

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO-1443**  
ANSWERED ON 12/02/2026

**INDIGENOUS PHWR**

1443. SHRI NARAYANA KORAGAPPA  
SHRI MAYANKKUMAR NAYAK  
SHRI BRIJ LAL

Will the PRIME MINISTER be pleased to state:-

- (a) the progress made so far in the construction of indigenously developed 700 MW capacity Pressurized Heavy Water Reactors (PHWRs) approved under the fleet mode;
- (b) the extent to which the indigenization has been achieved in the major components of the reactor and fuel assemblies;
- (c) whether standardization has resulted in reduction in manufacturing time and cost and if so, the details thereof; and
- (d) the major achievements accomplished by Nuclear Power Corporation of India Limited (NPCIL) from December 2022 till date?

**ANSWER**

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

- (a) The ten indigenous 700 MW Pressurized Heavy Water Reactors (PHWRs) approved under the fleet mode are at various stages of pre-project activities. In addition, three indigenous 700 MW PHWRs are in operation, one under commissioning and two are under construction.
- (b) Full indigenization has been achieved in major components of reactor and fabrication of fuel assemblies of indigenous 700 MW PHWRs.
- (c) Yes. Standardization has enabled bulk procurement of long manufacturing cycle equipment and components with staggered delivery schedule leading to reduction of time and cost.
- (d) The major achievements of NPCIL from December 2022 are as follows:
  - i. Addition of 2100 MW nuclear power capacity by completion of KAPS 3&4 (2X700 MW) and RAPS 7 (700 MW).

- ii. NPCIL has achieved highest ever generation of 56,681 Million Units (MU) during FY 2024-25. It avoided release of about 49 Million Tones of CO2 equivalent in to the environment.
- iii. RAPS-3 resumed operation on July 24, 2024 after successful completion of Renovation and Modernisation (R&M) activities (Enmasse Coolant Channel Replacement, Enmasse Feeder Replacement and other safety upgrades). These R&M activities were completed in the shortest time among Indian Reactors.
- iv. TAPS-1, the world's oldest operating nuclear reactor, achieved criticality on December 30, 2025, following the successful completion of major refurbishment activities.
- v. Continuous, safe and reliable operation for more than one year has been achieved 54 times since inception by various reactors operated by NPCIL, including 12 times since December 2022.

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