Small Modular Reactor (SMR) Strategy

NGO Statement sent to the EC consultation which ended on Dec 4, 2025

The European Commission is preparing a strategy „to accelerate the development and deployment of Small Modular Reactors in Europe over the next decade."
The EC lists three reasons to support SMR development:

- the EU ambition to become carbon-neutral by 2050;
- EU work to phase out energy imports from Russia,
- to improve the competitiveness of the EU economy.

When looking at recent developments, clearly the most reliable, cheapest and easily deployable sources are renewables.

The contrary applies to nuclear, where three reactors in two decades were connected to the grid at horrendous costs. A major change in the next years can be only achieved by pure magic, since the nuclear industry lost its capacities to construct nuclear power plants and there is no reason to believe a non-existent SMR design would make any difference. SMRs are nuclear power plants at even higher costs per MWh. Currently no SMR design and if less the factories for modular production are ready, which are the theoretical idea for reducing costs by reducing delays which occur at the large construction sites of nuclear power plants.

If any SMR will be built at all, those utilities and consumers will be locked into high-cost nuclear power for decades while the market will be flooded with electricity from renewable sources and high battery use at almost no cost to European industry and services to successfully compete on the world market. Since those plants will be built only with subsidy schemes such as state aid, even halting the construction or not operating the new plant will not save the taxpayers from having to foot the bill for the SMR.

On top of the usual nuclear malperformances, SMR design are not available and e.g. EDF's nuward development was stopped due to escalating costs already in the design phase. The only possible way to reduce costs arising largely also from the construction overtimes, lies with the announced modular construction. However, those component-manufacturing factories also first need financing and construction, thus all those claims of several SMR e.g. in Poland seem only be designed to mislead the public and politicians. It would be very helpful if the EC would set this straight in the SMR strategy.

Also, regarding CO_2 saving per MWh, SMR are absolutely not the most promising path to take. While nuclear energy's LCOE are constantly increasing, renewable energies' is constantly declining. Also, a quick look at reality is revealing: While Poland has been preparing the nuclear programme since the 2013 or even earlier, 10 GW onshore wind producing *24,5 TWh i.e. 14,5 % power used in Poland were installed in a few years.*

The argument used e.g. by IAEA's r. Grossi and some others that SMR can supply electricity under very specific circumstances such as Arctics, does not really apply in the EU and does not provide argumentation for investing any resources into SMR.

EU work to phase out energy imports from Russia

Besides the well-known fact that the highly enriched fuel needed for some SMR is produced only in Russia, the notion that non-existent designs and manufacturing facilities would contribute to the phase-out should be explained and based on facts.

Terminology issues

This strategy should clarify what SMR means: small, how small, modular and/or advanced and what advanced entails. We believe that e.g. a PWR reactor with 470 MW is not small, not advanced and most likely not modular as far as current planning suggests. A clear set of criteria would enable a useful discussion.