GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO–3005
ANSWERED ON 11/03/2026
THORIUM-BASED POWER PROJECTS

3005. SHRI PRADYUT BORDOLOI

Will the PRIME MINISTER be pleased to state:-

(a) the details of the number and location of thorium-based power projects currently operational in the country along with the amount of power generated by each of them since 2020, year-wise;

(b) whether the Government has any project underway to establish thorium-based plants and if so, the details thereof including expected timeline, location and capacity and if not, the reasons therefor;

(c) whether any public sector undertaking has entered into or has plans to enter into any joint venture with any foreign company/organisation/country to develop thorium-based fuel technology, fuel fabrication capability or any other thorium-related project and if so, the details thereof; and

(d) whether the Government has assessed the long-term energy, economic and environmental implications of deploying thorium-based power at scale in the country and if so, the details and the findings thereof and if not, the reasons therefor?

ANSWER

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

(a), (b),(c)& (d) Deployment of thorium-based power at scale in the country in a manner so as to ensure a long term self-sustainable indigenous power production is one of the cornerstones of the Indian three stage nuclear power programme. Its advantages in the long-term energy scenario have been well established. Thorium based reactors are also expected to produce less amounts of long-lived nuclear wastes as compared to uranium based reactors. Molten salt reactor (MSR) is envisaged as one of suitable technologies for thorium utilization. The molten salt breeder reactor (MSBR) using thorium based fuel, which are expected to be deployed in the third stage, operates at near atmospheric pressure. This enhances its safety. However, this technology is not yet matured and economic implications of deploying the technology can be examined, once it is demonstrated in a limited scale.

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