

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
STARRED QUESTION NO.226
ANSWERED ON 10.08.2021

CONSTRUCTION OF LOWER SUBANSIRI HYDROELECTRIC PROJECT

226 SHRI AJIT KUMAR BHUYAN:

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

- (a) whether it is a fact that the construction work of Lower Subansiri Hydroelectric Project by the National Hydroelectric Power Corporation (NHPC) Ltd. is presently going on;
- (b) if so, the expected date of completion of the work; and
- (c) whether Government is planning to commission the project immediately on its completion?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

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

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF STARRED QUESTION NO.226 ANSWERED IN THE RAJYA SABHA ON 10.08.2021 REGARDING CONSTRUCTION OF LOWER SUBANSIRI HYDROELECTRIC PROJECT

(a) to (c) : Subansiri Hydro Electric Project (HEP) of 2000 MW Capacity (8X250=2000 MW) in Arunachal Pradesh is being executed by NHPC Ltd. and is under construction. Two Units of 250 MW each are targeted for commissioning by August, 2022 while the remaining 6 Units of 250 MW each are scheduled to be commissioned by August, 2023. Upon accomplishment of all works (Unit-wise), pre-commissioning test would be performed and on its successful completion, the Units would be commissioned.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
STARRED QUESTION NO.231
ANSWERED ON 10.08.2021

PROMOTING USE OF NEW AND RENEWABLE ENERGY

231 SHRI DEREK O' BRIEN:

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

- (a) whether there has been any data collection on the per person per day consumption of energy in the country, if so, the details thereof;
- (b) the percentage of the abovementioned consumption that can be met by renewable sources of energy, the details thereof; and
- (c) whether any steps are being taken to promote and subsidise the use of renewable energy in various economic development schemes undertaken by Government, if so, the details of the progress made and projection for the next five years thereof?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

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

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF STARRED QUESTION NO.231 ANSWERED IN THE RAJYA SABHA ON 10.08.2021 REGARDING PROMOTING USE OF NEW AND RENEWABLE ENERGY

(a) to (c) : Yes, Sir. The data is collected by various power utilities in the country and based on the information given by the States and the power utilities, Central Electrical Authority compiles and computes the per capita consumption of electricity. The per capita electricity consumption during 2020-21 was 3.18 kWh per day. The percentage share of renewable energy in total electricity consumption during 2020-21 was 21.6%.

As on 30th June, 2021, a total of about 143 Gigawatt (GW) of renewable energy capacity (including large hydro) has been installed in the country. The renewable energy capacity including large hydro is expected to be 513 GW by the year 2030. With this capacity addition, the percentage share of renewable energy in total generation is likely to be 39%.

Government of India has taken the following steps to promote renewable energy in the country:

- (i) Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route.
- (ii) The Government has issued measures to promote Hydro Power Sector on 8th March, 2019 under which the following provisions have been made:-
 - a. Declaring Large Hydro Projects (>25MW) as Renewable Energy source.
 - b. Tariff rationalisation measures for bringing down hydropower tariff.
 - c. Budgetary Support for Flood Moderation/Storage Hydro Electric Projects (HEPs).
 - d. Budgetary Support to Cost of Enabling Infrastructure i.e. roads/bridges.
 - e. Subsequently, the Hydro Purchase Obligation (HPO) trajectory, for the period 2021-22 to 2029-30 has also been notified by the Government on 29.01.2021.
- (iii) Waiver of Inter State Transmission System (ISTS) charges for inter-State sale of solar and wind power for projects to be commissioned by 30th June 2025.
- (iv) Waiver of transmission charges allowed for trading of electricity generated/supplied from solar, wind, Pumped Storage Plant (PSP) and Battery Energy Storage System (BESS) in GTAM and Green Day Ahead Market (GDAM) for two years i.e. till 30.06.2023.

