Net-Zero Industry Act: Electrification is a key enabler of EU competitiveness

Eurelectric position paper

October 2023

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:
- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

Dépôt légal: D/2023/12.105/40

WG Industrial Competitiveness and Innovation
WG Renewables and Storage
WG Hydro
WG Thermal and Nuclear
Electrification and Sustainability Committee
Generation and Environment Committee
Markets and Investments Committee
Customers and Retail Services Committee
Distribution and Market Facilitation Committee

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KEY MESSAGES

- We welcome the inclusion of clean and renewable electricity generation technologies among in the lists of (strategic) net-zero technologies, considering the massive scale-up needed to deliver on the 2030 energy and climate ambitions. In view of increased needs for firm and flexible generation capacities to complement over 600 GW of incoming variable renewables, we encourage policymakers to ensure equal treatment of carbon-free sources of generation like nuclear and hydropower, which have a technology readiness above eight.

- A coordinated approach for infrastructure deployment is essential. In particular, to ensure a swift connection of net-zero manufacturing facilities and their access to increasingly decarbonised electricity, Eurelectric calls for accelerated grid connection procedures (i.e. updates and reinforcements) and anticipatory grid investments.

- Securing robust supply chains of raw materials and key components of net-zero and digital technologies is key to prevent future vulnerabilities of the green and digital transition.

- NZIA's ambitions must be backed up by all possible means of financing, whether private or public. All technologies recognised in the NZIA must therefore be eligible for European funding.

- While introducing non-price criteria in renewable energy auctions can bring several key benefits, it is crucial to carefully design them to avoid hindering electrification. This can be done by embedding the following principles:

    i. Ensure renewable energy auctions are predictable in terms of visibility and indexation;
    ii. Consider technology-specific differences in setting non-price criteria, pre-qualification requirements as well as the cost-based derogations;
    iii. Consider the principles of sustainability and resilience separately;
    iv. Devise direct measures to support robust value chains and avoid further delays and disproportionate cost increases for RES electrification;
    v. Provide early, clear, pragmatic, efficient non-price criteria, possibly in the form of pre-qualification;
    vi. Establish a transition period.

The road to a net-zero emissions economy

Russia's invasion of Ukraine and manipulation of gas supplies has cast light on Europe's vulnerabilities. The need to reduce our continent's exposure to external volatility, to maintain access to secure and diverse supplies of resources, and decarbonisation, became critical building blocks of Europe's ambition to regain its sovereignty and relevance in the international arena. To deliver, the EU must ensure that its net-zero industries benefit from the right framework, enabling their domestic and international competitiveness and becoming an attractive force for investors.

A clean and renewable energy mix is key for a secure, sustainable supply of competitively priced electricity

The electricity industry supports the EU's climate neutrality ambition, and it is making sustained efforts to power the European economy with carbon free electricity. As a result, the carbon intensity of electricity has almost halved to 208 g CO2/kWh over the past 20 years and should reach 71 g CO2/kWh in 2030, before becoming carbon neutral around 2040.

Carbon neutrality in the power sector requires significant infrastructure deployments and updates. Eurelectric's landmark study, Decarbonisation Speedways, points that the 1049 GW of installed capacity must double by 2030 and triple by 2040. The bulk of this increase will come from renewable sources of generation which will represent 83% of the mix by 2040.

Bolstered by the REPowerEU strategy, the binding 42.5% renewables target in the Renewable Energy Directive commits the EU to add 605 GW of new renewable electricity capacity in less than 6.5 years, equivalent to 60% of current capacity. The European power sector is striving for timely deploying such affordable homegrown electrification capacity to reduce reliance on fossil fuels and boost our energy security.

Firm and dispatchable technologies will be needed along with more flexible assets, to ensure Europe's security of supply in a system with a high share of renewables. In particular, Europe will need between 531 TWh and 782 TWh of flexible capacity to complement variable renewable generation by 2050.

A decarbonised, electrified economy is a competitive economy

Electrification is the most direct, efficient, and effective way to improve the competitiveness of the European manufacturing, while also contributing to the decarbonisation of Europe's end-use sectors. The switch from fossil-based inputs to domestic carbon-neutral power generation helps cutting reliance on fossil fuel imports, improving energy efficiency and lowering the energy bill.

The full potential of electrification is still untapped, as 70% of the final energy demand in transport, buildings and industry relies on fossil fuels. Electrification offers these sectors a reliable alternative to fossil fuel imports, but to ensure Europe's long-term fossil-fuel-free energy sovereignty a tripling in electrification rates to 60% by 2050 is required.

The pressure on Europe's distribution grids will increase due to significant additions of decentralised, carbon free renewable generation (+600 GW) and the ramp up of electrification rates. 40% of Europe's distribution grids are currently over 40 years old and were being planned at a time where the nature of our energy system was fundamentally different.

