

The new industrial age

Tailored electrification pathways for Europe's
industrial competitiveness

Eurelectric policy recommendations

Policy recommendations:

How to make electrified solutions more attractive than fossil-based counterparts.



Implementation of agreed policies, removal of fossil subsidies & access to adequate information on electrification

1. Swiftly implement agreed policies to provide regulatory stability and predictability.
2. Level the playing field via taxes and levies.
3. Enhance the phase out of incentives locking consumers into fossil-based technologies.
4. Raise awareness on the competitiveness of electrified solutions with access to adequate information & comparison tools.

Financial support for CAPEX and OPEX costs of electrified solutions

1. Ensure that the Industrial Decarbonisation Bank adequately supports electrification.
2. Support long-term contracts for industry.
3. Generalise CCfDs to enhance the bankability of industrial electrification projects and protect the cost-competitiveness of electrification against CO₂ and fossil fuels price uncertainty.
4. Dedicate a significant portion of ETS revenues to industrial electrification.
5. Adjust State Aid rules appropriately.

Unlock the potential of all flexibility sources on a level playing field

1. Support flexibility uptake, notably demand response by industrial customers.
2. Devise an energy storage strategy.
3. Use all flexibility potentials of the electric system on a level playing field.

Promote tailor-made industrial strategies to support innovation and competitiveness

1. Put forth Low and High-Heat Action Plans.
2. Promote innovation as a key lever for competitiveness.

Upgrade grid infrastructure to support industrial electrification and accelerate permitting

Implementation of agreed policies, removal of fossil subsidies & access to adequate information on electrification

1. Swiftly implement agreed policies to provide regulatory stability and predictability

- Before considering new legislative layers, proper delivery of existing and planned ones should be prioritised.
- For industrial electrification to be competitive, there is a real need for **regulatory stability and predictability**. Swift and effective implementation of planned legislation is key in achieving this regulatory certainty, such as the Clean Energy Package, Fit for 55, and RED III for faster permitting and the revised Electricity Market Design which addresses barriers mentioned in the Draghi Report such as lengthy permitting, regulatory and market fragmentation and the need for investments in energy infrastructure.
- Clear benchmarks are also crucial for visibility. We welcome the 32% electrification rate KPI introduced by the Commission in its Clean Industrial Deal. This must be complemented by a **50% economy-wide 2040 electrification** KPI to set the pace for electrification in the mid-term. These KPIs should be underpinned by structural planning and monitoring frameworks and integrated in the revised Governance Regulation and NECPs.

2. Level the playing field via taxes and levies

- The current taxation framework favours fossil fuel usage and disincentivises the move away from carbon-intensive energy sources as the share of taxes, levies and fees on electricity is 3.5 times higher than for gas.
- We support the **rapid revision of the Energy Taxation Directive** to level the playing field and lower taxes and levies on electricity.
- **In line with the Commission's asks**, we call on MS to lower national electric taxes and levies towards the minimum excise duty rates (EUR 0.5/MWh for businesses), apply reduced VAT rate of minimum 5% and decrease taxes to zero for households' and energy-intensive industries' consumption. All non-energy related levies must also be eliminated.

3. Enhance the phase out of incentives locking consumers into fossil-based technologies

- The European Court of Auditors estimates that fossil fuel subsidies reach over €55 billion every year across Member States. This constitutes a major blocking factor for the transition and provides misleading incentives to the public.
- We call on the Commission and Member States to take decisive action to **cut down any harmful fossil fuel subsidies**.
- In parallel to increasing electrification rates across the economy, and while closely monitoring social repercussions, the European Commission and Member States should also support progressively redistributing current taxation levels from electricity to fossil fuels ultimately resulting in **higher levels of taxation for inefficient and polluting fossil fuels** compared to electrification.
- Moreover, we fully support the EU ETS, which must remain effective in reducing the price differences between fossil and electric technologies.

4. Raise awareness on the competitiveness of electrified solutions with access to adequate information & comparison tools

- As highlighted in the report, some electricity solutions are already competitive when compared to fossil fuelled options. The case of the batteries sector, in Hungary and Sweden as outlined in the report is compelling.
- Lack of awareness regarding these technologies is a barrier in their widespread adoption, and it is vital that access to information, reliable comparison tools, and knowledge regarding their benefits be as simple and comprehensive as possible.
- Measures to raise awareness should include **large communication campaigns and targeted industrial and sectoral outreach**.
- Moreover, we call for the creation of **electrification observatories** providing reliable, up-to-date and detailed information regarding the advantages of adopting electrified decarbonisation solutions.

