
Powering Europe's industry

Competitiveness, electrification
and the role of electricity

27 May 2026, 10:00-11:30



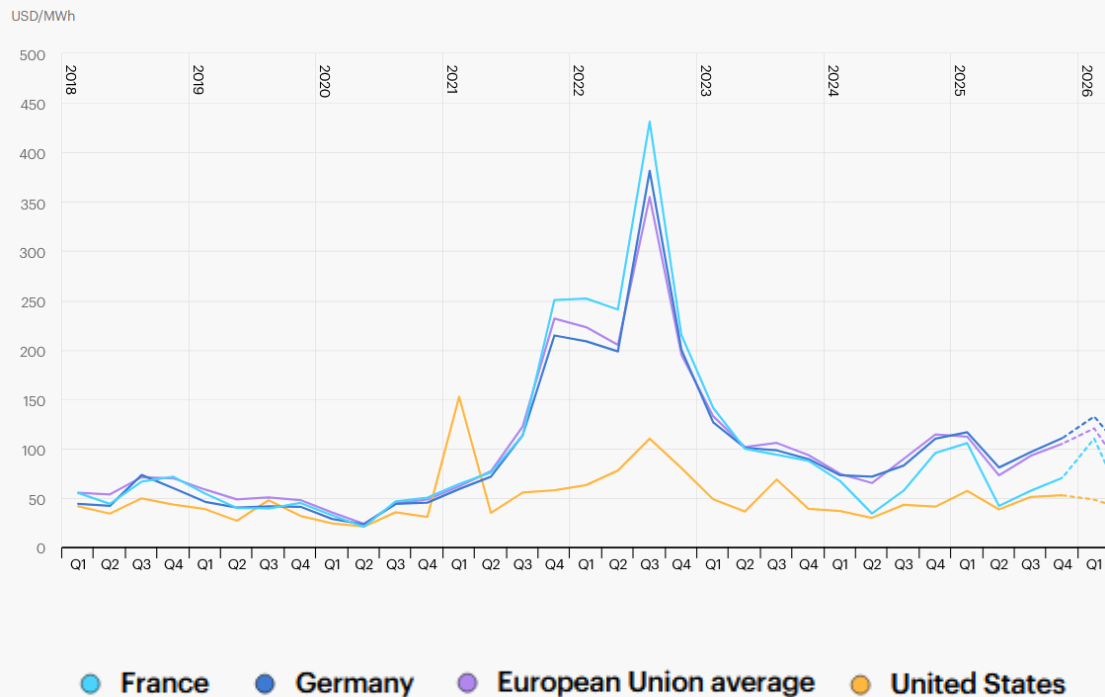
EU context

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Context & Challenge

Historical quarterly average wholesale electricity prices



Context:

- EU industry faces increasing competitiveness pressures
- Electricity costs often cited as a competitiveness factor
- Long-term vision on electrification & decarbonisation as central factors for the EU's resilience and competitiveness
- A very dynamic European political context
- A new fossil energy crisis


Key questions for the project:

- How important are energy and electricity costs in the competitiveness gap for different industries today and in an electrified future?
- Which guiding principles can help align industrial policy instruments with competitiveness, resilience and decarbonisation objectives?

Figure source: IEA [Electricity 2026 – Prices](#)

3 | Prices are in nominal values, converted to USD based on the average exchange rate of the quarterly period. Continuous lines show historical data and dashed lines refer to forward prices.

The EU's Clean Industrial Deal sets the framework for combining decarbonisation and competitiveness – electrification as a key pillar


 **Affordable Energy & Electrification → Increase economy-wide electrification rate from 21.3% to 32% in 2030**

 **Lead Markets**

 **Financing**

 **Circularity and Access to Materials**

 **Global Markets and International Partnerships**

 **Skills Enhancement**

 **Simplification**

Study presentation:
Powering Europe's industry: competitiveness,
electrification and the role of electricity

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Starting point of this project



- Long-lasting cooperation in co-organising expert workshops and carrying out common studies with a focus on German-French cooperation and EU policies
- Combined knowledge of national contexts & EU policies in the field of energy and climate to better understand the challenges for a successful transition towards a low-carbon economy
- Collaboration with Compass Lexecon to make quantitative assessment for this study



