

EuLA Feedback on the Commission's consultation on the Electrification Action Plan

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EuLA, the European Lime Association, represents European non-captive lime production through its 24 covered Member States (companies & national associations). Lime is one of the essential building blocks of modern industry. It is used in many essential processes, such as making construction products, producing iron and steel, treating contaminated land, purifying drinking water, making sugar and even cleaning gases from power stations. Lime and its derivatives are also important additives for making paper, glass, and agricultural products.

Executive Summary

The European Lime Association (EuLA) welcomes the EU's *Electrification Action Plan* as a cornerstone of the Clean Industrial Deal. Electrification of energy demand is essential to decarbonise Europe's economy while strengthening industrial competitiveness. Today, electricity makes up only ~23% of EU final energy use, and the EU aims to increase this to ~32-33% by 2030.¹ Although electrification can cut emissions, improve efficiency, and strengthen Europe's energy security, it is important that the Electrification Plan address affordability, infrastructure, and technological limits for energy-intensive industries like lime.

Key messages:

- **Affordable clean power:** Industrial electricity costs remain far higher than fossil fuels. Electrification will only happen if this gap is closed.
- **Grid capacity:** Electrification demands timely, reliable connections. Today, grid bottlenecks, delays, and costs block industrial projects.
- **Technology readiness:** High-temperature processes (>1000°C) lack mature electrification options. Electric kilns need R&D and pilots, and CCS remains indispensable to tackle process emissions.
- **Financing and innovation:** Electrification requires very high upfront investments. More tailored EU funds, PPAs, and de-risking tools are needed to scale industrial projects from pilots to deployment.
- **Regulatory clarity and flexibility:** Slow permitting, fragmented rules, and weak signals delay investment. Clear targets, market rules that reward flexibility, and integration with CO₂ infrastructure are essential.

Overall, EuLA supports electrification as part of a technology-neutral pathway (electricity, hydrogen, CCS, biomass) towards climate neutrality by 2050.

¹ European Commission, Call for Evidence: EU Electrification Action Plan (DG ENER, 27 August 2025)

Introduction

The lime industry, as an energy-intensive, hard-to-abate sector, views electrification as a critical tool to enable emission reductions. In our 2050 decarbonisation roadmap, EuLA projects that fully exploiting electrification (alongside other innovations like carbon capture) could multiply the lime sector's electricity consumption tenfold by 2050, from about 0.9 TWh in 2019 to roughly 10 TWh.² This reflects the electrification of kilns and processes, uptake of electric-powered carbon capture systems, and the indirect electrification via hydrogen or e-fuels production needed for lime operations. However, this shift will only be feasible if large amounts of low-carbon or carbon-neutral electricity, at affordable prices, is secured for European energy intensive industries.

Key Barriers

Achieving a high-electrification, clean energy system will require overcoming several cross-cutting barriers. EuLA has identified the following key obstacles that currently hamper electrification decisions in industry.

1. High and uncertain electricity prices

Overall, electricity is more expensive than fossil fuels in Europe, largely due to taxes and network charges that are not applied equally across energy carriers. This structural imbalance makes electrification uneconomic for many industrial users. Additionally, price volatility during recent energy crises has undermined industry's confidence in committing to long-term electrification investments. While energy-intensive industries such as lime have shown resilience despite higher European electricity costs, sustained price gaps with global competitors undermine new investment and heighten the long-term risk of production and emissions shifting outside Europe.

2. Grid bottlenecks

Industrial electrification requires large, stable power loads and rapid access to clean electricity. However, many sites face long delays when applying for new or upgraded grid connections. Grid capacity constraints and high upfront connection costs are common obstacles. Permitting procedures for grid reinforcements and renewable integration are often complex and lengthy, which indirectly slows down industrial electrification projects that depend on timely access to clean power.

3. Immature technologies

For high-temperature industries like lime, fit-for-purpose electrification technologies are not yet commercially available at scale. Lime kilns operate at >1000°C, requiring reliable, high-intensity heat delivery. While promising designs of electric kilns exist, these need significant research,

² EuLA, [A Pathway to Negative CO₂ Emissions by 2050](#), pg. 27

development, piloting, and scaling support. Electrification eliminates fuel-related CO₂ emissions, but process emissions from calcination remain and will need to be addressed through carbon capture. With the addition of CCS, EuLA estimates that demands for electricity will be over 10 times more than it is today.

4. High upfront investment costs and recurring operational expenses

Electrification of industrial plants often requires full-scale retrofits, new equipment, and grid infrastructure upgrades, resulting in very high capital costs. For SMEs in particular, accessing financing for such projects is difficult. Current EU and national instruments are not sufficiently tailored to de-risk large, first-of-a-kind electrification projects. Financing mechanisms need to cover both CAPEX and OPEX. Otherwise, industry will not be able to move from pilot projects to mainstream deployment.

5. Weak regulatory signals

Electrification is still hampered by regulatory misalignments:

- Permitting procedures for both electrified equipment and related infrastructure remain slow and fragmented.
- Lack of clear policy signals creates uncertainty about future regulatory expectations.

Together, these regulatory gaps result in a patchwork of incentives and barriers, leaving many companies hesitant to commit to electrification strategies.

Recommendations

1. Rebalance energy costs

- Remove non-energy costs from power bills to avoid penalising electrification

2. Invest in grids & connections

- Expand and modernize transmission and distribution networks to address the growing industrial demand and integrate more renewables
- Simplify and accelerate permitting for grid upgrades and new connections by extending fast track rules to industrial users and critical infrastructure
- Guarantee timely, cost-reflective connections for industry to allow for connection costs to be fairly shared and thus grid access is not a barrier to investment

3. Finance and innovation

- Expand EU funding instruments to address both high CAPEX and OPEX barriers, including targeted use of the Innovation Fund for first-mover electrification projects, and Carbon Contracts for Difference (CCfDs) to support recurring operational costs of CCS deployment.
- Support Power Purchase Agreements (PPAs) by ensuring stable grid connections, cross-border transmission rights, and access to affordable renewable energy
- Fund R&D and pilots for electric kilns to ensure that industrial scale deployment is de-risked and accelerated.



4. Industrial Sector Needs

- Recognize that lime and other process industries require CCS alongside electrification.
- Ensure power reliability for 24/7 industrial operations, as interruptions can seriously impact the processes
- Coordinate electrification with carbon capture and carbon removal policies, integrating planning for electricity and CO₂ transport/storage infrastructure in a technology neutral way.

The Electrification Action Plan must deliver affordable, reliable, and abundant clean electricity if Europe's energy-intensive industries are to electrify. With the right reforms in taxation, grids, financing, and technology support, electrification can deliver deep emissions reductions, safeguard industrial competitiveness, and strengthen Europe's energy security. EuLA and its members are ready to contribute expertise and projects to make this transition a success.

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