

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO.2937
TO BE ANSWERED ON 11.03.2020

NUCLEAR POWER PLANTS

2937. DR. NISHIKANT DUBEY:

Will the PRIME MINISTER be pleased to state:

- (a) the installed power generation capacity, utilisation and production cost per unit of each of the nuclear power plants in the country, nuclear plant-wise;
- (b) whether the Government has taken steps to establish new nuclear power stations in the country; and
- (c) if so, the details thereof along with the details of funds and atomic fuel required for the same?

ANSWER

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

- (a) The details are given in Annexure.
- (b) Yes, Sir.
- (c) The details of projects under construction and new projects accorded sanction are as follows:

Project	Location & State	Type	Capacity (MW)	Sanctioned Cost (Rs. crore)
Projects under Construction				
KAPP 3&4	Kakrapar, Gujarat	PHWR	2 X 700	11459 [#]
RAPP 7&8	Rawatbhata, Rajasthan		2 X 700	12320 [*]
GHAVP 1&2	Gorakhpur, Haryana		2 X 700	20594
KKNPP 3&4	Kudankulam, Tamil Nadu	LWR	2 X 1000	39849
<i>PFBR</i>	<i>Kalpakkam, Tamil Nadu</i>	<i>FBR</i>	<i>1 X 500</i>	<i>5677</i>

New Projects accorded Administrative approval & financial sanction				
KKNPP 5&6	Kudankulam, Tamil Nadu	LWR	2 X 1000	49621
Chutka-1&2	Chutka, Madhya Pradesh	PHWR	2 X 700	105000
Kaiga-5&6	Kaiga, Karnataka		2 X 700	
Mahi Banswara-1&2	Mahi Banswara, Rajasthan		2 X 700	
GHAVP– 3&4	Gorakhpur, Haryana		2 X 700	
Mahi Banswara-3&4	Mahi Banswara, Rajasthan		2 X 700	

#' under revision to Rs 16580 crore **'under revision to Rs. 17079 crore

PHWR – Pressurised Heavy Water Reactor LWR – Light Water Reactor FBR – Fast Breeder Reactor

The Pressurised Heavy Water Reactors (PHWRs) are fuelled by Natural Uranium while Light Water Reactors (LWRs) are fuelled by Low Enriched Uranium. The annual requirement of fuel (UO₂) of a 700 MW PHWR (at 85% Capacity Factor) is about 125 tons and that of a 1000 MW LWR (at a capacity factor of 90%), about 25 tons. Prototype Fast Breeder Reactor (PFBR) being implemented by Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI) is fuelled by Mixed Oxide (MoX) Fuel.

Annexure

Unit	State	Location	Capacity (MW)	Capacity Utilisation(PLF), 2019-20 (uptoJan 20)	Electricity Tariff (Paise/ kWh)
TAPS-1	Maharashtra	Tarapur	160	81.15	206.24
TAPS-2			160	90.91	
TAPS-3			540	76.62	307.64
TAPS-4			540	94.86	
RAPS-1*	Rajasthan	Rawatbhata	100	-	--
RAPS-2			200	77.54	349.06
RAPS-3			220	88.98	
RAPS-4			220	98.41	
RAPS-5			220	99.88	406.28
RAPS-6			220	95.07	
NAPS-1	Uttar Pradesh	Narora	220	98.03	320.32
NAPS-2			220	97.51	
KAPS-1	Gujarat	Kakrapar	220	86.36	249.06
KAPS-2			220	101.52	
KGS-1	Karnataka	Kaiga	220	94.01	364.84
KGS-2			220	91.58	
KGS-3			220	93.85	
KGS-4			220	98.50	
MAPS-1 [#]	Tamil Nadu	Kalpakkam	220	-	279.73
MAPS-2			220	94.13	
KKNPP-1		Kudankulam	1000	80.15	412.06
KKNPP-2			1000	49.58	

* RAPS-1 is under extended shutdown for techno-economic assessment for continued operation.

[#]MAPS-1 is in project mode for Endshield related works.
