

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO-1122
ANSWERED ON 05/12/2024

ROLE OF NUCLEAR ENERGY IN SAFE ENERGY TRANSITION

1122. DR. FAUZIA KHAN

Will the Prime Minister be pleased to state:-

- (a) the challenges identified by Government, including cost, safety, and waste management, in expanding nuclear energy infrastructure, particularly in light of the International Energy Agency's recent report on nuclear energy;
- (b) whether Government has explored the potential for developing new nuclear technologies, such as Small Modular Reactors (SMRs), and if so, the status of research, development, and deployment of these technologies in India; and
- (c) the measures Government is implementing to attract new investments in nuclear energy and address regulatory and market barriers to enable its growth in India's future energy mix?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS
AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH)

- (a) The major challenges in expanding nuclear power plants in India are the availability of suitable sites, land acquisition and associated Resettlement & Rehabilitation (R&R), domestic supply chain capacity, public acceptance, availability of fuel and huge funding requirement.
- (b) The standard 220 MW Pressurised Heavy Water Reactor (PHWR), which has a proven safety and performance record, is being upgraded to reduce the land requirement and make it deployable close to the industries for use as a captive power plant. These reactors, termed as Bharat Small Reactors (BSR) are planned to address the decarbonisation needs of industries like steel, aluminium, metals etc.
- (c) Setting up of 220 MW Bharat Small Reactors (BSRs) is envisaged within the existing legal framework, broadly envisaging provision of land, cooling water and capital by the private entity, with the design, quality assurance and operation & maintenance by Nuclear Power Corporation of India Limited (NPCIL), based on agreed business models.