- (v) Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme for evacuation of renewable power.
- (vi) Declaration of trajectory for Renewable Purchase Obligation (RPO) upto the year 2022.
- (vii) Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers on a plug and play basis.
- (viii) Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), Solar Rooftop Phase II, 12000 MW CPSU Scheme Phase II, etc.
- (ix) Notification of standards for deployment of solar photovoltaic system/devices.
- (x) Setting up of Project Development Cell for attracting and facilitating investments.
- (xi) Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar PV and Wind Projects.
- (xii) Government has issued orders that power shall be dispatched against Letter of Credit (LC) or advance payment to ensure timely payment by distribution licensees to RE generators.
- (xiii) Green Term Ahead Market (GTAM) launched to facilitate procurement of RE power through power exchange in the country.
- (xiv) Conducting skill development programmes to create a pool of skilled manpower for setting up, operation and maintenance of RE projects.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.2542
ANSWERED ON 10.08.2021

HYDRO-ELECTRIC PROJECTS IN HILLY STATES

2542 SMT. AMBIKA SONI:

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

- (a) whether Government has any policy for construction of hydro-electric projects in the hilly States of the country;
- (b) if so, the details thereof and, if not, the reasons therefor; and
- (c) the steps taken by Government to have a comprehensive well considered policy in this regard?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (c): Government of India has issued **Hydro Power Policy 2008** for development of hydro power sector in the country including the hilly States.

The main features of the Hydro Power Policy 2008 are as under:

- (i)** Transparent selection procedure/criteria to be followed by the States for awarding sites to private developers.
- (ii)** The dispensation regarding exemption from tariff based bidding, available to the Public Sector under the National Tariff Policy 2006 was also extended to private sector hydroelectric projects up to January 2011 (since extended up to 15.08.2022 in Revised Tariff Policy, 2016).
- (iii)** To enable the project developer (public as well as private sector hydro developers) to recover the costs incurred by him in obtaining the project site, the policy allows a special incentive to the developer by way of merchant sale of upto a maximum of 40% of the saleable energy.
- (iv)** An additional 1% free power from the project (over and above 12% free power earmarked for the host State) would be provided and earmarked for a Local Area Development Fund, aimed at providing a regular stream of revenue for income generation and welfare schemes, creation of additional infrastructure and common facilities etc. on a sustained and continued basis over the life of the project.

(v) Developer to provide 100 units of electricity per month to each Project Affected Family - in cash or kind or a combination of both for 10 years from the COD.

(vi) Developer to assist in implementing rural electrification in the vicinity of the project area & contribute 10% share of the State Govt. under the RGGVY scheme (subsumed under DDUGJY from 2014 onwards).

The Government had taken several policy initiatives in the past for hydropower development in the country viz., National Electricity Policy 2005, National Tariff Policy 2016, National Rehabilitation & Resettlement Policy 2007 and Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013.

Subsequently, the Government has also issued measures to promote Hydro Power Sector on 8th March, 2019 under which the following provisions have been made:-

- (i) Declaring Large Hydro Projects (>25 MW) as Renewable Energy source.
- (ii) Tariff rationalisation measures for bringing down hydropower tariff.
- (iii) Budgetary Support for Flood Moderation/ Storage Hydro Electric Projects (HEPs).
- (iv) Budgetary Support to Cost of Enabling Infrastructure i.e., roads/bridges.

Subsequently, the Hydro Purchase Obligation (HPO) trajectory, for the period 2021-22 to 2029-30 has also been notified by the Government on 29.01.2021.

These measures would be particularly beneficial for development of hydro projects, in hilly regions/ States, which are often located in remote and far-flung areas and require development of extensive associated infrastructure such as roads, bridges etc. for transportation of heavy, large sized equipment & machinery to the project site.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.2543
ANSWERED ON 10.08.2021

USE OF FACIAL RECOGNITION TECHNOLOGY BY NTPC

2543 SHRI AKHILESH PRASAD SINGH:
SMT. PHULO DEVI NETAM:

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

- (a) the legal framework under which the National Thermal Power Corporation (NTPC) seeks to implement Facial Recognition Technology (FRT) for employees attendance;
- (b) whether Government intends to expand usage of FRT to other PSUs;
- (c) the legal justification by Government on how use of FRT by NTPC will not violate the Fundamental Right to Privacy of its employees;
- (d) whether employees will be required to provide explicit consent to be subjected to FRT; and
- (e) if so, details thereof including how such consent will be acquired and the course of action for those employees who do not provide such explicit consent?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b) : NTPC follows all laws of the land, applicable for electronic and Biometric Data in implementation of Facial Recognition Technology (FRT). As a progressive organisation, NTPC has been embracing the latest technologies with reference to capturing employees' attendance without compromising the discipline, quality and privacy of the individual. On this background, NTPC has been using biometric attendance for its employees including FRT. The use of FRT has increased during COVID times as it provides contact-less capturing of employee attendance thereby enhancing safety and protecting health of employees. Public Sector Undertakings (PSUs) under Ministry of Power (MoP) take their own decision on attendance protocol based on their Corporate Governance requirements. MoP has not issued any instructions in this regard.

