GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
STARRED QUESTION NO.06
ANSWERED ON 22.07.2024

RENEWED EMPHASIS ON FOSSIL FUEL-BASED POWER

06 SHRI JAWHAR SIRCAR:

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

(a) when the country has committed to 50 per cent non-fossil power by 2030, the reasons for new fossil fuel-based power plants being approved and frozen and expansion projects taken up on priority;

(b) the facts and details thereof;

(c) the quantum of expansion of fossil fuel-based plants functional on imported coal;

(d) the manner in which Government plans to tackle pollution and the problems of stranded assets, including investments, infrastructure and human resources as the country plans to cross over to renewable sources of energy in next 5-6 years; and

(e) the plan in place to tackle high and peak demands this year?

A N S W E R

THE MINISTER OF POWER AND HOUSING & URBAN AFFAIRS

(SHRI MANOHAR LAL)

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

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STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) IN RESPECT OF RAJYA SABHA STARRED QUESTION NO. 06 FOR REPLY ON 22.07.2024 REGARDING RENEWED EMPHASIS ON FOSSIL FUEL-BASED POWER ASKED BY SHRI JAWHAR SIRCAR.

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(a) & (b): India in its Intended Nationally Determined Contributions (INDCs) stands committed to achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030. At present India has already achieved 45.5% Installed Capacity from non-fossil fuel-based resources. A plan has been prepared according to which, India will not only meet its commitment of 50% non-fossil fuel-based generation capacity but will surpass the same.

The peak and electrical energy requirement of the country is increasing over the years. In the last three years (i.e., from 2021-22 to 2023-24) the growth in peak and energy requirement is 9.5 % and 8.6% respectively. Due to measures taken to shift the demand during solar hours, the peak demand is now being observed during solar hours. During the solar hours along with various generation resources such as coal, gas, hydro, nuclear and wind, solar generation is available to meet the peak demand. The demand during the non-solar hours even though less than the solar hours is also increasing year on year. The benefit of solar generation is not available during the non-solar hours; accordingly, the demand is required to be met from the generation resources that are from coal, gas, hydro, nuclear and wind. Thus, in order to mitigate the seasonal behavior of hydro, wind and non-availability of domestic gas for gas-based power plants, the coal based generation capacity is required to meet the demand during non-solar hours.

(c) : Expansion of fossil fuel-based generation capacity has been planned based on the domestic coal.

(d): Environment Clearance (EC) is the foremost requirement for establishment of new as well as expansion of thermal power capacity. All other clearances & permissions are processed only on the basis of grant of Environment Clearance; which is based on an elaborate and rigorous process.

(i) Further, the thermal power plants are within the ambit of MoEF&CC's prescribed:

- **Emission norms with respect to**: Suspended Particulate Matter (SPM); Oxides of Sulphur; Oxides of Nitrogen and Mercury (Hg);
- **Effluent Parameters viz** - pH, Total Suspended Solids (TSS), Oil& Grease, Heavy Metals etc; and
- Specific Water Consumption Limits.

(ii) To improve efficiency, all the under-construction/ planned TPPs are based on supercritical and ultra-supercritical technology, thereby reducing coal consumption and emissions.

(iii) The entire planning of future capacity additions, including that of thermal capacity addition, are based on Central Electricity Authority's (CEAs) 20th Electric Power Survey (EPS) projections of; All India Peak Electricity Demand and Electrical Energy Requirement, for the years 2026-27 and 2031-32. Considering the projected demand, no power assets are expected to be stranded. Further, the Central Electricity Authority (CEA) has issued an advisory to all the Thermal Power Utilities not to retire or repurpose their coal-based power stations in next 5-6 years and ensure the availability of thermal units after carrying out Renovation & Modernization (R&M) activities, if required, considering the expected energy demand scenario and availability of capacity in future.

(e) : With the following in place measures, the highest ever peak demand of 250 GW has been successfully met in Q1 of FY 2024-25:

(i) Directions have been issued by the Ministry of Power, under Section 11 of the Electricity Act, 2003, for Imported Coal Based (ICB) Plants to continue generation support during high-demand period. These directions have been extended till 15.10.2024, keeping in view the shortages during evening peak periods.

(ii) Similar to the directions issued for ICB Plants, Section 11 directions were also issued to gas-based power plants.

(iii) Planned Maintenance of generating units were reduced to a minimum level, during the summer high-demand period. Partial and forced outages of generating units are also minimized to maximize the availability of generation capacity. Moreover, plants under long outage were sensitized to revive their units to ensure maximum power generation during the high demand period.

(iv) All GENCOs were advised to keep their generating plants under healthy condition to ensure full capacity availability for optimal operation of various generation sources to meet the power demand.

(v) Adequate coal stock was maintained at Coal-Based Thermal stations. Further, Ministry of Power vide order dated 27.06.2024 has advised Central/ State GENCOs and IPPs to take necessary actions to import coal for blending at the rate of 4% by weight, till 15th October'24, through a transparent competitive procurement so as to have sufficient stock at their power plants for smooth operations.

(vi) Optimization of Hydro Power generation was done. All hydro stations were advised to conserve water during solar hours and dispatch maximum generation during non-solar hours to ensure adequacy of power at all times.

(vii) Any un-requisitioned /surplus power available with the generating stations is to be offered in the market as per provisions of Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 and amendment thereof. This power will be utilized by any other buyer from the power market.

(viii) States were advised to utilize the PUShP portal to tie up power with other states with surplus capacity.

In addition to the measures mentioned at paras: e(i), e(iv), e(v),e(vii) and e(viii), which are still in place, the likely capacity addition from following sources: 15,360 MW from Thermal; 3,200 MW from Hydro and ; 28,900 MW from Renewable Energy, in FY 2024-25, would further improve the availability of power and provide support in meeting the peak demand and energy requirements of the country.

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