

Industrial Decarbonisation Bank – beyond the pilot auction

Eurelectric position paper

October 2025

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.

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KEY MESSAGES

- Eurelectric welcomes the establishment of the Industrial Decarbonisation Bank (IDB), which is likely to be a key enabler for the EU's overarching climate, growth, and energy security objectives. As such, it can be a key element of the upcoming [Electrification Action Plan](#).
- We recommend building the IDB on three core principles:
 - Applying a mitigation hierarchy for decarbonising industrial processes
 - Seeking simplicity, transparency and efficiency in the call for applications and funding
 - Providing long-term business certainty: credible support based on sufficient budgets and clear investment signals
- Ensure budget allocation builds on a “mitigation hierarchy” based on cost-efficiency. This means prioritising the avoidance and reduction of emissions, coupled with a subsequent reduction of fossil fuels demand, by channelling investment into transformative, proven, cost-effective technologies.
- Electrification first: Ensure that at least 75% of its total 100 bn Euros allocated to electrifying Europe's industrial sectors, as a step towards doubling the electrification rate to achieve 50% by 2040, and achieve lower system costs for all consumers.
- We call on policymakers to:
 1. Devise a simple, transparent and efficient design, providing support based on competitive bidding.
 2. Enable agile upfront support allocation, creating synergies between different EU and Member State level support options.
 3. Provide early clarity on the funding plan (in terms of sizing, sourcing and timing).
 4. Ensure that adequate, tailor-made support is provided to consumers with electrification potential. This should consider temperature baskets and various degrees of support for small, medium and large-scale projects.
 5. Grant national priority status to selected projects to fast-track administrative procedures and permitting, including environmental assessments and thus accelerating their implementation.

Introduction and main objectives

Eurelectric welcomes the establishment of the Industrial Decarbonisation Bank (IDB), which is likely to be a key enabler for the EU's overarching climate, growth, and energy security objectives.

We encourage the European Commission to build on the lessons learnt from other specific funding instruments, such as the Innovation Fund, the pilot auction on the electrification of industrial heat, the Hydrogen Bank or the recently introduced Clean Industrial State Aid Framework (CISAF). This will be essential in ensuring this instrument delivers on its key objectives.

Specifically, the power sector believes the IDB should follow three key principles:

1. Applying a mitigation hierarchy for decarbonising industrial processes
2. Seeking simplicity, transparency and efficiency in the call for applications and funding
3. Providing long-term business certainty: credible support based on sufficient budgets and clear investment signals

1. Apply a mitigation hierarchy for decarbonising industrial processes as an overarching principle

Together energy supply and manufacturing sectors are responsible for roughly 40% of the total greenhouse gas emissions in Europe. In the power sector, removing emissions at source is the core of the transformative effort, which has led to renewable power growth pushing fossil fuels to below a quarter of the mix. For industrial sectors, where 75% of process heat is still reliant on fossil fuels, decarbonisation revolves primarily around three options:

- a. maintaining the current process and coupling carbon capture and utilisation/storage solutions – which exist at pilot stage only and would require a different funding tool if further pursued;
- b. shifting fuels – i.e. through the adoption of decarbonised gases – which in some cases benefit from dedicated funding instruments;
- c. electrifying – which entails a technology switch with however many readily available solutions both in technological and economical terms (see chart below).

