

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.3610
TO BE ANSWERED ON 03.04.2017

ADVANCED TECHNOLOGY BASED THERMAL POWER PLANTS

3610. SHRI R. VAITHILINGAM:

Will the Minister of **POWER**
be pleased to state:

- (a) whether country's power generation over the next few decades will continue to depend heavily on coal and if so, the details thereof;
- (b) whether an advanced ultra super critical technology R&D project has been approved by Government for coal based power plants; and
- (c) if so, the objectives thereof and the progress made in implementation of the project?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : As on 31.01.2017, the coal based capacity constituted around 60% of the total installed capacity on All India basis. But, the total electrical generation from coal based plants constituted around 73% of the total electrical generation in the country during April'16 –January'17.

Government of India has set an ambitious target of capacity achievement of 175 GW from Renewable Energy Sources (RES) by 2022. However, the capacity utilization factors of Plants based on RES are low compared to coal based plants. Therefore, coal may continue to be the main source of energy in the near future.

(b) : Government of India (GoI) has approved an R&D Project for development of an Advanced Ultra Super Critical (AUSC) technology for future coal-fired power plants, in the meeting of the Cabinet Committee on Economic Affairs (CCEA), held on the 10th August, 2016. The two-and-a-half-year project starts from 1st April 2017, when the flow of grants from GoI will commence.

(c) : The objective of the project is to indigenously develop the design, materials, manufacturing technology and overall plant design for an 800 MW AUSC power plant operating at an elevated temperature (>700 C) and pressure (300 ata) parameters to achieve higher plant efficiency, lower coal consumption and lower CO₂ emission.

The consortium partners have initiated all the R&D projects with longer cycle times and prepared the list of other projects to be carried out to meet the objectives. Prior work on selected long cycle projects had started with pre-project R&D funding from the office of the Principal Scientific Advisor (PSA) to GoI. Three out of ten such projects have been successfully completed and balance seven are being monitored by the Project Review and Monitoring Committee (PRMC), appointed by the PSA.
