

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.790
ANSWERED ON 29.07.2024

POWER GENERATION CAPACITY

790 SHRI DIGVIJAYA SINGH:
SMT. RAJANI ASHOKRAO PATIL:
SHRI NEERAJ DANGI:

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

- (a) the total power generation capacity in the country, since 2019, year-wise;
- (b) the steps taken by Government to increase production capacity since 2019;
- (c) whether the cost per unit of power generation has risen due to the import of coal in the past few years, if so, details thereof; and
- (d) steps taken by Government to reduce the production cost per unit of power generated?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : The year wise details of total power generation capacity in the Country from 2018-19 to 2024-25 (upto June, 2024) are given at **Annexure**.

(b) : We have taken following steps to increase the production capacity between 2014-15 to 2023-24 in the country: -

- (i) The installed capacity which was 2,48,554 MW in March 2014 has been increased to 4,46,190 MW in June 2024. Installed capacity of Coal based power has increased from 1,39,663 MW in March 2014 to 2,10,969 MW in June 2024. Installed capacity of Renewable sector has increased from 75,519 MW in March 2014 to 1,95,013 MW in June 2024.
- (ii) 1,95,181 circuit kilometer (ckm) of transmission lines, 7,30,794 MVA of Transformation capacity and 82,790 MW of Inter-Regional capacity has been added connecting the whole country into one grid running on one frequency with the capability of transferring 1,18,740 MW from one corner of the country to another. India's grid has emerged as one of the largest unified grids in the world. Connecting the whole country into one grid has transformed the country into one unified power market. Distribution Companies can buy power at cheapest available rates from any generator in any corner of the country thereby enabling cheaper electricity tariffs for consumers.
- (iii) India has committed to augment non fossil fuel based installed electricity generation capacity to over 5,00,000 MW by 2031-32. Transmission plan for integration of 5,00,000 MW RE capacity is being implemented in a phased manner commensurate with RE capacity addition.

- (iv) Government have constructed Green Energy Corridors and put in place 13 Renewable Energy Management Centres.
- (v) We have made efforts to make Power Sector viable. The AT&C losses have come down from 22.62% in 2013-14 to 15.40% in 2022-23. All current payment of Gencos are up-to-date and the legacy dues of Gencos have come down from Rs. 1,39,947 crore to Rs. 35,119 Crore. The subsidy payment to DISCOMS on account of subsidies announced by State Government are up-to-date.
- (vi) Further, the Government of India has implemented Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development (IPDS) schemes to achieve the objective of providing uninterrupted power supply by strengthening the sub-transmission and distribution network. The Government of India has also implemented the Pradhan Mantri Sahaj Bijli Har Ghar Yojana- (SAUBHAGYA) with the objective to achieve universal household electrification for providing electricity connection to all willing un-electrified household in rural area and all willing poor household in urban areas in the country. Under these schemes, 18,374 villages have been electrified and 2.86 crore household were provided electricity connection. As a result, 100% villages have been electrified. Besides this, 2927 new substations have been added, upgradation of 3965 existing sub stations has been carried out and 8.5 Lac circuit kms of HT and LT lines have been added/upgraded. As a result of these measures, the availability of power in rural areas has increased from 12.5 hours in 2015 to 21.9 hours in 2024. The availability of power in urban areas is 23.4 hours.
- (vii) Waiver of ISTS charges on transmission of electricity generated from Solar, Wind, Pumped Storage Plants and Battery Energy Storage Systems.
- (viii) Renewable Purchase Obligations (RPOs) and Energy Storage obligations Trajectory till 2029-30.
- (ix) In 2019, Government announced measures to promote Hydro Power Sector such as Declaring Large Hydro Projects (>25 MW) as Renewable Energy source, Tariff rationalization measures for bringing down hydropower tariff, Budgetary Support for Flood Moderation/ Storage Hydro Electric Projects (HEPs), Budgetary Support to Cost of Enabling Infrastructure i.e., roads/bridges, etc.
- (x) Introduction of Real Time Market (RTM), Green Day Ahead Market (GDAM), Green Term Ahead Market (GTAM), High Price Day Ahead Market (HP-DAM) in Power Exchanges. Also, DEEP Portal (Discovery of Efficient Electricity Price) for e-Bidding and e-Reverse Auction for procurement of short-term power by DISCOMs was introduced.
- (xi) Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers for installation of RE projects at large scale.
- (xii) SHAKTI policy for transparent allocation of coal to Thermal Power plant was introduced, which enabled efficient domestic coal allocation to Thermal power plants and also ensured revival of various stressed Thermal Power projects.
- (xiii) Construction of the Inter-State transmission system ahead of the generation capacity.

