

**GOVERNMENT OF INDIA
POWER
LOK SABHA**

UNSTARRED QUESTION NO:3083
ANSWERED ON:31.07.2014
SCIENTISTS ENGINEERS IN NETRA
Hansdah Shri Rama Chandra

Will the Minister of POWER be pleased to state:

- (a) the percentage of profit of National Thermal Power Corporation Limited (NTPC) dedicated for research and development and for green and clean technology through NTPC Energy Technology Research Alliance (NETRA);
- (b) whether there are exclusively dedicated scientists/engineers in NETRA for this purpose;
- (c) if so, the details thereof and the achievements made by them so far;
- (d) whether there is any specific policy of capacity building for these scientists/engineers by encouraging them to pursue higher studies or by giving incentives for publishing research papers etc.; and
- (e) if so, the details thereof?

Answer

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, COAL AND NEW & RENEWABLE ENERGY (SHRI PIYUSH GOYAL)

- (a) : NTPC dedicates 1% of Profit after Tax for Research and Development.
- (b) : Yes, Madam.
- (c) : NETRA has 89 Scientists/Engineers for carrying out Research and Development activities. The achievements so far are enumerated below :
 - (i) Low grade heat recovery from waste flue gas for air conditioning systems for control rooms at one of the NTPC stations.
 - (ii) Retrofitting of Variable Frequency Drives in existing motors to reduce power at one of the gas stations for reduction in auxiliary power consumption with the same motors.
 - (iii) Robotic inspection of the 5 boilers have been carried out to cut down overhauling time.
 - (iv) Health assessment of Gas & Steam turbine components to increase reliability.
 - (v) 40 TR Solar thermal based air conditioning at NETRA.
 - (vi) Time of Flight diffraction testing of cooling water and make up water lines for reducing inspection time at 2 stations.
 - (vii) Failure investigation of Boiler Tube Analysis and health assessment of critical transformer & reactors are carried out for all NTPC stations.
 - (viii) Integrated self powered bio-diesel production.
 - (ix) Artificial intelligence based on line combustion performance improvement and boiler water chemistry monitoring system deployed at 2 stations.
 - (x) Radio frequency identification technique for fish plate removal detection at one NTPC station.
- (d) & (e): There is a `NTPC Incentive Scheme` for encouraging engineers to acquire higher/additional qualification. Under this Scheme, an eligible employee on acquiring the prescribed qualification from a recognized University/Institution/Body is eligible for grant of a lumpsum cash award in addition to the reimbursement of examination fees.

In order to give incentives for presenting research/technical papers, employees are sponsored by the company both within and outside India.