

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

STARRED QUESTION NO:200

ANSWERED ON:15.03.2017

Nuclear Power Generation Capacity

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Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) the present nuclear power generation capacity in the country, reactor-wise alongwith the actual output thereof, reactor-wise;
- (b) whether the Government proposes to increase the said capacity and if so, the details thereof including the additional quantum of electricity likely to be generated;
- (c) whether the Government proposes to take help from other countries in this regard and if so, the details thereof including the names of the countries which have agreed to cooperate in this regard;
- (d) the steps taken/being taken by the Government for the development of indigenous technologies for generation of nuclear energy; and
- (e) the time by which the self reliance in atomic fuel is likely to be achieved?

Answer

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

(a) There are 21 nuclear power plants which are operational in the country with a total installed capacity of 5780 MW. In addition, the second unit of Kudankulam KKNPP-2 (1000 MW) is connected to the southern grid and is presently generating infirm (non-commercial) power. Presently, the nuclear power plants are operating close to their rated capacity. The details on capacity and actual output for the financial year 2016-17 (up to February-2017) are attached as annexure.

(b)&(c) Yes, Sir. There are presently four reactors with a capacity of 2800 MW under construction and the construction of five more reactors capacity of 3900 MW has also commenced. On their progressive completion, the capacity will reach 13480 MW. More reactors, based on both indigenous technologies and with foreign cooperation are also planned. The details of nuclear power projects planned with foreign cooperation are as follows:

Site State Capacity (MW) In cooperation with
Kudankulam Tamil Nadu 2 X 1000# Russian Federation
Jaitapur Maharashtra 6 X 1650 France
Chhaya Mithi Virdi Gujarat 6 X 1000* USA
Kovada Andhra Pradesh 6 X 1208 USA
Haripur West Bengal 6 X 1000* Russian Federation
'#' In addition to KKNPP-1 to 4 (4 X 1000 MW) '**' Nominal capacity

(d) The Government has put in significant efforts in the initial days of the nuclear power programme to develop the technology and help Indian industry to manufacture nuclear components of exacting standards. Now the Indian industry is fully developed & supplies the nuclear components and takes up execution of large package contracts. India has already reached a state of commercial maturity in respect of indigenous Pressurized Heavy Water Reactors (PHWRs) and is independently designing, constructing, commissioning and operating these nuclear power plants.

(e) There is no shortage of imported fuels/Uranium for the Nuclear Power Plants under Safeguards. All efforts have been made by the Government to augment fuel supply for non-safeguarded reactors by increasing production of indigenous uranium with the opening of new mines and augmenting associated processing facilities.

Annexure referred to in the part (a) of the statement in reply to the Lok Sabha Starred Question No. 200 due for answer on 15.03.2017

Operational Nuclear Power Plants in the country

State Location Units Capacity (MW) Generation in MUs,

Fin. year: 2016-17

(up to Feb-2017)

Maharashtra Tarapur TAPS-1 160 1140

TAPS-2 160 815

TAPS-3 540 3751
TAPS-4 540 4128
Rajasthan RawatbhataRAPS-1*100 --*
RAPS-2 200 962
RAPP-3 220 1457
RAPS-4 220 1765
RAPS-5 220 1542
RAPS-6 220 998
Tamil Nadu KalpakkamMAPS-1 220 1372
MAPS-2 220 1581
Kudankulam KKNPP-1 1000 5616
KKNPP-2** 1000 --**
Uttar Pradesh NaroraNAPS-1 220 1491
NAPS-2 220 1557
Gujarat KakraparKAPS-1# 220 --#
KAPS-2# 220 --#
Karnataka KaigaKGS-1 220 1577
KGS-2 220 1629
KGS-3 220 912
KGS-4 220 1844

*Under extended shutdown for techno-economic assessment for continued operation.

** Presently, generating infirm (non-commercial) power and is expected to be in commercial operation by the end of this financial year.

#Presently, the units are under long shutdown for Enmasse Coolant Channel Replacement (EMCCR) and Enmasse Feeder Replacement (EMFR)