

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO - 5087
ANSWERED ON 02/04/2025

NUCLEAR ENERGY MISSION

5087. SHRI VISHALDADA PRAKASHBAPU PATIL

Will the PRIME MINISTER be pleased to state:-

- (a) whether the Government plans to implement the proposed five indigenous Small Modular Reactors (SMRs) in the country, particularly in Maharashtra under the newly announced Nuclear Energy Mission;
- (b) if so, the details thereof, district-wise;
- (c) the timeline for the implementation of the proposed amendments to the Atomic Energy Act and the Civil Liability for Nuclear Damage Act to facilitate private sector participation;
- (d) the steps being taken by the Government to ensure safety standards for future SMR installations, particularly in potential sites like Jaitapur; and
- (e) the timeline for the implementation of the proposed amendments to the Atomic Energy Act and the Civil Liability for Nuclear Damage Act to facilitate private sector participation?

ANSWER

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

(a)&(b)The nuclear energy mission announced in the budget-2025 envisages deployment of 100 GWe of nuclear energy by 2047. Fund of INR 20,000 Crore allocated in the budget-2025 for deployment of five SMRs by 2033.

Currently BARC is developing following small modular reactors,

1. Bharat Small Modular Reactors (BSMR-200) for repurposing of retiring thermal power plants & captive power plants for energy intensive industry such as aluminium, steel, metal.
2. Small Modular Reactors (SMR-55) for providing energy for remote as well as off-grid location with objective to decarbonise the energy sector.
3. High Temperature Gas Cooled Reactor of capacity 5 MWth for hydrogen generation for decarbonisation of transport sector & process industries.

Lead units of these reactors are planned to be set up at DAE sites. The subsequent units are to be located at the sites of the end-user industry in case of captive power plants and at brown fields sites of retiring thermal power plants.

- (c) The Committees have been constituted in the Department with Members from DAE, AERB, NITI Aayog and Ministry of Law & Justice (MOLJ) to discuss and propose amendment in the acts (Atomic Energy Act and the Civil Liability for Nuclear Damage Act) so as to allow participation of private parties in respect of Nuclear sector. The Committee also have to look in the aspect of the waste management, fuel sourcing & handling, decommissioning, implementation of security and safeguards. The activities related to the amendment in the Acts involves various stages of inter- ministerial consultations as well as scientific solution. These activities may require time and in view of this it is not feasible to give a timeline.
- (d) Jaitapur is not being considered for SMR installation. It is suitable for large size conventional reactors. All safety and environmental standards, as stipulated by regulatory authority for conventional large reactors, are followed and implemented at the stage of site selection.
- (e) As (c) above.