(c) to (e) : NTPC has issued internal policy guideline on Security of Biometric Data captured for Attendance and Access control system in NTPC. As per policy of NTPC, consent of employees shall not be required for implementation of FRT.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.2544
ANSWERED ON 10.08.2021

OUTSTANDING DUES OF POWER DISCOMS

2544 SHRI P. WILSON:

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

- (a) whether outstanding dues of power distribution and transmission companies have been cleared in various parts of the country, especially in Tamil Nadu;
- (b) if so, the details thereof and, if not, the reasons therefor;
- (c) whether Government has achieved complete electrification of all rural and urban areas of the country especially in Tamil Nadu and, if so, the details thereof and, if not, the reasons therefor;
- (d) the details of State owned DISCOMs revenue losses due to COVID-19 during lockdown, especially in Tamil Nadu; and
- (e) schemes launched / formulated by Government to rehabilitate DISCOMS pan India especially in Tamil Nadu?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (d) : State Electricity Regulatory Commission (SERC) do not detail the breakup for losses, including that due to Covid. However, Tamil Nadu reported revenue shortfall of Rs.3,243.59 Crore for Low-tension and High-tension consumers in FY 2020-21 compared to FY 2019-20. Also, as per information made available by the States/UTs, the State/UT Government dues to DISCOMs increased by Rs.14,619 crore from 31.03.2020 to 30.06.2020, while in the same period, the dues of DISCOMs to CPSU Gencos & Transcos, Independent IPPs and RE generators increased by Rs. 45,505 crore. The reasons for these increases include the impact of COVID-19. In order to tide over the liquidity problems of Distribution Companies (DISCOMs) arising due to Covid, the Government of India had announced a Liquidity Infusion Scheme (LIS) as part of Atmanirbhar Bharat Abhiyan on 13th May, 2020. Under this intervention, REC Ltd. & Power Finance Corporation (PFC) are extending special long-term transition loans to DISCOMs for liquidating outstanding dues of Central Public Sector Undertaking (CPSU) Generation Companies (Gencos) & Transmission Companies (Transcos), Independent Power Producers (IPPs) and Renewable Energy (RE) generators as existing on 30.06.2020.

.....2.

Under the Liquidity Infusion Scheme; as on 31.07.2021, combined REC Ltd. & PFC have sanctioned Rs. 1.35 lakh Crore to 16 States including Rs. 30,230 crore to Tamil Nadu. Further, both REC and PFC have disbursed Rs. 79,676 crore to 15 States including Rs. 14,700 Crore to Tamil Nadu. The State-wise details are presented at **Annexure-I**.

The State/UT-wise position of the outstanding dues of DISCOMs to CPSU Gencos & Transcos, IPPs and RE Generators as existing on 30.06.2021 is enclosed as **Annexure-II**.

Government of India had launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana–Saubhagya in October, 2017 with the objective to achieve universal household electrification by providing electricity connections to all un-electrified households in rural areas and all poor households in urban areas in the country.

Under Saubhagya scheme, as on 31.03.2021, all the States have reported 100% electrification of all the willing un-electrified households, identified before 31.03.2019. As reported by the States, 2.817 crore households have been electrified since the launch of Saubhagya, up to 31.03.2021.

The State of Tamil Nadu had already achieved 100% household's electrification in the rural and urban areas; accordingly, no project has been sanctioned for the State under Saubhagya scheme.