To deliver the power system of the future, Europe's transmission and distribution grids must be reinforced and digitalised to use all the capacity available today, while building out new infrastructure and expanding as well as modernising the existing one. As Europe is not currently keeping up with the demand, grids are becoming a challenge akin to permitting.

Policy recommendations

Thus, in the context of the Net-Zero Industry Act, Eurelectric calls on policymakers to:

1. **ENSURE THE EQUAL TREATMENT OF CLEAN AND RENEWABLE SOURCES OF GENERATION, WITH A TECHNOLOGY READINESS ABOVE EIGHT.**

Complementary in nature, solar, wind, hydropower, sustainable bioenergy and nuclear are of strategic importance for ensuring a carbon neutral, secure supply of electricity in Europe. While supply chain dependencies vary and require different levels of strengthening and support, it is essential to ensure a resilient manufacturing base for all clean and renewable sources of generation. Similarly, the overall electricity grid and its value chains should be considered of strategic importance.

The NZIA should be an opportunity to i) develop a value chain in technologies where a heavy dependence on third countries has been identified and ii) ensure that EU keeps its competitive advantage for clean technologies for which the European value chain is already strong.

2. **AIM AT A COORDINATED APPROACH FOR INFRASTRUCTURE DEPLOYMENT.**

Anticipatory grid investment and accelerated grid procedures – similarly to RED III provisions for boosting renewables and grid deployment in accelerated areas – are essential to ensure a swift connection of newly installed net-zero manufacturing facilities and their access to increasingly decarbonised electricity.

3. **CONTINUE TO PRIORITISE A COST-EFFECTIVE AND EFFICIENT DECARBONISATION OF THE EU ECONOMY AND USE THIS LEGISLATION TO INCENTIVISE SUSTAINED EMISSIONS ABATEMENT EFFORTS.**

Investment in electricity generation, storage and distribution infrastructure would contribute to both the climate agenda and the overall European competitiveness. As the EU opens to removals and carbon capture technologies, it is paramount to maintain the mitigation hierarchy and ensure avoidance of unintended lock-in effects.

In particular, Eurelectric believes that carbon removals will play a key role in delivering negative emissions necessary for achieving net-zero and counterbalancing the residual CO2 in hard-to-abate sectors where no other technological decarbonisation solution is currently available. Industrial carbon removals can significantly contribute to this regard and need to be ramped up. CCS for abatement, on the other hand, would at best be a bridge technology before 2050. Thus, it would be advisable to maintain political attention and funding on solutions that incentivise the pursuit of cost-effective greenhouse gas emissions abatement, like electrification, phase out of fossil fuels and accelerated deployment of clean and renewable generation capacities.

4. **PROMOTE RESILIENCE AND SUSTAINABILITY WITHOUT HINDERING ELECTRIFICATION**

Securing robust supply chains is key to prevent future vulnerabilities of the green transition. Articles 19 and 20 of the Commission's proposal for NZIA oblige Member States and contracting authorities to assign a weighting of between 15 and 30% to the contribution of a bid to sustainability and resilience in renewable energy auctions and public procurement to create demand for tailor-made projects. Exceptions are only possible if they would result in disproportionately high costs (>10%) or technical difficulties.

On the positive side, non-price criteria have the potential to promote innovation, biodiversity-integration, or resilient domestic value chains. Rewarding developers and projects which can deliver long term most cost-efficient value to society and the environment avoids a cost-driven race to the bottom. This enables companies to apply their engineering and project execution powers to

shape an energy transition that tackles multiple challenges, from energy security over economic slowdown to the climate and biodiversity crisis.

On the other hand, the application of non-price criteria during the bidding process can be a complex, burdensome task and often launching separate tendering segments with specific prequalification criteria may be more efficient for accelerating scalability of such projects. NPC that are poorly designed, implemented, assessed, and non-monitored, risk simply making auctions overcomplicated, untransparent, at risk of legal challenge, and lead to bidders making commitments which they cannot or will not deliver on. There is also a risk that the use of NPC leads to a proliferation of additionalities being required of bidders, which increases overall costs and loses the focus on renewables deliverability to meet increasingly ambitious targets, precisely when we need to accelerate them the most.

Hence, it is crucial to carry out this process in a way that does not hinder our broader decarbonisation and energy security objectives. This can be achieved by adhering to the following key principles:

i. Ensure renewable energy auctions are predictable: visibility and indexation

To meet the renewable energy targets set by the EU, it is crucial to ensure that auction volumes are predictable and coherent with such targets. This would enable and encourage the European supply chain to make the investments needed.

