

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 143
TO BE ANSWERED ON 07.12.2022

Nuclear Plants in the Country

**143. SHRI KRUPAL BALAJI TUMANE:
SHRIMATI BHAVANA PUNDALIKRAO GAWALI:**

Will the PRIME MINISTER be pleased to state:

- (a) whether nuclear energy is the cheaper source of energy as compared to other conventional sources of energy;
- (b) if so, the number of nuclear power plants producing nuclear energy in the country and the amount of energy comparatively produced individually by each of them particularly in Maharashtra;
- (c) whether any incident has taken place during the last three years that posed a threat to human life and if so, the details thereof;
- (d) whether proper equipments to ensure safety have been installed in each power plant;
- (e) if so, the details thereof; and
- (f) whether the Government proposes to set up more nuclear power plants 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 tariffs of electricity generated by nuclear power are comparable to those of contemporary conventional base load generators like thermal power.
- (b) The present installed nuclear power capacity comprises of 22 reactors with a total capacity of 6780 MW. In addition, one reactor, KAPP-3 (700 MW) has also been connected to the grid. The details of electricity generated in 2021-22 by these reactors are given in *Annexure*.

(c) There has been no such incident due to operation of Nuclear Power Plants in the last three years.

(d) & (e) Yes, Sir. Highest priority is accorded to safety in all aspects of nuclear power viz. siting, design, construction, commissioning, and operation. Nuclear power plants are designed adopting safety principles of redundancy, diversity and provide fail-safe design features following a defence-in-depth approach.

The equipment installed in the nuclear power plants meet highest safety and quality standards. They undergo extensive testing during the commissioning phase before start of operation of the plant. Further their health is ensured through a well-established surveillance, monitoring and preventive maintenance programme.

(f) Yes, Sir. In addition to the eleven (11) reactors (8700 MW) under construction, the Government has accorded administrative approval and financial sanction for construction of ten (10) indigenous 700 MW Pressurized Heavy Water Reactors (PHWRs) to be set up in fleet mode. The government has also accorded in principle approval for five new sites for setting up nuclear power plants in the future.

Annexure

State	Location	Unit	Capacity (MW)	Electricity Generation, MUs (2021-22)
Maharashtra	Tarapur	TAPS-1&	160	-
		TAPS-2&	160	-
		TAPS-3	540	3829
		TAPS-4	540	4774
Rajasthan	Rawatbhata	RAPS-1@	100	-
		RAPS-2	200	1453
		RAPS-3	220	1563
		RAPS-4	220	1723
		RAPS-5	220	1869
		RAPS-6	220	1702
Tamilnadu	Kalpakkam	MAPS-1&	220	-
		MAPS-2	220	1089
	Kudankulam	KKNPP-1	1000	7009
		KKNPP-2	1000	7527
Uttar Pradesh	Narora	NAPS-1	220	1828
		NAPS-2	220	1753
Gujarat	Kakrapar	KAPS-1	220	1852
		KAPS-2	220	1652
Karnataka	Kaiga	KGS-1	220	1607
		KGS-2	220	1805
		KGS-3	220	2059
		KGS-4	220	2021

@ RAPS-1 is under extended shutdown for techno-economic assessment
& TAPS-1&2 & MAPS-1 are presently under project mode.