ECGA
European Advanced Carbon and Graphite Materials Association

13 October 2025

ECGA Response to the European Commission Call for Evidence

EU energy security framework (revision)

The European Advanced Carbon & Graphite Materials Association (ECGA) is the unique voice for Europe's carbon and graphite producers. We represent 100% of EU-based production of natural graphite, graphite electrodes for the steel industry, cathodes for the aluminium and ferroalloy sector, Soderberg anodes and paste, battery anode materials, and a wide range of specialty carbon and graphite products used in electric motors, batteries, renewables, and other high-tech applications. Our 37 member companies, both within and outside the EU, give us a unique perspective across the entire value chain – from raw material extraction and processing to downstream industrial uses.

Carbon and graphite production is one of the most energy-intensive activities in Europe, relying on continuous high-temperature processes that consume very large amounts of electricity and heat. For our sector, stable and affordable energy is essential. When prices surge or supply is disrupted, production capacity is directly affected, driving up costs and weakening competitiveness against global counterparts. This also has a critical impact on investment planning. Companies in our sector are considering long-term, capital-intensive projects to decarbonise and expand capacity, and such decisions depend on predictable and competitive energy costs. Without this, the business case for investing in Europe becomes significantly harder to sustain.

Therefore, EU energy security is a core concern for ECGA and its members. It is essential for maintaining Europe's industrial base, protecting jobs, and supporting the clean energy transition. Any constraint on carbon and graphite production has direct consequences for the industries that depend on our materials, from steel and aluminium to electric vehicles and renewable energy technologies. The revised EU energy security framework should therefore fully reflect the needs and realities of large industrial consumers like ours.

1. Energy consumers as part of the EU energy security solution

The call for evidence correctly highlights key drivers for the revision: improving operational readiness, better cross-sector coordination, managing electrification, addressing new threats, and reducing dependencies. These are all important, but one element still does not receive enough attention: the role of energy consumers.

For energy-intensive industries like ours, we are not simply end-users of electricity and gas. We are part of the system; through long-term contracts, Power Purchase Agreements (PPAs), demand-side flexibility and investment in electrification, ECGA members contribute to market stability, support renewable deployment, and help reduce Europe's reliance on imported fossil fuels.

At present, however, our ability to play this role is limited by several barriers:

- Grid bottlenecks that restrict timely access to low-carbon electricity;
- Price volatility that discourages long-term investment in Europe;
- Permitting and regulatory delays that undermine confidence in PPAs;
- Fragmented crisis management processes where consumers have little say.

Recommendation: ECGA therefore recommends that the revised framework give industry a formal role in planning, crisis management, and governance. Only by involving energy intensive consumers directly can Europe build the stable, competitive and secure energy system its economy needs.

2. Priorities for the EU energy security revised framework

From the perspective of Europe's carbon and graphite producers, several priorities are especially important for the upcoming revision.

a. Build a low-carbon, low-price EU grid: Europe needs an electricity grid that is not only clean but also competitive. A well-connected, European-wide low-carbon grid would strengthen resilience, bring down costs, and reduce the reliance on fragmented national support schemes. Industrial demand, corporate PPAs, and electrification plans should be factored into grid planning from the start to make sure industry has reliable access to affordable clean power.

b. **Promote Power Purchase Agreements (PPAs):** PPAs are one of the most effective ways for companies to secure stable electricity in terms of volume, price, and carbon content. Yet for many industries they are still too complex or too risky. The EU should:

- Ensure transparent guarantees of origin and reliable price signals;
- Streamline permitting for renewable projects that underpin PPAs;
- Offer risk-sharing tools, such as EU-backed guarantees;
- Develop incentives that make PPAs more attractive and cost-competitive.

c. Enable long-term fixed-price contracts: Our industry plans investments over long time horizons. We need long-term contracts with competitive prices to provide certainty for capital-intensive projects in Europe. The revised framework should actively support such arrangements within EU competition and state aid rules.

d. Address regional cost disparities and regulated charges: Industrial competitiveness in Europe is unevenly affected by regional differences in electricity prices. In several Member States, regulated cost components such as network tariffs and system charges account for a disproportionately high share of the final bill – in some cases exceeding 40% of total electricity costs. ECGA recommends that the revised framework acknowledge these disparities and encourage mechanisms to mitigate them, such as compensation or cost-equalisation measures for electro-intensive users, and greater transparency and benchmarking of regulated charges across the EU. This would help ensure a fair and competitive environment for industrial investment across all regions.

e. Flexibility and peak-demand management for continuous processes: Carbon and graphite production relies on uninterrupted high-temperature processes that cannot be paused during peak demand hours. Interruptions risk damaging equipment and product quality. ECGA proposes the introduction of incentives for industrial storage technologies and firm capacity contracts that guarantee reliable supply to continuous processes.

f. Mitigating technological dependency risks: Energy security is also linked to the availability of critical spare parts and equipment required for industrial operations. The revised framework should include strategies to reduce technological dependency on external suppliers through diversification, strategic inventories, and EU production capabilities.

g. Regulatory predictability and non-retroactivity: Investment in decarbonisation and electrification depends on stable and predictable regulatory conditions. Retroactive policy changes – including

sudden tariff adjustments or ex-post price interventions – undermine investor confidence. ECGA therefore recommends including provisions ensuring minimum transition periods and a non-retroactivity clause for measures affecting energy costs or long-term contracts.

Recommendation: To secure Europe's industrial future, the revised framework must combine these priorities. A competitive grid, accessible PPAs, reliable long-term contracts, and predictable regulatory conditions together form the foundation that will allow energy-intensive industries to invest, decarbonise, and remain in Europe.

3. Reflections on policy options

Option 1: Smart streamlining: Simplifying the framework is useful but not sufficient. It should address structural weaknesses such as lack of industrial involvement and insufficient planning for electrification.

Option 2: Targeted reinforcement: We support provisions to address new threats such as climate shocks, cyberattacks, and deliberate infrastructure disruptions. Reinforcement must also come with a stronger role for industry in resilience planning.

Option 3: Cross-sectoral transformation: The framework should integrate all energy carriers and explicitly account for industrial demand, PPAs, and long-term contracts.

Option 4: EU-driven action: Stronger EU-level coordination and solidarity mechanisms are valuable, but centralisation must not undermine market-based solutions. Credibility depends on balancing clear governance with flexibility for stable, affordable supply.

Recommendation: The revised framework should address emerging risks while moving towards a truly integrated cross-sectoral approach. Industry must be an active partner in planning, resilience, and investment.

Conclusion

Energy security is a shared responsibility between policymakers, system operators and industry. For energy-intensive sectors such as carbon and graphite, it is a practical requirement for operations and investment.

The revised framework should:

- Secure a low-carbon, cost-competitive grid that ensures access to reliable clean electricity across Europe;
- Support industries as partners by making PPAs and long-term contracts workable, accessible, and genuinely competitive;
- Include consumers more directly in governance, crisis preparedness and planning, recognising their role in strengthening energy security;
- Ensure regulatory stability, predictable cost structures, and mechanisms addressing regional disparities so that industrial investors can plan with confidence.

With these elements in place, the EU's energy security framework can provide both resilience in times of crisis and greater predictability for investment and decarbonisation. For ECGA members, this is the basis on which we can commit to long-term investments in Europe rather than shifting production abroad. ***