(e) : Apart from the Liquidity Infusion Scheme already detailed above, the Central Government has approved a Revamped Distribution Sector Scheme- a Reforms-based and Results-linked Scheme with an outlay of Rs.3,03,758 crore over a period of five years from FY 2021-22 to FY 2025-26. The Scheme aims to improve the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments (excluding Private Sector DISCOMs) by providing conditional financial assistance to DISCOMs for strengthening of supply infrastructure, based on meeting pre-qualifying criteria as well as upon achievement of basic minimum benchmarks by the DISCOM and evaluated on the basis of mutually agreed Action plans. The Scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR gap to zero by 2024-25. All the States including Tamil Nadu are eligible to avail the benefit of the scheme.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF
UNSTARRED QUESTION NO. 2544 ANSWERED IN THE RAJYA SABHA ON
10.08.2021

Sanction and Disbursement under LIS by REC & PFC as on 30.06.2021

(Rs. in Crore)

| S. No. | State/UT | Loan sanctioned | Disbursement |
|--------------|------------------|-----------------|---------------|
| 1 | Andhra Pradesh | 8,370 | 7,423 |
| 2 | Telangana | 12,652 | 12,576 |
| 3 | Manipur | 111 | 111 |
| 4 | Bihar | 3,503 | 3,492 |
| 5 | Uttar Pradesh | 33,923 | 27,940 |
| 6 | Rajasthan | 6,574 | 2,032 |
| 7 | West Bengal | 1,021 | 454 |
| 8 | J&K | 11,024 | 6,012 |
| 9 | Tamil Nadu | 30,230 | 14,700 |
| 10 | Himachal Pradesh | 276 | 138 |
| 11 | Meghalaya | 1,345 | 673 |
| 12 | Puducherry | 150 | 25 |
| 13 | Punjab | 4,000 | 1,000 |
| 14 | Karnataka | 7,247 | - |
| 15 | Maharashtra | 14,310 | 2,500 |
| 16 | Uttarakhand | 800 | 600 |
| Total | | 1,35,536 | 79,676 |

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 2544 ANSWERED IN THE RAJYA SABHA ON 10.08.2021

| State/UT-Wise details of Outstanding DISCOM Dues as on 30.06.2021 | | | | | |
|--|----------------------------|-------------------|---|----------------------|--------------------------------|
| Sr. No | State | CPSU Genco | Independent Power Producer (IPP) | RE Generators | Central Transco (PGCIL) |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Andhra Pradesh | 1,543 | 697 | 1,034 | 81 |
| 2 | Arunachal Pradesh | - | - | - | - |
| 3 | Assam | 179 | 21 | 0 | 65 |
| 4 | Bihar | 2,090 | 669 | 72 | 367 |
| 5 | Chhattisgarh | 2,033 | - | 230 | 227 |
| 6 | Goa | - | - | - | - |
| 7 | Gujarat | - | - | - | - |
| 8 | Haryana | - | - | - | - |
| 9 | Himachal Pradesh | 163 | 52 | 2 | 74 |
| 10 | J&K | 9,602 | 4 | - | 1,222 |
| 11 | Jharkhand | - | - | - | - |
| 12 | Karnataka | 3,954 | 230 | 1,929 | 444 |
| 13 | Kerala | 122 | 64 | - | 7 |
| 14 | Ladakh | - | - | - | - |
| 15 | Madhya Pradesh | - | - | - | - |
| 16 | Maharashtra | 3 | 585 | 2,330 | - |
| 17 | Manipur | 119 | - | - | 30 |
| 18 | Meghalaya | 907 | 76 | - | 44 |
| 19 | Mizoram | - | - | - | - |
| 20 | Nagaland | - | - | - | - |
| 21 | Odisha | 272 | - | - | - |
| 22 | Punjab | - | - | 23 | - |
| 23 | Rajasthan | 918 | 2,245 | 1,532 | 308 |
| 24 | Sikkim | 210 | - | - | 11 |
| 25 | Tamil Nadu | 4,286 | 6,799 | 2,335 | 433 |
| 26 | Telangana | 594 | 1,683 | 1,981 | 109 |
| 27 | Tripura | 159 | - | - | 17 |
| 28 | Uttar Pradesh | 3,456 | 4,675 | 388 | 814 |
| 29 | Uttarakhand | 35 | 73 | 2 | 44 |
| 30 | West Bengal | 1,084 | 538 | 19 | 63 |
| 31 | Lakshadweep | - | - | - | - |
| 32 | D&N Haveli and Daman & Diu | - | - | - | - |
| 33 | Puducherry | - | - | - | - |
| 34 | Andaman Nicobar | - | - | - | - |
| 35 | Chandigarh | - | - | - | - |
| 36 | Delhi | - | - | - | - |
| Grand Total | | 31,729 | 18,411 | 11,877 | 4,359 |