The project

3 stakeholder workshops (Paris, Berlin, Brussels)

Online workshop

Bilateral exchanges

Study by Compass Lexecon

Agora & Iddri Policy Brief

Publications

Agora-Iddri Impulse Paper



Study by Compass Lexecon



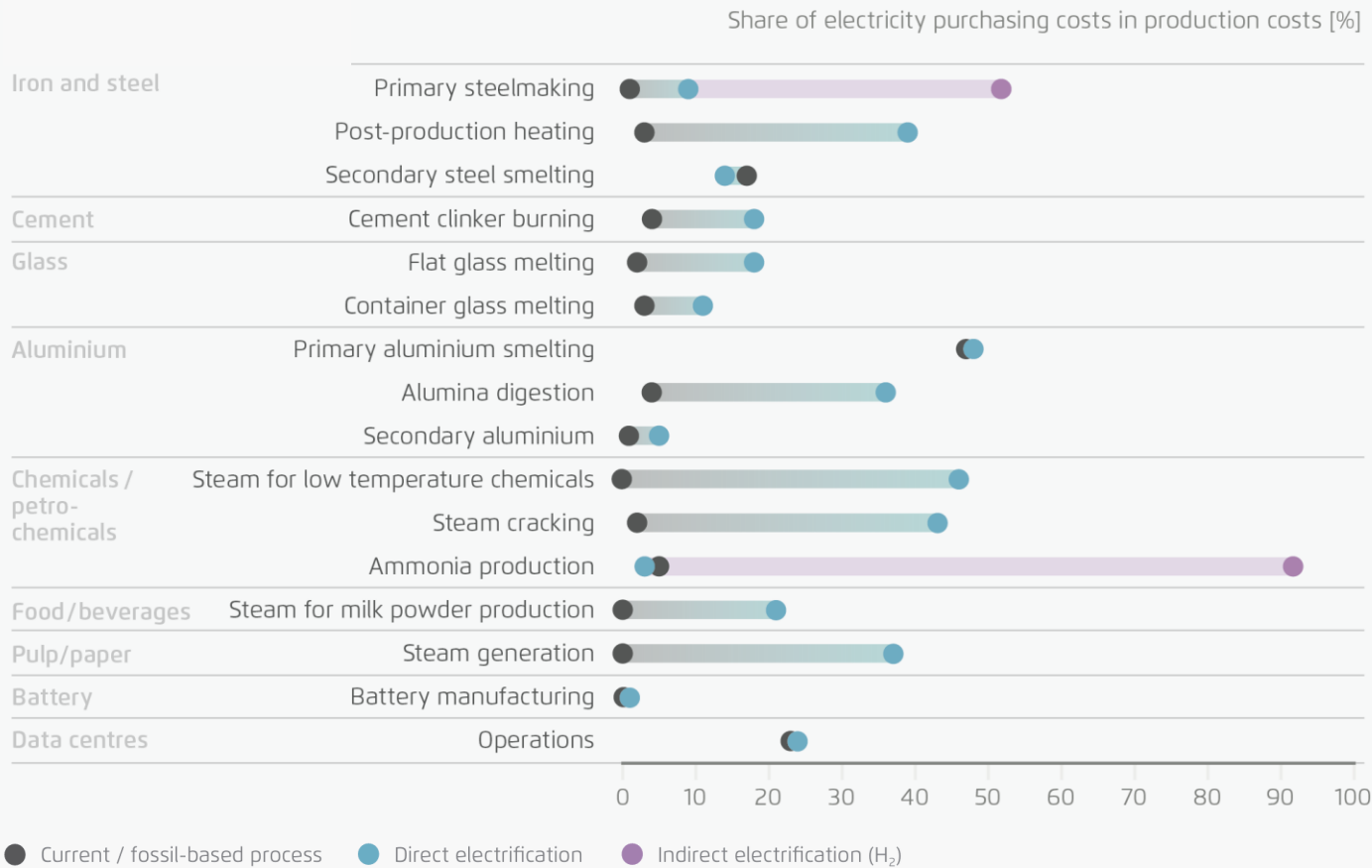
Full report

Executive summary

Technical appendix

Power costs in competitiveness : limited role today, decisive role tomorrow

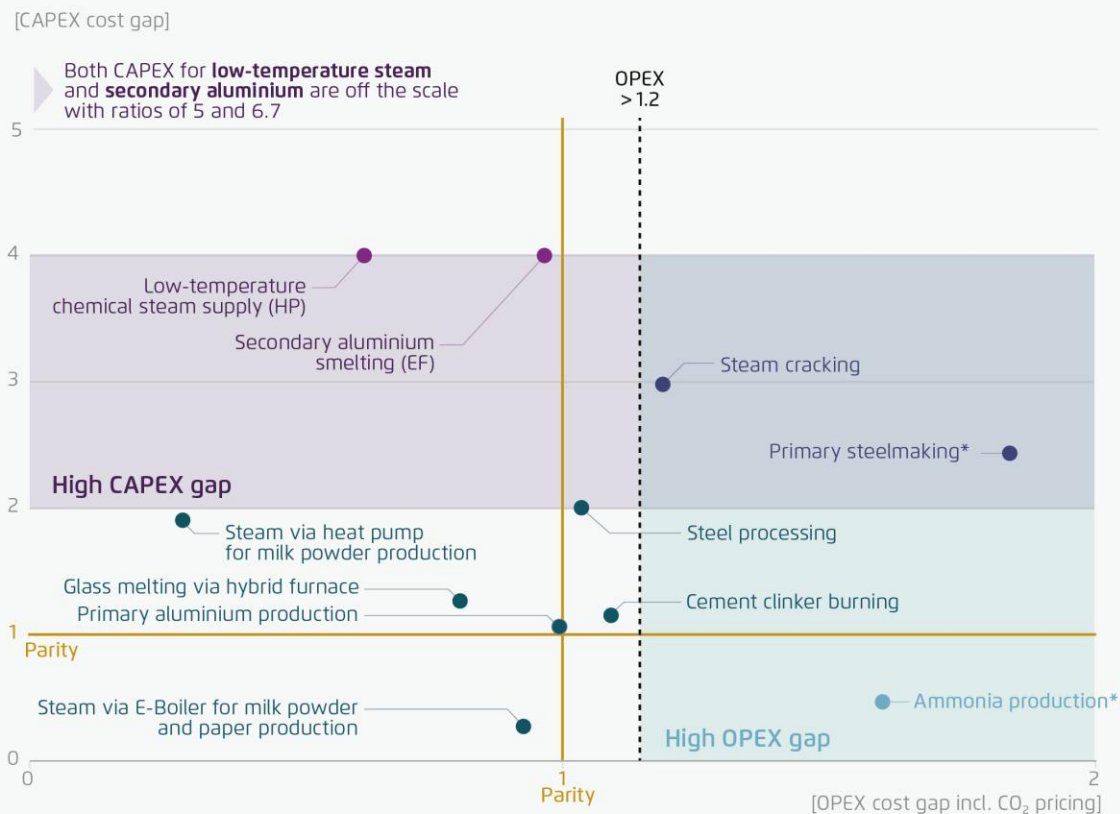
Share of electricity today and after electrification in total cost of production



- Currently, electricity consumption represents less than 5% of total production costs in most considered industries
- After (direct & indirect) electrification, power represents at least 60% of all energy consumed in all those sectors, replacing fossil gas
- Their costs will represent between 10 and up to 90% of total production costs, showing large variations among sectors
- Exposure to power prices will generally increase

