WindEurope Position Paper on the EU Clean Industrial Deal

As set out in the Draghi report, Europe is facing eroding competitiveness to a degree that starts to question the viability of our economic and social model. We are at a crossroads confronted with lagging innovation and incomplete Market integration undermining our ability to compete globally.

The Draghi report highlights that, on average, Europe's energy prices are currently higher than in other major economies, which significantly impacts the competitiveness of our industries. Energy costs represent a big share of overall production costs in sectors that are at the core of the European economy and critical to the European wind value chain. Energy represents 40% of overall production costs for steel made through Electric Arc Furnaces and 34% for primary aluminium[1]. Access to a competitive, clean and reliable energy supply must be at the heart of addressing our competitiveness challenge. Not least in the wake of the Russian aggression in Ukraine which has shown the critical importance of energy resilience to our economic prosperity.

The Clean Industrial Deal therefore needs to build on the European Green Deal to strengthen Europe's competitiveness. Accelerating renewables-based electrification will be central to delivering a cost-efficient transition to net zero.[1] And wind can play a big part in delivering that shift. Wind energy is competitive and scalable, making it the key technology to deliver the big volumes of decarbonised energy Europe needs to power its economy and reduce dependence on fossil fuel imports. The path to energy independence for industrial consumers can only be achieved through a massive and accelerated expansion of wind energy.

To succeed, the Clean Industrial Deal must therefore deliver on:

1) Industrial electrification;
2) Strengthening the European wind value chain; and
3) Implementing existing legislation.

This paper sets out WindEurope's proposals to that end.

1) Industrial electrification

Electrification will be the main driver for industrial decarbonisation. But the share of electricity in our energy system has stagnated at around 23% over the past decade. In comparison, China has been electrifying its economy at 1% annually during the last two decades reaching an electrification share of around 30%.

Ultimately, coupling renewables with energy-efficient systems, such as smart grids, storage and electrolysers, will allow Europe to optimise energy and lower costs. The increased use of renewables-based electricity will make energy cheaper for Europe. Since renewables have near-zero marginal costs, they are dispatched first, pushing more expensive fossil fuel plants further down the merit order reducing overall market prices. Transitioning to a renewables-based system also reduces societal costs linked to climate adaptation, air pollution, and healthcare.

However, the upfront investments industry will need to electrify will be very significant. The subsequent electricity costs will fall over time with more renewables, but initially energy-intensives will face a gap between their energy costs today and the higher costs of electricity. The electrification of production processes needs to be made as affordable as possible to secure the competitiveness of European industry.

The Clean Industrial Deal should pay particular attention to process heat which represents two thirds of final energy consumption in industry today. Electricity makes up only 4% of that. According to a recent study by the Fraunhofer Institute, direct electrification technologies expected to be available by 2035 could meet 90% of the energy demand not yet electrified by European industry. For this reason, it is essential to categorise sectors

[1] Recent Business Europe study highlighted that coordinated policies targeting market integration, electrification and flexible capacity roll out results in 30% lower total costs for electricity (including infrastructure costs) in 2050. Link.

according to their process heat requirements. In particular, sectors that require low and medium temperature ranges, such as paper and pulp, food and beverages, and certain parts of the chemical industry, can already be electrified today through the use of heat pumps, e-boilers, and thermal energy storage. Together, these sectors account for around 40% of the total industrial process heat demand in the EU. Thus, European industry has enormous potential for electrification.

Delivering industrial electrification will require:

a) Measures to support the transition to electrification technologies

- **State aid for CAPEX investments in industrial electrification**: State aid is essential to support capital investments in industrial electrification. The EU must make the relevant provisions in the Temporary Crisis and Transition Framework permanent and align the Guidelines for Climate, Environmental Protection and Energy to explicitly support industrial electrification. Clear prioritisation criteria for electrification projects should be established.

- **Transition finance to support heavy industries**: Targeted operational expenditure (OPEX) support for both new, existing and repurposed facilities is necessary during the transitional phase of electrifying heavy manufacturing. Member States should offer conditional and temporary financial aid for the operational expenses of energy-intensive industries transitioning to electrification such as wages for employees during shutdowns, retraining programmes and other temporary expenses until facilities are fully operational. OPEX support should be awarded in the context of an electrification plan, corporate renewable PPAs are a key enabler in this context.

- **Decrease the cost gap through public support schemes such as Carbon Contracts for Difference (CCfDs)**. This would support CAPEX and OPEX of energy intensives and help companies offset the added cost of decarbonisation. Crucially, they must be conditioned to a clear mandate to electrify.