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.2545
ANSWERED ON 10.08.2021

CHOICE TO CONSUMERS FOR BUYING ELECTRICITY

2545 SHRI SUSHIL KUMAR GUPTA:

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

- (a) whether it is a fact that Government plans to introduce a Bill enabling the power consumer to choose from multiple service providers;
- (b) if so, the details thereof;
- (c) whether it is also a fact that the All India Power Engineers Federation has urged Government to put on hold the Bill for discussion on comments and suggestions by all the stakeholders, particularly electricity employees and consumers after putting the draft in the public domain; and
- (d) if so, the response of Government in this regard?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (d) : Following announcement has been made in the Union Budget 2021-22 on 01.02.2021:

“The distribution companies across the country are monopolies, either government or private. There is a need to provide choice to consumers by promoting competition. A framework will be put in place to give consumers alternatives to choose from among more than one Distribution Company.”

Pursuant to the Budget announcements, series of consultations were held with various stakeholders including State Governments, Distribution Companies, Electricity Regulatory Commissions who also protect the interest of the consumers, Consumer groups like Prayas and other power sector utilities. Suggestions from All India Power Engineers Federation have also been received.

The proposed reform was also discussed in the Consultative Committee meeting held on 03.03.2021 wherein Hon’ble Members of Parliament welcomed the proposal.

The envisaged framework to give consumers alternatives to choose from among more than one Distribution Company, requires amendment in the Electricity Act 2003, for which the desired procedures are being followed.

GOVERNMENT OF INDIA
MINISTRY OF POWER
RAJYA SABHA
UNSTARRED QUESTION NO.2546
ANSWERED ON 10.08.2021

NATIONAL MISSION FOR ENHANCED ENERGY EFFICIENCY (NMEEE)

2546 SHRI JOHN BRITTAS:

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

- (a) the current status of implementation of National Mission for Enhanced Energy Efficiency (NMEEE) and the various schemes under it including Perform Achieve and Trade (PAT) and Market Transformation for Energy Efficiency (MTEE);
- (b) whether PAT Cycles III, IV have achieved their targets, if so, the details thereof; and
- (c) the status of implementation of PAT Cycle VI?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : **National Mission for Enhanced Energy Efficiency (NMEEE)** consists of four initiatives to enhance energy efficiency in energy intensive industries which are as follows:

- (i) **Perform, Achieve and Trade (PAT)** scheme aims at reducing Specific Energy Consumption (SEC) i.e. energy use per unit of production for Designated Consumers (DCs) in energy intensive sectors, with an associated market mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded. The Sector-wise Designated Consumers (DCs) under PAT Scheme (Cycle –I to Cycle –VI) along with energy saving targets are given at **Annexure**.
- (ii) **Market Transformation for Energy Efficiency (MTEE)** aims for accelerating the shift to energy efficient appliances in designated sectors through incentives and innovative business models. Under MTEE the following programmes were introduced for the promotion of energy efficient products in the market:-

Bachat Lamp Yojna (BLY): The programme was developed for replacement of inefficient bulbs with Compact Fluorescent Lamps (CFLs). The details of number of bulbs replaced with CFL and energy saved are as follows:-

| No. Of bulbs replaced with CFL | Energy saved |
|---------------------------------------|--------------------------------|
| 29 million | 3.598 Billion Units / per year |

Super-Efficient Equipment Program (SEEP): This programme was designed for market transformation of super-efficient appliances by providing financial stimulus innovatively at critical point/s of interventions.

.....2.

(iii) **Energy Efficiency Financing Platform (EEFP)** was launched to provide a platform to interact with Financial Institutions (FIs) and project developers for implementation of energy efficiency projects. Under this programme, Memorandum of Understandings (MoUs) have been signed by BEE to promote financing for energy efficiency projects. For capacity building of FIs, BEE signed MoU with Indian Banks' Association for the Training Programme on Energy Efficiency Financing.

(iv) **Framework for Energy Efficient Economic Development (FEEED)** was designed for development of fiscal instruments to promote energy efficiency. The objective was to provide the comfort to concerned stakeholders through implementation of Energy Efficiency schemes such as Partial Risk Sharing Facility (PRSF) to provide partial credit guarantees to cover a share of the default risk that participating financial institutions face in extending loans to eligible Energy Efficiency sub-projects. Each energy saving loan given by Participating Financial Institutions (PFIs) is partially guaranteed for a maximum tenure of 5 years with guarantee coverage ranging from 40-75% of the loan amount or Rs. 15 crore per project.

