	<p><i>2.(a)(bis)(new) the short, medium and long-term need for net-zero/grid technologies based on the distribution and transmission network development plans, as defined in <u>Articles 32(3) and 51 of DIRECTIVE (EU) 2019/944</u></i></p>	<p>The demand for grid technologies is a determining factor for decisions on expansion of manufacturing capacity.</p>

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	<p>manufacturing investment costs and production costs, and market prices for the respective net-zero technologies;</p> <p>(b) net-zero technology manufacturing capacity and related activities, including data on employment and skills and progress towards achieving the 2030 targets referred to in recital 13;</p>		
<p>Article 31 (3) Monitoring</p>	<p>3. The data shall include at least the information requested in the Commission Notice on the Guidance to Member States for the update of the 2021-2030 National Energy and Climate Plans.</p>	<p>3. The data shall include at least the information requested in the Commission Notice on the Guidance to Member States for the update of the 2021-2030 National Energy and Climate Plans. <i>In particular, Member States shall include information on:</i></p> <p><i>(a) energy efficiency</i></p> <p><i>(b) investment incentives in flexibility, smart grids, digital enabling solutions for the electricity grids, and firm capacity</i></p> <p><i>(c) the role of the RRP, including the REPowerEU chapters, in implementing the updated NECPs</i></p> <p>The data should include the monitoring and assessing of the performance of transmission system operators and distribution system operators in relation to the development of</p>	<p>To ensure that decarbonisation is effectively taking place with the upscaling of manufacturing capacity of strategic net-zero technologies, T&D Europe strongly recommends including references to the key enablers of the Green Deal for the wider grid infrastructures, including on energy efficiency, investment incentives and funding instruments via the REPowerEU funding.</p>

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		<p>smart grids indicators, as defined in Article 59 (l) of Directive (EU) 2019/944.</p>	<p>A clear reference to these critical enablers would be an important signal to Member States to provide data-based evidence on how they intend to achieve the 2030 target of this Regulation by specifically looking at existing solutions to reach net-zero and keep the cost of the energy transition as low as possible.</p> <p>Enabling smart grids can be monitored and assessed with indicators as required under the Electricity Directive, which would enable to measure the performance of smart grids.</p> <p>Article 59.1 (l) of the Electricity Directive ((EU) 2019/944) tasks the National Regulatory Authorities (NRAs) to develop a new methodology that can help monitor a necessary infrastructure upgrade through the use of smart</p>



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			<p>grids, focusing on energy efficiency and integration of energy from renewable sources.</p> <p>The development of this requirement to include quantified metrics in electricity grids has been lagging behind. Ensuring that these indicators are used, monitored and assessed regularly is vital for enabling the effective deployment of energy efficient technologies which modernise the electricity networks.</p>



European Distribution System Operators (E.DSO) promotes and enables customers empowerment and the increase in the use of clean energy sources through electrification, the development of smart and digital grid technologies in real-life situations, new market designs and regulation. E.DSO gathers 39 leading electricity distribution system operators (DSOs) in 24 countries, including 2 national associations. <https://www.edsoforsmartgrids.eu/>



T&D Europe is the European association of the electricity transmission and distribution equipment and services industry. Our scope includes the complete range of products and services necessary to transmit and distribute electricity in high and medium voltages, between the producers and the end users. T&D Europe members provide all types of smart grid technologies, including advanced, smart systems suitable for interaction with renewable energies and ICT. <https://www.tdeurope.eu/>



Europacable is the voice of Europe's leading wire and cable producers. High-quality, sustainable power and telecommunication cables, produced by our members in Europe, empower electrification and digitalization of our societies. Founded in 1991, Europacable represents the largest cable makers in the world providing global technology leadership, as well as highly specialized small and medium sized businesses from across Europe. <https://europacable.eu/>

ⁱ Commission Staff Working Document, Investment needs assessment and funding availabilities to strengthen EU's Net-Zero technology manufacturing capacity, 23 March 2023