GOVERNMENT OF INDIA DEPARTMENT OF ATOMIC ENERGY

LOK SABHA STARRED QUESTION NO. 383 ANSWERED ON 20.08.2025

DEVELOPMENT OF SMALL NUCLEAR-POWERED REACTORS

*383. SHRI SUKANTA KUMAR PANIGRAHI

Will the PRIME MINISTER be pleased to state:-

- (a) whether the Government has prioritised the development of small nuclear-powered reactors for clean electricity generation and if so, the details thereof;
- (b) whether the Government has identified potential locations for setting up of Small Modular Nuclear Reactors (SMRs) in the Eastern region of the country, particularly in Odisha and if so, the details thereof;
- (c) whether the Government proposes to conduct a feasibility study for setting up an SMR in Bhanjanagar, Odisha considering its proximity (approximately 150 km) to Indian Rare Earths Limited (IREL), Chatrapur and if so, the details thereof; and
- (d) if not, whether the Government proposes to evaluate such proposal as part of expansion and if so, the details thereof?

ANSWER

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

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

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STATEMENT REFERRED TO IN REPLY TO PART (A) TO (D) IN RESPECT OF LOK SABHA STARRED QUESTION NO. *383 FOR REPLY ON 20.08.2025 REGARDING DEVELOPMENT OF SMALL NUCLEAR-POWERED REACTORS ASKED BY SHRI SUKANTA KUMAR PANIGRAHI.

(a) Yes, During the Union Budget 2025 the Government launched the Nuclear Energy Mission for Viksit Bharat, which included an outlay of ₹20,000 crore for research and development of Small Modular Reactors (SMRs).

Currently Department of Atomic Energy (DAE) is developing following Small Modular Reactors,

- Bharat Small Modular Reactors (BSMR-200) for repurposing of retiring thermal power plants & captive power plants for energy intensive industry such as aluminium, steel, cement etc.
- ii. Small Modular Reactors (SMR-55) for providing energy for remote as well as off-grid location with objective to decarbonise the energy sector.
- iii. High Temperature Gas Cooled Reactor of capacity 5 MWth for hydrogen generation for decarbonisation of transport sector & process industries.
- (b),(c)&(d) Lead units of reactors are planned to be set up at DAE sites. The subsequent units of these SMRs will be located at the sites offered by the end-user industry in case of captive power plants and at suitable brownfield sites in case of retiring thermal power plants, subject to applicable regulatory approvals.

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