- **A European Electrification Bank or an equivalent mechanism**: The EU should establish an instrument dedicated to supporting the electrification of industry. An "Electrification Bank" focused on providing support for industries that need to electrify their operations, would provide financial incentives covering both the required CAPEX and OPEX for industries to electrify and ensure a more efficient transition. It would also serve as a centralised platform for the European Commission to streamline financing from different funding sources, leverage the European Investment Bank for private investments and act as a "one stop shop" providing technical information and monitoring progress. The application to award process must be efficient and allow for funding to assist industry in electrifying their processes at pace.

- **Create lead markets for climate-neutral products**. Especially in times of tight public budgets, financial hedging instruments should be complemented by non-financial measures. Qualitative requirements (e.g. standards for green products in the finished goods, carbon accounting, labels) or quotas are needed to remove market entry barriers and induce demand by end-consumers for climate-neutral products, such as low-emission steel. Public procurement can play a central role in creating these lead markets and should be leveraged to the fullest.

b) Key preconditions for electrification

- **Ensure that energy taxation is aligned with climate objectives and is transparent in its application. National Governments should remove non-energy related taxes and levies from electricity bills.** Ensuring a level-playing field for renewable energy and associated technologies will require a tax shift from fossil fuel solutions. Taxes and levies account for a significant share of the final prices consumers pay for electricity in the EU. They penalise the use of electricity and create barriers to electrification.

- **Support the build-out of grid infrastructure** and **accelerate grid connection upgrades for electrified industrial processes**. National Governments today need to anticipate their needs for domestic

transmission, distribution grids and cross-border transmission tomorrow whilst also identifying the right financing tools which combine public-private capital. Regional planning with third counties such as the UK and Norway need to be reinforced both in EU Regulation and in practice. At national level, TSOs and DSOs are struggling to assess grid connection and upgrade requests. The first come, first served approach is no longer fit for purpose. National authorities must apply stable prioritisation criteria to accelerate these assessments for the most strategic generation and demand projects.

- **Promote the uptake of Power Purchase Agreements (PPAs):** PPAs enable European companies to procure renewable energy at competitive and predictable prices. The EU must ensure all EU policies recognise and fully leverage the potential of corporate renewable PPAs. The EU should refrain from overregulating or standardising PPAs which are fundamentally a market instrument. Instead, the EIB and Member States should make PPA offtake guarantees available to the market, de-risking investments and increasing the uptake of PPAs. To foster the internal market and collaboration between Member States, frameworks for competitive cross-border PPAs need to be enhanced. Electrification, increasing flexibility on the supply and demand side and grid investments will further boost the potential of PPAs.

- An **ambitious 2040 climate target** underpinned by an electrification target is essential to sustaining the energy transition. Decarbonisation is key for security of supply, competitiveness and climate change mitigation goals[2]. The European Commission's 2040 climate target foresees the electrification rate more than doubling to **51% by 2040**, while energy consumption reduces to 30%. The EU must set the right milestones to deliver that trajectory. This should form part of the Electrification Action Plan which needs to be published urgently. Moreover, the upcoming revision of the EU Emissions Trading System must follow trajectories set for at least a 90% carbon emissions reduction as per the revised Climate Law.

c) Measures to make electrification more economically attractive

- **Incentivise both storage and demand-side flexibility through improved price signals**. Demand side flexibility encourages industry to use electricity when it is cheaper and thereby increase industrial competitiveness. Both storage and demand-side flexibility will help tackle grid congestion as the total number of hours with a negative price has more than tripled since 2021. National Governments need to anticipate their flexibility needs with a long-term horizon and design State aid for non-fossil flexibility prioritising technologies that are commercially ready and deliver net-zero.

- As the Draghi report states, there should be enhanced **incentives for direct consumption of renewable electricity**. Regulatory incentives should simplify the build out of wind farms that are *near-site* to end users. This can either be achieved by enabling PPAs or by allowing industrial players with direct wire to connect directly to a wind farm.

2) Strengthening the European wind value chain

Scaling up wind energy is central to the delivery of the Clean Industrial Deal:

- **It reduces energy prices**: Wind is already 20% of the electricity that we consume. But Europe still imports a significant amount of fossil fuels which exposes us to volatile global prices and disruptions. Increasing renewable-based electrification reduces dependency on these imports - this will not only make European industries more competitive but also provide long-term price stability and enhanced energy security.

- **It contributes to economic growth**: More wind energy means economic growth for sectors including steel, cement and chemicals. As an important consumer of raw materials and components, the wind industry plays a significant role in reinforcing local supply chains and Europe's autonomy and resilience.

[2] Indirect electrification via renewable hydrogen will play a role in the decarbonisation of those sectors which are economically or technically difficult to electrify today such as aviation, shipping, parts of industry. Read the Manifesto of the Renewable Hydrogen Coalition **here**.

