

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:1361

ANSWERED ON:21.03.2012

ATOMIC ENERGY GENERATION

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Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) the details of targets fixed for atomic energy generation in the country during the current Five Year Plan, year-wise and plant-wise;
- (b) whether the target has been achieved by each of the plants;
- (c) if so, the details thereof;
- (d) if not, the reasons therefor and the details of atomic energy generated and funds spent thereon during the above mentioned period, plant-wise and year-wise;
- (e) whether the Government has fixed any target for atomic energy generation during the Twelfth Five Year Plan;
- (f) if so, the details thereof, year-wise and plant-wise and the fund requirement for the purpose;
- (g) the steps taken/proposed to be taken by the Government to achieve the target and increase atomic energy generation in the country; and
- (h) the details of the share of the Centre/State/Private Sector in generation of electricity from the nuclear power plants?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY):

(a)to(d) The details of target fixed and actual generation from nuclear power in the current five year plan plant wise and year wise in Million Units (MUs) is given annexure.

The availability of imported fuel from fruition of international cooperation for reactors to be placed under International Atomic Energy Agency (IAEA) safeguards as per the Separation Plan and an improvement in domestic uranium supplies was factored in at the time of formulation of XIth Five Year Plan. However, the fruition of international cooperation came about only towards end of 2008 and the imported fuel was available from 2009 onwards. The improvement in domestic fuel also came about only from 2009-10 onwards. Thus the fuel supply continued to be constrained during first three years of the XI plan. This led to operation of nuclear power plants at lower power level matching the availability of the fuel. Thus, the shortfall in generation in respect of TAPS 3&4, MAPS 1&2, and KGS 1&2 have been due to non availability of indigenous fuel in the required quantities. The construction of Kaiga-4 (220 MW) and RAPP 5&6 (2X220 MW) was completed as per schedule, however these reactors could not be brought into commercial operation due to fuel constraints. Similarly NAPS-2 and KAPS-1 had to wait for fuel for over a year after completion of Renovation & Modernization.

In respect of Kudankulam Nuclear Power Plant (KKNP 1&2), being set up in technical cooperation with Russian Federation, there has been a delay in the completion of the project because of delay in sequential receipt of equipment and components from the Russian Federation and the current protests resulting in halting of work since October 2011. There has been a delay in commissioning of the Prototype Fast Breeder Reactor (PFBR). The PFBR being first of its kind reactor involving complex and advanced technologies, specialized procedures and special materials, development of exacting standards equipment and unforeseen developments during manufacturing took additional time. Thus, there has been no generation from KK 1&2 and PFBR during the XIth Five Year Plan.

Considering the fuel constraint, the XIth Five Year Plan generation target of 163,395 MUs was reduced to 124,608 MUs at MTA stage. The expected generation in XIth Five Year Plan is 109,000 MUs.

The expenditure involved in generation, essentially comprising Operation and Maintenance (O&M) and fuel costs is met from the revenue account of NPCIL.

(e) Yes, Sir.

(f) The details of generation target set for the XII .Plan plant-wise & year wise are as given annexure.

The expenditure for setting up of new Nuclear Power Stations will be met from the internal accruals and external borrowings by NPCIL

and equity participation by other PSUs in energy sector.

(g) The Government is making efforts to augment fuel supplies by opening new mines and setting up processing facilities to meet the targets in respect of reactors fuelled by indigenous fuel. Fuel supply contracts have also been concluded with other countries for import of fuel for nuclear power reactors under IAEA safeguards. These reactors have been operating in the current year at full power level, achieving about 96% Capacity Factor. The Government is also making efforts to ensure timely completion of projects to ensure that the plants start generation as per approved schedules.

(h) All nuclear power plants in the country are in the central sector.