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From:	General Secretariat of the Council
To:	Delegations
Subject:	AOB for the meeting of the Transport, Telecommunications and Energy Council on 16 June 2025 Nuclear Illustrative Programme (PINC) presented under article 40 of the Euratom Treaty for the opinion of the European Economic and Social Committee - Information from the Commission

Nuclear Illustrative Programme (PINC) presented under article 40 of the Euratom Treaty for the opinion of the European Economic and Social Committee

Information note from the European Commission

This note provides information to Member States about the publication of the 8th Nuclear Illustrative Programme (PINC) and highlights its key assessments and observations.

I. Policy context

Pursuant to article 40 of the Euratom Treaty, the Commission is required to periodically adopt Nuclear Illustrative Programmes. The 8th PINC was adopted on 13 June 2025. This Programme is designed to facilitate fact-based discussions on nuclear energy trends, assess investment needs in the EU's nuclear sector, and foster cooperation and a coordinated approach. The Commission must seek the European Economic and Social Committee's (EESC's) opinion on the PINC. The PINC is first adopted for submission to the EESC and, following receipt of its opinion, the Commission adopts in due time the final PINC.

The last PINC was released in 2016 and finalised in 2017 ⁽¹⁾. Since then, the EU's energy and nuclear landscape has evolved, driven by a strengthened decarbonisation agenda, geopolitical dynamics, and increased emphasis on competitiveness, affordability, security of supply, and innovation. In this context, the Commission announced an assessment of investment needs for the nuclear sector as part of its 2025 Work Programme and the Action Plan for Affordable Energy.

The Commission engaged stakeholders throughout the preparation process. Member-States, civil society, businesses, and other stakeholders were invited to participate in a 4-week [Call for evidence](#).

II. PINC objectives and observations

The primary objective of PINC is to provide a comprehensive, fact-based overview of nuclear energy investment needs, in alignment with decarbonisation objectives of Member States and recent policy initiatives, such as the Clean Industrial Deal and the Action Plan for Affordable Energy.

The PINC addresses the entire lifecycle of nuclear installations, identifying investment needs, trends and challenges within the EU's nuclear ecosystem, while taking into account Member States' plans and perspectives. The outlook considers the wider energy system effects of nuclear energy, including total system integration, flexibility, and non-power uses such as heat supply, the production of medical radioisotopes and fusion technology.

This PINC highlights several critical challenges facing the nuclear industry:

- vulnerabilities in the **EU supply chain** to meet future nuclear energy demands, including for medical applications.
- security and reliability of **fuel supply**, eliminating current dependencies, and avoiding future reliance on single or unreliable suppliers, in line with the Roadmap towards ending Russian energy imports of 6 May 2025².
- market uptake and commercialisation of **innovative nuclear technologies**, such as Small Modular Reactors (**SMRs**), Advanced Modular Reactors (**AMRs**), and microreactors.

⁽¹⁾ [COM\(2017\)237 final](#).

² [COM/2025/440](#)

- **access to finance**, as private actors currently lack market-based instruments for desired risk allocation.
- advancing the needed infrastructure for **disposal of radioactive waste and spent nuclear fuel**, including deep geological disposal facilities, alongside effective **decommissioning**.
- attracting **new talent** and retraining the **existing workforce** to prevent future skill shortages in the nuclear sector.
- needs and challenges associated with other key enablers in the nuclear sector, such as national **regulatory capacity, transparency and public engagement**, and **international collaboration**.

The PINC underscores the need of all investment projects to comply with the highest standards of nuclear safety, radiation protection, radioactive waste management, and safeguards applicable in the EU.

III. Next steps

While the EESC prepares its opinion, the Commission will continue to engage with Member States and stakeholders on the observations and conclusions presented in the PINC.