- **It drives electrification**: Wind energy is already a significant share of Europe's electricity. And European industry wants more wind energy. In 2023 European industries signed a record number of corporate PPAs with wind suppliers. By scaling up wind energy, Europe can accelerate the electrification of industry, both directly and indirectly via renewable hydrogen, and contribute to an efficient energy system integration.

To get the most from wind, the EU needs to deliver on the following:

- **Ensure auction models allow for commercially viable projects** through auction systems that are fit for purpose. CfDs, combined with PPAs wherever relevant, should be the go-to option, offering a fair and viable price for wind energy projects and Governments while also sharing risks. Negative bidding auctions should be strongly discouraged as it places additional challenges on the supply chain and creates added risks.

- **An Innovation Fund that delivers**: The EU Innovation Fund must now provide substantial support for wind industry scale-up, both through upgrading existing facilities and by supporting the development of new manufacturing sites. This includes keeping dedicated calls for clean tech manufacturing scale-up and innovative electricity grid technology, as well as rewarding projects that contribute to industrial resilience. The Innovation Fund design and award process should be improved to reduce the time from application to award. A revision of the methodology to calculate GHG emission avoidance is required along with innovative solutions for smart grids and better network efficiency needing to be in scope.

- **The European Investment Bank (EIB) counter-guarantee programme**: The EIB programme has been instrumental in supporting wind energy projects. We must ensure that the wind supply chain can secure the necessary guarantees and counter guarantees to deliver projects without delay. Framework contracts with counterparties which use individual project guarantees should also be considered. The EIB should develop new instruments such as dedicated financing with preferential rates that blend accessible EU funding and EIB financing, to support infrastructure projects like port buildout.

- **A public-private partnership on wind R&I**: A well-funded public-private partnership focused on research, innovation and scaling up the wind industry will drive faster technological advancements and increase production capacity and efficiency. This will ensure that Europe remains at the forefront of wind energy innovation and boost the EU's competitiveness by ensuring that European wind continues to be able to export to and compete in non-EU markets. Moreover, the electrification of process heat, particularly very high temperatures, should also be a focus area.

- **Clean tech trade partnerships:** The EU must develop secure and reliable trading partnerships to ensure a ready supply of critical raw materials and key components that are required for Europe's wind energy deployment. To deliver this, wind energy should be integrated into the EU's external economic strategy.

- **The next multi-annual financial framework (MFF)**: This should reinforce EU funding budgets for the wind industry's priorities including electrification, grid expansion, renewable hydrogen, supply chain competitiveness and research & innovation. A future European Competitiveness Fund would help to combine these instruments and funding streams. Funding processes should be radically simplified and accelerated to ensure the right technologies will be developed to help the wind industry to scale-up.

- **Skilled workforce:** By 2030 the European wind industry will need to employ over 600,000 people. Addressing this demand requires a comprehensive approach to skills and education. This includes collaboration between industry and education, hands-on STEM education, green career guidance and the harmonisation of qualifications. Promoting diversity and inclusiveness within the sector will ensure a just transition and ensure a broader talent pool. Reskilling workers from other sectors such as coal mining and enhancing training programmes in wind and digital technologies is also a vital component.

3) Fast implementation and targeted improvements in the existing EU framework

The Clean Industrial Deal will only succeed if it builds on the speedy and thorough implementation of agreed legislation, in particular:

- **Fast implementation of the EU Grid Action Plan.** The EU needs a quick identification of investment needs for national domestic transmission and distribution grids, cross-border transmission and flexibility. The EU Governance Regulation needs to reinforce requirements for regional planning addressing consistency of national decisions on gas network dismantling or repurposing with the EU's climate targets. National authorities urgently need to better manage grid connection queues. EU policymakers, regulators and National Governments must ensure that existing regulation allows for public-private financing of grids while ensuring affordable and stable terms for end users.

- **Enforcing EU rules on permitting.** Permitting continues to be one of the main bottlenecks to wind expansion. Only Denmark out of the 27 Member States has implemented the good EU permitting rules on time, and Germany has seen real progress with 12 GW permitted in the beginning of 2024. Delays increase financial risks and raise project costs. It reduces investor confidence. The Commission should continue guiding Member States to implement the rules from the Renewable Energy Directive effectively.

    - Digitalising the permitting process is critical as it allows for the faster permitting of projects as well as providing more transparency in the permitting process for a clean and just transition.

    - Member States must make full use of overriding public interest for renewables. Germany has demonstrated that it has sped up the development of wind whilst having the least impact on biodiversity thanks to continuous application of compensation measures. Only a few countries have implemented it in their national law, but it is not yet consistently applied in court cases.