(b) : PAT Cycle-III commenced with effect from 1st April 2017 and got completed on 31st March, 2020. PAT Cycle -III sought to achieve an overall energy consumption reduction of 1.06 MTOE for which targets had been notified to 116 Designated Consumers (DCs) from six sectors viz. Thermal Power Plant, Cement, Aluminium, Pulp & Paper, Iron & Steel and Textile. Next step is verification of actual energy saving.

PAT Cycle-IV commenced with effect from 1st April 2018. A total of 106 DCs with an estimated energy consumption reduction target of 0.6998 million tonnes of oil equivalent were notified. These DCs were from 8 sectors consisting of 6 existing sectors of PAT Cycle -I and two new sectors namely Petrochemicals and Commercial Buildings (Hotels). The assessment year of these DCs has been affected by the outbreak of the Pandemic due to COVID -19 and thus their assessment of performance has not commenced.

(c) : PAT Cycle-VI had commenced with effect from 1st April 2020. Under PAT Cycle-VI, 135 DCs from six sectors, i.e. Cement, Commercial buildings (hotels), Iron and Steel, Petroleum Refinery, Pulp and Paper and Textiles, were notified. With implementation of PAT Cycle-VI, it is targeted to achieve a total energy savings of 1.276 MTOE. These 135 DCs are under process of implementation of various energy efficiency measures to meet their notified targets.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2546 ANSWERED IN THE RAJYA SABHA ON 10.08.2021

| Sl. No. | Sectors | PAT Cycle -I | | | PAT Cycle -II | | | PAT Cycle -III | | PAT Cycle -IV | | PAT Cycle -V | | PAT Cycle -VI | | Total DCs (PAT Cycle - I to PAT Cycle - VI) |
|---------|-------------------------------|------------------|-----------------------------|---------------------|------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------|-----------------------------|------------------|-----------------------------|------------------|-----------------------------|---|
| | | Total No. of DCs | Energy Saving Target (MTOE) | Achievements (MTOE) | Total No. of DCs | Energy Saving Target (MTOE) | Achievements (MTOE) | Total No. of DCs | Energy Saving Target (MTOE) | Total No. of DCs | Energy Saving Target (MTOE) | Total No. of DCs | Energy Saving Target (MTOE) | Total No. of DCs | Energy Saving Target (MTOE) | |
| 1 | Aluminum | 10 | 0.456 | 0.73 | 12 | 0.466 | 1.23 | 1 | 0.061 | | | 1 | 0.0739 | | | 14 |
| 2 | Cement | 85 | 0.815 | 1.48 | 111 | 1.117 | 1.56 | 14 | 0.096 | 1 | 0.004 | 12 | 0.087 | 37 | 0.062 | 175 |
| 3 | Chlor- Alkali | 22 | 0.054 | 0.09 | 24 | 0.102 | 0.13 | | | 2 | 0.003 | 2 | 0.0017 | | | 28 |
| 4 | Fertilizer | 29 | 0.478 | 0.78 | 37 | 0.447 | 0.38 | | | | | | | | | 37 |
| 5 | Iron and Steel | 67 | 1.486 | 2.1 | 71 | 2.283 | 2.85 | 29 | 0.457 | 35 | 0.1926 | 23 | 0.1687 | 5 | 0.031 | 163 |
| 6 | Pulp and Paper | 31 | 0.119 | 0.29 | 29 | 0.146 | 0.31 | 1 | 0.003 | 2 | 0.0098 | 8 | 0.0169 | 2 | 0.003 | 42 |
| 7 | Textile | 90 | 0.066 | 0.13 | 99 | 0.088 | 0.14 | 34 | 0.04 | 7 | 0.0204 | 16 | 0.0135 | 7 | 0.007 | 163 |
| 8 | Thermal Power | 144 | 3.211 | 3.06 | 154 | 3.134 | 3.44 | 37 | 0.402 | 17 | 0.237 | 17 | 0.15 | - | - | 225 |
| 9 | Railways | - | - | - | 22 | 0.077 | 0.2 | - | - | - | - | - | - | - | - | 22 |
| 10 | Petroleum Refineries | - | - | - | 18 | 1.098 | 1.43 | - | - | - | - | - | - | 20 | 1.169 | 20 |
| 11 | DISCOMs | - | - | - | 44 | 4.675 | 2.42 | - | - | - | - | - | - | | | 44 |
| 12 | Commercial Buildings (Hotels) | - | - | - | - | - | - | | | 37 | 0.0037 | 31 | 0.0013 | 64 | 0.004 | 132 |
| 13 | Petrochemical | - | - | - | - | - | - | | | 8 | 0.2293 | | | | | 8 |
| | Total | 478 | 6.686 | 8.67 | 621 | 13.633 | 14.08 | 116 | 1.06 | 109 | 0.6998 | 110 | 0.513 | 135 | 1.276 | 1073 |

