

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:2878

ANSWERED ON:10.12.2014

URANIUM SUPPLY

Singh Shri Rakesh

Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether there is a gap between demand and supply of uranium in nuclear power plants of the country;
- (b) if so, the details thereof; and
- (c) the measures taken to meet the demand of uranium for smooth functioning of nuclear projects?

Answer

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

(a) Yes, Sir.

(b) Currently, the country has twenty nuclear power reactors under commercial operation with an installed generating capacity of 4780 MWe. Under the separation plan, ten of our commercially operating reactors are currently placed under International Atomic Energy Agency (IAEA) safeguards and are eligible for imported fuel. These reactors are RAPS 1 to 6 located at Rawatbhata, Rajasthan; KAPS 1&2 at Kakrapar, Gujarat and TAPS 1&2 at Tarapur, Maharashtra. Of these, one reactor, RAPS-1 (100 MWe capacity) is under extended shutdown for techno-economic assessment. The remaining nine reactors normally operate at their full capacity. In addition, KKNPP 1&2 at Kudankulam, Tamil Nadu are also under IAEA safeguards.

Ten nuclear power reactors viz., KGS 1 to 4 located at Kaiga, Karnataka; NAPS 1&2 at Narora, Uttar Pradesh; MAPS 1&2 at Kalpakkam, Tamil Nadu; and TAPS 3&4 at Tarapur, Maharashtra continue to use indigenous uranium. Under the separation plan, Narora Atomic Power Station (NAPS) Units 1&2 will also be brought under IAEA safeguards later this month and will then be eligible to utilise imported uranium. Due to a mismatch between demand and supply of domestic Uranium, the total power generated by reactors using domestic uranium is generally lower than their gross installed capacity of 2,840 MWe. However, following extensive work for exploration of Uranium in the country, the supply of Uranium from Indian mines is progressively improving and accordingly, capacity utilisation of these ten reactors has increased during last three years.

(c) So far, 2,14,158 tonnes of in situ resources of Uranium Oxide (U₃O₈) equivalent to 1,81,606 tonnes of Uranium has been established by Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of Department of Atomic Energy (DAE), in various States of India. Further, consequent upon India signing the Civil Nuclear Cooperation Agreement with United States of America on October 10, 2008, Department of Atomic Energy (DAE) has been importing Uranium ore to supply fuel for the nuclear reactors under IAEA Safeguards as per the separation plan. As a part of this activity, contractual agreements were entered into with M/s. AREVA, France (during 2008), M/s. JSC TVEL Corporation, Russia (during 2009), M/s. NAC Kazatomprom, Kazakhstan (during 2009) and M/s NMMC, Uzbekistan (2013). Further, reactors based on foreign technology, in operation and construction, have built-in provisions in the contract for life-time supply of their fuel. As a result, safeguarded nuclear reactors under separation plan are running at optimum level.