GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 4224
ANSWERED ON 26/03/2025

ELECTRICITY GENERATION CAPACITY THROUGH NUCLEAR ENERGY

4224. SHRI DHAIRYASHEEL SAMBHAJIRAO MANE
SHRI SUDHEER GUPTA
SHRI CHAVAN RAVINDRA VASANTRAO

Will the PRIME MINISTER be pleased to state:-

(a) the present electricity generation capacity of the Country through nuclear power generation;

(b) whether the Government is working on any indigenously developed technology to generate electricity through atomic energy and if so, the details thereof;

(c) the extent to which this indigenously developed technology will reduce the Country's dependency on foreign countries and solve the problem of shortage of electricity in the Country;

(d) whether the Government has entered into any agreements with any foreign country/countries for supply of fuel which is the major obstacle in electricity generation through nuclear power; and

(e) if so, the details thereof along with the names of the foreign countries?

ANSWER

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

(a) The present installed nuclear power capacity in the country is 8180 MW. Another reactor of 700 MW capacity has been connected to the grid on March 17, 2025, taking the capacity to 8880 MW.

(b) India follows an indigenous, sequential three-stage nuclear power programme to ensure long term energy security and optimum utilization of the country's nuclear resources. Pressurized Heavy Water Reactors (PHWRs) form the first stage of the programme. Their unit size has been increased from 220 MW to 540 MW and further to 700 MW. The indigenous 700 MW PHWR shall now be the mainstay of the nuclear power expansion

programme of the country in the near and medium terms. The standard 220 MW PHWR termed as Bharat Small Reactor (BSR), which has a proven safety and performance record, is being upgraded to reduce the land requirement and make it deployable close to the industries for use as a captive power plant.

(c) Presently, there are 25 nuclear power reactors in existence with total capacity of 8880 MW, out of which 21 reactors are PHWRs consisting of more than 60% of total existing capacity. There is a plan to increase the nuclear power capacity to 22480 MW by 2031-32, out of which 15160 MW capacity will be from PHWRs.

Further, Government of India has envisioned a nuclear power capacity of 100 GW by 2047 based on both existing and emerging new technologies, which will certainly help in solving the problem of shortage of electricity in the country.

(d) & (e) The only existing long term uranium procurement agreement from any foreign country is with M/s. “Navoiyuran” State Company, Uzbekistan. The contract is valid upto 2026 and for total quantity of 1100MTU.

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