MTOE: Million Tonne of Oil Equivalent

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.2547
ANSWERED ON 10.08.2021

USE OF UNWASHED COAL IN POWER PLANTS

2547 SHRI ANIL DESAI:

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

- (a) whether Government has allowed unwashed coal to be used for power generation at Power plants;
- (b) whether it will be a pollution free option;
- (c) the details of power generation companies of various States, private power plants and NTPC who are using unwashed coal, plant-wise and coal quantity-wise; and
- (d) whether it is a fact that Madhya Pradesh Power Generation Corporation intends to use washed coal for their Khandwa and Sarni plants which is considered eco-friendly, if so, the details thereof?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : Government of India vide Gazette Notification dated 21.05.2020 made rules for use of coal by thermal power plants, without stipulations of ash content or distance, subject to following conditions:

(1) Setting Up Technology Solution for emission norms:

- (i) Compliance of specified emission norms for Particulate Matter, as per extant notifications and instructions of Central Pollution Control Board, issued from time to time.
- (ii) In case of washeries, Middling and rejects to be utilized in FBC (Fluidised Bed Combustion) technology based thermal power plants. Washery to have linkage for middling and rejects in Fluidised Bed Combustion plants.

(2) Management of Ash Ponds:

- (i) The thermal powers plants shall comply with conditions, as notified in the Fly Ash notification issued from time to time, without being entitled to additional capacity of fly ash pond (for existing power generation capacity) on ground of switching from washed coal to unwashed coal.

(ii) Appropriate Technology solutions shall be applied to optimise water consumption for Ash management;

(iii) The segregation of ash may be done at the Electro-Static Precipitator stage, if required, based on site specific conditions, to ensure maximum utilization of fly ash;

(iv) Subject to 2 (i) above, the thermal power plants to dispose fly ash in abandoned or working mines (to be facilitated by mine owner) with environmental safeguards.

(3) Transportation:

(i) Coal transportation may be undertaken by covered Railway wagon (railway wagons covered by tarpaulin or other means) and/or covered conveyer beyond the mine area. However, till such time enabling Rail transport/conveyer infrastructure is not available, road transportation may be undertaken in trucks, covered by tarpaulin or other means.

(ii) It shall be ensured by the thermal power plant that

a. Rail siding facility or conveyor facility is set up at or near the power plant, for transportation by rail or conveyor; and

b. If transportation by rail or conveyor facility is not available, ensure that the coal is transported out from the Delivery Point of the respective mine in covered trucks (by tarpaulin or other means), or any mechanized closed trucks by road.

(b) : As per (a) above, the notification dated 21.05.2020 has stipulated pollution control measures to be taken by thermal power plants. With advancement in pollution control technologies, thermal power plants are better equipped to capture fly-ash generated in combustion process and unwashed coal can be used more efficiently and economically.

(c) : The receipt of coal of State Sector Power Plants, Private Sector Plants and NTPC Plants during 2020-21 is given below:

| | Coal Receipt in 2020-21 (in Million Metric Tonnes) |
|-----------------------|---|
| State Sector Plants | 172.24 |
| Private Sector Plants | 161.61 |
| NTPC | 190.46 |

Coal receipt in 2020-21 was affected by reduced demand on account of Covid-19 pandemic

(d) : As per information received from MP Power Generating Company Ltd., at present there is no plan to use washed coal for their Khandwa and Sarni plants.