The economic viability of process electrification depends on the sector

Electrification cost gap ratio for selected industrial applications by 2035



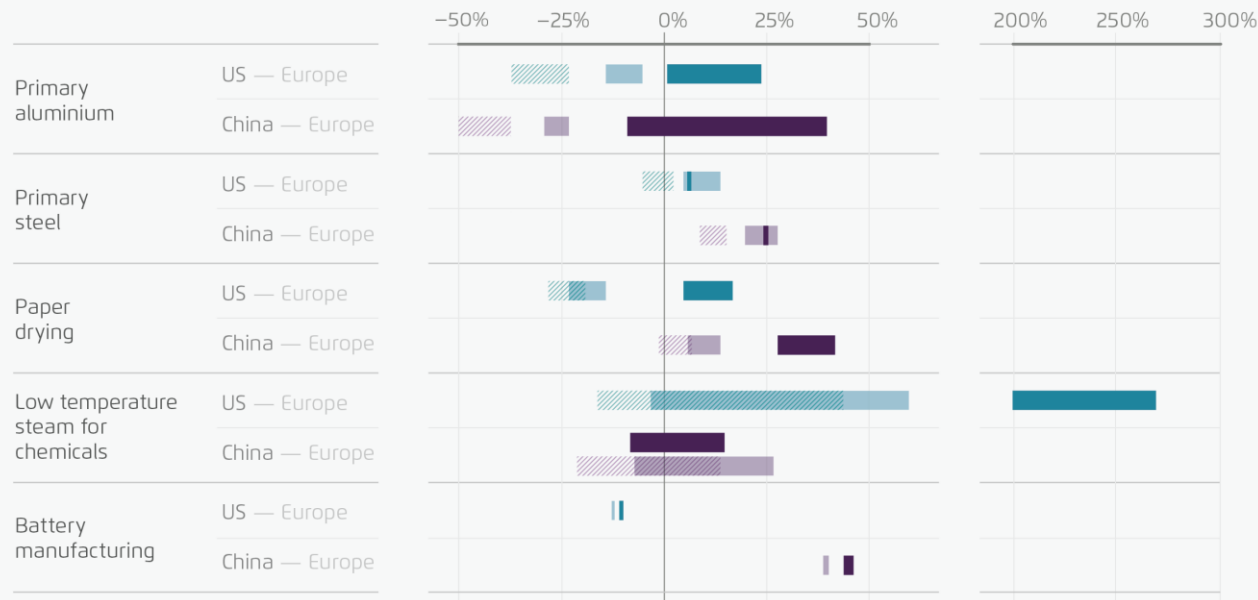
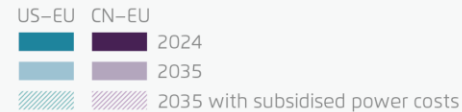
- The economic feasibility of industrial electrification strongly depends on the price ratio between electricity and fossil alternatives, as well as on upfront investment.
- Today, low-temperature process heat can already be electrified competitively under current conditions, through the deployment of high-efficiency heat pumps.
- By 2035, with rising carbon price and effective CBAM, many technologies can reach cost parity with their fossil-based counterparts.
- Others would only require limited additional investment or targeted operational support to achieve it.

Electrification can improve the competitiveness of EU industries

Competitiveness gap in selected industrial applications between Europe and the US or China respectively

How to read this chart: Conventional paper drying is currently 5–17% more expensive in Europe than in the US, and 28–42% than in China. By 2035, the electrified process in Europe could be 23–28% cheaper than conventional and electrified processes in the US and 6–14% more expensive than China. Maintaining similar levels of subsidies in absolute numbers as today in free EU ETS allowances would allow to almost completely close that gap with China.

