

**GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
STARRED QUESTION NO.307
ANSWERED ON 10.08.2023**

UP-GRADATION OF THERMAL AND HYDRO POWER PLANTS

***307. SHRI RAMESH CHAND BIND:**

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

- (a) whether the Government proposes for up-gradation of thermal and hydro power plants in the country;**
- (b) if so, the details thereof;**
- (c) whether the Government has estimated total cost for up-gradation of thermal and hydro power plants; and**
- (d) if so, the details thereof?**

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (d) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) IN RESPECT OF LOK SABHA STARRED QUESTION NO.307 FOR REPLY ON 10.08.2023 REGARDING UP-GRADATION OF THERMAL AND HYDRO POWER PLANTS ASKED BY SHRI RAMESH CHAND BIND.

(a) & (b) : The Central Electricity Authority, Ministry of Power issued R&M guidelines in February, 2020 to promote Renovation & Modernisation (R&M)/Life extension (LE) works in Coal Based Thermal units. The Ministry constituted a High level committee on 16.03.2022 to study the various aspects of R&M/LE works in coal based thermal power plants and circulated revised R&M guidelines on 01.08.2023 for better implementation of R&M/LE/Up-gradation in coal based thermal units.

Central Electricity Authority (CEA) vide an advisory dated 20.01.2023 suggested that rather than retiring the plants advised for implementation of R&M/LE for running the plants up to 2030 and beyond and getting plants ready to operate in two shift mode to facilitate solar and wind energy integration into the grid, if found feasible.

R&M/LE Works have been completed in 8 numbers of Thermal Power units having total capacity of 1197 MW during 2017-22 in both State and Central Sector. 148 number of coal based thermal units having capacity of 38150 MW in Central, State and Private Sector have been identified for R&M/LE Works upto June, 2033.

However, it is pertinent to mention that generation is a delicensed activity as per Section 7 of the Electricity Act, 2003 and final decision of carrying out R&M/LE in coal based thermal units is taken by power generating companies based on their own techno-economic viability and environmental reasons.

In case of Hydro power plants, CEA has prepared and published “Guidelines for Renovation & Modernisation of Hydro Power Stations” in July, 2020 which provides assistance to hydropower utilities in planning, identification of R&M works, preparation of DPR, tendering and implementation of works.

R&M/LE have been completed in 35 number of Hydro units aggregating to 2049.4 MW in Central and State Sector during 2017-22. 241 number of Hydro units having capacity of 12183.1 MW in Central, State and Private Sector have been identified for R&M/LE Works for 2022-27.

(c) & (d) : The estimated cost for R&M/LE works varies from unit to unit and depends on various factors like efficiency improvement, safety requirements, obsolescence of equipment/components, unforeseen failures, fatigue and compliance of environmental norms on the basis of Residual Life Assessment (RLA) / Condition Assessment (CA)/Destructive test studies and Energy Audit studies.

In case of hydro projects, estimated cost for R&M works depends on following:

- i) Power Potential Study**
- ii) Electro-Mechanical Aspects**
- iii) Cost estimate of Civil and E&M works**
- iv) IDC (Interest During Construction)**
