

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO.1774
TO BE ANSWERED ON 08.12.2021

NUCLEAR REACTORS

1774. SHRI KALYAN BANERJEE:

Will the PRIME MINISTER be pleased to state:

- (a) whether it is a fact that India has 22 operational nuclear reactors with an installed capacity of about 6,780 mw power generation and if so, the details thereof;
- (b) whether it also a fact that another 7 reactors are under construction and 8 reactors are in various phases;
- (c) if so, the details of the projects and the supply and availability of minerals to run the power plants therein; and
- (d) whether there is any proposal to set up fast breeder test reactor based nuclear plant at coastal West Bengal and if so, the details thereof and if not, the reason therefor?

ANSWER

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

- (a) Yes, Sir. The details are attached as Annexure.
- (b) There are presently Ten (10) nuclear power reactors with 8000 MW capacity [including 500 MW PFBR being implemented by Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI)] under construction. Additionally, the Government has accorded administrative approval and financial sanction of ten (10) indigenous Pressurized Heavy Water Reactors (PHWRs) of 700 MW each to be set up in fleet mode where pre-project activities are in progress.
- (c) The details of the projects under construction and accorded approval are given below:

State	Location	Project	Capacity (MW)	Types of Safeguards
Projects Under Construction				
Gujarat	Kakrapar	KAPP-3 ^s & 4	2 X 700	IAEA
Rajasthan	Rawatbhata	RAPP-7&8	2 X 700	IAEA
Tamilnadu	Kudankulam	KKNPP-3&4	2 X 1000	IAEA
		KKNPP-5&6	2 X 1000	-
	Kalpakkam	PFBR [#]	1 X 500	-
Haryana	Gorakhpur	GHAVP-1&2	2 X 700	-

State	Location	Project	Capacity (MW)	Types of Safeguards
Projects Accorded Administrative Approval & Financial Sanction				
Karnataka	Kaiga	Kaiga-5&6	2 X 700	-
Haryana	Gorakhpur	GHAVP– 3&4	2 X 700	-
Madhya Pradesh	Chutka	Chutka-1&2	2 X 700	-
Rajasthan	Mahi Banswara	Mahi Banswara-1&2	2 X 700	-
		Mahi Banswara-3&4	2 X 700	-

\$ KAPP-3 (700 MW) has been connected to the grid on January 10, 2021.

#Implemented by BHAVINI

The requisite quantity of fuel for operation of these reactors is sourced through indigenous sources or imports. Raw material in the form of Uranium Ore Concentrate is sourced from import for PHWRs under IAEA safeguards. In order to cater the fuel requirement of upcoming nuclear reactors which are not covered under the IAEA safeguards, Atomic Energy Commission has accorded in principle approval for some new projects to augment the uranium production / supply from indigenous sources by Uranium Corporation of India Limited (UCIL). Raw material in the form of Zircon is supplied by M/s IREL(India) Limited. Fuel for Kudankulam PWRs is supplied by Russia as per the agreement.

- (d) No, Sir. Presently there is no proposal to set up fast breeder test reactor based nuclear plant in West Bengal.

Annexure

State	Location	Unit	Capacity (MW)
Maharashtra	Tarapur	TAPS-1 ^{&}	160
		TAPS-2 ^{&}	160
		TAPS-3	540
		TAPS-4	540
Rajasthan	Rawatbhata	RAPS-1 [@]	100
		RAPS-2	200
		RAPS-3	220
		RAPS-4	220
		RAPS-5	220
		RAPS-6	220
Tamilnadu	Kalpakkam	MAPS-1 ^{&}	220
		MAPS-2	220
	Kudankulam	KKNPP-1	1000
		KKNPP-2	1000
Uttar Pradesh	Narora	NAPS-1	220
		NAPS-2	220
Gujarat	Kakrapar	KAPS-1	220
		KAPS-2	220
Karnataka	Kaiga	KGS-1	220
		KGS-2	220
		KGS-3	220
		KGS-4	220

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