2nd December 2025

European Environmental Bureau (EEB)
and Nuclear Transparency Watch (NTW)

Response to the European Commission's Call for Evidence on the Small Modular Reactor (SMR) Strategy

As organizations dedicated to transparency, public participation, and democratic decision-making in nuclear activities, NTW and EEB are highlighting the risks, inefficiencies, and democratic deficits associated with SMR development. In fact, they encourage the EU to prioritize renewable energy, energy efficiency, and demand-side solutions—technologies that are proven, cost-effective, and aligned with climate goals—rather than investing in unproven and high-risk nuclear technologies.

Key Concerns with the SMR Strategy

1. Safety Risks

SMR proponents often advocate for regulatory shortcuts to accelerate deployment. However, weakening safety and environmental standards poses unacceptable risks to public health and the environment. The Commission must uphold rigorous regulatory oversight and reject any attempts to deregulate nuclear safety standards for the sake of expedience otherwise the risk is to face similar deregulations as observed in the United-States.

Despite claims of "inherent safety," SMRs are not immune to accidents:

- Design flaws (many SMR designs remain untested at commercial scale).
- Human error and operational failures (e.g., cooling system malfunctions).
- External threats (e.g., cyberattacks, natural disasters, or sabotage). The potential for radioactive releases—even from smaller reactors—remains a serious public health and environmental threat especially because those would tend to be much closer to populated areas than large reactors.

The Commission must require comprehensive, independent risk assessments before considering any SMR deployment.

2. Financial Risks

SMRs represent a high-risk investment with a history of failures and cost overruns. Therefore, there are some key financial risks:

- Project cancellations (e.g., NuScale's collapsed project in the U.S.).
- Construction delays (nuclear projects are notoriously over budget and behind schedule).
- Hidden subsidies (e.g., Regulated Asset Base schemes, Contracts for Difference).

Those points have to be considered with great care as every euro spent on SMRs is a euro not allocated to cheaper, more reliable, incomparably safer and cleaner for societies and future generations, and more immediately actionable energy solutions such as renewable energy, storage, and efficiency.

This is why no public money from the EU or Member State funding should support SMRs and moreover AMRs before any strict financial accountability and clear clawback mechanisms for failed projects are developed. Again the U.S. are a good example of what not to do with founders of politically connected nuclear companies that have never built commercial reactors becoming billionaires.

And as you refer to the "Nuclear Illustrative Programme (PINC)" as "up-to-date, comprehensive and fact-based overview of nuclear energy investments across the EU, including small modular reactors (SMRs) - as also outlined in the action plan for affordable energy" we also would like to recall our views on it and bring them to your serious attention: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14617-Nuclear-illustrative-programme/F3550193_en

Moreover, when you reported that "*the Commission's 2040 Climate Target Communication which emphasised that all zero- and low-carbon energy solutions, including nuclear, are needed to decarbonise the EU's energy system*" our organizations would like to point out to the 3rd section in NTW's contribution to the Review of the EU Taxonomy Environmental Delegated Act on 26 November 2025 (link here) underlining the flaws in LCA methodology that you have been referring to which is based on NELCAS' tool which was designed by the nuclear industry itself.

3. Harmonization and Industrial Challenges

First of all, SMRs and moreover AMRs will worsen the nuclear waste challenge with new waste in new locations as well as new types of waste for the many different designs foreseen at the moment.

Furthermore, the divergent national safety standards make uniform regulation difficult while fast-tracking approvals could compromise safety. Legal uncertainties exist due to possible conflicting EU and national laws. Instead of pushing for an artificial harmonization driven by the nuclear alliance's interest, the EU should focus on harmonizing the electric grid between member states first and foremost.

Finally, the development of SMRs is exposed to significant supply chain challenges both inherent to nuclear reactors in general and specific to SMRs in particular:

- Dependence on rare materials (e.g., high-assay low-enriched uranium, or HALEU, which is not yet produced at scale in Europe).
- Geopolitical risks (reliance on imports from unstable regions).
- Manufacturing bottlenecks (lack of specialized factories for SMR components).

These vulnerabilities could lead to delays, cost overruns, and strategic dependencies - undermining energy security and creating risks for economies.

4. Lack of Openness, Civil Society Participation and Public Debate

The SMR strategy lacks meaningful engagement with civil society, local communities, and independent experts with closed-door decision-making (limited transparency in policymaking), exclusion of critical voices (e.g., environmental NGOs, local residents) and lobbying influence (nuclear industry stakeholders dominate the conversation). These are essentially violations of the Aarhus Convention and of other European legislation.

This is why the Commission must ensure open, inclusive, and democratic processes - including public consultations like this one, independent reviews, and accessible information - before any decisions on SMRs are made. Furthermore, NTW and EEB would like to emphasize the need to develop critical thinking in order to build trust as the SMR debates suffers too often from:

- Overoptimistic industry claims (e.g., "too cheap to meter," "inherently safe").
- Lack of independent scrutiny (many studies are funded by nuclear advocates).
- Misleading communications (downplaying risks, exaggerating benefits).

This is why the EU must first foster critical thinking by:

- Funding independent research on SMR risks and alternatives.
- Creating democratic arenas for evidence-based debate.
- Ensuring transparency and involvement of civil society in all nuclear-related decision-making.

Conclusion

The European Commission’s SMR strategy lacks transparency, democratic legitimacy, and economic rationale. Instead of pursuing costly, unproven, and risky nuclear technologies, the EU must:

1. Prioritize real climate solutions—renewables, storage, and efficiency - over SMRs that may not be operational before 2040 and not as low carbon as promoted.
2. Uphold strict safety and environmental standards with no deregulation for SMRs.
3. Ensure full financial accountability: developers must bear all risks, not taxpayers.
4. Address nuclear waste and supply chain challenges with no false promises on "solving" nuclear’s inherent problems.
5. Prioritize open, inclusive decision-making: civil society must have a real seat at the table where critical thinking and democratic debates should take place with no more industry-driven narratives without scrutiny.

In short, the EU's energy future must be transparent, participatory, and sustainable while SMRs fail on all counts. Therefore, we urge the Commission to seriously revise this very flawed strategy.

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