

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO-3118
ANSWERED ON 11/03/2026

NUCLEAR POWER GENERATION

3118. PROF. SOUGATA RAY

Will the PRIME MINISTER be pleased to state:-

- (a) the details/quantity of nuclear power generation through the 2008 India-US civil nuclear agreement so far, year wise;
- (b) the details of import of uranium for reactors under International Atomic Energy Agency (IAEA) safeguards that is significantly boosting nuclear power generation from 14,927 million units in 2008-09 to 56,681 million units in 2024-25;
- (c) the details of status of completion of the proposed construction of U.S.-designed reactors at Kovvada in Andhra Pradesh;
- (d) the details of the Expansion Strategy to increase nuclear capacity to 100 GW by 2047, utilising international technology and fuel; and
- (e) whether the Government has any proposal to involve private players in the sector and if so, the details thereof?

ANSWER

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

- (a) The conclusion of international cooperation agreements in 2008 enabled import of fuel for reactors under International Atomic Energy Agency (IAEA) Safeguards. The year-wise generation by reactors using imported fuel is given in Annexure.
- (b) From 2008-09 till 2024-25, a total of 18842.60 MTs of Uranium in the form of Uranium Ore Concentrate, Natural UO₂ pellets and Enriched UO₂ pellets was imported for reactors under the International Atomic Energy Agency (IAEA) Safeguards in India.
- (c) Presently discussions are in progress with US technology partners to arrive at a viable project proposal. The project construction will commence on finalisation of the project proposal and its approval by the Government.
- (d) The Government has formulated a roadmap to reach a capacity of 100 GW nuclear power capacity. As per the roadmap, the present nuclear power capacity of 8.78 GW (excluding RAPS-1) is expected to reach about 22 GW by 2031-32 on progressive completion of projects presently at various stages of implementation. Another 32 GW

of nuclear power capacity is envisaged to be set up beyond 2032 by NPCIL, comprising of indigenous Pressurised Heavy Water Reactors (PHWR) and Light Water Reactors (LWR) with foreign cooperation by 2047 taking the capacity to about 54 GW. The balance of 46 GW is expected to be set up by other Public Sector Enterprises (Central & State), State Governments, Private sector and Joint Ventures in different business models, comprising of reactors of different technologies.

- (e) The Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act, 2025, has been enacted and notified by the Ministry of Law and Justice on the 21st of December 2025 as a single, coherent legislation, with enabling provisions for private sector participation to carry out research and innovations for peaceful application of nuclear energy under license and safety authorization.

Annexure

Year	Generation using imported Fuel (Million Units)
2009-10	3704
2010-11	11130
2011-12	15637
2012-13	13900
2013-14	16219
2014-15	18697
2015-16	17469
2016-17	19247
2017-18	22134
2018-19	20597
2019-20	29003
2020-21	26685
2021-22	29929
2022-23	27640
2023-24	30763
2024-25	39180
2025-26 upto January 2026	33815
