

A new strategy on the use of Nuclear Energy for the European Union

Ambitious energy and climate policies are paramount for the European Union (EU). The Member States are actively supporting the European Commission's proposals in this area. The Commission's support for European nuclear projects, which greatly contribute to the fight against climate change and to the EU's security of supply, will enable the Member States, together with the Commission, to set strong objectives and ambitious policies to reach the Paris Agreement targets.

I- Nuclear technologies are key to achieve the Union's decarbonisation objectives.

Electrification of industry, transport and heating is key to reduce carbon emissions by substituting fossil fuels in all these sectors. Decarbonising the electricity production itself is also among the first priorities.

Nuclear energy is a major asset in ensuring diversity of sources and types of energy supply, energy independence, competitiveness and for the fight against climate change through the reduction of greenhouse gas emissions. Beyond the European Green Deal, the European Union relies also on the European Atomic Energy Community (EURATOM). In order to perform its task, the Community shall, as provided in the EURATOM Treaty, promote research and ensure the dissemination of technical information, facilitate investment and establish with other countries and international organisations such relations as will foster progress in the peaceful uses of nuclear energy.

The level of CO₂ emissions of nuclear power generation, on a full life-cycle basis, is among the lowest compared to other sources of electricity generation. Nuclear energy therefore contributes to achieving the aim to be climate-neutral by 2050 in line with the EU's commitment to global climate action under the Paris Agreement.

Nuclear energy is also a stable and controllable means of production, allowing reliable management of the electricity system and contributing to a high level of security of supply. Maintaining and developing decarbonised and controllable means of production is in everyone's interest in the European electricity system. The recent energy crisis and the stress it triggered during the 2022-23 winter season on energy security have highlighted the relevance of nuclear energy for public opinion and policy makers in an increasing number of Member States. This context reinforces the importance for the European institutions to promote and facilitate investment in the development of nuclear energy, as enshrined in the EURATOM Treaty.

We reaffirm the utmost importance of nuclear safety. Cooperation among national safety regulators is an asset for the definition and the implementation of the highest harmonized safety standards across Europe. The Commission should continue to work in close contact with national safety authorities and support their needs for effective performance of their duties, as far as European instruments and shared initiatives are concerned.

The EU has included nuclear energy generation in its Taxonomy in July 2022, and the European Investment Bank (EIB) is thus considering financing nuclear energy. The International Panel on Climate Change (IPCC), the International Energy Agency (IEA) and the OECD in their reports often rank nuclear power among the critical solutions to combat global warming. This goes along with the important momentum on small modular reactors (SMRs) as well as the new large generation reactors.

The principle of technological neutrality and the sovereign right of Member States to determine their energy mix should be reaffirmed and duly taken into consideration in European policies.

Nuclear technologies should be an integral part of the European energy strategy transition and nuclear energy projects should be eligible to receive support in consistent manner to other decarbonised energy sources.

II- The European Commission should enhance its promotion of the nuclear sector in Europe and abroad

a. A clear strategy needs to be set up

Considering all the advantages of nuclear energy, we hereby encourage that the European Commission settles a clear pathway to adequately reflect the role of nuclear energy in all its communications and proposals. An increasing number of Member States is considering to or already committed to deploy additional nuclear energy

capacity in their country. This evolution needs to be acknowledged in the Union Energy strategy towards climate neutrality. Nuclear power may provide up to 150 GW of electricity capacity by 2050 to the European Union (vs. roughly 100 GW today). This represents the equivalent of up to 30 to 45 new build large reactors and Small Modular Reactors (SMR) on top of that in the EU. Such new projects would also secure the current share of 25% for nuclear energy in electricity production, with the associated benefits for the functioning of the EU electricity system.

It is of the utmost importance that nuclear and renewable energies are both treated as strategic pillars for the decarbonisation of our energy system. Hence, EU policies, laws and regulations must ensure sufficient incentives aimed at promoting nuclear energies in terms of objectives, efforts for facilitation of permitting procedures and access to funding, as they do for renewables. They should be recognised as useful sources of energy for all uses and as energy vectors, including for hydrogen production through electrolysis.

There is a consensus that we need to shift away from fossil fuels. To achieve our objectives, including the overarching Net Zero by 2050 target, we need to maintain an integral view on the European approach to the energy and climate transition. We should keep focus on the main purpose of our policies, which is up and foremost to reduce our greenhouse gas emissions. The ways and technologies to achieve this goal are not goals by themselves, as guaranteed by the principle of technological neutrality enshrined in the EU Treaties. While keeping already agreed objectives, future EU text setting out the objectives for climate, energy and related policies should focus on the targets regarding greenhouse gas emissions, while the texts related to energy sources and technical approaches should focus on speeding up the transition by easing constraints and by relying on all available fossil free options.

b. Concrete proposals and actions must be undertaken

The most important issue for many Member States is financing the transition. We encourage the European Commission to develop a strong and positive policy to support competitive financing for nuclear energy:

Within the context of the ongoing negotiations on electricity market design, it is important that Member States maintain sufficient room to support investments in nuclear energy that contribute to long-term energy security.

- Starting from today, we encourage the European Commission to ensure that all of its technical proposals (e.g. NZIA) implement a technology neutral approach, a principle that should remain a strong pillar of the Union. All Union energy legislative proposals should focus on enabling Member States to achieve Net Zero in 2050.
- The European Commission could implement a partnership between Member States, private investors, international organisations including European organisations such as the EIB or the European Bank for Reconstruction and Development (EBRD) and any other stakeholders to discuss this important matter. This forum could be an efficient way to give the strong signal needed from the Commission to investment into the nuclear industry.
- We encourage the European Commission to review all investment funds rules so that nuclear be included, where it is currently excluded. All technologies aligned with the European taxonomy should be eligible in all investment funds such as the Modernization Fund, Innovation Fund, Just Transition Fund, InvestEU fund, etc. Furthermore, nuclear technologies should not be discriminated against in lending strategies of financial institutions, such as EIB or EBRD.
- We encourage the European Commission to initiate a process to define state aid guidelines together with Member States to facilitate the development of the nuclear supply chain and nuclear power plants in Europe.

We also encourage the European Commission to address other important issues such as:

- Supporting innovation and R&D in the emergence of new concepts and pilots *via*, for instance the Euratom working programme, in order to keep a state-of-the-art industry and prepare for tomorrow.
- Supporting the European industry on Small Modular Reactors (SMR) and Advanced Modular Reactors (AMR). Regarding the strong competition that emerges worldwide, we encourage the European Commission to ensure a fair level-playing field within the single market to develop those new fossil-free technologies. To do so, we encourage the European Commission to support actively the process of the

EU SMR pre- Partnership to reach a Partnership by the end of 2023. Cooperation between national European regulators on SMRs should be promoted by the European Commission within its initiatives and towards international organisations.