Plants. Apart from the applicable Acts & Rules, AERB has prescribed safety requirement in the form of Safety Codes and Guides, covering all aspects of NPP Siting, Design, Construction, Commissioning and Operation. These requirements are on par with those issued by International Atomic Energy Agency (IAEA) and other international regulatory bodies. Adherence to requirements given in safety documents is ensured, at each stage of approval by systematic safety review of the reports submitted by utility and periodic regulatory inspections of the plant carried out by AERB.

(b) Nuclear Power Plants (NPPs) in the country are designed, constructed, commissioned and operated in conformity with relevant nuclear safety requirements. These requirements ensure an adequate margin of safety so that NPPs can be operated without undue radiological risks to the plant personnel and members of the public. Notwithstanding these, it is mandatory to develop emergency response plans, as a measure of abundant caution. Emergency preparedness and response plan are available at Nuclear Power Plants (NPPs) to meet the safety requirements during an emergency situation so that the impact of an accident in nuclear power plant to the public domain is minimal. These plans are periodically tested during emergency exercises conducted at NPPs with involved agencies to ensure the readiness.

(c) Yes, Sir. The Atomic Energy Act, 1962 is the primary legislation dealing with control and production of nuclear energy in India. In accordance with the powers conferred by the Act, the Central Government has promulgated the Atomic Energy (Radiation Protection) Rules, 2004, the Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987, the Atomic Energy (Factories) Rules, 1996 that formulate the policy and regulatory framework for ensuring safety in the activities relating to NPPs. These requirements of AERB are in line with the Safety Standards of International Atomic Energy Agency (IAEA) and other international bodies such as International Commission on Radiological Protection (ICRP).

(d) The Nuclear Safety Regulatory Authority Bill, 2014 which is essentially the NCRA Bill, 2011 along with its official amendments could not be taken up for consideration by Parliament due to dissolution of 15th Lok Sabha. Accordingly, Department of Atomic Energy is carrying out inter-ministerial consultations on the NSRA Bill, 2014 afresh.

Cost of production of nuclear energy

326. SHRI SANJAY RAUT: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that cost of nuclear energy per unit is much higher than coal based power unit and other source of energy, while calculating huge investments therein, if so, the details thereof;

(b) the amount of nuclear energy produced in the country during the last three years and its average cost of per unit; and

(c) the amount of nuclear energy produced for the next five years and at what estimated cost of per unit in the country?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (DR.JITENDRA SINGH): (a) No Sir. The tariffs of electricity generated through nuclear power are comparable to those of the contemporary conventional base load power generating units (like coal based thermal power) located in the area/ region. The details in this regard for 2013-14 are given below:

Source	Tariff Range (Paise per Unit)
Nuclear	97 to 394
Thermal	
Coal (Non Pithead)	375 to 529
Coal (Pithead)	147 to 385
Lignite	279 to 401
Natural Gas (APM)	336 to 399
Natural Gas (Non APM)	423 to 439
Liquified Natural Gas (LNG)	920 to 1288
Liquid Fuel (Naphtha/ Diesel)	846 to 1367
Hydro	79 to 591

Source: * "Tariff for Long-term sources of power" from Report on Short Term Power market in India 2013-14, CERC & DAE/ NPCIL

(b) The generation of nuclear energy in the country during the last three years along with the average tariff is as tabulated below:

Year	Generation (in Million Units)	Average Tariff (in paise/unit)
2011-2012	32455	258
2012 -2013	32863	269
2013 -2014	35333*	271

*includes 1106 MUs of infirm generation from Kudankulam Unit-1

(c) The targets for generation are fixed annually in the Memorandum of Understanding (MoU) signed between Department of Atomic Energy (DAE) and Nuclear Power Corporation of India Limited (NPCIL) in accordance to the guidelines issued by Department of Public Enterprises (OPE). The targets of generation are fixed based on fuel availability, maintenance shutdown schedules, likely start of generation of new units etc. The target fixed for electricity generation for 2015-16 is 37307 million units (tentative, subject to confirmation by OPE during MoU meeting).

As different stations have different tariffs, the average tariff would depend on the generation from each station. However, the tariffs would be competitive and comparable to those of other contemporary electricity generating technologies in the region.

Health and educational facilities at Atomic Plants

327. DR. V. MAITREYAN : Will the PRIME MINISTER be pleased to state:

(a) whether Government has plans to provide adequate health and educational facilities at Madras Atomic Power Plant, Kalpakkam and at Kudankulam Nuclear Power Plant in Tamil Nadu;

(b) if so, the details thereof and the support to be extended for the construction of these multi-storied buildings, multi-speciality hospitals and schools nearby; and

(c) the details of the technological and financial support extended by the Union Government to these infrastructure developments?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (DR. JITENDRA SINGH) : (a) Yes, Sir; The health and education facilities for the local people living in the vicinity of the nuclear power plants are already being extended both at Kalpakkam and at Kudankulam in Tamil Nadu and such welfare activities are ongoing.

(b) and (c) As a part of its Corporate Social Responsibility (CSR) and Neighbourhood Development Programme (NDP), Nuclear Power Corporation of India Limited (NPCIL) has been taking up projects in areas of Health & Education around Kalpakkam and Kudankulam. The details of the projects around Kalpakkam and Kudankulam sites, including the financial support extended by NPCIL are enclosed as statement-1 and statement-2 respectively.