    - Acceleration areas should be carefully designed to speed up processes and avoid no-go areas.

    - Specific accelerated procedures need to be created for repowering projects, that encompass both full and partial repowering. Member States should look at repowering projects to reach their renewable targets as new projects typically generate three times more electricity on the same site. Countries running CfD auctions should set dedicated auction pots or tariff premiums for repowering projects, reflecting the economic reality of repowered projects.[3]

- **Enforcing EU rules and targets for Renewable Hydrogen.** The renewable hydrogen targets enshrined in the Renewable Energy Directive (RED III) and Fuel EU Maritime must be fully implemented.

- **Access to critical raw materials:** Wind technologies rely heavily on critical raw materials such as some rare earth elements, aluminium, and steel, which are vital for manufacturing turbines and generators, or copper for key components such as cables.

    - The implementation of the EU Critical Raw Materials Act (CRMA) is essential in supporting the wind industry overcoming existing import dependencies for critical raw materials. New alternative supply chains will require the development of new trade routes for key materials to ensure a more resilient supply base and to avoid bottlenecks and price volatility.

    - The Clean Industrial Deal should build on the CRMA provisions to secure stable and sustainable supply chains for critical raw materials. For instance, investing in recycling technologies and fostering strategic partnerships and open trade relations will be key to cutting the dependency on external sources and strengthening the resilience of Europe's wind industry.

[3] https://windeurope.org/wp-content/uploads/files/policy/position-papers/20240918-Repowering-policy-recommendations.pdf?v=20241008

- **The Net Zero Industry Act (NZIA)** aims to achieve climate neutrality by 2050 with competitive European clean tech manufacturing. To avoid bureaucratic burden and ensure its effective execution, the secondary legislation must guarantee a streamlined and harmonised implementation of the provisions applicable to wind as well as a technology-specific approach.

    - The design of non-price criteria must be well-calibrated to reward the socio-economic benefits that the EU wind industry brings to the EU economy whilst avoiding cost increases.

    - The resilience criterion should avoid dependencies on single countries by considering current and future realistic alternative sources and local supply chains. WindEurope strongly recommends alignment with its position on the list of components counting towards resilience. Components such as permanent magnets must not feature on the list. As alternatives are not currently available, or not available at a competitive price, their inclusion would do more harm than good. Resilience criteria which is too stringent would reduce availability of supplies to EU-based manufacturers, putting them at a competitive disadvantage.

    - Robust cybersecurity prequalification criteria based on EU legislation is essential to protect the security of Europe's energy infrastructure and wind supply chain. As the sector becomes increasingly digitalised, the risk of cyber-attacks grows, posing significant threats to operational continuity and data security. Defining strong cybersecurity requirements on grid components and generation technology will help mitigate these risks, ensuring that wind energy systems remain resilient against cyber threats and can maintain reliable operations to ensure Europe's security.

    - The European wind industry is committed to the implementation of sustainable practices in the whole value chain. This should form an important part of renewable energy auction schemes at the national level and reward the investment that the EU wind supply chain is making in these areas, particularly recyclability and circularity.

- **A level playing field on the EU market:** The European wind industry welcomes competition as long as it is on fair terms and allows for the creation of a level playing field. Today's wind supply chains are largely global, which increase the cost efficiency and speed of wind energy projects in Europe. However, the Commission should continue to deploy existing regulatory instruments to address market distortions and unfair foreign competition. The Foreign Subsidies Regulation is an example where the Commission has taken swift and concrete action. Boosting partnerships with trusted partners globally is key to ensuring fair competition. Trade barriers and other protectionist measures should be avoided.

EU policymaking should ensure the consistency of existing legislation, notably the Carbon Border Adjustment Mechanism, with the objectives of the Clean Industrial Deal.

- **The Carbon Border Adjustment Mechanism (CBAM):** The implementation of CBAM will have significant impacts on costs for the European wind industry. The EU must urgently revise CBAM to mitigate any negative economic effect on EU production and EU exporting industries as they could seriously expose the European industrial base to further decline in competitiveness. We must address the risk of source shifting that leads to massive imports of low carbon steel blocking most decarbonisation investments in Europe.

  The regime as it stands today presents several inconsistencies on the status of offshore wind platforms located in the Exclusive Economic Zone (EEZ), which are considered by customs authorities as third country territory. The unreasonable application to transportation equipment, or the complex and ineffective rules imposed on clean electricity trade, must also be revised. The EU Commission must work closely with stakeholders to test and modify or remove those provisions that add administrative burdens to EU companies without reducing global emissions.