

(English version)

**Question for written answer E-002966/24
to the Commission
Eero Heinäluoma (S&D)
(16 December 2024)**

Subject: Incentivising investments in clean baseload generation

Since 2020, energy price volatility has surged. This trend is expected to continue as the share of renewables increases. Such volatility can have significant impacts on consumers, businesses, and the wider economy.

Additional clean baseload power based on, for example, nuclear energy is one solution. For example, the recent report by the International Energy Agency ⁽¹⁾ states that '[nuclear energy] can offer baseload power [and] enhance grid stability and flexibility'.

Significant investments in flexibility are also needed, as forecasted by the Joint Research Council ⁽²⁾, and additional measures may be necessary to unlock them. In addition to demand-side response, storage and other technologies, the report also suggests that firm capacity is needed.

1. How will the Commission enable and incentivise investments in clean baseload generation?
2. How will the Commission support investments in flexibility, including firm flexible thermal power generation?
3. What issues concerning flexibility does the Commission plan to address in the review of the Electricity Market Regulation?

Submitted: 16.12.2024

**Answer given by Mr Jørgensen on behalf of the European Commission
(24 March 2025)**

Energy price volatility is due to EU's import dependency on fossil fuels. By 2040, renewables are expected to represent most of the EU energy mix, rising from 17% in 2019 to 56% ⁽¹⁾.

To integrate large amounts of variable energy, non-fossil flexibility is needed via demand response and energy storage. Clean baseload generation like nuclear power is set to complement the future the energy mix for those Member States who decide to use it. Gaseous fuels will remain present but gradually take cleaner forms.

The Illustrative Nuclear Programme, to be presented by Commissioner for Energy and Housing in 2025, will analyse the EU's nuclear energy landscape and investment needs.

The Commission will also present a Small Modular Reactors (SMRs) Communication to support the development and deployment SMRs in Europe during the 2030s, building on the SMR Industrial Alliance.

The EU Taxonomy recognises certain nuclear and natural gas activities' contribution to accelerating the transition from more emission-intensive sources, under strict conditions.

The recent Electricity Market Design reform in force since July 2024 ⁽²⁾ puts forward tools supporting the development of flexibility, especially non-fossil flexibility.

Member States will need to assess their flexibility needs, based on a European methodology. They will be able to support non-fossil flexibility solutions like demand response and storage through specific support schemes. Member States can also rely on capacity mechanisms for supporting flexible assets.

¹ IEA, World Energy Outlook 2024, Paris, <https://www.iea.org/reports/world-energy-outlook-2024>.

² Koolen, D., De Felice, M. and Busch, S. (2023), Flexibility requirements and the role of storage in future European power systems, <https://publications.jrc.ec.europa.eu/repository/handle/JRC130519>.

⁽¹⁾ Commission Staff Working Document Impact Assessment Report accompanying the document: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Securing our future Europe's 2040 climate target and path to climate neutrality by 2050 building a sustainable, just and prosperous society SWD/2024/63 final.

⁽²⁾ Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024, amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's electricity market design and Regulation (EU) 2024/1747 of the European Parliament and of the Council of 13 June 2024, amending Regulations (EU) 2019/942 and (EU) 2019/943 as regards improving the Union's electricity market design.

As outlined in the action plan for Affordable Energy ⁽³⁾, a significant boost to flexibility schemes with a quick implementation of the EU rules on market access for storage and demand response will be instrumental in lowering energy costs.

⁽³⁾ Action Plan for affordable energy: unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans COM(2025) 79 final.