

EN

E-003876/2025

Answer given by Mr Jørgensen
on behalf of the European Commission
(22.12.2025)

The EU economy-wide electrification rate is currently 21.3% while it should increase to 32% by 2030¹². Increasing electrification³, contributing to lower prices and independence, results in increase in grid investment⁴, as illustrated by growing grid connection queues in at least 15 countries. In addition, European electricity grids are aging and need to be upgraded⁵.

The EU framework for grid planning is regulated by the Trans-European Networks for Energy (TEN-E) Regulation⁶ and electricity market legislation⁷. Cross-sectorial and efficient grid planning is required at both EU and national levels. The Commission will put forward by the end of 2025 a European Grids Package, aiming to further improve planning, permitting, use and cost-sharing for EU energy infrastructure, to ensure cost-efficiency.

Nuclear energy can also help build a resilient and clean energy system⁸. In June 2025, the Commission adopted the new Nuclear Illustrative Programme.⁹ It assesses costs and investment needs covering the full life cycle of nuclear installations, upskilling, diversification and supply chains^{10 11}.

¹ COM/2025/85 final, Clean Industrial Deal: A joint roadmap for competitiveness and decarbonisation.

² Clean Industrial Deal introduces a key performance indicator of 32 % of electrification rate for 2030, a steep increase from current situation in 2024. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52025DC0085>.

³ As shown in the study on network development planning, tariff structures and connection requests for electricity distribution grids: <https://op.europa.eu/en/publication-detail/-/publication/08843617-9cf8-11f0-97c8-01aa75ed71a1>. Study sees steep increase in grid connection queues as a consequence of growing demand for electricity grid connection.

⁴ The 2040 target impact assessment estimates the total electricity grid for the energy transition at about EUR 1.7 trillion between 2030 and 2050. This analysis is aligned with other studies on energy infrastructure investment needs. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52024SC0063>.

⁵ As stated in the Action Plan for Grids, 40 % of DSO grids have an average age of 40 years or more, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52023DC0757>.

⁶ Regulation (EU) 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and (EU) 2019/943 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32022R0869>.

⁷ Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast). <https://eur-lex.europa.eu/eli/dir/2019/944/oj/eng>.

Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02019R0943-20240716>.

⁸ The Commission's 2040 Impact Assessment presents nuclear capacity as it is stated by Member States' policies, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52024SC0063>.

⁹ COM/2025/315 final.

¹⁰ The Nuclear Illustrative Programme (PINIC) also assesses financing models for a faster development and safe deployment of new nuclear technologies such as Small Modular Reactors (SMRs), Advanced Modular Reactors and microreactors in Europe.

¹¹ Member States have the right to choose their own energy mix, including nuclear energy. Further, under the reformed internal energy market legislation, nuclear projects have equal access to financing schemes including Contracts for Difference and Power Purchase Agreements. The Commission has also announced the design phase of a new potential Important Project of Common European Interest candidate on innovative nuclear technologies. Based on the first deliverables of the European Industrial Alliance on SMRs, the Commission will

Electrification supports the conservation of a healthy nature by reducing emissions from fossil fuel use, which is the first threat to our landscapes, fauna and flora. However, due to the local impacts some projects can have, environmental protection needs to be balanced with the urgent need to develop grids to enable the energy transition¹². The EU has well established laws and guidance on the subject¹³.

table a strategic plan on de-risking SMR projects, strengthening the EU supply chain, and attracting private investment.

¹² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Grids, the missing link - An EU Action Plan for Grids, Annex II - A Pact for Engagement, COM/2023/757 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2023:757:FIN>.

¹³ Commission notice: 'Energy transmission infrastructure and EU nature legislation', C/2018/2620, OJ C 213, 18.6.2018, pp. 62–169, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=oj:JOC_2018_213_R_0002; Updated Recommendation and guidance on speeding up permit-granting for renewable energy and related infrastructure projects, https://energy.ec.europa.eu/publications/recommendation-and-guidance-speeding-permit-granting-renewable-energy-and-related-infrastructure_en (13 May 2024).