

## BRAZIL

In the past two years, we have seen profound and unforeseeable transformations that challenge the pillars of the world's production and consumption dynamics. Those changes have disrupted supply chains in various sectors, including some of the most vital for well-being and survival, like energy and food.

The world now faces inflation, energy and food insecurities, shortages of mineral resources, and increased poverty. These difficult times should not stop us from moving forward in the process to clean energy transitions and toward net zero goals.

Nuclear power has a crucial role to play in response to the rising demand for reliable and efficient energy sources, and the pressing need to reduce carbon emissions to mitigate climate change. Nevertheless, it is vital to remember that there is no such thing as "one size fits all" when it comes to energy mixes, and that energy transitions need to go hand in hand with energy security.

Brazil has already come a long way. We have one of the cleanest energy matrices in the world. About 84% of our electricity comes from renewable sources - in fact, 48% of our energy comes from renewable sources such as biomass, hydraulic, wind and solar - these numbers are way above the world average.

Brazil has a long-term commitment to the nuclear industry. Historically, nuclear energy has played an important role in our strategy to ensure economic development while maintaining a high participation of renewable sources in the country's energy mix. Brazil's goal is to ensure that we have clean, affordable, reliable and sustainable energy at our population's disposal, while aiming to achieve net zero. For that purpose, nuclear power will continue to play an important role, as our national energy planning foresees a growth in nuclear generation of between 8 and 10 GW in the next 30 years.

Brazil currently has two operating power plants (Angra I and II), with a total installed capacity of 1.99 GW. Among our priorities is the conclusion of Brazil's third nuclear power plant (Angra-3), to be operational by 2026. We are also attentive to technological developments that could contribute to an eventual increase in nuclear power capacity in the long term. Brazil is willing to acquire expertise through cooperation with interested partners to contribute to these new technologies' maturity and competitiveness.

New achievements in the field of nuclear technology contribute to amplify the potential of this power source in delivering clean, safe, and secure energy for future generations. Small modular reactors (SMRs) are a promising new technology, not only because it offers costs and production

standardization advantages but also because it implies a simplified decommissioning process with potentially less environmental impact.

The Brazilian Multipurpose Reactor is under construction as well, a project of high strategic value that will have a wide range of applications, such as the production of radioisotopes for nuclear medicine, the development of scientific research and testing nuclear materials and fuels, with a significant impact on Brazilians' everyday lives.

The scale and complexity of projects, as well as safety and security requirements are the main challenges to increasing nuclear power capacity in Brazil. Stakeholders engaged in developing the Brazilian nuclear sector have been working hard to promote self-evaluation, from national legislation to technical expertise to comply with such requirements.

The Brazilian government is also working to improve our regulatory framework. Brazil recently ratified the amendment to the Convention on Physical Protection of Nuclear Material. We also expect that the accession to the Convention on Supplementary Compensation for Nuclear Damage and to the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage will be concluded shortly.

The recent creation of a stand-alone National Nuclear Safety Authority that will oversee all regulation and inspection activities previously performed by the National Nuclear Energy Commission is an excellent addition to our credentials in nuclear technical and physical safety and security.

Brazil's long-term vision regarding nuclear energy also comprises strategies for safe waste management. Since 2022, spent fuel from Angra-I power plant has been transferred to a new Complementary Spent Fuel Dry Storage Unit (UAS). Brazilian experts have also engaged in the Joint Convention on Spent Fuel Management meetings to promote the highest standards of safety in spent fuel and radioactive waste management.

Another priority is improving the national capacity for nuclear and radiological incident and emergency preparedness, as demonstrated by the recent establishment of the Naval Nuclear and Radiological Emergency Response Monitoring Center (CARE).

Brazil commends the IAEA for promoting greater access to peaceful uses of nuclear technology in recent decades. Brazil's ambitious goals in the nuclear field require reinforcing our already close cooperation with the Agency. We encourage it to continue playing a central role in assisting Member States in their legitimate pursuit of the benefits of power and non-power nuclear applications.