(c) : The cost of generation of electricity from coal based power plant is dependent upon the price of coal and cost of freights and in case of blending also the price of the blended imported coal. The price of imported coal is linked with International Indices, source of origin and factors like ocean freight, insurance etc. which vary with international demand supply scenario. Further, every generating company consumes imported coal as per its requirement.

Average Power purchase cost has increased by 71 Paisa only between FY 22 and FY 23. This is because of increase in various costs – including increase in Transmission cost.

(d) : Government of India have taken various steps to reduce the cost of power generation and resultant reduction in cost of electricity to consumers as given below:

- (i) Power Exchanges have been set up in the country with the objective to ensure fair, neutral, efficient and robust electricity price discovery. Distribution Companies (DISCOMs) can procure the power from these Power Exchanges and thus help to reduce power purchase cost of DISCOMs.
- (ii) The Government in May, 2016 allowed flexibility in utilization of domestic coal by State/Central Generation Companies (GENCOs) amongst their generating stations to reduce the cost of power generation by allocating more coal to their most efficient plants as well as by saving in transportation cost. The States may also transfer their linkage coal to IPPs selected through bidding process and take equivalent power.
- (iii) Rationalization of linkage sources of State/Central Generating Companies (GENCOs) and Independent Power Producers (IPPs) with a view to optimize transportation cost has been allowed.
- (iv) To promote competitive procurement of electricity by distribution licensees, the Government issued various guidelines for tariff based bidding process for procurement of electricity under Section 63 of Electricity Act, 2003.
- (v) The Government has introduced the SHAKTI (Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India)-2017 Scheme to provide coal linkages to the power plants which do not have linkage, thus helping the generators to get cheaper coal and thereby reduction in cost of generation.
- (vi) The Government of India has also launched the Revamped Distribution Sector Scheme (RDSS) to help DISCOMs improve their operational efficiencies and financial sustainability by providing result-linked financial assistance to DISCOMs to strengthen supply infrastructure. The main objectives of RDSS are reduction of Aggregate Technical & Commercial (AT&C) losses to pan-India levels of 12-15% by 2024-25 and reduction of average cost of supply per unit of power minus average revenue realized (ACS-ARR) gap to zero by 2024-25. Reduction in AT&C losses improves the finances of the utilities, which will enable them to better maintain the system and buy power as per requirements; benefitting the consumers.
- (vii) With the objective of lowering the cost of electricity to consumers, National Merit Order Dispatch was made operational since April 2019, for Inter State Generating Stations under which electricity from more efficient/lower cost plant are dispatched first, which optimises the total variable cost of generation pan-India, while meeting technical and grid security constraints. It has resulted in reduction of variable cost on pan-India basis and these benefits are being shared with generators and their beneficiaries ultimately reducing the cost of electricity to consumers.

ANNEXURE

**ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 790
ANSWERED IN THE RAJYA SABHA ON 29.07.2024**

The year wise details of total power generation capacity (utilities) from 2018-19 to 2024-25 (upto June, 2024)

Year	Installed Capacity (in MW)
2018-19	357871
2019-20	371334
2020-21	383521
2021-22	399497
2022-23	416059
2023-24	441970
2024-25 (up to June 24)	446190
