



Nuclear industry reaction and recommendation to the G7 Climate, Energy and Environment Minister`s Meeting in Sapporo (April 15-16, 2023)

As governments strive to decarbonize economies and mitigate the impacts of a global warming, nuclear energy must serve as a cornerstone of the just transition to a clean and sustainable energy future.

To support decarbonization at the scale required, the international community must work to extend the operating period of existing nuclear generation resources, develop the policies to enable new nuclear deployment and accelerate the development of a new portfolio of reactor technologies.

Nuclear energy is uniquely positioned to provide energy systems with:

- Always-on, clean, affordable electricity to meet the world's energy needs while achieving the goals of the Paris Agreement.
- Low-carbon electricity with a high energy density from a compact footprint, thereby reducing habitat and biodiversity loss.
- High-quality long-term jobs that drive economic growth.
- Energy security against geopolitical, economic and social challenges.

Taken together, these characteristics enable nuclear energy to be the foundation of a clean energy future that meets climate goals, improves public health and quality of life, and contributes to energy security and economic prosperity.

We, the nuclear industry associations representing the nuclear industry worldwide including G7 countries, recognize the positive steps taken by most of the G7 countries and encourage G7 Climate, Energy and Environment Ministers to take additional meaningful actions to maximize the benefits of nuclear energy for people all over the world:

1) *Maximize the utilization of existing nuclear power plants (NPPs)*

According to the International Energy Agency, long-term operation of existing NPPs is the most affordable form of low-carbon electricity generation. Therefore, we encourage governments to maximize the use of existing NPPs and their contribution to achieving decarbonization, energy security and socio-economic development goals by extending the operating period of NPPs for as long as is feasible. This includes supporting the restart of operable and encouraging efficient safety reviews.

2) *Accelerate the deployment of new NPPs*

We encourage governments to set ambitious targets for the deployment of new NPPs and to support their development with practical policy instruments and efficient energy market frameworks, with a view of enabling the electricity market to recognize the real value of nuclear energy, so that we can achieve carbon neutrality by 2050 and maintaining it thereafter.

3) *Support international cooperation and the nuclear supply chain*

We encourage governments to support efforts to develop supply chain capacity, including nuclear fuel (as appropriate under the Nuclear Non-Proliferation Treaty (NPT) and consistent with Nuclear Suppliers Group Guidelines), and to promote cooperation with like-minded nations, such as G7 countries, who seek to achieve the strategic independence of their supplies.

In this regard, some nations will choose to reduce reliance on civil nuclear and related goods from Russia through the development of additional capabilities within their own supply chains or in cooperation with like-minded states who seek to diversify their supplies, especially with regard to nuclear fuel.

We encourage knowledge-sharing among like-minded nations regarding international nuclear-related technologies and, for example, supporting supply chains in relation to compliance with standards, certification, and export controls.

4) Develop a financial environment that promotes investment in nuclear power

We encourage governments to establish policies that clearly indicate to the global financial community that nuclear energy will play an important role to combat climate change and ensure sustainable development without having negative impact on the environment. For example, including nuclear power in the framework of international green and sustainable financing policies encourages investments in the deployment, expansion, and replacement of NPPs.

5) Harmonize and modernize highly efficient international regulatory standards

We encourage governments to promote the harmonization and modernization of regulatory frameworks to enable efficient deployment of nuclear energy, including advanced nuclear technologies, while ensuring safety and security and respecting national regulatory sovereignty. International regulatory efficiency should be promoted through cooperation between national regulatory authorities including reviews and codes and standards to ultimately enable the deployment of standardized designs across multiple countries.

6) Support innovative nuclear technology development

We encourage governments to expand support for the development, demonstration and deployment of new nuclear technologies, such as

small modular reactors and other advanced technologies, with innovative features contributing to safety and economic efficiency. Social implementation of innovative nuclear technology through its accelerated deployment responds to the needs of society, including working in synergy with renewable energy, hydrogen production, and heat utilization.

7) Promote public understanding of nuclear energy

We encourage governments to take steps to increase public awareness and understanding of how nuclear energy contributes to meeting energy security and climate change mitigation policy objectives.

8) Collaborate internationally to share best practices, including working toward the realization of final nuclear waste disposal

We encourage governments to share the experience and knowledge gained by each country's work including options for used nuclear fuel management, the final disposal of nuclear waste and the activities to increase contribution to the circular economy in the nuclear sector.

9) Support countries that have newly introduced, or are considering, nuclear energy

We encourage governments to support countries that have newly introduced or are currently considering nuclear energy an effective means to decarbonize the energy system and meet growing energy demand, including through multilateral cooperation frameworks such as the International Atomic Energy Agency (IAEA).

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