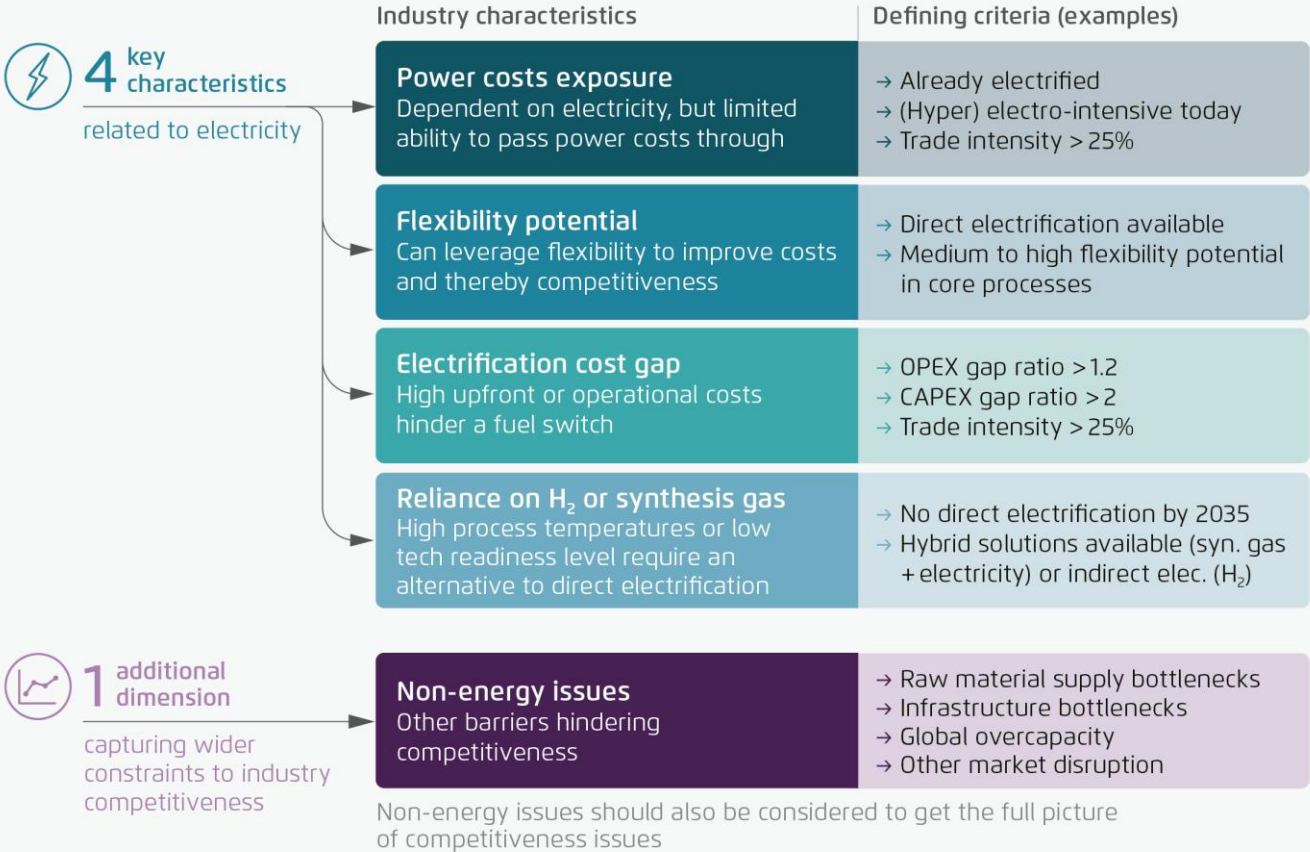
Competitiveness gap



- By 2035, all considered sectors show an improved competitiveness after electrification with an effective implementation of CBAM
- In some cases, additional support could be needed to overcome the residual competitiveness gap, e.g. preferential electricity prices.
- Tailor-made support policies are needed to support strategic industry that need it while simultaneously avoiding overcompensation

A harmonised framework is needed to take into account different characteristics of industries

A practical framework to guide electricity-related policy choices for competitiveness and climate neutrality

