

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO- 331**  
ANSWERED ON 28/11/2024

**NUCLEAR ENERGY CAPACITY EXPANSION AND SAFETY MEASURES**

331. SMT. RANJEET RANJAN

Will the PRIME MINISTER be pleased to state:-

- (a) the details of total nuclear power production capacity as of November 2024, including the total installed capacity;
- (b) whether Government plans to overcome the challenges especially land acquisition encountered in the construction and commissioning of new nuclear reactors;
- (c) measures taken by Government to address safety concerns associated with the expansion of nuclear power plants in the country; and
- (d) steps taken to promote indigenous technology development in the nuclear sector?

**ANSWER**

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

- (a) As of November-2024, the country's total installed nuclear power capacity is 8180 MW, comprising of 24 nuclear power reactors.
- (b) NPCIL is working closely with state governments to expedite land acquisition, finalisation and implementation of Resettlement and Rehabilitation (R&R) packages for the Project Affected Persons (PAPs) and expeditious resolution of issues related with land acquisition and R&R. In addition, taking up pre-project activities in advance, advance procurement of long manufacturing cycle equipment and implementation of multi-pronged public awareness programme to allay the concerns of different sections of the public have been taken up to overcome the challenges.
- (c) Highest priority is accorded to safety in all aspects of nuclear power viz. siting, design, construction, commissioning and operation. Nuclear power plants are designed adopting safety principles of redundancy, diversity and provide fail-safe design features following a

defense-in-depth approach. The operations are performed adopting well laid out procedures by highly qualified, trained and licensed personnel.

A multi-tier safety review mechanism within Nuclear Power Corporation of India Limited (NPCIL) by the regulatory authority (Atomic Energy Regulatory Board- AERB) is in place. Based on these reviews and operating experience feedback, necessary upgrades are carried out and the nuclear power plants are maintained at state-of-the art terms of safety.

- (d) The Government sanctioned 10 indigenous 700 MW reactors to be implemented in fleet mode to promote indigenous nuclear power technologies. Further the Government in this year's budget announced partnering with the private sector for setting up Bharat Small Reactors and Research & Development of Bharat Small Modular Reactor and newer technologies for nuclear energy.

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