

PARLIAMENT QUESTION: ROADMAP FOR INDIA'S ENERGY SECTOR THROUGH NUCLEAR POWER

Posted On: 23 JUL 2025 3:38PM by PIB Delhi

The specific measures outlined to reach this goal involve a multi-faceted approach, leveraging both indigenous development and international collaboration. Key strategies include the continued deployment of Indigenous Pressurized Heavy Water Reactors (PHWRs), building upon the 24 reactors with 8780 MW capacity. There are also 8 reactors under construction contributing 6600 MW, which include indigenous 700 MW PHWRs like RAPP 8 and GHAVP 1&2, alongside the Indigenous Fast Breeder Reactor (FBR) PFBR, and Light Water Reactors (LWRs) with foreign cooperation such as KKNPP 3&4 and KKNPP 5&6. Furthermore, 10 reactors are at the pre-project activities stage (sanctioned), set to add another 7000 MW, encompassing PHWRs like Kaiga 5&6, GHAVP 3&4, Chutka 1&2, and Mahi Banswara 1&2 and 3&4. With the progressive completion of these projects, the nuclear power capacity in India is projected to reach 22480 MW by 2031-32.

Future plans also emphasize the development of Indigenous Fast Breeder Reactors (FBRs), which align with India's unique three-stage nuclear power program designed for optimal utilization of its modest uranium and abundant thorium resources through a closed fuel cycle. Additionally, the strategy includes the deployment of Bharat Small Reactors (BSR) for decarbonisation of hard to abate industries, development of Bharat Small Modular Reactors (SMRs), including indigenous SMRs of varying capacities, and Indian LWRs. Enhanced international cooperation is also envisioned, particularly concerning SMRs and fuel, alongside the export of reactors, services, and supplies.

The government has also launched a Nuclear Energy Mission with an outlay of Rs. 20,000 crore for research and development of Small Modular Reactors (SMRs).

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: 2147275)