Industry	Application	Reference	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Reference + CCS
Food & Beverages	Milk powder production	Natural gas (CHP plant)	Electricity (Electric boiler)	Electricity (Heat pump system)	Green hydrogen (Hydrogen boiler)		Natural gas & CCS (CHP plant with CCS unit)
Paper & Pulp	Paper drying	Natural gas (Natural gas boiler)	Natural gas (Electric boiler)	Electricity (Electric boiler)	Electricity (Hydrogen boiler)		Natural gas & CCS (CHP plant with CCS unit)
Chemicals	Chemical park vapour supply	Natural gas (CHP plant)	Electricity (Electric boiler)	Electricity (Heat pump system)	Green hydrogen (Hydrogen boiler)		Natural gas & CCS (CHP plant with CCS unit)
Iron & Steel	Continuous heating Flat/long steel	Natural gas (Walking beam furnace)	Electricity & Biogas (crucible induction furnace)	Green Hydrogen (walking beam furnace)	Electricity & Biogas (Rotary hearth furnace)	Electricity & Green Hydrogen (Rotary Hearth furnace)	Natural gas & CCS (Walking beam oven / push oven with CCS unit)
Aluminium	Alumina refining digestion	Natural gas (natural gas boiler)	Electricity (Electric boiler)	Green hydrogen (Hydrogen boiler)			
Glass	Continuous melting of flat glass	Natural gas (Regenerative cross burner tray)	Electrification (All-electric furnace)	Green hydrogen (Regenerative cross burner tray)	Electricity & Biogas (Regenerative cross burner tray with electric boost system)	Electricity & Green hydrogen (Regenerative furnace with all-electric concepts)	Natural gas & CCS (Regenerative cross burner tray with CCS unit)
Cement	Continuous burning Cement clinker	Fossil fuel mix (Rotary kiln)	Electrification (Electrically-heated rotary kiln)	Green hydrogen (Rotary kiln)	Electricity & Fossil fuel mix (Rotary kiln with all-electric concepts)	Electricity & Green hydrogen & Biomass (Rotary kiln with electric boost system)	Fossil fuel mix & CCS (Rotary kiln with CCS unit)

Technology readiness



CAPEX remains an issue for electric technologies:
scalability will be key in driving down the costs

Source: Enel Foundation

Electrification has entered a new era. A wide range of industries can break their dependence on imported fossil fuels thanks to the multitude of technical innovations in electric technologies. Over the past 20 years, improvements in performance, efficiency, temperature levels, ranges, etc, have built the business case for electric technologies.

From a technological standpoint, most industrial processes today can in principle be electrified, enabling a shift toward cleaner and more efficient energy sourcing. Electrification stands out as one of the most cost-effective mature, scalable and energy-efficient solutions for decarbonising end-use sectors, reducing reliance on fossil fuels while lowering overall emissions. Strategically, advancing electrification strengthens Europe's competitiveness and sovereignty by decreasing dependence on external energy sources, while also cutting carbon costs and supporting long-term sustainability goals.

Direct electrification already offers unmatched efficiency and cost benefits for industrial processes under 500 °C, and a technical potential of 92% by 2035 thanks to advancements in existing technologies. Innovation has thus to go hand in hand with scalability: developing electrified solutions is only the first step; deploying them across Europe at pace and scale is just as critical to delivering decarbonisation cost-effectively and lowering overall system costs.

Other decarbonisation technologies like CC(U)S will play a role in specific non-heat related industrial processes and to produce decarbonised gases. However, an over-reliance on fossil fuels combined with CC(U)S solutions risks locking in assets that may become stranded, thereby undermining both climate and energy sovereignty goals. As a considerable share of industrial plants in the EU (steel, steam crackers...) face major investment decisions by 2030, it would be important to ensure that such approach is targeted only to sectors where no decarbonisation technology alternatives exist or is expected to be developed.

The Industrial Decarbonisation Bank should allocate support based on a mitigation hierarchy constituted around benefits, efficiency and compatibility with long-term climate neutrality goal. This would entail ensuring emissions avoidance and reduction of fossil fuel demand come first, before supporting capturing and removal of CO₂ – which should be applied in sectors where electrification is not yet technically or economically feasible.

How:

- Ensure budget allocation builds on a “mitigation hierarchy” based on cost-efficiency. This means prioritising emissions avoidance and thus reduction of fossil fuels demand by channelling investment into transformative, proven, cost-effective technologies;
- Electrification first: Ensure that at least 75% of its total 100 bn Euros are allocated to electrifying Europe's industrial sectors, as a step towards doubling the electrification rate to achieve 50% by 2040, and achieve lower system costs for all consumers.
- Adopt a cross-sectoral approach, ensure eligibility remains open to all sectors in need of support and providing safeguards in this direction. This implies enabling applications from business using temperatures above 70 degrees Celsius and installations sizes above 1 MW_{Th};
- When assessing the decarbonisation potential stemming from electrification vis-à-vis other vectors, and considering that 72% of electricity supply already comes from clean and renewable sources, electricity should be treated as zero emissions, as is the case in regular Innovation Fund calls, to ensure simplicity.