Financial support for CAPEX and OPEX costs of electrified solutions

1. Ensure that the Industrial Decarbonisation Bank adequately supports electrification

- The announced Decarbonisation Bank is a positive step, and it should provide adequate support to electrification as the most cost-effective and energy efficient solution for industrial actors. It should dedicate calls for electrification, giving clarity and priority to such projects.
- The Industrial Decarbonisation Bank should also offer direct support for electrification of industrial heat (in the form of €/MWh).
- In line with our Electrification Bank proposal, we support an Industrial Decarbonisation Bank in the form of a **one-stop shop for industrials**. This should not be a physical investment company but rather a financial tool **managed by the Commission** centralising available (and upcoming) funds to incentivise electrification, similar to the Hydrogen Bank's model and leveraging private investments.
- Funding should be allocated based on auctions at EU level and auction-as-service, where MS can allocate national resources to projects based on auctions at EU level.
- There is a need for different auction segments for different industries, (e.g. low and high-heat processes, targeting some sectors needing specific technologies). It is vital that support from this Bank be as dynamic as possible to avoid market distortions and combinable with support from other mechanisms.
- This new simplified point of access would be a key asset to **finance CAPEX** costs for electrification, and some OPEX costs on a temporary basis as far as these contribute positively to closing the funding gap.

2. Support long-term contracts for industry

- Long-term contracts reduce exposure and impacts of price volatility from short-term markets, providing long-term stability and making electrification more attractive.
- **PPAs** are key to help industrial consumers hedge against these price fluctuations, reducing uncertainty.
- We call for the **swift launch and expansion of the EUR 500 million EC-EIB partnership** on counter-guarantees for PPAs, a vital step in increasing PPAs' uptake.

3. Generalise CCfDs to enhance the bankability of industrial electrification and protect the cost-competitiveness of electrification against CO2 and fossil fuels price uncertainty

- ETS price signals have been insufficient to drive decarbonisation in certain energy intensive sectors. Carbon Contracts for Difference (CCfDs) allow market participants to **hedge against risks of ETS and fossil fuels price fluctuations or uncertainty** and the lack of incentives current prices bring for certain electrification projects.
- We call on **Member States to rapidly implement national CCfD-like schemes**, as a complementary tool to other decarbonisation measures, as has been recently done in Germany in 2024 with the Climate Protection Contracts and in the Netherlands with SDE++. Other Member States must follow suit as this mechanism can be a true enabler and effective de-risking instrument for industrial electrification.
- We also call on **the European Commission to rapidly provide guidance on CCfD schemes in line with State Aid rules**, as it has recently stated in its Steel and Metals Action Plan, and to support the uptake of these schemes at Member State level.

4. Dedicate a significant portion of ETS revenues to support industrial electrification

- In line with our Electrification Bank and CCfD asks, we call on Member States to channel a large portion of their ETS revenues towards industrial decarbonisation, particularly via electrification projects.
- This is a key step in ensuring that the EU ETS remain an enabler of decarbonisation, and would allow to incentivise permanent decarbonisation projects in the industry.

5. Adjust State Aid rules appropriately

- We believe that State aid rules must be adjusted to further accelerate industrial electrification, align public support with decarbonisation goals and reduce the dependency on imported fossil fuels. Existing EU-wide tools such as State Aid legislation with its **General Block Exemption Regulation** should consider decarbonisation and electrification solutions for industry.
- Direct support under national state aid schemes (CEEAG) should be targeted, temporary and granted separately from the market instrument. This would reduce transaction risks and avoid distorting the functioning of the overall power market.
- The conditions for allowing aid to natural gas investments should be aligned with the goal to reduce the dependency on imported fossil fuels.
- For the **Clean Industrial Deal State Aid Framework (CISAF)** to incentivise direct electrification the following conditions must be met: i) enable temporary OPEX support; including via CCfDs; ii) level the playing field with other technologies by

increasing the aid intensity for CAPEX for direct industrial electrification to at least 50%, and iii) provide aid in the form of accelerated depreciation which reduces financial pressure at the initial stages of the investment.

Unlock the potential of all flexibility sources on a level playing field

1. Support flexibility uptake, notably demand response by industrial customers

- Flexible electricity consumption reduces exposure to the hours with very high electricity prices. A case study in Finland has shown that if consumers had the flexibility allowing them to avoid just 10% of the most expensive hours, they would access electricity spot cost of circa 30 EUR/MWh. Here, consumers would benefit from such prices for over 52% of their time, and they would be below 50 EUR/MWh in roughly 70% of the hours, activating demand response in a technology-neutral way.
- It is necessary to unlock the potential of flexibility through **proper implementation of the EU framework** to ensure overall system benefits and bring down the costs. We call for the implementation of the Electricity Directive, Clean Energy Package, Electricity Market Design and swift adoption upcoming Network Code on Demand Response.
- Moreover, we call for the **lifting of technical blocking factors** for DSR participation in all electricity markets, which includes capacity mechanisms, to ensure that key enablers are in place of DSR.
- We support the rapid and generalised deployment of **smart meters as a necessary precondition** to support flexibility uptake and demand response by the industrial consumer base.
- Finally, we call for a detailed industry study which maps out the potential of industrial flexibility and demand-response.