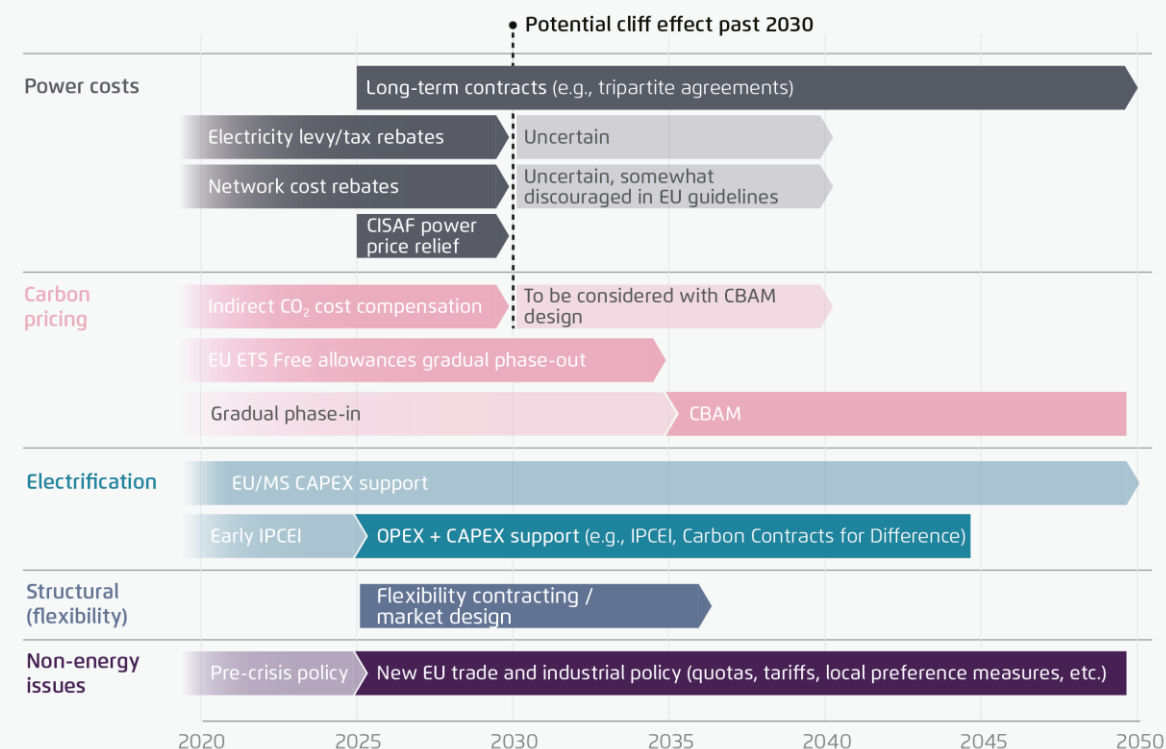


Unity in diversity : alignment and visibility of climate, energy & industrial policies

- High diversity of policy instruments and implementation conditions among Member States today
- Several measures could help address issues industries are confronted with:

- 1. Reducing power system costs at the source + Improving long-term visibility** of energy and carbon price signals to mitigate investment risks
- 2. Aligning and developing a harmonized EU methodology** to assess and differentiate the nature and magnitude of competitiveness and electrification cost gaps across sectors and Member states + **Improving transparency** on actual power prices for industries in different Member States
- 3. Favouring tailor-made approaches** based on clear framework over one-size-fits-all solutions for OPEX and CAPEX support + **Leveraging conditionalities** to incentivise electrification through existing support schemes

Overview of industrial competitiveness and decarbonisation policy toolbox



Key findings

- 1. As Europe works to strengthen competitiveness and resilience, moving away from volatile fossil fuels by electrifying is paramount.** For industries that have not yet electrified their processes, power represents only up to 5 percent of total production costs, whereas fossil fuel expenses account for 30 to 80 percent. When considering energy costs, those sectors that strongly depend on fossil gas face most competitiveness challenges. Electrifying industrial processes with clean domestic energy would make Europe more resilient and cut the 380-billion-euro fossil fuel import bill.
- 2. Electrification is unlocking new opportunities for industry, making affordable power prices increasingly decisive for competitiveness.** Technologically feasible and in many cases economically viable, electrification will reshape energy consumption, even though large differences among industries will remain. Electricity will directly and indirectly account for 60 to 100 percent of total energy use in most sectors by 2035, with power costs representing 10 to 90 percent of production expenses, depending on the energy intensity of the process.
- 3. By 2035, decarbonised sectors can be more competitive than today – provided the right conditions are in place.** In many cases, like low-temperature heat and primary aluminium, effective carbon pricing through the EU Emissions Trading System (EU ETS) and Carbon Border Adjustment Mechanism (CBAM) could ensure cost-competitiveness. For other sectors, targeted power price support may be needed but should be conditional on clean investment. Across all sectors, further industrial policies will likely be necessary to address non-energy barriers.
- 4. The EU needs a coherent industrial strategy aligned with energy and climate policy.** To avoid policy fragmentation, the Electrification Action Plan should establish a unified framework to cut power system costs and ensure stable, competitive electricity prices, notably via contracts for difference (CfDs) and power purchase agreements (PPAs). Combining it with carbon pricing and Clean Industrial Deal policies such as lead markets would help build a resilient, climate-neutral European industry.

Thank you for your attention!

Any questions or comments?

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