2. Seeking simplicity, transparency and efficiency in application processes and funding

We believe the IDB should act as a one-stop-shop for project promoters, allocating temporary and conditional support for closing the funding gap with fossil-based reference technologies, through a competitive bidding process. In view of mitigating the initial investment strain on industries, it is important to provide support for critical CapEx, including electrified technology deployment and costs related to the reinforcement necessary for the grid connection of the industrial site. In addition, certain OpEx support such as the one related to re-skilling or critical maintenance, could be temporarily covered during a transition period. As for energy related OpEx, market-based instruments such as Contracts for Difference (CfD) and Power Purchase Agreements (PPA) can be useful to mitigate price volatility.

We believe that auctions provide a competitive and transparent process to allocate EU funds for dedicated projects, especially when they involve technologies that are similar or at least comparable for ranking purposes.

How:

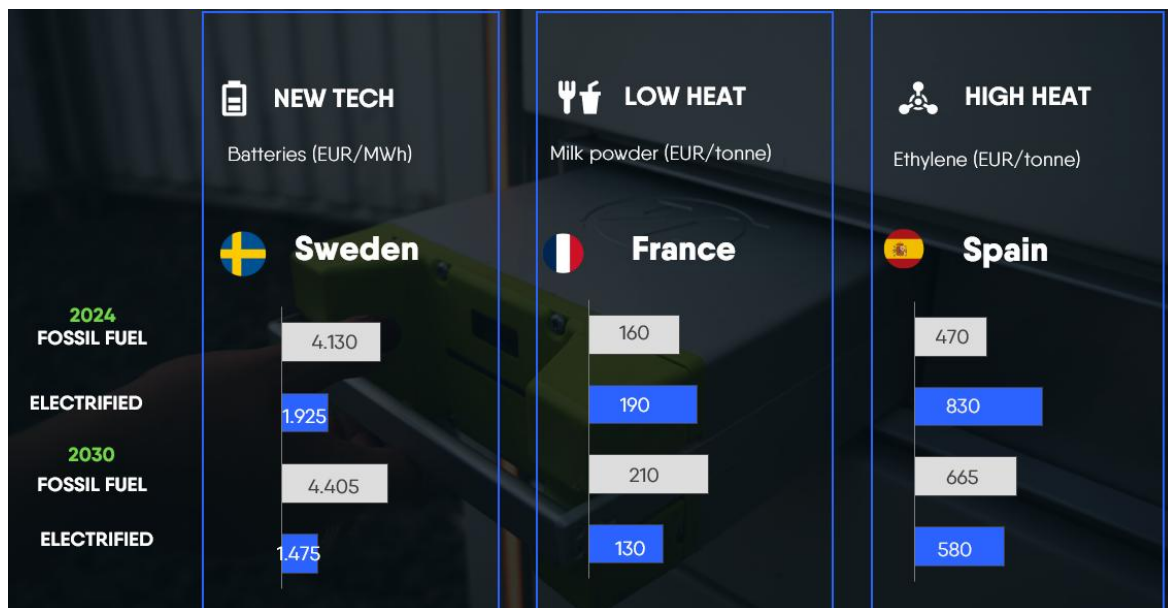
- Devise a simple, transparent and efficient design. This could include:
 - Allocating support based on competitive bidding rather than grant process, leveraging robust procedures already tested under the Innovation Fund's pilot auction for the electrification of heat and Hydrogen Bank.
 - Enabling project promoters to consider investment and operation risks, including DevEx, CapEx, OpEx. For instance, when essential for project implementation, costs related to electricity grid connection, thermal/electricity storage, heat distribution could be considered for inclusion in the bidding price of the auction.
 - Providing a single cost metric (i.e. EUR/MWh of heat), which ensures a level of comparability between projects.
- Create an agile support allocation process by:
 - Coordinating and centralising existing and new funding opportunities at the EU and Member State level and create synergies between different risk-sharing instruments, while controlling for undue overallocation leading to a subsidy race among Member States.
 - Complementing funding with de-risking solutions from the European Investment Bank (EIB) and a favourable regulatory and tax environment at the national level to create the much-needed level playing field.
 - Allowing a combination with and cumulation of other EU and national funding instruments (i.e. indirect carbon cost compensation). To avoid competition distortion within the auction framework and overcompensation, any State Aid or centrally managed EU funding and any non-aid subsidy (e.g., grid fees reductions) already granted should be added to the bid for the purpose of ranking. Clear, transparent rules on the cumulation of support instruments are needed, especially in the context of multi-funding scenarios.
 - Support for projects should be allocated upfront in view of the CapEx focus of the technological switch to direct electrification. Pre-financing, with a portion of the grant disbursed before project commissioning, should be enabled to overcome early-stage funding barriers and reduce investment risk. Safeguards (e.g. completion guarantees, reimbursement schedules) can be set to preserve the results-based funding principle.

