

Call for coordinated EU Action: Re-prioritising the Connection Network Codes (CNC) for a resilient European Grid

The signatories urge the Commission to re-prioritise the CNC recasts, adopt urgent provisions for new demand technologies (e.g. P2G, EVs, storage), and coordinate with Member States and stakeholders to avoid fragmentation.

Strategic Importance of Connection Network Codes

The European Connection Network Codes established by EU Regulations 2016/631¹ (NC RfG), 2016/1388² (NC DC) and 2016/1447³ (NC HVDC) form a legally binding foundation for harmonized technical requirements across our electricity system. They define how new generation, demand, storage, and HVDC systems assets must connect to the grid and ensure system stability, resilience, legal certainty, reduce fragmentation across Member States and support market integration.

The process to recast the existing EU Regulations has been initiated in 2022 in line with the rapid technological and structural evolution of the power system, especially the rise of PV, wind, and batteries, large-scale demand from electrolyzers, and sector coupling. After consultation and technical drafting by ENTSO-E and ACER, the proposal has been forwarded to the European Commission for political adoption in late 2023.

However, during the June 2025 meeting of the Grid Connection European Stakeholder Committee (GC ESC), the Commission confirmed that the revised Regulations will not be adopted in 2025, and that the process is postponed until further notice due to limited resources. This delay carries significant risks, not only for transmission system operators (TSOs), but for Europe's clean energy transition and the integrity of the internal electricity market.

Consequences of the Delay: Risks for Regulation, Integration, and System Security

We believe that the delay of the recast of these regulations introduces systemic risks: It jeopardizes security of supply, interoperability, and investment as well as legal certainty across Europe. In addition, fragmented national implementation is not a viable substitute for harmonized EU rules. The electricity system of 2030 is being planned and built already today and with each connection missing harmonized rules, costs and risks increase.

¹ COMMISSION REGULATION (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators

² COMMISSION REGULATION (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection

³ COMMISSION REGULATION (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules

1. Outdated regulatory frameworks delay grid integration

- a. TSOs are experiencing a heavy increase in grid connection requests: solar PV, onshore and offshore wind, batteries, data centres, and large-scale electrolyzers.
- b. The revised Regulations are designed to provide modern, system-compatible requirements for these technologies. The current connection conditions still rely on outdated provisions.
- c. According to ENTSO-E's TYNDP 2024 scenario, more than 1,000 GW of RES (mainly wind and PV) are expected by 2030. Technical requirements must evolve accordingly.

2. Lack of EU-wide rules for new demand technologies increases planning risks and legal inconsistencies

- a. EVs and heat pumps are being deployed at scale across Europe. The current Regulation 2016/1388 does not include harmonized rules for their grid integration.
- b. Power-to-gas (P2G) demand facilities (such as electrolyzers) are already being connected without clear EU requirements.
- c. Without the revised Regulations, grid planning and system operation face growing uncertainty. In some Member States, TSOs are forced to define national requirements pre-emptively, risking future misalignment. For example, in Germany, TSOs pre-emptively implemented national grid connection requirements in anticipation of updated EU requirements. These individual approaches create legal inconsistencies across Member States and may have implications for system stability.

3. Regulatory fragmentation threatens the single market and drives up compliance costs

- a. As outlined above, in the absence of updated grid connection requirements at EU-level, Member States are moving ahead with individual solutions (e.g. Finland, Germany, France, Spain, Netherlands), leading to regulatory fragmentation.
- b. This contradicts the principles of the single market and undermines the level playing field for manufacturers, investors, and developers.
- c. Manufacturers face increased certification costs and retrofitting risks due to divergent national rules.
- d. The absence of the revised Regulations jeopardises standardisation efforts – a cornerstone of the internal market and a key driver of economic growth. Fragmented connection codes make standardisation at CEN/CENELEC level, and ultimately at international bodies, significantly more difficult. This risks Europe missing its opportunity to act as a global standard setter and it increases future production costs by limiting economies of scale driven by standards.

4. Delays weaken long-term system security and resilience

- a. System incidents like the recent Iberian blackout underline the importance of coordinated, up-to-date technical standards. These are needed to ensure that installations can support system stability, including capabilities such as inertial response and grid-forming control (GFC).
- b. Delays weaken system resilience at a time when the pace and complexity of connections are accelerating.

- c. TSOs may be legally obliged to define their own requirements – which undermines EU-level consistency and efficiency.

We therefore call on the European Commission to:

1. **Reinstate the recasts of EU Regulations 2016/631, 2016/1388 and 2016/1447 as a high-priority workstream in 2025**, with a firm timeline for public consultation and adoption.
2. **Explore a phased approach**, allowing adoption of the most urgent technical provisions (e.g. for P2G, EVs, storage) while continuing the adoption of the revised Regulations.
3. **Coordinate with stakeholders and Member States** to prevent regulatory fragmentation while the recasts are being finalized.

The undersigning stakeholders stand ready to support this process with technical input during a dedicated exchange on expert level. Should you find this of value, we would appreciate hearing about your availabilities.

The signatories (as of October 17, 2025)