In parallel, recent developments in the supply chain have underscored the importance of indexing of bid caps must ensure that any cost increases in supported projects are reflected in increased compensation to avoid suspension of projects.

ii. Consider technology-specific differences

Renewable energy technologies differ significantly in their characteristics, especially concerning supply chains, cost structures, impacts on land use and other societal objectives. Therefore, non-price criteria need to be designed to meet the technology-specific characteristics and challenges of the respective technologies (e.g., solar vs wind or even onshore vs offshore).

iii. Consider sustainability and resilience separately

The sustainability and resilience principles serve different purposes and bring different challenges; therefore they should be considered separately and not be cumulative.

iv. Directly support RES value chains and avoid further delays or disproportionate cost increases for RES electrification:

a) Devise direct support measures for domestic manufacturing capacities; b) Maintain and improve the derogation to avoid unintended consequences; c) Avoid trade barriers; and d) Ensure the same RES buildout volume can still be supported.

Specifically on resilience, non-price criteria do not provide a complete answer for supporting domestic manufacturing capacities. Direct support measures are better suited than indirect ones, which could impact the cost of electricity versus fossil energy sources and increase the costs for industrial and residential consumers. Direct support necessitates, among other things, a well-designed framework compliant with EU State Aid rules and suitable funding opportunities for scaling up European clean-tech supply chains, making sure the level playing field of the Internal Market is preserved.

Technologies from third countries often are considered significantly more cost efficient than comparable technologies produced in the EU. To strike a good balance between avoiding excessive price increases and an unsustainable race-to-the bottom, the **derogation from the obligatory application of non-price criteria in the event of anticipated disproportionate cost increases already included in the Commission's proposal must be retained while further improved**. This would imply the following changes:

- Apply different derogation triggers per technology.
- Clarify how the cost difference is to be concretely determined.
- In the event the derogation is triggered, clarify how it would be implemented: the practical implementation and application of the derogation is unclear, too. If applied when designing tender rules, no business case is even available to evaluate against. If applied at the stage of bid ranking, non-application might lead to negative impacts for business cases and non-transparent ranking of bids. Guidelines or secondary legislation would help in an effective implementation.
- Consider dynamic levels for the derogation threshold: Situations where the additional costs exceed by more than 10% costs of non-EU projects will be frequent. For this reason, after a cost-benefit assessment, the threshold may be adjusted and regularly reviewed over time.

Similarly, we should avoid trade barriers that could raise market prices, opting for active cooperation with reliable international partners instead.

Where Non-Price criteria is implemented and added costs occur, the overall auction budget volumes need to be increased by the Member States, so that the same amount of new renewable energy capacity buildout can still be supported.

This approach would allow for the seamless expansion of renewables in parallel with fostering growth of the European renewables supply chain.

v. Provide early, clear, pragmatic criteria: (i) swiftly deliver an implementing act to maximise harmonisation; (ii) consider prequalification criteria/minimum standards; (iii) organise a transparent assessment and accountability.

Uncertainties regarding auction criteria in RES auctions likely result in a lower bidding volume and, thus, a slower RES expansion. Therefore, it is essential that developers are provided with clarity early about the bidding criteria applied and their weighting. For this purpose, the Commission should provide an implementing act to maximise an EU-wide harmonisation of application and assessment of the criteria, which shall factor in the following:

- First, the introduction of non-price criteria, while promoting sustainability and resilience, should not steer competition away from the primary goal of RES auctions, which is to facilitate the efficient build-up of renewables capacities. Any measure that increases the costs for consumers due to inefficiencies must be avoided. This includes: inefficient bundling of products (better contract the services/products separately; separated auctions for renewables development and for electrolyser/biogas/seaweed/etc. development) and reduced competitive pressure.
- Penalties for non-compliance must be included.
- For the detailed design of the tenders, Member states should be able to choose individually suitable measures from a catalogue of criteria predefined by the EU Commission.
- A major risk around the introduction of NPCs are lack of objectivity and transparency in the assessment. Where non-price criteria are used, they should be objective, quantifiable and assessed by an experts' jury.

- No more than 3-5 measures and 1 objective per auction. The same auction should not lose focus of the main qualitative issue in the target (cf. sustainability + ecology + innovation).
- This should be supported by clear guidance for bidders.

Beyond these principles, minimum standards/pre-qualification criteria such as cybersecurity (pre-requisites that need to be fulfilled to participate in an auction) could be used for elements which are not suitable to be used as weighting criteria in auctions for various reasons (lack of target-orientation, comparability, difficulties in data collection, level playing field among renewable & fossil technologies). Instead of ranking bids on qualitative criteria, minimum standards are often binary, meaning they can be fulfilled or not fulfilled. Only objective and quantifiable NPCs should reach the actual auction. In addition, prequalification is best placed to avoid WTO issues and too complicated auctions. However, where a pre-qualification phase does not exist, the same elements must apply for the non-price criteria during auctions.

Once the auction results are announced it is important that there is transparency of how bidders were scored; what commitments have been made and how they will be held accountable for delivery at different milestones.

vi. Establish a transition period for the new obligations

The transition of national support mechanisms towards non-price criteria takes time. To allow authorities and project developers to prepare for the new requirements, the Regulation should include a transitional period of at least one year until the new requirements in Articles 19 and 20 become mandatory. Also, retroactive application shall not apply on the schemes being currently discussed.

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability

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