2. Devise an energy storage strategy

- Storage is key to fully harness the potential of clean energy and has massive untapped potential as a provider of flexibility.
- Storage capacity needs to grow from 60 GW to 191 GW in 2030 according to Eurelectric's Decarbonisation Speedways study. This massive expansion contrasts with the absence of a framework for scaling-up energy storage.
- We call for the EU and Member States to **put forth an EU energy storage strategy** which would unlock the immense potential of flexibility and account for all storage

technologies; batteries, pumped storage and reservoir hydropower, waste heat storage, compress air energy storage, hydrogen storage etc.

- This strategy must provide long-term visibility, encourage the **abolishing of double taxation** that energy storage is exposed to in certain MS, channel funding towards storage development and pave the way for **permitting acceleration and grid connections streamlining**.
- Finally, it is time that the EU set up a **common methodology** to assess the carbon content of injected, stored and withdrawn electricity.

3. Use all flexibility potentials of the electric system on a level playing field

- Power Generation can provide dedicated flexibility services to a customer, by embedding it into a PPA or a supply contract with tailored flex offers to industrial customers.
- For the implementation of flexibility offers, technology-neutral mechanisms should be preferred by default, based on system needs, as competition between technologies would improve the efficiency of the mechanism and reduce costs for consumers.
- Finally, it is time that the EU set up a common methodology to assess the carbon content of injected, stored and withdrawn electricity.

Promote tailor-made industrial strategies to support innovation and competitiveness

1. Put forth Low and High-Heat Action Plans

- 850 TWh of the current process heating demand takes place at temperatures below 500°C. This means, nearly half of the total heat demand (48%) can be electrified using mature technologies, such as heat pumps and e-boilers. The other 50%, or 900 TWh of the total process heating demand is represented by temperature needs over 500°C. While these are considered industries with hard to abate emissions, technological innovation is starting to show promising results. This is the reality faced by new technologies such as e-crackers and e-kilns, which are still in demonstration phase.
- We call for the Commission to launch a **Low-Heat and a High-Heat Action Plan**. These Action Plans would account for the differing realities and decarbonisation perspectives for industries in a technology neutral way depending on their heat processes.

- The aim of such **planning and strategic outlook** in such action plans is to grant visibility and predictability to industrial actors, while outlining **concrete decarbonisation measures, which would include** encouraging electrification and further measures such as waste heat recovery.

2. Promote innovation as a key lever for competitiveness

- Technologies such as Electric Arc Furnaces (EAF) for the steel industry, electric crackers for the chemicals industry or high-temperature heat pumps are key technologies which would allow for effective decarbonisation of the industry but that are not yet at scale to be deployed cost-effectively.
- Scaling, improving and generalising these solutions will require continued advancements and innovation. To stimulate the competitiveness of industrial electrification, the EU must remain at the forefront of developing and deploying these technologies, and place innovation and R&D at the heart of its strategy.
- We ask to **place innovation at the heart of EU value chains**. EU programmes that encourage industrial decarbonisation via electrification should allow for partnerships and further collaboration between industrial actors and the power sector, so that these projects can be effectively delivered.
- The Innovation Fund is a key European tool to support incremental innovation gains and support first-of-a-kind projects in the EU. **Increasing the Innovation Fund** is a key step to bring innovative electrified technologies down the cost curve and reduce the competitiveness gap vis-à-vis fossil-based technologies.

Upgrade grid infrastructure to support industrial electrification and accelerate permitting

- To support the uptake of economy-wide electrification which includes industrial electrification projects, grid modernisation and investments are a prerequisite.
- We fully endorse the upcoming Grids Package announced by the Commission, as well as the European Parliament's own-initiative report on grids, both of which represent important steps toward the necessary upgrade of Europe's grid infrastructure.
- Eurelectric's Grids for Speed study highlights that nearly one-third of the EU's distribution grids are over 40 years old; We call for **urgent and massive investment in grids** to be fit-for-purpose in an increasingly decarbonised, decentralised and digitalised power system. Eurelectric estimates that annual investment in grids will need to nearly double to between EUR 55-67 billion from 2025 to 2050 in the EU and Norway. We also call for the **streamlining of permitting for grid build-out**.

- We encourage the Commission to quickly provide much-needed guiding principles to MS regarding **anticipatory grid build-out**, announced for Q2 2025 in the Action Plan for the European automotive sector. Member States must swiftly implement this in their regulatory frameworks, as enabling anticipatory grid build-out is vital for accommodating the expected surge in electrification rates.
- We also support the establishment of a **European Grids Academy**, which would allow for further European cooperation and address skills shortages and reskilling needs.
- Moreover, we support an effective and swift TEN-E legislation reform, for it to better take into account distribution grids.

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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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