GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO.3205
TO BE ANSWERED ON 31.03.2022

NUCLEAR POWER PLANTS IN THE COUNTRY

3205 Shri G. V. L. Narasimha Rao:

Will the PRIME MINISTER be pleased to state:

(a) the number of nuclear power plants and nuclear reactors operational in the country;

(b) the number of nuclear power plants and nuclear reactors planned for construction in the country;

(c) details of both (a) and (b) by location, capacity, investment made and planned, whether indigenous or imported reactors etc.;

(d) the details of the planned power generation capacity of Kovvada plant in Srikakulam district of Andhra Pradesh;

(e) likely investment in Kovvada and likely employment generation by industry standards;

(f) details of existing and planned nuclear power plants in Uttar Pradesh; and

(g) investment and employment generation in Uttar Pradesh nuclear power plants?

ANSWER

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

(a) There are twenty two (22) nuclear power plants in operation in the country.

(b) Presently, there are eleven (11) reactors under construction / commissioning at various stages (including KAPP-3 which is already connected to the grid and PFBR being implemented by BHAVINI). In addition, the Government has accorded administrative approval and financial sanction for ten (10) reactors to be set up in fleet mode.

(c) The details are given in Annexure.

(d) The Government has accorded 'In Principle' approval for locating six (06) reactors of 1208 MW each at Kovvada in Srikakulam district in the state of Andhra Pradesh.

(e) The cost and investment details would emerge on finalization of the project proposal and accord of administrative approval and financial sanction of the Kovvada project by the Government. In respect of employment, during construction, large numbers of contractor manpower are employed. The employment potential during construction will follow a bell curve with about 8000 persons at the peak. On becoming operational, each of the twin unit station is expected to generate employment (direct and indirect) for about 2000 persons. In addition, large employment potential is generated with the contractors/ vendors and from business opportunities that emerge consequent to the increase in economic activity at the site.

(f) In the state of Uttar Pradesh, two (02) indigenous Pressurized Heavy Water Reactors (PHWRs) of 220 MW capacity each (NAPS-1&2), are in operation at Narora in Bulandshahr district.

(g) The total investment (as on date of commissioning) of NAPS-1&2 (2X220 MW) was Rs. 745 crore. These reactors provide employment to about 2000 persons (direct and indirect). In addition, significant employment potential has been generated with the contractors/vendors and from business opportunities that have emerged consequent to the increase in economic activity at the site.

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Annexure

A. List of Operational Nuclear Power Plants

State	Location	Unit	Capacity (MW)	Capital cost (at the date of commissioning), Rscrore	In Cooperation With
Maharashtra	Tarapur	TAPS-1[&]	160	90.54	USA
		TAPS-2[&]	160		
		TAPS-3	540	5667.84	Indigenous
		TAPS-4	540		
Rajasthan	Rawatbhata	RAPS-1[@]	100	-	Canada
		RAPS-2	200	2424.99	
		RAPS-3	220		Indigenous
		RAPS-4	220		
		RAPS-5	220	2362.70	
		RAPS-6	220		
Tamil Nadu	Kalpakkam	MAPS-1[&]	220	226.84	
		MAPS-2	220		
	Kudankulam	KKNPP-1	1000	21618.76	Russian Federation
		KKNPP-2	1000		
Uttar Pradesh	Narora	NAPS-1	220	745.00	Indigenous
		NAPS-2	220		
Gujarat	Kakrapar	KAPS-1	220	1366.68	
		KAPS-2	220		
Karnataka	Kaiga	KGS-1	220	2823.77	
		KGS-2	220		
		KGS-3	220	2715.06	
		KGS-4	220		

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

B. Details of nuclear power reactors under construction/ commissioning & accorded sanction.

State	Location	Project	Capacity (MW)	Sanctioned Cost (Rs. crore)	In Cooperation With
Projects under various stages of construction/ commissioning					
Gujarat	Kakrapar	KAPP-3[$] & 4	2 X 700	11459[#]	Indigenous
Rajasthan	Rawatbhata	RAPP-7&8	2 X 700	12320[*]	
Tamil Nadu	Kudankulam	KKNPP-3&4	2 X 1000	39849	Russian Federation
		KKNPP-5&6	2 X 1000	49621	
	Kalpakkam	PFBR	1 X 500	6840	Indigenous
Haryana	Gorakhpur	GHAVP-1&2	2 X 700	20594	Indigenous
Projects accorded administrative approval and financial sanction					
Karnataka	Kaiga	Kaiga-5&6	2 X 700	105000	Indigenous
Haryana	Gorakhpur	GHAVP– 3&4	2 X 700		
Madhya Pradesh	Chutka	Chutka-1&2	2 X 700		
Rajasthan	MahiBanswara	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.

'#' under revision to Rs19220crore *'*'under revision to Rs. 17079 crore*