

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
STARRED QUESTION NO - 468
ANSWERED ON 25.03.2026

DEVELOPMENT OF SMALL MODULAR REACTORS (SMRs)

*468. SHRI DAGGUMALLA PRASADA RAO

Will the PRIME MINISTER be pleased to state:-

- (a) the details of the current nuclear power generation capacity in the country and its contribution to total electricity generation, State-wise;
- (b) whether the Government has initiated any programme for the development and deployment of Small Modular Reactors (SMRs);
- (c) if so, the details of production capacity envisaged, potential sites identified and timelines proposed for SMR deployment;
- (d) whether any SMRs are currently operational/under construction and if so, the details thereof including location, capacity and expected timeline for commissioning; and
- (e) the details of the steps taken by the Government to promote domestic Research and Development (R&D), public-private partnerships and intentional collaborations for the indigenous development of SMRs?

ANSWER

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

(a) to (e) : A statement is laid on the Table of the House.

Government of India
Department of Atomic Energy

STATEMENT REFERRED TO IN REPLY TO PART (A) TO (E) IN RESPECT OF LOK SABHA STARRED QUESTION NO.468 FOR REPLY ON 25.03.2026 REGARDING “DEVELOPMENT OF SMALL MODULAR REACTORS (SMRs)” ASKED BY SHRI DAGGUMALLA PRASADA RAO

- (a) The present installed nuclear power capacity in the country is 8,780 MW comprising 24 nuclear power plants (excluding Rajasthan Atomic Power Station-1 – 100 MW). The state wise installed capacity details are :

Maharashtra	Tarapur	TAPS-1	160
		TAPS-2 [§]	160
		TAPS-3	540
		TAPS-4	540
Rajasthan	Rawatbhata	RAPS-1*	100
		RAPS-2	200
		RAPS-3	220
		RAPS-4	220
		RAPS-5	220
		RAPS-6	220
		RAPS-7	700
Tamilnadu	Kalpakkam	MAPS-1 [§]	220
		MAPS-2	220
	Kudankulam	KKNPP-1	1000
		KKNPP-2	1000
Uttar Pradesh	Narora	NAPS-1	220
		NAPS-2	220
Gujarat	Kakrapar	KAPS-1	220
		KAPS-2	220
		KAPS-3	700
		KAPS-4	700
Karnataka	Kaiga	KGS-1 [§]	220
		KGS-2	220
		KGS-3	220
		KGS-4	220

*RAPS-I (100 MW) is under extended shutdown.

[§]Reactors in project mode for Renovation & Modernisation/Refurbishment.

Nuclear power plants generated 56681 Million Units of electricity in the year 2024-25, contributing about 3.1% of the total electricity generation in the country.

Nuclear power plants are in the central sector and power generated by them is allocated to the beneficiary states and union territories in the electricity region by the Ministry of Power.

- (b) & (c) Under the Nuclear Energy Mission, announced in the Union Budget 2025-26, Department of Atomic Energy (DAE) has initiated design and development of SMRs namely 220 MWe Bharat Small Modular Reactor (BSMR-200), 55 MWe Small Modular Reactor (SMR-55) and up to 5 MWth High Temperature Gas Cooled Reactor (HTGCR) with the aim to enhance the share of nuclear power in India's energy mix and decarbonization of transport and industrial sector to meet the goal of net zero carbon emission by 2070.

It is planned to deploy the lead unit of these SMRs at DAE site for technology demonstration. The lead units of the BSMR-200 and SMR-55 are proposed to be constructed at the Tarapur Atomic Power Station site in Maharashtra, while a high temperature gas cooled reactor of up to 5MWth is proposed to be constructed at Bhabha Atomic Research Centre, Vizag, Andhra Pradesh.

Estimated time for construction of these SMR is 60 to 72 months from receipt of administrative and financial approval.

- (d) Presently, no SMRs are operational/under construction.
- (e) Under the Nuclear Energy Mission (NEM), Government has allocated Rs.20,000 crore for R&D and deployment of at least five indigenous SMRs by 2033. Further enactment of SHANTI Act, 2025 enables participation of private entity for R&D in nuclear science and technology. BSMR-200, SMR-55, HTGCR are being developed indigenously through Indian Industries. Other critical equipment and components for SMRs are within the capabilities of Indian Industries and are being developed through handholding in BARC.