- Encourage Member States to participate in the “auction-as-service model”, while continuing to provide support on this approach. Ensure the application process is aligned with the principles of simplification and reduced administrative burden.

3. Providing long-term business certainty: credible support based on sufficient budgets and clear investment signals

Electrification has emerged as a key driver of the energy transition, offering significant advantages across technological, economic, and strategic dimensions. The Clean Industrial Deal has introduced an indicative 32% electrification target by 2030, whereas the 2040 Impact Assessment acknowledges the need to electrify half of the economy to meet the net-zero ambitions. Nevertheless, the electrification rate has been stagnant for the past decade, while demand has contracted in the recent years.

Yet, the balanced development of supply and demand is essential to achieve a successful and coordinated energy transition, which is aligned with the competitiveness and growth ambitions. As investment follows real market needs, visibility with regards to future demand is needed to ensure capital is being committed to new clean generation projects.



Our report, *The New Industrial Age*, shows that electrified manufacturing processes are or can be competitive vis-à-vis fossil-fuelled production means by 2030. For instance, in Europe the production of net-zero technologies (such as batteries) using electric technologies is already competitive vis-à-vis fossil-fuelled production processes. This indicates that new industrial consumers should use a fully electrified process from the onset. For lower heat segments, such as milk powder production, the competitiveness gap can be closed before the end of this decade, through policy and upfront investment support. Lastly, the high heat segment – where technology is still in early stages, and economies of scale are difficult to achieve – would require more targeted support to drive down both the CapEx and OpEx

How:

- Provide early clarity on the funding plan (in terms of sizing, sourcing and timing).
- Ensure that adequate, tailor-made support is provided to consumers with electrification potential. This implies dividing support into various baskets (i.e. based on temperature levels), considering applications at project level (not full installation level), enabling hybrid solutions, ensuring cost-efficient abatement etc.
- Enable all business segments to participate in dedicated auctions, ensuring appropriate levels of support both for small-scale and large-scale projects, which deliver value in terms of emissions reduction, scalability and economic growth. To do so, dedicated calls for small (<20 M€), medium (<100 M€), and large-scale (>100 M€) projects could be organised.
- Introduce benchmarks allowing to monitor and evaluate the success of supported projects.
- The IDB could play a role in the [Tripartite Agreements framework](#), possibly as a financial pillar, bringing together institutional support, off-takers and energy providers, to accelerate electrification.
- Selected projects should be granted national priority status to fast-track administrative procedures and permitting, including environmental assessments and thus accelerating their implementation. This should be applicable both in case of greenfield and brownfield, as well as additional electricity grid developments should the project fulfilment require it. Moreover, permits should not be on the list of mandatory submission documents, since financial close usually precedes permitting and is often difficult to achieve without funding certainty.

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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