

PARLIAMENT QUESTION: R&D OF SMALL MODULAR REACTORS

Posted On: 20 AUG 2025 4:24PM by PIB Delhi

During the Budget 2025 announcement the government had launched a Nuclear Energy Mission with an outlay of ₹20,000 crore for research and development of Small Modular Reactors (SMRs). Currently, Bhabha Atomic Research Centre (BARC) a constituent unit of DAE, is developing following Small Modular Reactors:

- i. 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 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. 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 brownfield sites of retiring thermal power plants. The Department has obtained in-principle approval for construction of these reactors.

There are plans to establish some of the newly proposed SMR-type reactors at BARC Vizag, Andhra Pradesh. Sites for Nuclear Power Plants including SMRs are finalized based on various criteria decided by the Site Selection Committee. Prospective vendors and public or private institutions will be selected on the basis of appropriate bidding process, for execution of equipment delivery, construction, erection and commissioning activities pertaining to these reactors.

BARC has developed a new campus at Vizag, Andhra Pradesh. This new campus will be housing several research reactors and R&D facilities in addition to some of the new SMRs being developed by the Department.

This information was given by Dr. Jitendra Singh, Union Minister of State (Independent Charge) for Science and Technology, Earth Sciences, MoS PMO, MoS Personnel, Public Grievances & Pensions, Department of Atomic Energy and Department of Space, in a written reply in the Lok Sabha today.

NKR/PSM

(Release ID: 2158389)